Yeastar Contact Center Guide

Yeastar P-Series Appliance Edition

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Contents

Contact Center Guide Overview

Yeastar P-Series PBX System provides an all-in-one Contact Center solution that unifies voice and digital messaging channels into a single platform. This guide provides detailed insights into the contact center solution, covering its key features and functionalities, and offers role-based guides to help you set up, manage, utilize, and optimize your contact center operations effectively.

Introduction

In today's fast-paced business environment, customer-focused businesses face challenges such as managing high volumes of customer inquiries, providing consistent support across multiple channels, and maintaining high levels of customer satisfaction.

To address these challenges, Yeastar P-Series PBX System offers a one-stop solution that integrates unified communications and contact center functionality, including **Inbound Call Center** and **Omnichannel Messaging**, into a single platform. This enables businesses to establish a contact center that provides seamless communication between customers and agents across voice and digital messaging channels. Customers can engage with the business through multiple communication touchpoints, while business agents can handle customer inquiries from all channels in a unified agent portal, improving both customer satisfaction and agent productivity.

Key features

Yeastar Contact Center solution provides the following features to help businesses deliver exceptional customer service and achieve operational excellence.

Seamless communication

Customers can reach business through their preferred channels, while business agents have unified access to data across all channels, ensuring smooth transitions of the customer interactions between channels.

Quick and efficient routing

Customer inquiries, whether via voice calls or messages, are automatically routed to the appropriate agent based on pre-defined rules, ensuring rapid response and reducing wait times.

Constant monitoring and analytics

The system provides rich performance metrics, generates call reports, and records comprehensive messaging histories. This enables administrators to track and evaluate agent and queue performance for better workforce management and strategy optimization.

Unified agent portal

Intuitive and easy-to-use agent portals are built into Linkus UC Clients, allowing agents to handle calls and manage inquiries efficiently, enhancing productivity and customer service quality.

Powerful integrations

The system implements integrations with various software platforms, such as CRM, Helpdesk and Microsoft 365, ensuring seamless information exchange. This boost efficiency and enables agents to deliver exceptional service by streamlining workflows and focusing on meaningful customer interactions.

Inbound Call Center

Yeastar P-Series PBX System offers an Inbound Call Center solution that is designed to efficiently manage high-volume inbound calls. It specializes in handling customer inquiries and offering information or assistance through voice calls. By utilizing a range of inbound call center features provided by the PBX system, including advanced call routing and management capabilities, businesses can effectively improve caller satisfaction.

To set up and effectively use the inbound call center, refer to the guides tailored to your specific role.

- Call Center Administrator Guide
- Call Center Supervisor Guide
- Call Center Agent Guide

Omnichannel Messaging

In addition to voice calls, modern contact center also needs to support digital communication methods to allow customers to reach out to businesses and seek assistance via their preferred channel. Yeastar P-Series PBX System provides an omnichannel messaging feature to help business integrate various digital communication channels into the phone system, including text messages, social media, and more. By leveraging the omnichannel messaging functionality, businesses can enhance customer engagement and deliver a seamless communication experience through unified messaging across multiple channels.

To set up and utilize the omnichannel messaging, refer to the guides tailored to your specific role.

- Omnichannel Messaging Administrator Guide

- Omnichannel Messaging Agent Guide

Additional resources

Yeastar P-Series PBX System also offers a series of features and integrations to optimize your contact center operations. These features helps to streamline workflows, automate processes, and provide agents with the tools they need to improve productivity, ultimately delivering superior customer service.

- Interactive Voice Response
- CRM Integration
- Helpdesk Integration
- WebRTC Click-to-call
- Linkus Web Client CTI / Linkus Desktop Client CTI
- Open API

Inbound Call Center Guide

Inbound Call Center Overview

Yeastar P-Series PBX System provides an Inbound Call Center for businesses to provide customer supports via voice calls. With the call center functionalities, business agents can promptly and efficiently handle and manage incoming calls from customers, significantly improving agent productivity and responsiveness, ultimately ensuring a higher level of customer satisfaction.

Highlights

Yeastar Inbound Call Center service provides the following highlights:

Automatic call distribution

Efficiently routes incoming calls to the most appropriate agents based on predefined rules and criteria, ensuring that customer inquiries are handled quickly and by the most qualified personnel.

Enhanced caller waiting experience

Proactively serve customers in the queue with valuable information such as their queue position, estimated waiting time, queue callback instructions, holiday greetings, and other customized prompts, ensuring a seamless and engaging experience.

Unified supervisor and agent workspace

Provide unified supervisor and agent web-based workspace - **Wallboard** and **Queue Panel**, to allow users to monitor and optimize performance with metrics, and offer a comprehensive view on activity of call for users to handle queue calls.

SLA for quality assurance

Ensure that your call center consistently delivers high-quality service by meeting or exceeding the targets defined in your Service Level Agreement (SLA).

Intuitive reports and analytics

Run targeted analysis of your call center data by customizing timeframe, agent, or queue selection. Share the real-time or historical reports with your team in graphical, downloadable formats, and schedule reports to be run periodically in the future.

Roles in Yeastar Call Center

Users can access the call center and perform different tasks based on their assigned roles, as the following table lists.

Role	Description
System Administrator	The PBX system administrator is responsible for queue management, including creating call queues, configuring options (such as call distribution, announcements and MoH, overflow and timeout handling, and queue preferences), assigning managers and agents to queues, setting up the call center, and managing call center reports. For more information, see Call Center Administrator Guide.
Supervisor	Users with the **Queue Manager** role assigned by the system administrator to be a supervisor for a queue. The supervisors are responsible for monitoring call queue performance, managing queue calls, and supervising agents. For more information, see Call Center Supervisor Guide.
Agents	Users with **Agent** role assigned by the system administrator. The agents are responsible for handling incoming call interactions in the call queues. For more information, see Call Center Agent Guide.

Administrator Guide

Call Center Administrator Guide

This guide describes the call center composition, and provides step-to-step instructions on how to set up and configure an inbound call center.

Audience

This guide is intended for system administrators responsible for establishing, configuring, and maintaining an inbound call center.

Inbound Call Center components

Yeastar Inbound Call Center consists of two main components: the basic call queue established by an administrator in the PBX web portal, and the Call Center Console integrated into the Linkus Web Client and Linkus Desktop Client.

Call queue

A call queue is the point of entry for inbound interactions. It functions as a virtual waiting room where callers remain in line until an available agent can attend to them. When a customer calls into the system and enters the queue, he / she can hear the hold music and announcement while the queue distributing the call to the available agents.

Review the essential elements of a call queue listed below to grasp its functionality and features:

Terminology	Description
Caller	Customers who place calls to the queue.
Agents	Members who answer the queue calls (extensions or users who log in as agents). • **Static agent**: The agent is always a member of the queue and cannot log out. • **Dynamic agent**: The agent can log in to or log out of a queue at any time.
Announcement	Announcements played to callers and agents, including agent ID announcement, position announcement, and periodic announcement.
Music on Hold (MoH)	Music or advertisements played to callers while waiting in the queue.
Ring strategy	A strategy for how to distribute calls to agents.
Failover destination	A destination to which calls will be routed in the following scenarios. • The number of callers that wait in a queue reaches the **Maximum Callers In Queue**. • The time that callers wait reaches the **Maximum Waiting Time**. • No agents in queue and the caller is pulled out of a queue.

For more detailed information about call queue settings, see Queue Preferences.

Call Center Console

Yeastar Call Center provides a unified workspace, Call Center Console, for queue managers (supervisors) and agents to handle queue calls. The Call Center Console is an embedded utility integrated into Linkus Web Client and Linkus Desktop Client for more convenient call management, including a customizable **Wallboard** for proactive tracking of 16 key performance metrics, and a switchboard-type **Queue Panel** for real-time monitoring & control of queue activities.

> **Note:**
> The Call Center Console service requires a subscription to **Enterprise Plan** and **Ultimate Plan**.

For more information of monitoring queue performance and managing queue calls on Call Center Console, see Yeastar Call Center Supervisor Guide and Yeastar Call Center Agent Guide.

Steps to establish an Inbound Call Center

1. Create a call queue

Define the basic call queue structure, create the call queue and decide how to distribute inbound calls to the queue of agents.

- To create a queue with Workload-based call routing, see Create a Call Queue.
- To set up a queue with Skill-based call routing, see Set up Skill-based Routing for a Queue.

2. Improve call queue management

According to your needs, set up the call queue with advanced features to optimize caller experience, and implement configurations on agent management to increase productivity.

- **Queue Callback**

  To save callers' time while keeping their positions in the queue, you can enable callback feature for the queue, and decide whether callers can press a digit or wait till timeout to request a callback.

  For more information, see Allow Users to Request a Callback in a Queue.
- **Queue Priority**

  To reduce time on holding callers, you can set a queue initial weight and an acceleration weight to determine which queue has higher priority and automatically moves the calls in a higher-priority queue up in line.

When agents are logged in to multiple queues, calls from the queue with a greater weight will be prioritized and assigned to agents first.

For more information, see Set a Priority for a Call Queue.

- **Queue Agent Management**

  To optimize agent work efficiency and service quality, you can perform specific configurations that simplify the way agents and queue managers (supervisors) handle operational statuses and activities.

Item	Description
Agent Pause Reason	Set specific reasons for pause status of call queue agents, enabling agents to select specific reasons when pausing their service. By monitoring and tracking these reasons, you and supervisors can better manage agent availability and assess disruptions in service, ensuring more accurate workforce planning and operational efficiency. For more information, see the following topics: ◦ Set Pause Reasons for Queue Agents ◦ Monitor Specific Pause Status of an Agent by Function Key
Queue Call Log Access	Give specific or all agents access to queue call log, enabling them to effectively handle and follow up on customer communications. For more information, see Allow Agents to View Queue Call Logs on Linkus Clients.
Agent Status Management	Equip agents with the ability to adjust their status in real-time via feature code or IP phone, enabling a more flexible and efficient operation. For more information, see the following topics: ◦ Allow Agents to Manage Their Status by Dialing a Feature Code ◦ Allow Agents to Manage Their Status via IP Phones

3. Set up the Call Center

Set up workspaces to provide all the tools your agents and supervisors need in a unified interface.

- **Set up queue managers (supervisors)**

Assign one or more extension users as queue managers for the call queue. The queue managers are able to access the Call Center Console dashboards for queue monitoring and management, and receive queue notifications by email.

For more information, see Set up Queue Managers.

- **Customize queue notifications**

  Configure the notification options for the call queue. The system will automatically send email notifications to queue managers when the corresponding issue occurs, such as a queue call is missed or abandoned, or the service level agreement reaches the alarm threshold, etc.

  For more information, see Customize Queue Notification.
- **Set up Service Level Agreement (SLA)**

  Set a target service level and SLA threshold for the queue to enable queue managers to evaluate whether agents are handling customer calls promptly for quality assurance purpose.

  For more information, see Set up Service Level Agreement (SLA).
- **Grant Call Center Console permissions**

  Grant the access permission to the Call Center Console dashboards (Wallboard & Queue Panel) for queue managers and agents respectively, and decide what they can on the Queue Panel.

  For more information, see Grant Call Center Console Permissions.

4. Manage Call Center reports

Get access to advanced Call Center reports based on queue or agent, and run targeted analysis of your call center.

For more information, see Call Center Reports Overview.

Fundamental Call Queue Setup

Create a Queue

You can create and design queues to allow callers to talk with agents according to your business. This topic describes how to create a queue.

Prerequisites

Before you begin, prepare the following voice prompts and music as needed, and upload them to the system.

- Prepare and upload the following voice prompts for the queue to provide different information:
  - **Join Announcement**: The prompt played to callers when they join the queue.
  - **Periodic Announcement**: The prompt played periodically to callers after they reach the queue and before agents answer the calls. Following the prompt, callers can press the key to respond.
- Prepare and upload Music on Hold for the queue, which is played to callers when their calls are put on hold by agents.

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**, click **Add**.
2. In the **Basic** page, configure the basic settings for the queue.
   a. In the **Basic** section, configure the following settings.

Setting	Description
Number	Enter a virtual number for callers to access the queue. The default queue number range is from 6400 to 6499.
Name	Specify a name to help you identify this queue.
Skill-based Routing	Decide whether to route incoming calls in the queue based on agents' skill level. If this option is enabled, you can specify skill levels for agents, and queue calls will be routed in descending order of agent skill level. For more information, see Set up Skill-based Routing for a Queue.
Ring Strategy	Select a ring method to distribute calls to agents. • **Ring All**: Ring all available agents simultaneously until someone answers. • **Least Recent**: Ring the available agent that was least recently called. • **Fewest Calls**: Ring the available agent with the fewest completed calls. • **Random**: Ring the agents randomly. • **Rrmemory**: Round robin with memory. ◦ Queue with static agents only: The system remembers the last agent it tried and rings the next agent specified in the static agents list.

Setting	Description
	◦ Queue with dynamic agents only: The system remembers the last agent it tried and rings the next agent in the order that dynamic agents have logged in. ◦ Queue with both static agents and dynamic agents: The system remembers the last agent it tried and rings the next agent specified in the static agents list. If none of the static agents are available, the system rings the dynamic agent in the order that dynamic agents have logged in. • **Linear**: Ring the available agent in specific order based on the type of agents in the queue. ◦ Queue with static agents only: The system rings available agents in the order specified in the agents list. ◦ Queue with dynamic agents only: The system rings available agents in the order that agents have logged in. ◦ Queue with both static agents and dynamic agents: The system rings available agents in the order that agents have logged in.
Maximum Waiting Time(s)	Set a number of seconds that the caller can wait for an available agent.
Failover Destination	Select a destination to route the call when the call is not answered by any agent. • **Hang up**: End the current call. • **Extension**: Route the call to the specified extension. • **Extension Voicemail**: Route the call to voicemail box of the specified extension. • **Group Voicemail**: Route the call to voicemail box of a queue, a ring group, or a custom group. • **IVR**: Route the call to the specified IVR. • **Call Flow**: Route the call to the specified call flow. • **Ring Group**: Route the call to another ring group. • **Queue**: Route the call to the specified queue. • **External Number**: Route the call to an external number. • **Play Prompt and Exit**: Play a custom prompt, then hang up the call.

b. To only receive calls during business hours and route calls received outside business hours to designated destinations, configure the following settings:

Note:

To achieve this, make sure the following requirements are met:

- The firmware of Yeastar P-Series PBX System is 37.18.0.59 or later.
- You have set up business hours and holidays in the desired time zone.

Setting	Description
Time Condition	Select the checkbox to allow the PBX to route queue calls to different destination based on time.
Time Zone	Select a desired time zone. The business hours and holidays settings in the selected time zone will be applied to the queue. **Note:** The time displayed in the queue notification emails will also follow the time of the selected time zone.
Outside Business Hours Destination	Select the destination for calls received during the time periods that are not defined as business hours or holidays in the selected time zone.
Holidays Destination	Select the destination for calls received during holidays defined in the selected time zone.
Ignore the Holiday Destination	Optional. To prevent incoming calls from being distributed to the holiday destination, select the checkbox of **Ignore the Holiday Destination**. If enabled, incoming calls during holiday will be distributed to other destinations according to your office hour setting.
Play Holiday Prompt During Holidays	Optional. To play a prompt to callers before routing the inbound calls to the holiday destination, select the checkbox of **Play Holiday Prompt During Holidays**. **Note:** Make sure that you have set a prompt for the holiday (Path: **Call Control > Business Hours and Holidays > Holidays > Type > Prompt**). Otherwise, the inbound calls will be directly routed to the holiday destination without playing a prompt.

c. In the **Agent Options** section, configure the following agent settings.

Setting	Description
Agent Timeout(s)	Set a number of seconds that the system rings an agent's phone.
Retry Interval(s)	Set a number of seconds to wait before ringing the next available agent when the last available agent has been ringed and timed out.
Wrap-up Time(s)	Set a number of seconds for agents to complete post-call processing after finishing a call. The next call will come after this period following the ring strategy.
Agent Announcement	Select a prompt to be played to agents when they answer a queue call.
Ring In Use	Set whether to ring an in-call agent when there are incoming calls in the queue.
Agent Auto Pause	**Note:** If the Ring Strategy is set to **Ring All**, this feature will NOT take effect. Decide whether to automatically pause agents when their consecutive missed calls in the queue reach a threshold. To use this feature, select **Agent Auto Pause** and specify the threshold in the **Max Threshold for Missed Calls** drop-down list. **Note:** • Agents will receive a notification email when they are paused. • The missed calls count for an agent will be cleared when any of the following events occurs: ◦ The agent makes or answers a queue call. ◦ The agent is paused or logged out. ◦ The PBX is rebooted.
Display Missed Call Records in Agent IP Phone	Decide whether to display missed queue call records on agents' IP phones. **Note:** • This option will be applied to all agents in the queue. • If an agent belongs to multiple queues, the agent's IP phone will only display the missed call records for those queues in which this option is enabled.

d. In the **Prompt** section, complete the following prompt settings.

Setting	Description
Queue-related Announcement	
Join Announcement	Set the announcement to be played to callers when they join the queue. • **Play full Join Announcement to the caller before ringing extensions**: Set whether to play full join announcement to callers before ringing agents.
Ringback Tone	Select a prompt to be played continuously in a loop to callers before agents answer the calls. **Note:** • The existing prompts are synchronized from the Music on Hold playlists and custom prompts uploaded on **PBX settings > Voice Prompt**. • The Ringback Tone will be played after the Join Announcement.
Music On Hold	Set the music to be played to callers when their calls are put on hold by agents after being answered.
Periodic Announcement	Set the announcement to be played to callers periodically after they reach the queue and before agents answer the calls.
Frequency (s)	Set the time interval to play the periodic announcements.
Caller Position Announcement	
Announce Position	Set whether to announce the position of the caller in the queue.
Announce Hold Time	Set whether to announce the estimated waiting time to the caller.
Play "Thank You for Your Patience" Prompt	Set whether to play the prompt "Thank You for Your Patience" to callers periodically while the callers are waiting in the queue.
Frequency (s)	Set the time interval to play the caller position announcement.
Agent-related Announcement	

Setting	Description
Agent ID Announcement	Set whether to play an announcement to both the caller and the agent to prompt the agent ID when an agent answers the call.
Announcement Language	
Custom Prompt Language	Set the language of system default announcements heard by callers when they join the queue. **Note:** The available languages are synchronized from System Prompt (Path: **PBX Settings > Voice Prompt > System Prompt**).

3. Click the **Members** tab, set agents for the queue.
    - **Dynamic Agents**: Select the dynamic agents that can log in to or log out of a queue at any time.

        > **Note:**
        > The queue distributes calls to the dynamic agents only when they log in to the queue and unpause the queue calls.

    - **Static Agents**: Select the static agents that always stay in the queue.

        > **Note:**
        > Static agents do not need to "log in" to the queue, and cannot "log out" of the queue.

4. Click **Preferences** tab to customize the queue according to your needs.

    For more information of the preference settings, see Queue Preferences.
5. Click **Save** and **Apply**.

What to do next

Set up an inbound route, and specify the destination of the inbound route to the queue.

Set up Skill-based Routing for a Queue

Skill-based routing supports specifying skill level for agents in a queue, and route calls to the designated agents in descending order of their skill levels. Prioritizing queue calls to the most skilled agents ensures properly handling of customer inquiries and enhanced work efficiency.

Requirements

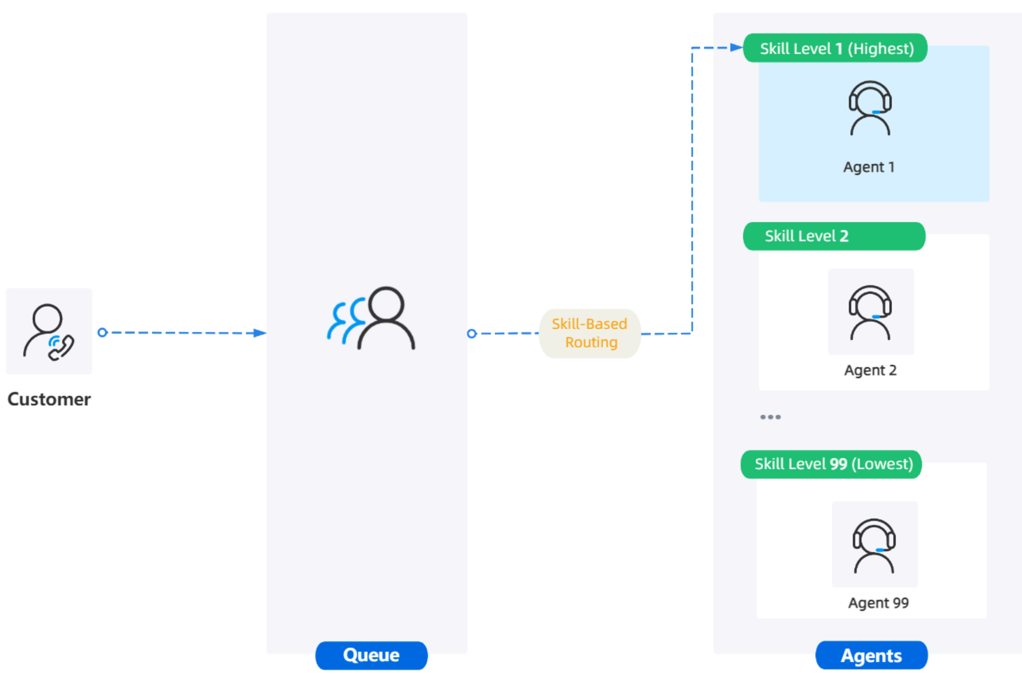
- **Firmware**: Version 37.14.0.24 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)

Scenario

Depending on whether there are agents with equal skill level within the same queue, the skill-based routing process varies.

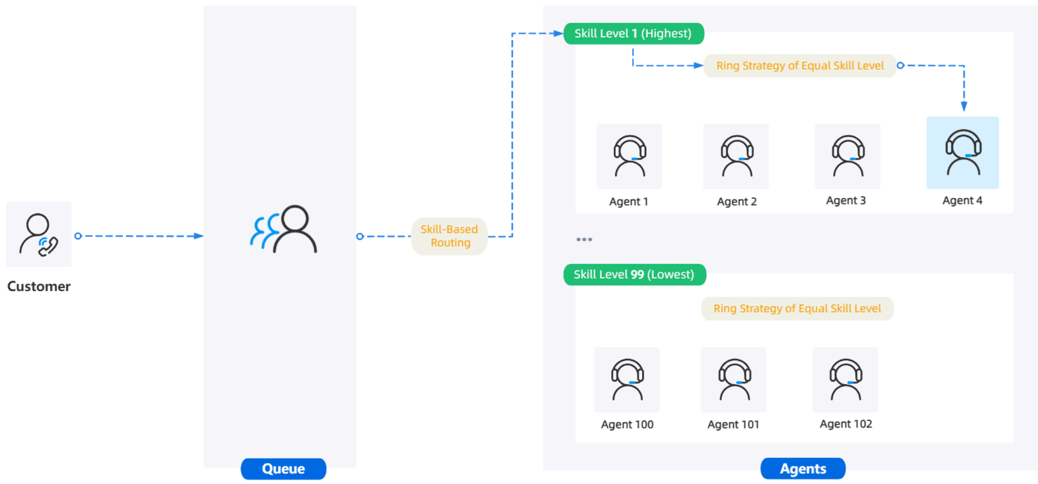
Agents with unique skill levels

In this scenario, each agent in the queue is specified with a unique skill level. When a caller calls into the queue, the call will be directly routed to the agent with highest skill level (**1**). If the agent is not available, the call will be routed to the next agent in descending order of skill level.



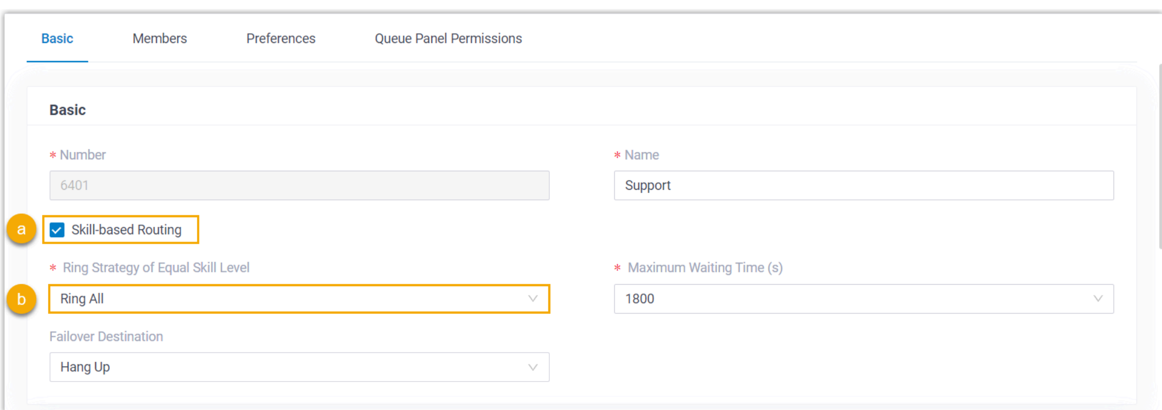
Agents with equal skill level

In this scenario, several agents are specified with equal skill level. When a caller calls into the queue, the call will be directly routed to agents with the highest skill level (**1**) in the queue, and ring the agent according to the ring strategy of equal skill level. If all the agents with the highest skill level are not available, the call will be routed to the next agents in descending order of skill level.



Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. Click ✎ beside the desired queue.
3. In the **Basic** tab, enable skill-based routing and select ring strategy.



   a. Select the checkbox of **Skill-based Routing**.
   b. In the **Ring Strategy of Equal Skill Level** drop-down list, select the ring strategy for agents of equal skill level.

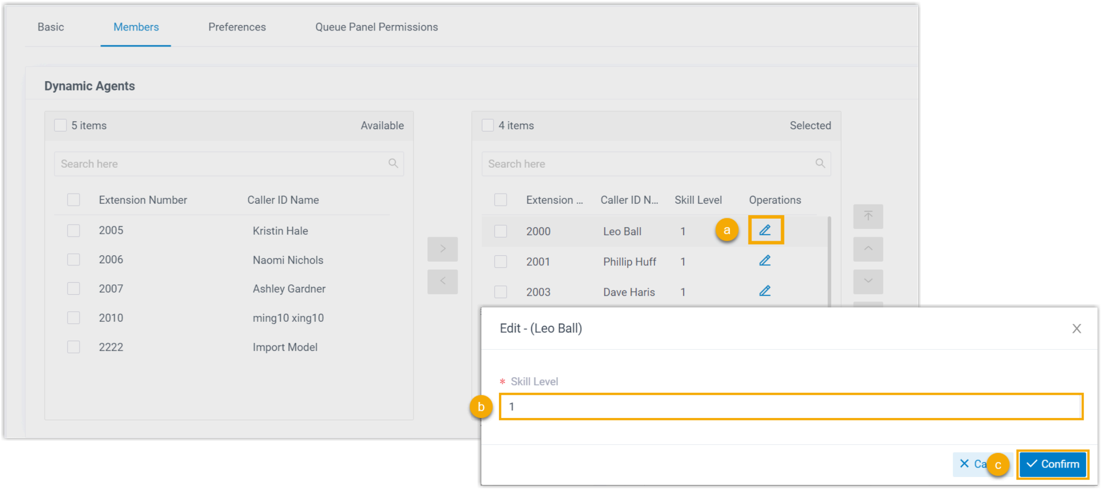
> **Note:**

> If each agent in the queue is assigned with a unique skill level, the system will strictly ring the agents in descending order of skill level, disregarding the ring strategy settings.

Ring Strategy	Description
Ring All	Ring all agents of equal skill level simultaneously until someone answers.
Least Recent	Among agents of equal skill level, ring the agent that was least recently called.
Fewest Calls	Among agents of equal skill level, ring the agent with the fewest completed calls.
Random	Ring the agents of equal skill level randomly.
Rrmemory	Round robin with memory. • Queue with static agents only: Among agents of equal skill level, the system remembers the last agent it tried and rings the next agent specified in the static agents list. • Queue with dynamic agents only: Among agents of equal skill level, the system remembers the last agent it tried and rings the next agent in the order that dynamic agents have logged in. • Queue with both static agents and dynamic agents: Among agents of equal skill level, the system remembers the last agent it tried and rings the next agent specified in the static agents list. If none of the static agents are available, the system rings the dynamic agent in the order that dynamic agents have logged in.
Linear	Ring the agents of equal skill level in specific order based on the type of agents in the queue. • Queue with static agents only: The system rings agents of equal skill level in the order specified in the agents list. • Queue with dynamic agents only: The system rings agents of equal skill level in the order that agents have logged in. • Queue with both static agents and dynamic agents: The system rings agents of equal skill level in the order that agents have logged in.

4. In the **Members** tab, set the skill level for agents.

> **Note:**
> By default, all agents are assigned with the skill level **1** (the highest level).



a. Click beside a selected agent.
b. In the pop-up window, specify a skill level for the agent.

> **Note:**
> - The permitted value is `1` to `99`. The smaller the number, the higher the skill level, and consequently the higher the priority for ringing.
> - The agent skill level specified here ONLY takes effect in this queue.

c. Click **Confirm**.
d. Repeat step **a** - **c** for all the desired agents.

5. Click **Save** and **Apply**.

Result

When a caller calls into the queue, the system will route the call to agent(s) according to agent skill level, starting from the highest and descending to the lowest.

Enhanced Call Queue Setup

Allow Users to Request a Callback in a Queue

A queue callback allows callers waiting in a queue to opt out of the queue and be called back when an agent becomes available. With callback feature, customers can save time while keeping their positions in the queue, and you can reduce the number of abandoned calls and ensure queue performance.

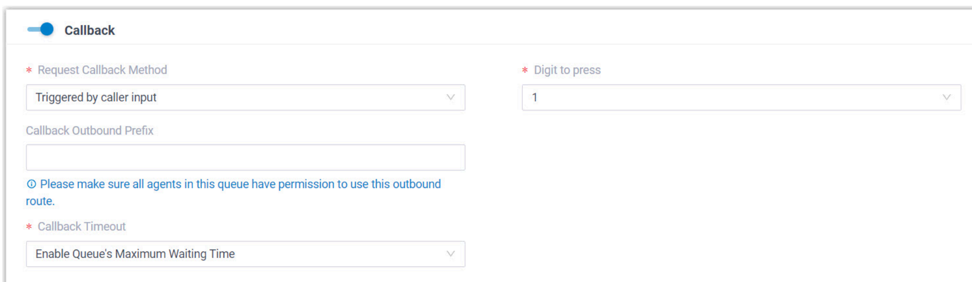
Allow users to request a callback by pressing a digit

Prerequisites

You have subscribed Enterprise Plan (EP) or Ultimate Plan (UP).

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. Click beside a desired queue.
3. Click **Preferences** tab, then scroll down to the **Callback** section to enable and set up queue callback.



   a. Turn on **Callback**.
   b. In the **Request Callback Method** drop-down list, select **Triggered by caller input**.
   c. In the **Digit to press** drop-down list, select a value.

   > **Note:**
   > The value can NOT conflict with the **Key Press Event** value of the queue.

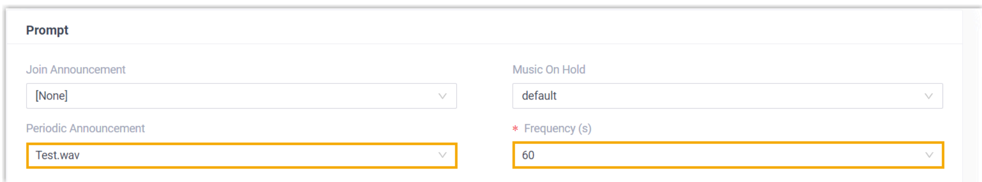
   Customers can press the digit to request a callback while in queue waiting for being answered.
   d. **Optional:** In the **Callback Outbound Prefix** field, enter the prefix of an outbound route, which will be used to make the callback.

   > **Note:**
   > Make sure all agents in this queue have permission to use the outbound route, or the callback would fail.

   e. In the **Callback Timeout** drop-down list, set how long a callback request can be reserved in the queue. If there are no available agents in the queue within the timeout period, the callback request will be cancelled.

> **Note:**
> The default timeout period is the queue's Maximum Waiting Time (Path: **Queue > Basic > Maximum Waiting Time(s)**). You can also select **Custom** to customize a timeout period.

4. Click **Basic** tab, then scroll down to the **Prompt** section to select a prompt, instructing customers to press the specified digit to request a callback.



   a. In the **Periodic Announcement** drop-down list, select a prompt.

   > **Note:**
   > The available prompts are the ones that you have recorded or uploaded to the system. For more information, see [Record a Custom Prompt]() and [Upload a Custom Prompt]().

   b. **Optional:** In the **Frequency (s)** field, select or enter a value to set the time interval to play the prompt.

5. Click **Save** and **Apply**.

Result

Customers can press the specified digit to request a callback while waiting in the queue.

What to do next

- Read the provided example to know the callback flow.

  For more information, see [Queue Callback Example]().
- Enable email notifications to queue managers when a callback request is made or a callback failed.

  For more information, see [Customize Queue Notification]().

- Query callback statistics of the queue as needed.

  For more information, see Queue Callback Summary Report and Queue Callback Activity Report.

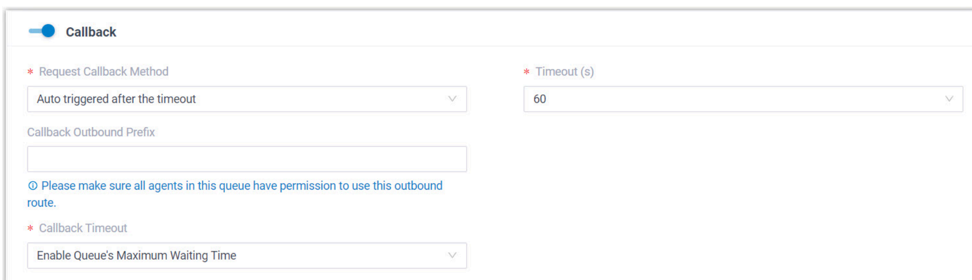
Allow users to request a callback after timeout

Prerequisites

You have subscribed Enterprise Plan (EP) or Ultimate Plan (UP).

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. Click beside a desired queue.
3. Click **Preferences** tab, then scroll down to the **Callback** section to enable and set up queue callback.



   a. Turn on **Callback**.
   b. In the **Request Callback Method** drop-down list, select **Auto triggered after the timeout**.
   c. In the **Timeout (s)** field, select or enter a value.

   > **Note:**
   > - The value can NOT be greater than **Maximum Waiting Time (s)** of the queue.
   > - The **Timeout** is calculated as soon as customers call to the queue.

   After waiting the specified duration of time in a queue, the system plays the callback option to the caller automatically.

   d. **Optional:** In the **Callback Outbound Prefix** field, enter the prefix of an outbound route, which will be used to make the callback.

> **Note:**
> Make sure all agents in this queue have permission to use the outbound route, or the callback would fail.

e. In the **Callback Timeout** drop-down list, set how long a callback request can be reserved in the queue. If there are no available agents in the queue within the timeout period, the callback request will be cancelled.

> **Note:**
> The default timeout period is the queue's Maximum Waiting Time (Path: **Queue > Basic > Maximum Waiting Time(s)**). You can also select **Custom** to customize a timeout period.

4. Click **Save** and **Apply**.

Result

After waiting the specified duration of time in a queue, the system plays the callback option to the caller automatically. Customers can press a specific digit to request a callback.

What to do next

- Read the provided example to know the callback flow.

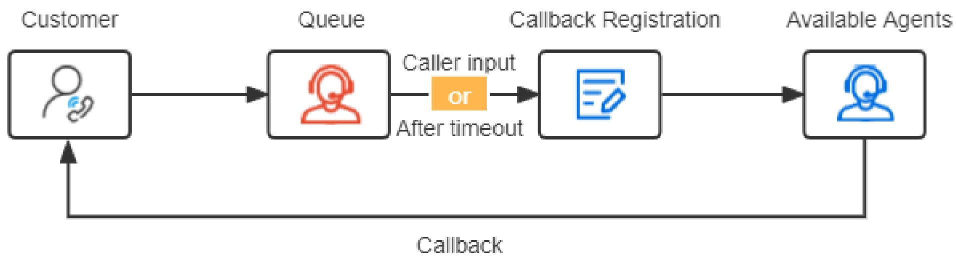
  For more information, see Queue Callback Example.
- Enable email notifications to queue managers when a callback request is made or a callback failed.

  For more information, see Customize Queue Notification.
- Query callback statistics of the queue as needed.

  For more information, see Queue Callback Summary Report and Queue Callback Activity Report.

Queue callback example

We provide an example to help you understand the callback flow:



1. A customer makes a call to a queue, but there are no agents available to answer the call.
2. The customer requests a callback in either of the following methods:
    - After the periodic announcement, the customer presses the specified digit.
    - After waiting a specified duration of time, the customer presses the specified digit.
3. The customer registers a callback number, then hangs up the call.

    > **Note:**
    > - By default, the callback number is the phone number from which the customer is calling the queue.
    > - The customer can register another phone number as needed. The call-back number must be at least 5 digits.

    The customer's position in the queue is reserved.
4. Upon an agent is available, the system makes a call to the agent and the customer successively.
    If the agent and the customer both answer the call, the queue call is established.

    > **Note:**
    > If there are no available agents in the queue within **Callback Timeout**, the callback request will be cancelled.

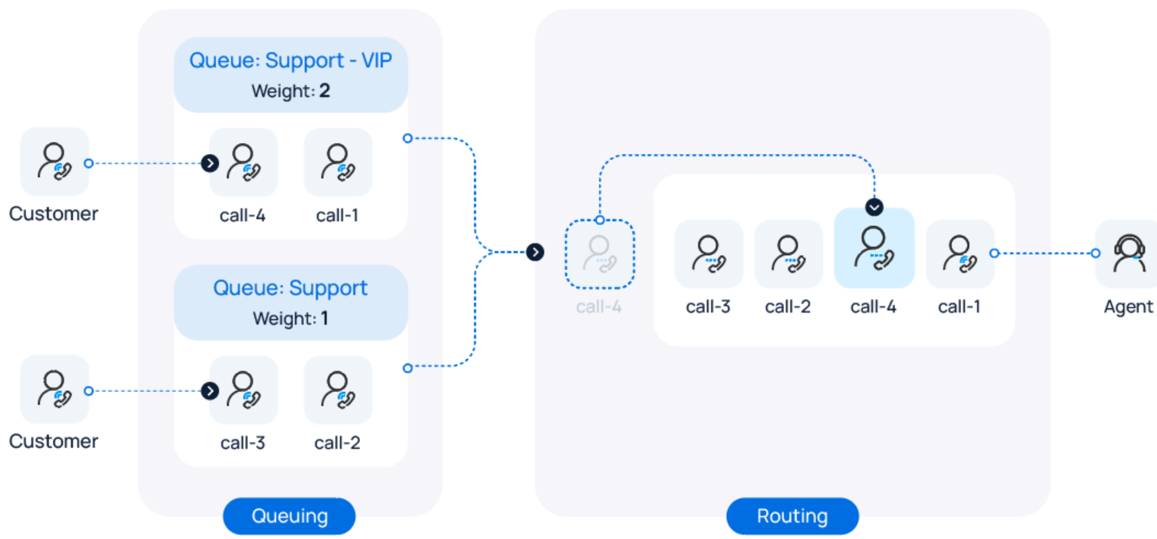
Set a Priority for a Call Queue

The Priority Queue feature allows you to assign a weight to each call queue. The system factors in both the initial weight assigned to a queue as well as the amount of time that a call has been waiting in the queue to determine the importance of calls in different queues.

When agents are logged into multiple call queues, the system calculates the weight of queues and automatically moves the calls in a higher-priority queue up in line, reducing waiting time for VIP callers while maintaining customer satisfaction for other callers.

Scenario

An agent simultaneously services for two queues (e.g. **Support-VIP** and **Support**), both of them have been assigned a weight. If there are incoming calls in both queues, the agent will first be connected to the calls coming from the higher-priority queue **Support-VIP**, ensuring that VIP callers receive a faster response.



Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. Click ✎ beside the desired queue, and go to the **Preferences** tab.
3. Turn on the switch of **Priority Queue**.
4. In the **Weight** field, specify the initial weight of the queue.

   You can enter a number between 1 and 999. The larger the number, the greater the weight.

   The system will compare the weight of multiple queues, and assign incoming calls from the queue with a greater weight to agents first. For example, calls in a queue with a weight of 2 will be answered more quickly than that in a queue with a weight of 1.

5. **Optional:** To avoid the calls in a low-priority queue being waited for too long, you can set up acceleration weight for a low-priority queue.
   a. Select the checkbox of **Enable Acceleration Weight**.
   b. In the **Acceleration (s)** field, specify the amount of time a call has been waiting in the queue before the weight is increased by **1**.

      You can enter a number between 10 and 1800, and the total queue weight will be calculated based on the initial queue weight and the waiting time of a call.

      ```
      Queue Weight = Weight + (Waiting Time / Acceleration) * 1
      ```

      > **Note:**
      > If there are decimals in the result, the value will be rounded.
6. Click **Save**.

Result

When an agent is logged in to multiple queues and there are calls waiting in more than one queue, the system automatically calculates and compares the queue weight for each call queue and routes the call in the higher-priority queue to the agent first.

Example

We provide an example to help you understand how call distribution works based on queue weight:

Agent Leo Ball has logged in to two support queues, **Support - VIP** and **Support**, and the queue weight settings for these queues are as follows:

Setting	Queue (Support - VIP)	Queue (Support)
Initial Weight	2	1
Acceleration Weight	Disabled	60s

When agent Leo Ball is available and both queues have calls waiting in the queue, the fol-lowings will occur.

- Call-1 enters the **Support - VIP** queue, and Call-2 enters the **Support** queue simultaneously.

  In this case, the queue weight of **Support - VIP** (**2**) is greater than that of **Support** (**1**). Therefore, Call-1 will be answered first, while Call-2 keeps waiting in the queue.
- Call-3 enters the **Support - VIP** queue when Call-2 in the **Support** queue has been waiting for 120 seconds.

  In this case, the queue weight of **Support - VIP** remains **2**, while the queue weight of the **Support** queue is calculated as `1 + (120 / 60) * 1 = 3`.

  Since the queue weight of the **Support** (**3**) is now greater than that of **Support - VIP** (**2**), Call-2 will be answered first after the agent completes the ongoing call.

Agent Management

Set Pause Reasons for Queue Agents

Yeastar P-Series PBX System allows you to set specific reasons for pause status of queue agents. Agents can pause with reasons by feature code, or by dedicated button on their Linkus Clients. Queue managers can track the pause reasons and duration of agents in call reports.

Prerequisites

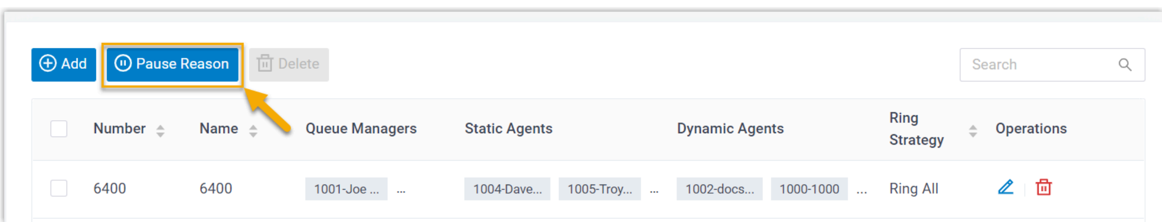
Subscribe to **Enterprise Plan** or **Ultimate Plan**.

Limitation

Yeastar P-Series PBX System supports up to **20** pause reasons.

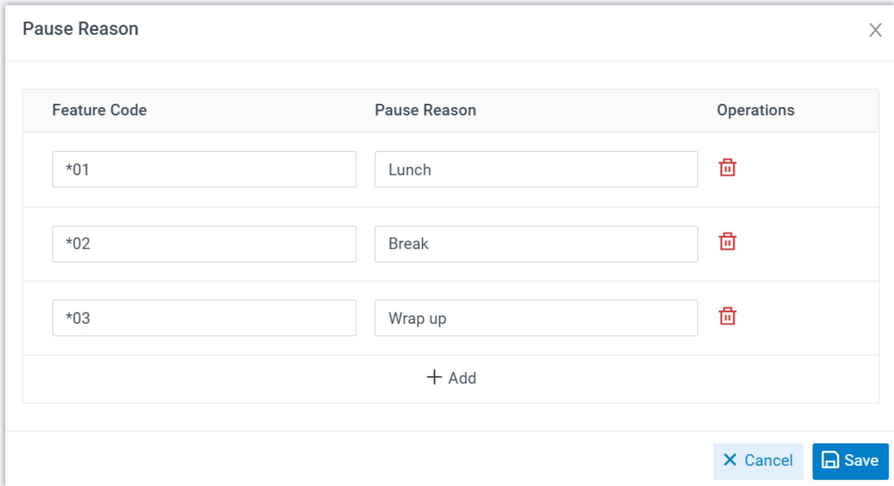
Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. On the top of the page, click **Pause Reason**.



3. In the pop-up window, complete the following settings:

> **Note:**
> Yeastar P-Series PBX System provides the following default pause reasons and the corresponding feature codes. You can modify them or add new ones.



a. Specify pause reasons and the corresponding feature codes.
   - **Feature Code**: Assign a feature code to the pause reason.
   - **Pause Reason**: Specify the reason why an agent pauses receiving calls.

b. Click **Save**.

Result

- The pause reasons are available for all queues in the PBX.
- Queue agents can pause with reasons in the following ways:
  - **By feature code**

    Queue agents can dial `Pause Feature Code` + `Queue Number` + `Pause Reason Feature Code` to pause from a queue for corresponding reason.

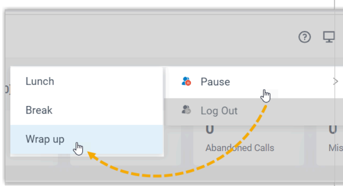
    > **Tip:**
    > You can obtain the Pause feature code on **Call Features > Feature Code > Queue > Pause/Unpause**.

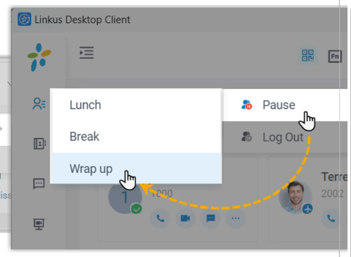
    For example, an agent dials "*076400*03" to pause from queue 6400 for **Wrap up** reason.
  - **By dedicated button on Linkus Clients**

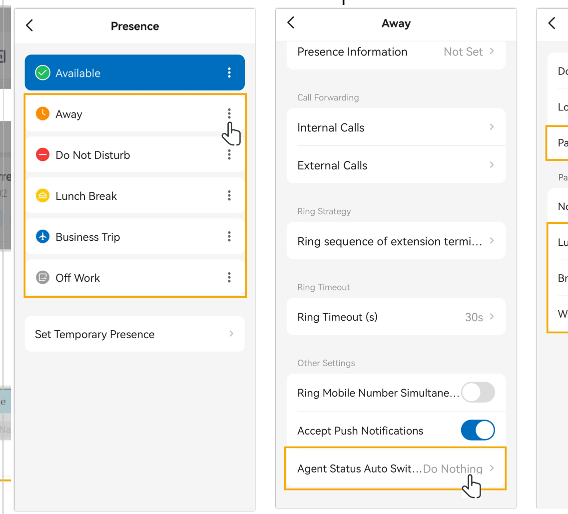
    Queue agents can click **Pause** button and select a specific pause reason on their Linkus Clients, as shown in the following table.

Linkus Web Client	Linkus Desktop Client	Linkus Mobile Client

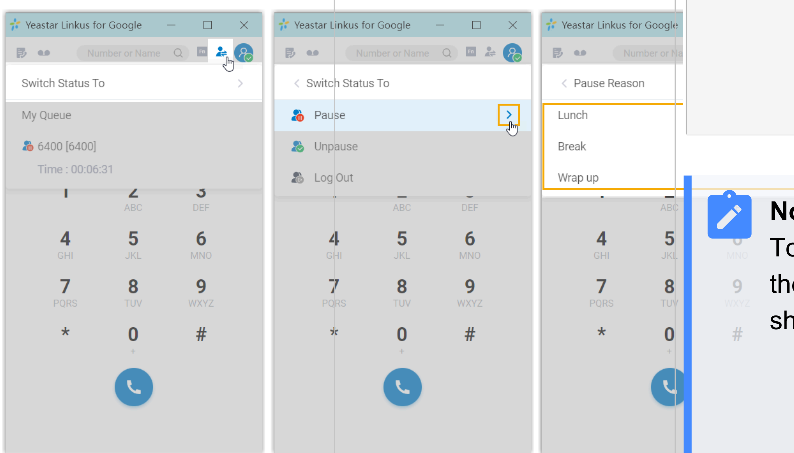
On web page





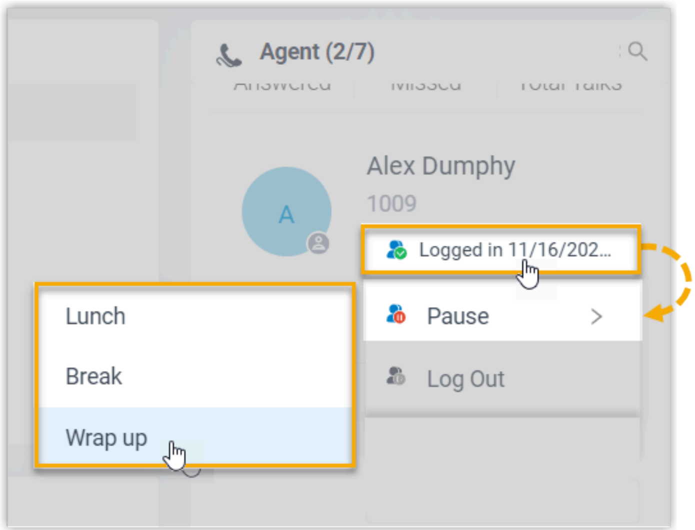


On 'Yeastar Linkus for Google' Chrome extension



Note:
To use the feature, the App version should be updated.
- Linkus Android Client: 4.10.6 or later
- Linkus iOS Client: 4.10.3 or later

- Queue managers can switch agents to pause on a specific reason from the queue panel.



Related information

[Agent Pause Activity Report](#)
[Monitor Specific Pause Status of an Agent by Function Key](#)

Monitor Specific Pause Status of an Agent by Function Key

This topic provides an example on how to monitor specific pause status of an agent by function key on Linkus Web Client, Linkus Desktop Client, or on an IP phone.

Prerequisites

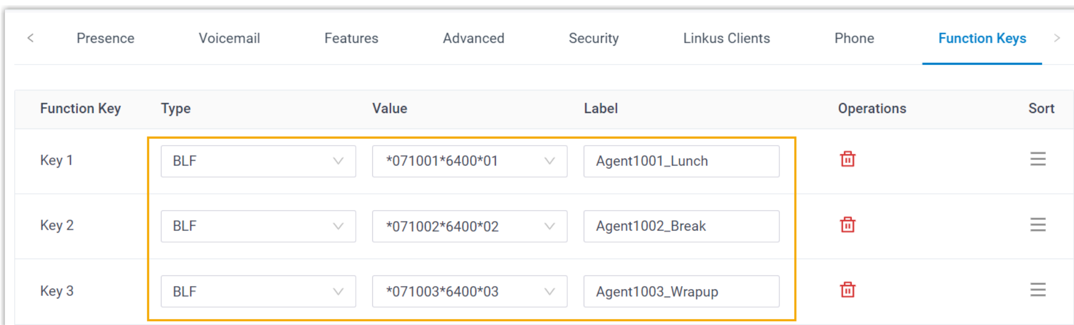
- Obtain the following feature codes:
  - Pause feature code (Path: **Call Features > Feature Code > Queue > Pause/ Unpause**)
  - Pause Reason feature code (Path: **Call Features > Feature Code > Pause Reason**)
- To monitor specific agent pause status on an IP phone, make sure that the IP phone is connected to Yeastar P-Series PBX System via auto provisioning, and has been assigned with an extension.

> **Note:**
> For detailed instructions about auto provisioning the IP phone, see IP Phone Configuration Guide.

Procedure

Assume that you want to monitor the three default pause status of agents 1001, 1002 and 1003 in queue 6400, do as follows to configure function keys for your extension.

1. Set up function keys for monitoring specific pause status.
    a. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit your extension.
    b. Click the **Function Keys** tab.
    c. Configure the following function keys.



- **Type**: Select **BLF** key.
- **Value**: Enter the feature codes.

  The format should be `Pause feature code` + `extension number` + `*` + `queue number` + `pause reason feature code`. For example, `*071001*6400*01`.
- **Label**: Optional. Enter a display label for the function key.

    d. Click **Save**.
2. If you want to monitor specific agent pause status on IP phone, apply the function key configuration to the IP phone.
    a. Go to **Auto Provisioning > Phones**, click beside the desired phone.
    b. In the pop-up window, click **OK**.

Result

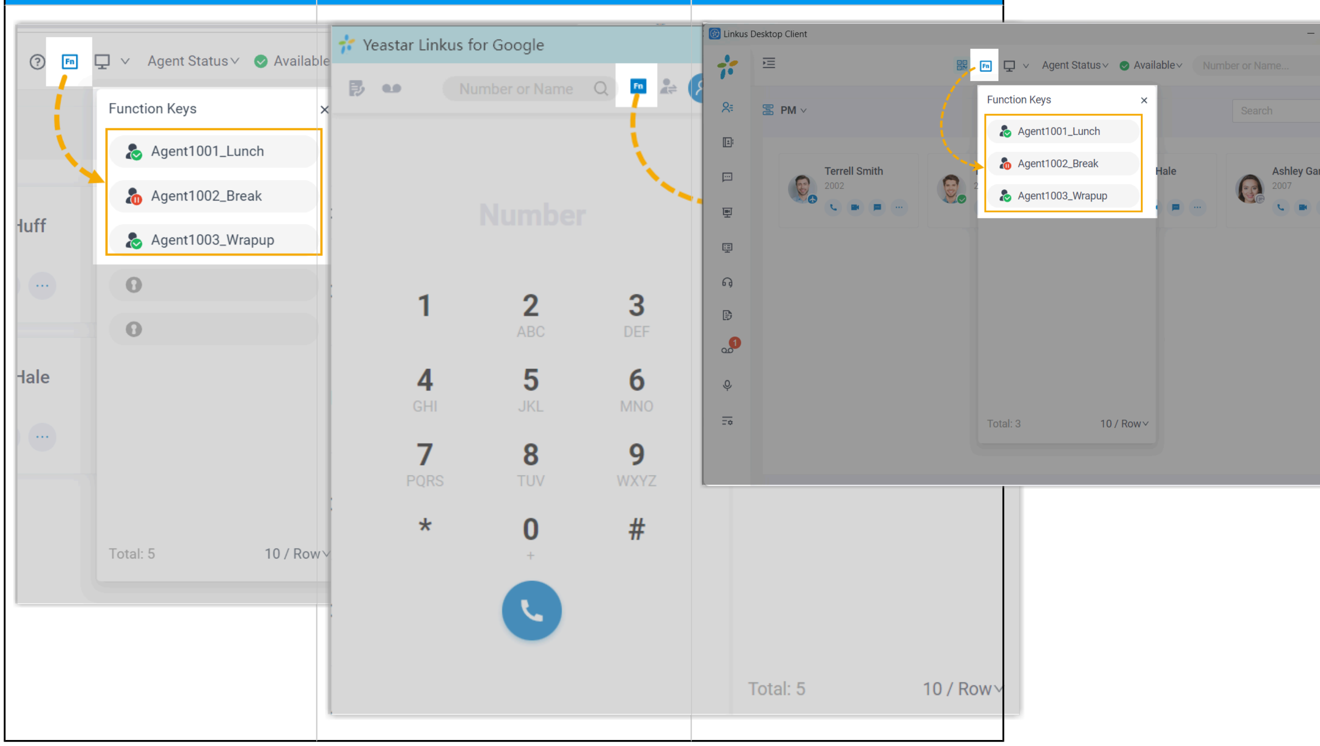
You can monitor specific pause status of the agents via the followings:

Function key on Linkus Web Client, Linkus Chrome extension, and Linkus Desktop Client

- : The monitored agent is NOT in the specified pause status.
- : The monitored agent is in the specified pause status.

- : The function key configuration failed.

Linkus Web Client	'Yeastar Linkus for Google' Chrome extension	Linkus Desktop Client



BLF LED on IP phone

- **BLF LED Solid Green**: The monitored agent is NOT in the specified pause status.
- **BLF LED Flashing Red**: The agent is in the specified pause status.
- **BLF LED off**: The BLF key configuration failed.

Related information

[Allow Agents to Manage Their Status by Dialing a Feature Code]

[Allow Agents to Manage Their Status via IP Phones]

Enable Shared Wrap-up Time Among Multiple Queues

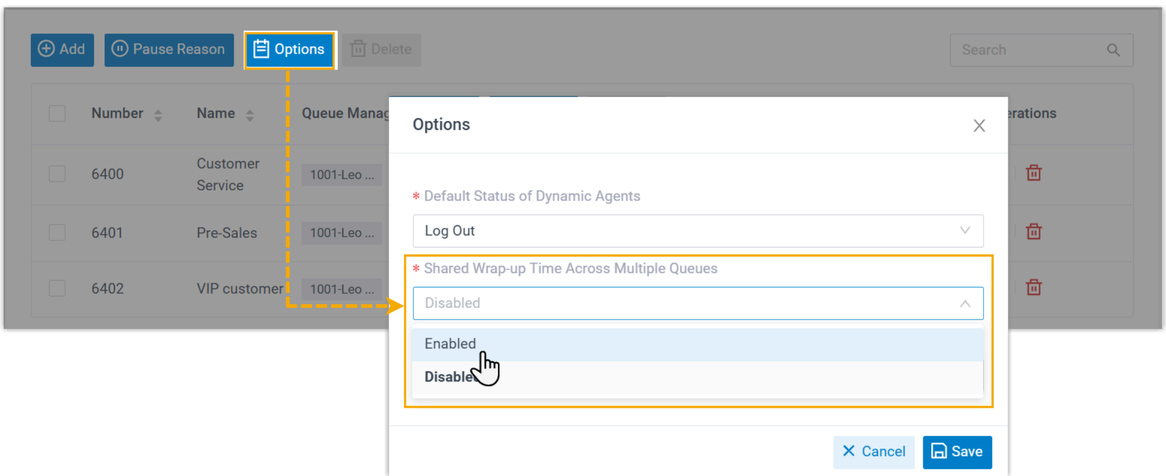
With shared wrap-up time feature, agents who belong to multiple queues will have sufficient time to complete post-call processing after finishing a call, avoiding receiving new calls from other queues during wrap-up time period. This topic describes how to enable shared wrap-up time among multiple queues.

Requirements

The firmware version of PBX server is 37.19.0.110 or later.

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. On the top of the page, click **Options**.
3. In the **Shared Wrap-up Time Across Multiple Queues** drop-down list, select **Enable**



4. Click **Save** and **Apply**.

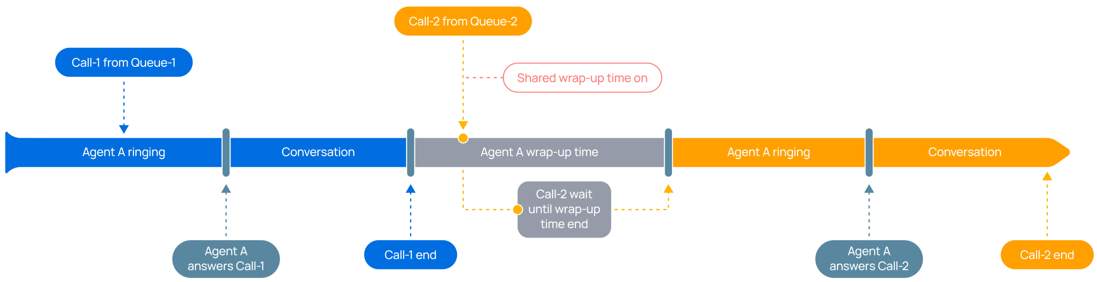
Result

When an agent who belongs to multiple queues finishes a call in one queue, the wrap-up time configured in that queue will be applied across all queues associated with this agent, the agent will not receive new calls from other queues during this wrap-up period.

Example

We provide an example to demonstrate the effect if the shared wrap-up time is enabled.

In this example, we have an agent A belongs to Queue-1 and Queue-2, and Call-1 from Queue-1, Call-2 from Queue-2.



1. A call (call-1) comes into Queue-1, and agent A answers call-1.
2. After finishing call-1, agent A enters a wrap-up period in Queue-1.
3. A second call (call-2) comes into Queue-2 during agent A's wrap-up time.
4. If call-2 is routed to agent A, it will wait until the shared wrap-up time ends (which is configured in Queue-1 and shared across Queue-2 for agent A). Then call-2 will ring to alert agent A to answer it.

Set Default Status for Dynamic Agents

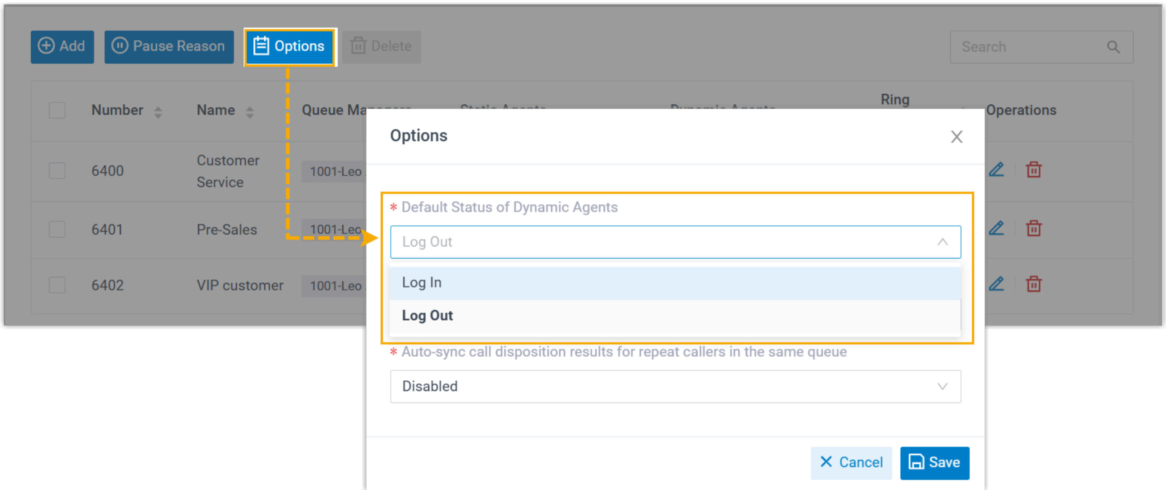
By default, the initial status of dynamic agents is logout after being added to a queue. You can set the default login status for newly added dynamic agents as needed. This pre-set status will be applied globally to all dynamic agents newly added to queues, thus minimizing manual errors and improving management efficiency.

Requirements

The firmware version of PBX server is 37.19.0.110 or later.

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. On the top of the page, click **Options**.
3. In the **Default Status of Dynamic Agents** drop-down list, select the desired status.



4. Click **Save**.

Result

The selected default status will be automatically applied to all dynamic agents when they are added to queues.

> **Note:**
> Dynamic agents who are already in queues will NOT be affected by this setting.

Automatically synchronize Processing Results for Repeat Calls

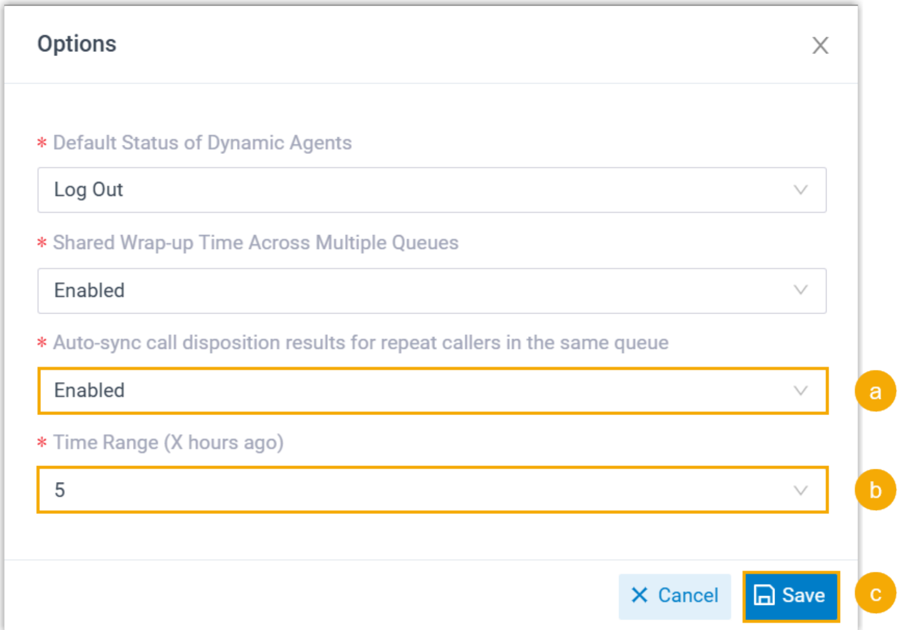
The auto-sync for processing results of repeat calls allows the system to automatically apply an updated processing result to all missed or abandoned calls from the same caller to the same queue within a specified time range, which helps maintain consistent call records and prevents multiple agents from making duplicate callbacks to the same caller. This topic describes how to enable the auto-sync for processing results.

Requirements

The firmware version of PBX server is 37.19.0.110 or later.

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. On the top of the page, click **Options**.
3. In the pop-up window, do as follows:



a. In the **Auto-sync call disposition results for repeat callers in the same queue** drop-down list, select **Enabled**.
b. In the **Time Range (X hours ago)** drop-down list, specify the time range for syncing call processing results.

   This setting determines that, starting from the time when an agent manually updates the processing result for a missed or abandoned queue call log, all missed or abandoned call logs from the same number to the same queue received in the preceding *{X}* hours will be synchronized.

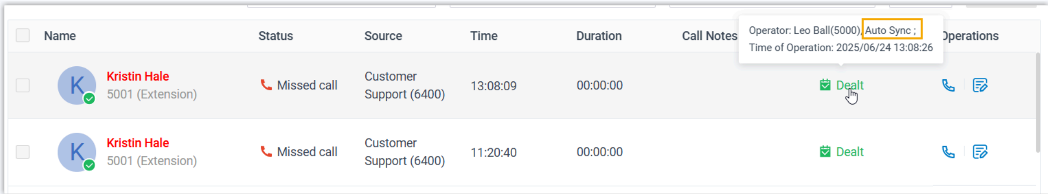
   For example, if you set the time range to 2 hours, and update the processing result of a missed call log at 3:00 PM, then call logs of all missed calls from the same number between 1:00 PM and 3:00 PM will be synchronized.
c. Click **Save**.

Result

When the processing result of a missed / abandoned queue call is updated, other missed calls from the same number to the same queue within the specified time range will be synchronized with the updated status.

> **Note:**
>
> - Synchronization is only triggered when the processing status moves forward (e.g. from **Not Dealt** to **Dealing**).

- The operation details of the synchronized missed call logs will show "Auto Sync" to indicate that the results was updated automatically.

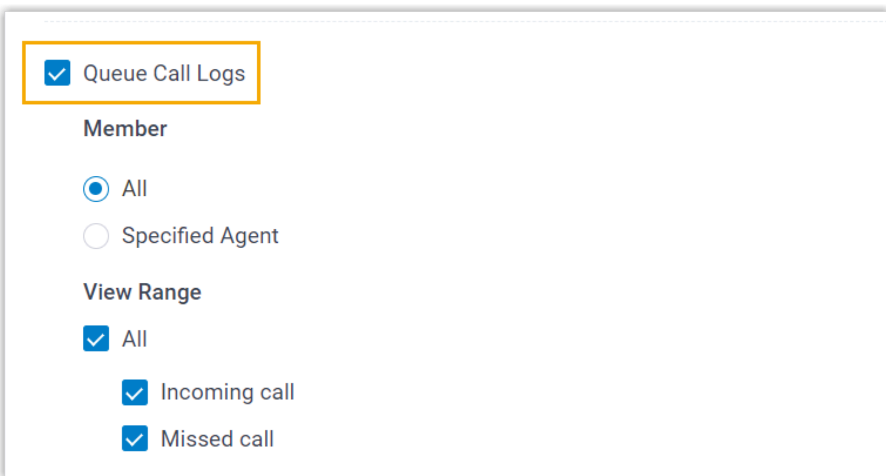


Allow Agents to View Queue Call Logs on Linkus Clients

This topic describes how to allow agents to view queue call logs on their Linkus UC Clients.

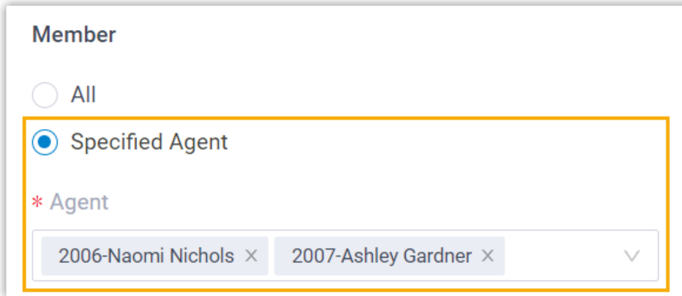
Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. Click beside the desired queue, and enter the **Queue Panel Permissions** tab.
3. Scroll down to the **Agents** section, and complete the following settings.
   a. Select the checkbox of **Queue Call Logs**.



   b. Set up the viewing permission.

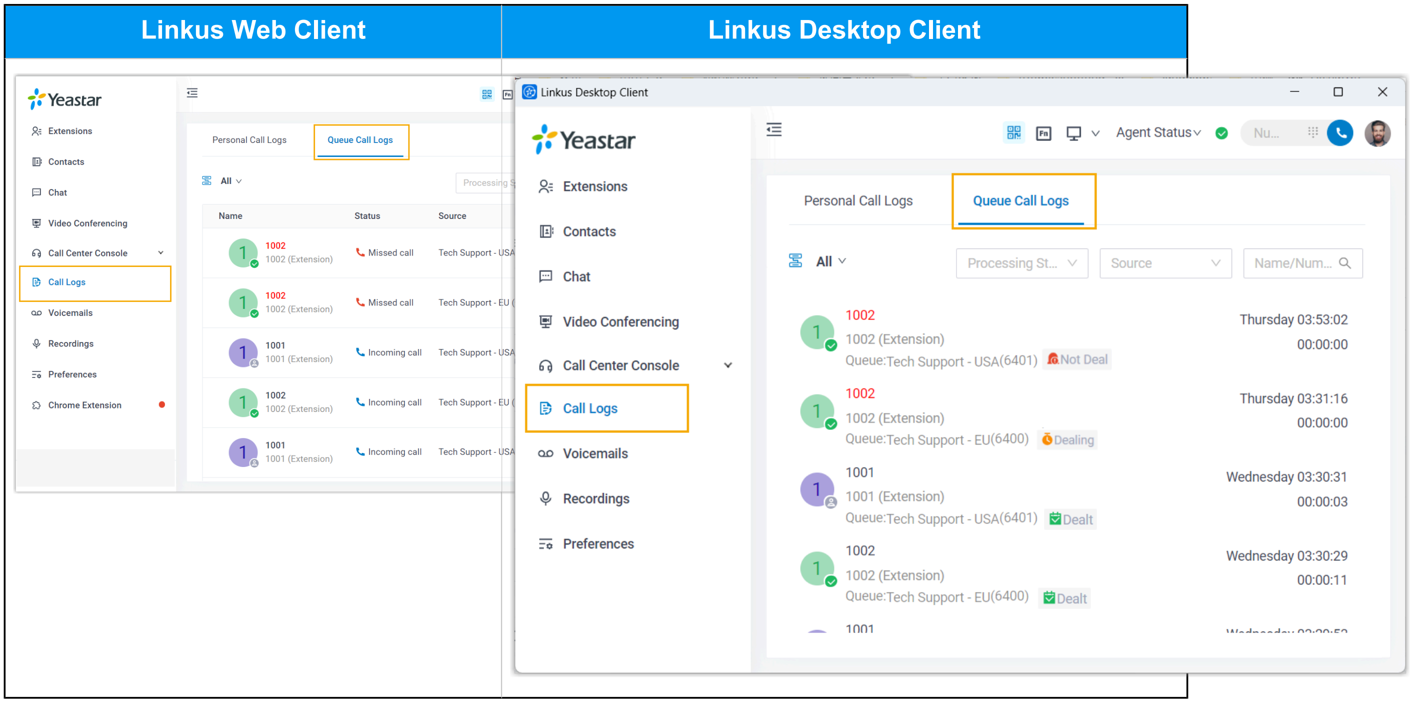
Item	Description
Member	Specify the agents that can view call logs of the queue on their Linkus clients. • **All**: All the queue agents can view the queue call logs.

Item	Description
	• **Specified Agent**: Only the specified agents can view the queue call logs. 
View Range	Specify the type of queue call logs that the authorized agents can view. • **All**: Agents can view all call logs, including incoming calls and missed calls. • **Incoming call**: Agents can view the call logs of the queue calls that they answered. • **Missed call**: Agents can view the call logs of missed queue calls, as well as the missed call processing status.

4. Click **Save**.

Result

The authorized agents are able to view queue call logs on their Linkus Web Client and Desktop Client (Path: **Call Logs > Queue Call Logs**).



Related information

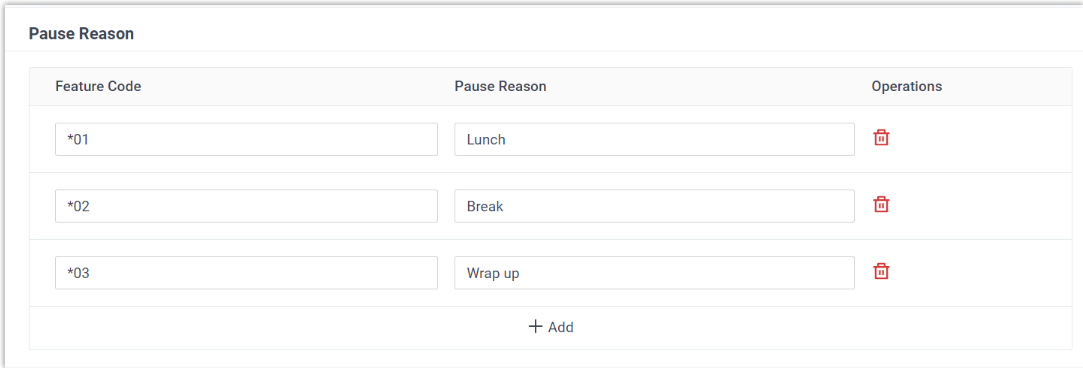
[Agent Guide - Check and Manage Queue Call Logs on Web Client / Desktop Client]

Allow Agents to Manage Their Status by Dialing a Feature Code

The PBX defines feature codes that allow the agents to switch their status. This topic describes how to allow agents to manage their agent status by dialing a feature code.

Procedure

1. Log in to PBX web portal, go to **Call Features > Feature Code**.
2. Scroll down to the **Queue** section.
3. To allow agents to log in to or log out of a queue via feature code, do as follows:
    a. Select the checkbox of **Log in/Log out**.
    b. **Optional:** Change the feature code according to your needs.
4. To allow agents to pause or unpause service via feature code, do as follows:
    a. Select the checkbox of **Pause/Unpause**.
    b. **Optional:** Change the feature code according to your needs.
    c. **Optional:** Scroll down to the **Pause Reason** section, and configure reasons for the agent pause and the corresponding feature codes.



Agents can pause with specific reason by dialing the pause reason feature codes.

5. Click **Save** and **Apply**.

Result

Agents can manage their status by dialing the corresponding feature codes either on their Linkus clients or IP phone.

Scenario	Instruction
Log in to a queue	Only dynamic agents can log in to a queue; static agents are always in the queue. For example, a dynamic agent dials `*76400` to log in to queue 6400.
Log out of a queue	Only dynamic agents can log out of a queue; static agents are always in the queue. For example, a dynamic agent 1000 dials `*76400` to log out of queue 6400.
Pause receiving queue calls	Both static agents and dynamic agents can pause queue calls when they are away from desk. The system will not distribute queue calls to the agents in "Paused" status. **Pause without reason** For example, an agent 1000 dials `*076400` to directly pause calls from queue 6400. **Pause with specific reason** For example, an agent 1000 dials `*076400*03` to pause calls from queue 6400 for after-call processing.
Unpause receiving queue calls	Both static agents and dynamic agents can unpause queue calls when they are ready to take calls. For example, an agent 1000 dials `*076400` to unpause calls from queue 6400.

Related information

[Allow Agents to Manage Their Status via IP Phones]
[Monitor Specific Pause Status of an Agent by Function Key]

Allow Agents to Manage Their Status via IP Phones

This topic describes how to set up agents' IP phones to enable them to monitor and switch their agent status in specific queue using the BLF keys and indicators on IP phones.

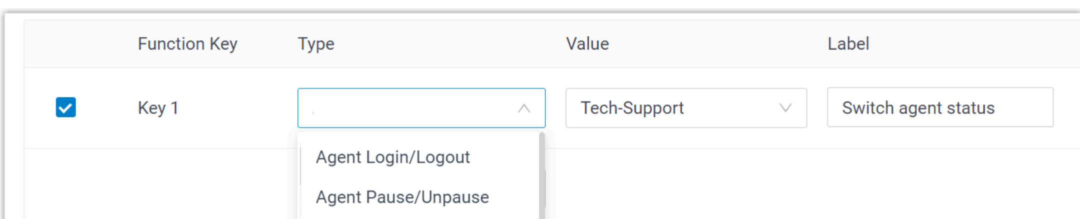
Prerequisites

Ensure that the IP phones are connected to Yeastar P-Series PBX System via auto provisioning, and have been assigned to the agents' extensions.

For detailed instructions about auto provisioning the IP phone, see IP Phone Configuration Guide.

Step 1. Set up function keys for agents' extensions

1. Access the configuration page for extensions' function keys.
    a. Log in to PBX web portal, go to **Extension and Trunk > Extension**.
    b. Select the agents' extensions and click **Edit**.
    c. Click the **Function Keys** tab.
2. Configure function keys for the extensions.
    a. Select the checkbox of **Bulk Edit**.
    b. Select a key and configure the followings:

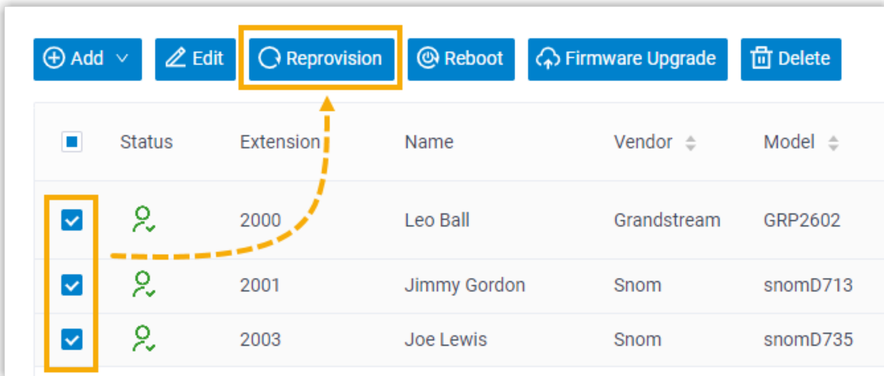


- **Type**: Select a key type from the following two options:
    - **Agent Login/Logout**: Allow agents to log in to or log out of a queue.
    - **Agent Pause/Unpause**: Allow agents to pause or unpause receiving queue calls.
- **Value**: Select a queue that the agent sits in.
- **Label**: Optional. Enter a label, which will be displayed on the phone screen.

3. Click **Save**.

Step 2. Apply the configuration to agents' IP phones

1. Go to **Auto Provisioning > Phones**.
2. Select the phones assigned to the agents and click **Reprovision**.



3. In the pop-up window, click **OK**.

Result

Agents can monitor and switch their status in the specified queue using the BLF keys and indicators on the IP phones.

> **Note:**
> The BLF key indicator status may vary by phone models.

BLF key	LED status	Description
Log in/Log out	Solid Green	The agent has logged in to the queue. The agent can press the **Log in/Log out** BLF key to log out of the queue.
	Solid Red	The agent has logged out of the queue. The agent can press the **Log in/Log out** BLF key to log in to the queue.
	Off	The BLF key does not subscribe the agent's status. Check if your configurations are correct or if the agent's extension is registered.
Pause/unpause	Solid Green	The agent can receive queue calls. The agent can press the **Pause/Unpause** BLF key to pause receiving queue calls.

BLF key	LED status	Description
	Flashing Red	The agent has paused receiving queue calls. The agent can press the **Pause/Unpause** BLF key to resume receiving queue calls.
	Off	The BLF key does not subscribe the agent's status. Check if your configurations are correct or if the agent's extension is registered.

Related information

[Monitor Specific Pause Status of an Agent by Function Key]
[Supervisor Guide - Manage Agent Status on Call Center Console]

Allow Agents to Identify Callers from Company Contacts in Queue Panel

Yeastar P-Series PBX System allows both queue manager and queue agents to view contact names in Queue Panel when receiving queue calls from company contacts. This topic describes how to enable contact name display for queue agents.

Introduction

To allow queue agents to view contact names in Queue Panel when receiving queue calls from company contacts, you need to assign the relevant Queue Panel permission to agents in specific queues, and configure the matching rule for company contacts.

In doing so, when a call from a company contact reaches a specified queue, the PBX will ignore the contact visibility rule and display the contact name in Queue Panel of all agents assigned to the queue.

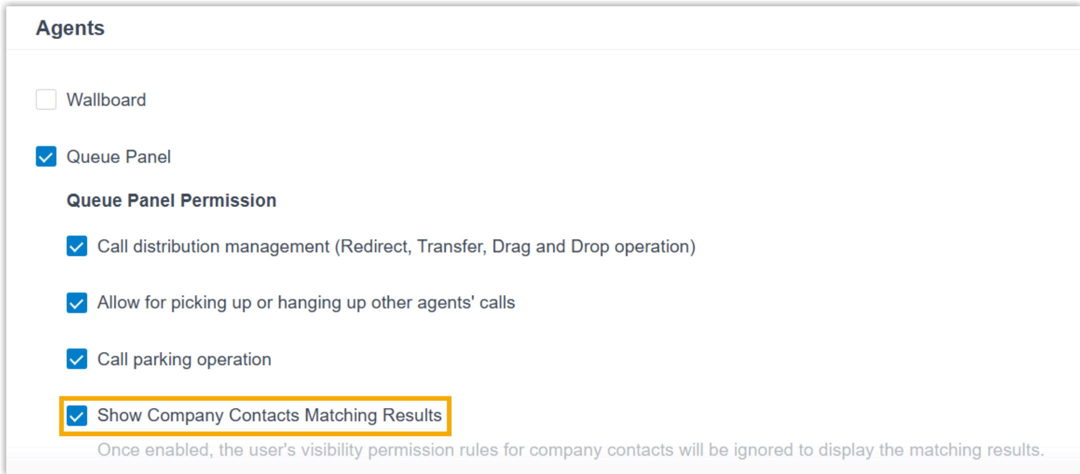
Requirements

The firmware version of PBX server is 37.20.0.128 or later.

Step 1. Grant permission to agents in specific queue

1. Access the configuration page of call queue.
    a. Log in to PBX web portal, go to **Call Features > Queue**.
    b. On the right of the desired queue, click .
2. Grant permission to queue agents.
    a. Click **Queue Panel Permissions** tab.

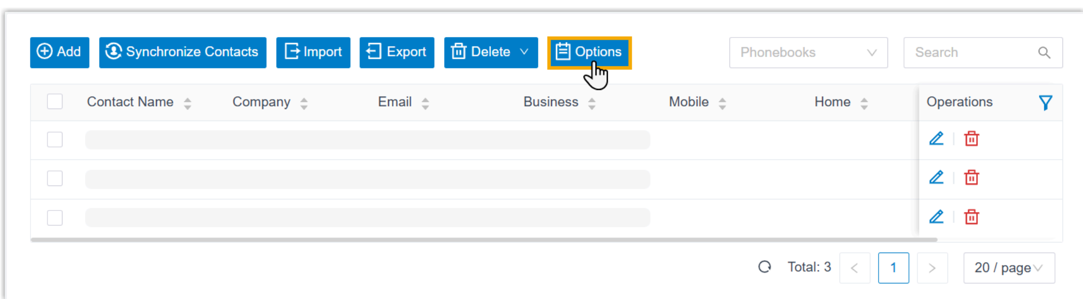
b. Scroll down to **Agents** section, then select the checkbox of **Show Company Contacts Matching Results**.



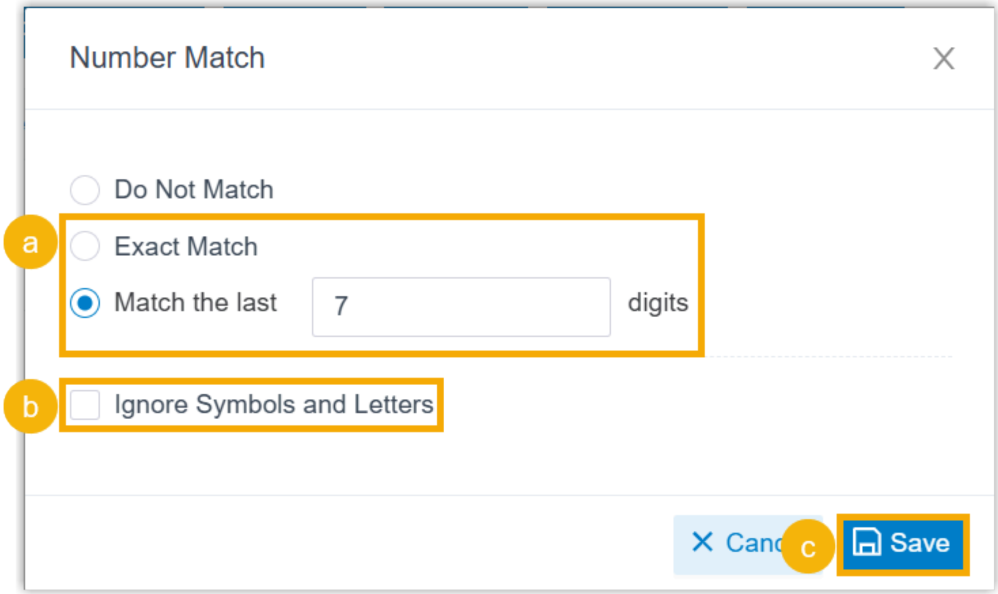
c. Click **Save** and **Apply**.

Step 2. Configure company contacts matching

1. Access the configuration page of company contacts matching.
   a. Go to **Contacts > Company Contacts**.
   b. On the **Company Contacts** page, click **Options**.



2. In the pop-up window, configure Caller ID match.



a. Choose how to match incoming Caller ID.

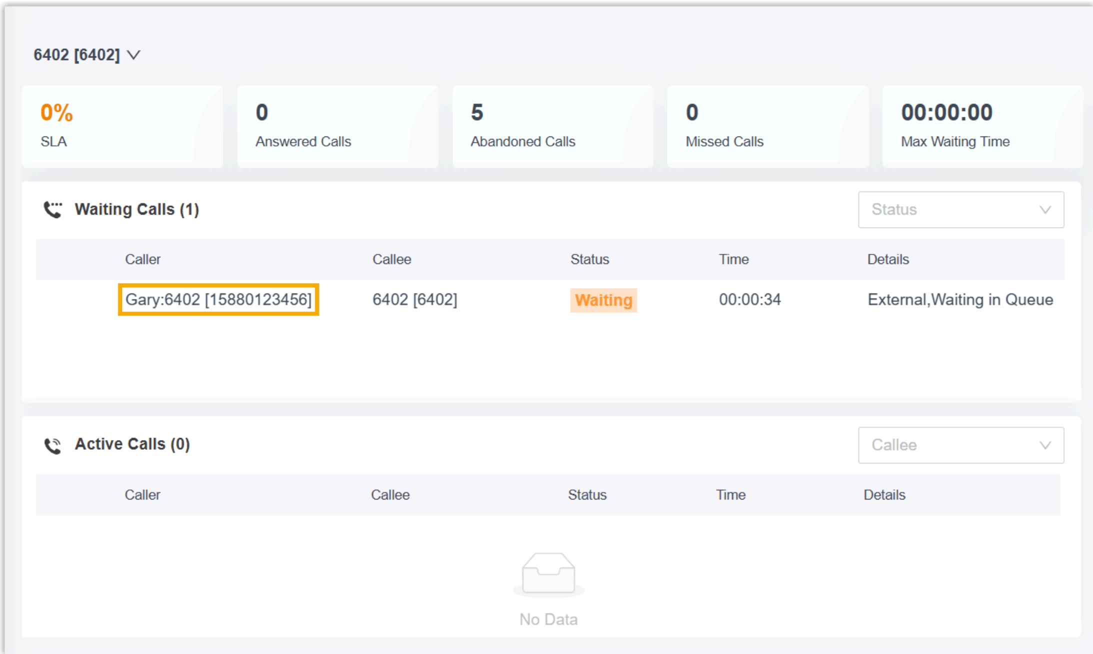
Option	Description
Exact Match	Display contact name when an incoming Caller ID exactly matches existing number.
Match the last *{number}* digits	Display contact name based on the digits of incoming Caller ID. • If the digit length of an incoming Caller ID is shorter than or equal to the specified value, contact name will be displayed only when the incoming Caller ID exactly matches existing number. • If the digit length of an incoming Caller ID is longer than the specified value, contact name will be displayed when the last *{number}* digits of the incoming Caller ID matches that of existing number. **Note:** The default value is 7. You can enter a value between 4 and 31.

b. **Optional:** To ignore symbols and letters in numbers during contacts matching, select the checkbox of **Ignore Symbols and Letters**.

c. Click **Save**.

Result

When company contacts call the queue, agents can see contact name in Queue Panel if a match is found, as shown below.



Call Center Setup

Set up Queue Managers

With call center service activated, you can set any extension as queue manager. A queue manager does not need to be a queue agent. This topic describes how to set queue managers.

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**, edit the desired queue.
2. Click the **Members** tab.
3. In the **Queue Managers** section, manage the queue managers:
    - To add queue managers, select the desired extensions from the **Available** box to the **Selected** box.
    - To delete queue managers, select the desired extensions from the **Selected** box to the **Available** box.

4. Click **Save** and **Apply**.

Related information

Customize Queue Notification

Customize Queue Notification

With call center service activated, the system sends email notifications to queue managers when a queue call is missed or abandoned, when the service level agreement reaches the alarm threshold, when a callback request is made or a callback failed. This topic describes how to customize these notifications.

Prerequisites

- Make sure there is a valid email address assigned to queue manager's extension.
- Make sure system email works.

Procedure

1. Log in to PBX web portal, go to **Call Features > Queue**, edit the desired queue.
2. Click the **Members** tab.
3. Select the checkbox of notification option according your needs.

Option	Description
Notify Manager when a queue call is missed	If enabled, the system will send an email to queue manager when a queue call is missed.
Notify Manager when a queue call is abandoned	If enabled, the system will send an email to queue manager when a queue call is abandoned.
Notify Manager when the SLA is lower than its alarm threshold	If enabled, the system will send an email to queue manager when the SLA alarm threshold is reached.
Notify Manager when a callback request is made	If enabled, the system will send an email to queue manager when a callback request is made.
Notify Manager when a callback failed	If enabled, the system will send an email to queue manager when a callback is failed.

4. Click **Save** and **Apply**.

Set up Service Level Agreement (SLA)

With call center service activated, you can set up service level agreement for a queue. This topic describes what is service level agreement and how to set up service level agreement.

What is Service Level Agreement (SLA)

Service Level Agreement is a call center performance statistic. It is the goal for how quickly the agent should answer a portion of the customers, and makes sure everyone is working to the same objective.

SLA is expressed as the percentage of conversations answered within a pre-defined amount of time. Let us suppose that the goal is to answer 80% of calls within 20 seconds. If the measurement is less than 80%, the manager knows they are below their target Service Level.

The calculated formula of SLA is shown as below:

> **Note:**
> The `Total calls` parameter is the total number of calls that the queue received, including calls answered by agents, calls abandoned by callers and missed calls in the queue.

```
SLA = (Number of calls answered within SLA time / Total calls) * 100%
```

How to set up Service Level Agreement

You can set a target service level and SLA threshold for each queue, and evaluate the service level periodically.

1. Log in to PBX web portal, go to **Call Features > Queue**, edit the desired queue.
2. Click the **Preferences** tab.
3. In the **Service Level Agreement** section, edit the SLA according to your needs.
    - **SLA Time (s)**: Enter the maximum amount of time (in seconds) that an agent needs to answer an incoming call.

      If a caller waits for a duration of time shorter than the SLA Time, the SLA is met.
    - **Evaluation Interval (min)**: Enter the time interval to compare the queue's SLA performance against the alarm threshold so that the system can send a notification email timely.
    - **Alarm Threshold (%)**: Enter the service level threshold for the queue.

4. Click **Save** and **Apply**.

Grant Call Center Console Permissions

With call center service activated, you can grant the access permission to the Call Center Console dashboards (Wallboard & Queue Panel) and decide what the queue managers and agents can do on Queue Panel, and grant the Queue Panel permissions for queue manager and agents respectively. This topic describes how to grant permissions for queue manager and agents.

Call Center Console permissions

The following table outlines the supported permissions on the Call Center Console for queue managers and agents respectively.

Permission	Manager	Agent
Access Wallboard	√	√
Access Queue Panel	√	√
Switch agents' status	√	×
Call distribution management (Redirect, Transfer, Drag and Drop operation)	√	√
Allow for picking up or hanging up agents' calls	√	√
Call monitoring operations (Listen, Whisper, Barge In)	√	×
Call parking operation	√	√
Switch agent's recording status	√	×
Show Company Contacts Matching Results	√	√
Queue Missed Call Logs	√	×
Delete Queue Missed Call Logs	√	×
Queue Call Logs (including calls answered by agents and missed calls within the queue)	×	√

Grant permissions for queue managers

1. Log in to PBX web portal, go to **Call Features > Queue**, edit the desired queue.
2. Click the **Queue Panel Permissions** tab.

3. In the **Manager** section, select the checkboxes of permissions according to your needs.
4. Click **Save** and **Apply**.

Grant permissions for agents

1. Log in to PBX web portal, go to **Call Features > Queue**, edit the desired queue.
2. Click the **Queue Panel Permissions** tab.
3. In the **Agents** section, select the checkboxes of permissions according to your needs.
4. Click **Save** and **Apply**.

Call Center Report

Call Center Reports Overview

Yeastar P-Series PBX System provides a set of predefined reports concerning detailed information about call center performance. This topic describes what you can do with call center report, and the report types.

What you can do with call center reports

The system automatically generates reports in the format of graphs or charts, and helps you to simplify analysis and extract invaluable data with ease. These reports can be historical and real-time. You can view and schedule reports on demand to evaluate past activities and plan future actions.

Reports types

We divide reports into two categories: queue performance and agent performance.

- **Queue performance reports**: The queue performance reports give you insight into the work efficiency of one or more queues over a period of time, and help you evaluate the performance of each queue.
  - Queue AVG Waiting & Talking Time
  - Queue Performance
  - Queue Performance Activity
  - Queue Callback Summary
  - Queue Callback Activity
  - Satisfaction Survey
  - Satisfaction Survey Details

- **Agent performance reports**: The agent performance reports give you insight into the performance of one or more agents, and help you evaluate if every agent meets the expectations of your call center over a period of time.
    - Agent Login Activity
    - Agent Pause Activity
    - Agent Missed Call Activity
    - Agent Performance
    - Agent Call Summary

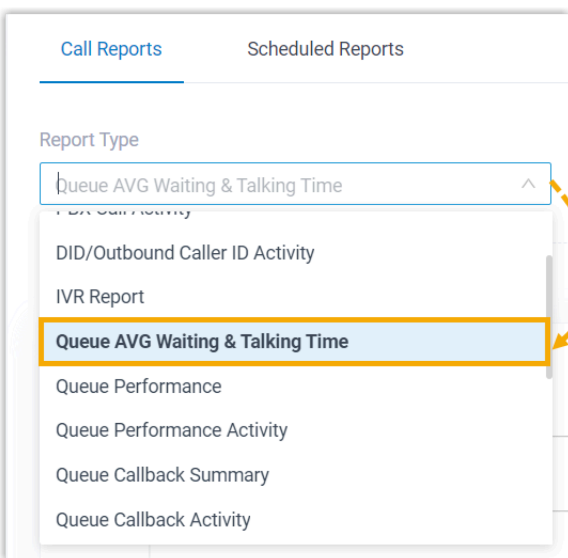
Queue Performance Reports

Queue AVG Waiting & Talking Time Report

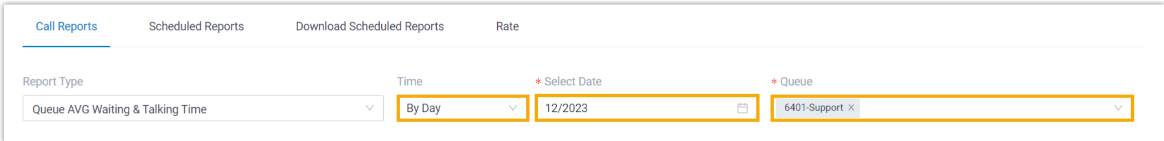
Queue AVG Waiting & Talking Time report provides granular insights into the hourly, daily, and monthly breakdown of the average amount of time that callers wait in a queue, and the average amount of time that queue agents spend in talking with callers. This topic introduces how to access the report and explains the key metrics in detail.

Access Queue AVG Waiting & Talking Time report

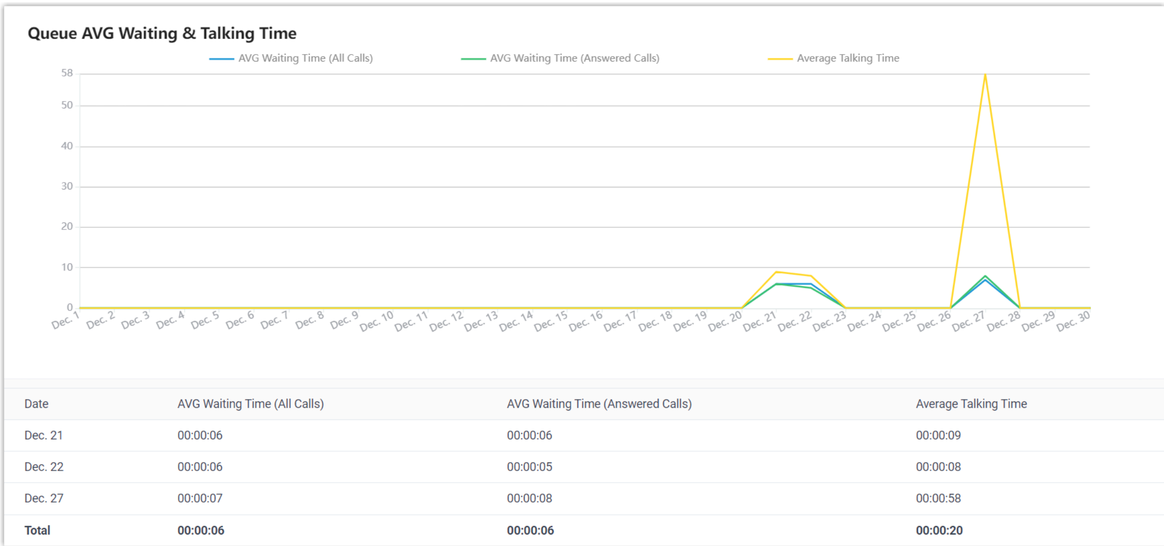
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Queue AVG Waiting & Talking Time**.



3. Filter data by system time and queue(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Report details

The key metrics for **Queue AVG Waiting & Talking Time** report is shown below.

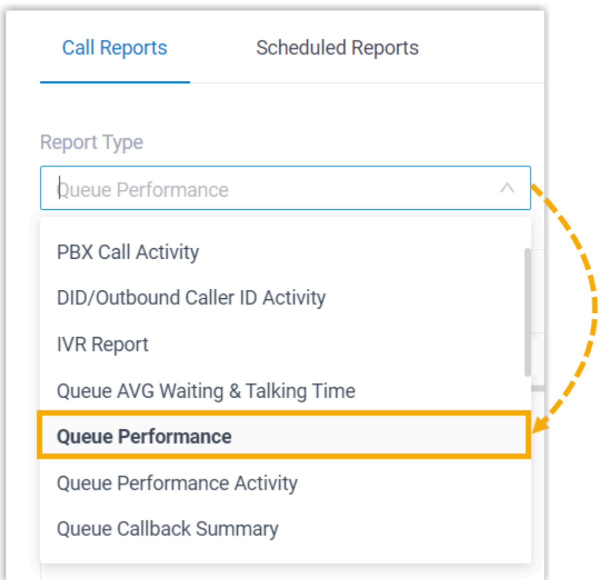
Metric	Description
AVG Waiting Time (All Calls)	The average amount of time that all inbound calls had been waiting in the queue, regardless of whether they were answered or not. **Formula**: (**Total Ring Duration** + **Retry Interval**) / **Total Calls**
AVG Waiting Time (Answered Calls)	The average amount of time that the answered calls had been waiting in the queue before being answered by agents. **Formula**: (**Total Ring Duration of Answered Calls** + **Retry Interval**) / **Total Answered Calls**
Average Talking Time	The average amount of time that agents spent talking to callers. **Formula**: **Total Talking Time** / **Total Answered Calls**

Queue Performance Report

Queue Performance report provides a quick overview of call queue performance and granular insights into queue calls. This topic introduces how to access the report and explains the key metrics in detail.

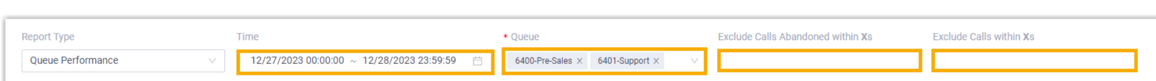
Access Queue Performance report

1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Queue Performance**.



3. Filter data by system time, queue(s), call abandonment time, or talk duration.

> **Note:**
> - To filter out abandoned short calls, specify the ring duration in the **Exclude Calls Abandoned within Xs** field. Calls abandoned within this time frame will NOT be included in the report.
> - To filter out answered short calls, specify the talk duration in the **Exclude Calls within Xs** field. Calls ended within this time frame will NOT be included in the report.



A report that meets the filter criteria is displayed on the page, as shown below.

Queue	Total Calls	Answered	Missed	Abandoned	AVG Handle Time	AVG Waiting Time (Answered Calls)	AVG Waiting Time (All Calls)	Max Waiting Time (All Calls)	Average Talking Time	AVG Hold Time	Answered	Details
Pre-Sales	13	5	4	4	00:00:57	00:00:11	00:00:23	00:01:42	00:00:45	00:00:00	38.46%	
Support	6	4	0	2	00:01:06	00:00:08	00:00:07	00:00:15	00:00:58	00:00:00	66.67%	
Total	**19**	**9**	**4**	**6**								

Report details

We take the above report as an example to introduce the key metrics for **Queue Performance** report.

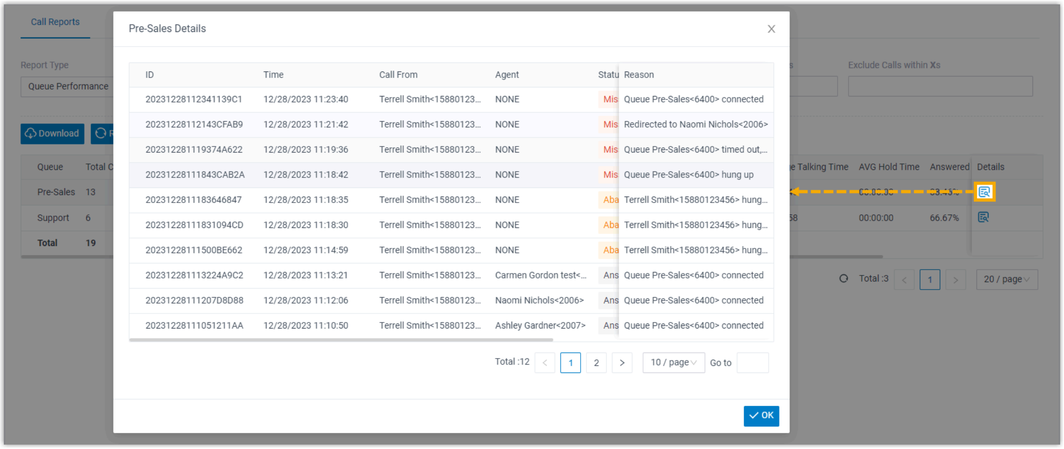
Metrics for queue

Queue	Total Calls	Answered	Missed	Abandoned	AVG Handle Time	AVG Waiting Time (Answered Calls)	AVG Waiting Time (All Calls)	Max Waiting Time (All Calls)	Average Talking Time	AVG Hold Time	Answered Rate	Missed Rate	Abando	Details
Pre-Sales	13	5	4	4	00:00:57	00:00:11	00:00:23	00:01:42	00:00:45	00:00:00	38.46%	30.77%	30.77%	
Support	6	4	0	2	00:01:06	00:00:08	00:00:07	00:00:15	00:00:58	00:00:00	66.67%	0%	33.33%	
Total	**19**	**9**	**4**	**6**										

Metric	Description
Total Calls	The total number of calls that the queue received.
Answered	The total number of calls that the queue answered.
Missed	The total number of calls that the queue missed. **Note:** A missed queue call includes, but is not limited to, the following scenarios: • A call exits the queue when the number of **Maximum Callers** is reached. • A call exits the queue when the **Maximum Waiting Time** is reached. • A call is assigned to another queue or extension by queue manager. • A caller presses a key to exit the queue and be routed to another destination.
Abandoned	The total number of calls that the callers abandoned.
AVG Handle Time	The average amount of time that agents spent handling customers' calls. **Formula**: (**Total Ring Duration of Answered Calls** + **Total Talk Duration of Answered Calls**) / **Total Answered Calls**
AVG Waiting Time (Answered Calls)	The average amount of time that the answered calls had been waiting in the queue before being answered by agents.

Metric	Description
	Formula: (**Total Ring Duration of Answered Calls** + **Retry Interval**) / **Total Answered Calls**
AVG Waiting Time (All Calls)	The average amount of time that all inbound calls had been waiting in the queue, regardless of whether they were answered or not. **Formula**: (**Total Ring Duration** + **Retry Interval**) / **Total Calls**
Max Waiting Time (All Calls)	The maximum amount of time that callers waited in the queue, regardless of whether the calls were answered or not.
Average Talking Time	The average amount of time that agents spent talking to callers. **Formula**: **Total Talking Time** / **Total Answered Calls**
AVG Hold Time	The average amount of time that calls were held. **Formula**: **Total Hold Duration** / **Total Answered Calls**
Answered Rate	The percentage of answered calls in relation to the total received calls. **Formula**: (**Total Answered Calls** / **Total Calls**) * 100%
Missed Rate	The percentage of missed calls in relation to the total received calls. **Formula**: (**Total Missed Calls** / **Total Calls**) * 100%
Abandon Rate	The percentage of abandoned calls in relation to the total received calls. **Formula**: (**Total Abandoned Calls** / **Total Calls**) * 100%
SLA	The Service Level Agreement (SLA) for the queue. SLA is the percentage of conversations answered within a predefined amount of time. **Formula**: (**The Number of Calls Answered within SLA Time)** / **Total Calls**) * 100%

Metrics for queue call



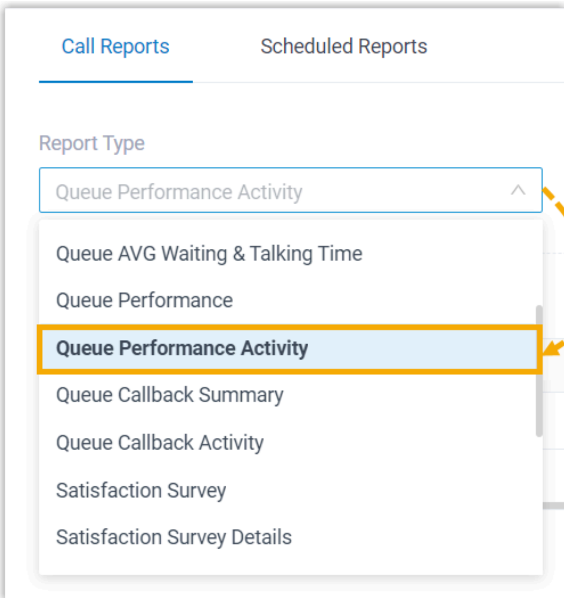
Metric	Description
ID	A unique ID for the call.
Time	When the call was received.
Call From	The number and the name of the caller.
Agent	The agent who answered the call. **Note:** If the call was not answered, **None** is displayed.
Status	Call status. • **Answered** • **Abandoned** • **Missed**
Ring Duration	• For answered calls, this indicates the time between the call started and the call was answered. • For abandoned or missed calls, this indicates the time between the call started and the call disconnected.
Talk Duration	The time between the call answered and the call ended.
Hold Duration	The total amount of time that the call was held.
Reason	The reason why the call was not answered by the agent or why the call ended.

Queue Performance Activity Report

Queue Performance Activity report provides granular insights into the hourly, daily, and monthly breakdown of call queue performance and queue calls. This topic introduces how to access the report and explains the key metrics in detail.

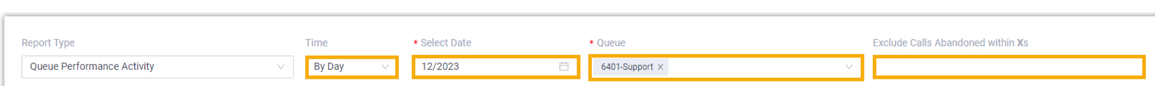
Access Queue Performance Activity report

1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Queue Performance Activity**.



3. Filter data by system time, queue(s), or call abandonment time.

> **Note:**
> To filter out abandoned short calls, specify the ring duration in the **Exclude Calls Abandoned within Xs** field. Calls abandoned within this time frame will NOT be included in the report.



A report that meets the filter criteria is displayed on the page, as shown below.

Date	Total Calls	Answered	Missed	Abandoned	AVG Handle Time	AVG Waiting Time (Answered Calls)	AVG Waiting Time (All Calls)	Max Waiting Time (All Calls)	Average Talking Time	AVG Hold Time	Answered Rate	Mi	Details
Dec. 21	8	5	1	2	00:00:15	00:00:06	00:00:06	00:00:11	00:00:09	00:00:00	62.5%	12.	
Dec. 22	9	7	0	2	00:00:13	00:00:05	00:00:06	00:00:12	00:00:08	00:00:00	77.78%	0%	
Dec. 27	6	4	0	2	00:01:06	00:00:08	00:00:07	00:00:15	00:00:58	00:00:00	66.67%	0%	
Total	23	16	1	6	**00:00:27**	**00:00:06**	**00:00:06**	**00:00:15**	**00:00:20**	**00:00:00**	**69.57%**	**4.3**	

Report details

We take the above report as an example to introduce the key metrics for **Queue Performance Activity** report.

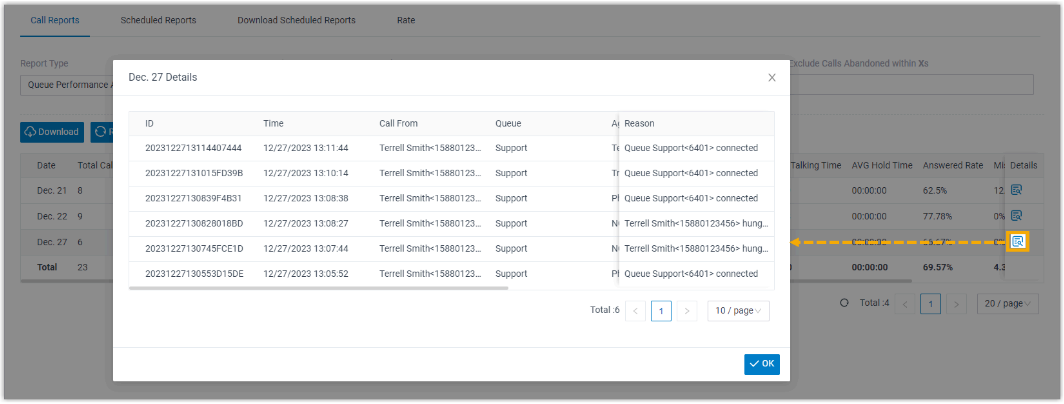
Metrics for queue

Date	Total Calls	Answered	Missed	Abandoned	AVG Handle Time	AVG Waiting Time (Answered Calls)	AVG Waiting Time (All Calls)	Max Waiting Time (All Calls)	Average Talking Time	AVG Hold Time	Answered Rate	Mi	Details
Dec. 21	8	5	1	2	00:00:15	00:00:06	00:00:06	00:00:11	00:00:09	00:00:00	62.5%	12	
Dec. 22	9	7	0	2	00:00:13	00:00:05	00:00:06	00:00:12	00:00:08	00:00:00	77.78%	0%	
Dec. 27	6	4	0	2	00:01:06	00:00:08	00:00:07	00:00:15	00:00:58	00:00:00	66.67%	0%	
Total	23	16	1	6	**00:00:27**	**00:00:06**	**00:00:06**	**00:00:15**	**00:00:20**	**00:00:00**	**69.57%**	**4.3**	

Metric	Description
Total Calls	The total number of calls that the queue received.
Answered	The total number of calls that the queue answered.
Missed	The total number of calls that the queue missed. **Note:** A missed queue call includes, but is not limited to, the following scenarios: • A call exits the queue when the number of **Maximum Callers** is reached. • A call exits the queue when the **Maximum Waiting Time** is reached. • A call is assigned to another queue or extension by queue manager. • A caller presses a key to exit the queue and be routed to another destination.
Abandoned	The total number of calls that the callers abandoned.
AVG Handle Time	The average amount of time that agents spent handling customers' calls. **Formula**: (**Total Ring Duration of Answered Calls** + **Total Talk Duration of Answered Calls**) / **Total Answered Calls**

Metric	Description
AVG Waiting Time (Answered Calls)	The average amount of time that the answered calls had been waiting in the queue before being answered by agents. **Formula**: (**Total Ring Duration of Answered Calls** + **Retry Interval**) / **Total Answered Calls**
AVG Waiting Time (All Calls)	The average amount of time that all inbound calls had been waiting in the queue, regardless of whether they were answered or not. **Formula**: (**Total Ring Duration** + **Retry Interval**) / **Total Calls**
Max Waiting Time (All Calls)	The maximum amount of time that callers waited in the queue, regardless of whether the calls were answered or not.
Average Talking Time	The average amount of time that agents spent talking to callers. **Formula**: **Total Talking Time** / **Total Answered Calls**
AVG Hold Time	The average amount of time that calls were held. **Formula**: **Total Hold Duration** / **Total Answered Calls**
Answered Rate	The percentage of answered calls in relation to the total received calls. **Formula**: (**Total Answered Calls** / **Total Calls**) * 100%
Missed Rate	The percentage of missed calls in relation to the total received calls. **Formula**: (**Total Missed Calls** / **Total Calls**) * 100%
Abandon Rate	The percentage of abandoned calls in relation to the total received calls. **Formula**: (**Total Abandoned Calls** / **Total Calls**) * 100%
SLA	The Service Level Agreement (SLA) for the queue. SLA is the percentage of conversations answered within a predefined amount of time. **Formula**: (**The Number of Calls Answered within SLA Time)** / **Total Calls**) * 100%

Metrics for queue call



Metric	Description
ID	A unique ID for the call.
Time	When the call was received.
Call From	The number and the name of the caller.
Queue	The queue that received the call.
Agent	The agent who answered the call. **Note:** If the call was not answered, **None** is displayed.
Status	Call status. • **Answered** • **Abandoned** • **Missed**
Ring Duration	• For answered calls, this indicates the time between the call started and the call was answered. • For abandoned or missed calls, this indicates the time between the call started and the call disconnected.
Talk Duration	The time between the call answered and the call ended.
Hold Duration	The total amount of time that the call was held.
Reason	The reason why the call was not answered by the agent or why the call ended.

Queue Callback Summary Report

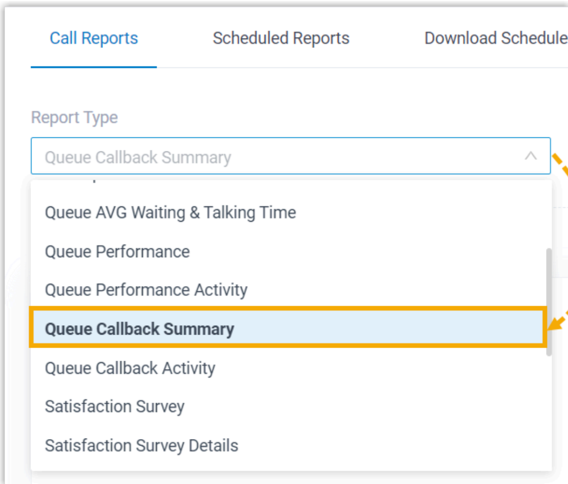
Queue Callback Summary report provides a quick overview of queue callback statistics. This topic introduces how to access the report and explains the key metrics in detail.

Prerequisites

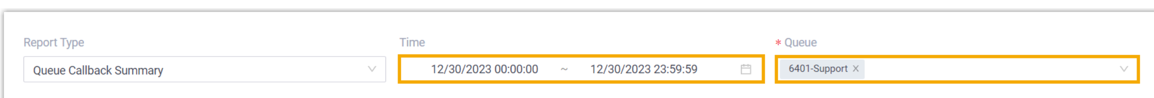
You have subscribed to **Enterprise Plan** or **Ultimate Plan**.

Access Queue Callback Summary report

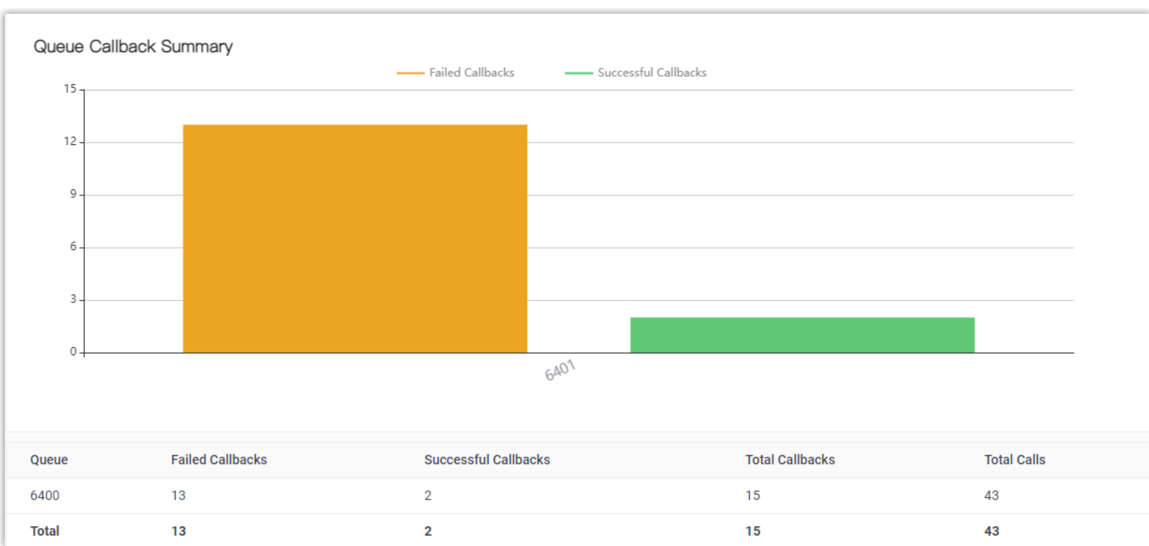
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Queue Callback Summary**.



3. Filter data by system time and queue(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Report details

The key metrics for **Queue Callback Summary** report is shown below.

Metric	Description
Failed Callbacks	The number of failed callbacks.
Successful Callbacks	The number of successful callbacks.
Total Callbacks	The total number of callbacks for which callers requested successfully.
Total Calls	The total number of calls that the queue received.

Queue Callback Activity Report

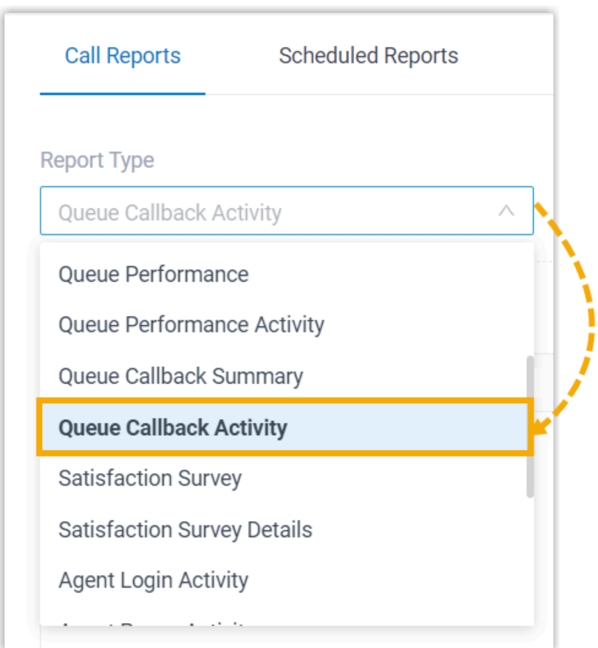
Queue Callback Activity report provides granular insights into queue callback statistics. This topic introduces how to access the report and explains the key metrics in detail.

Prerequisites

You have subscribed to **Enterprise Plan** or **Ultimate Plan**.

Access Queue Callback Activity report

1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Queue Callback Activity**.



3. Filter data by system time, queue, or callback result.

A report that meets the filter criteria is displayed on the page, as shown below.

Time	Call From	Callback Time	Callback Number	Waiting Time	Callback Result	Failed Reason
01/07/2022 16:43:15	6400-test:2000<2000>	01/07/2022 16:44:25	666665	00:01:10	Succeeded	
01/07/2022 16:37:55	6400-test:2000<2000>	01/07/2022 16:39:00	99999	00:01:05	Failed	Customer no answer
01/07/2022 16:34:28	6400-test:2000<2000>	01/07/2022 16:35:37	333333	00:01:09	Failed	Customer no answer
01/07/2022 16:08:00	6400-test:2000<2000>	01/07/2022 16:09:48	785469	00:01:48	Failed	Customer no answer
01/07/2022 15:38:08	6400-test:2000<2000>	01/07/2022 15:41:08	999999	00:03:00	Failed	No available agents
01/07/2022 15:19:45	6400:2000<2000>	01/07/2022 15:21:09	569875	00:01:24	Failed	Hang up by the agent
01/07/2022 15:09:32	6400:2000<2000>	01/07/2022 15:10:53	99999	00:01:21	Succeeded	
01/07/2022 14:16:54	6400:2000<2000>	01/07/2022 14:21:54	66666	00:05:00	Failed	No available agents
01/07/2022 14:13:35	6400:2000<2000>	01/07/2022 14:14:05	563942	00:00:30	Failed	No available agents
01/07/2022 14:10:31	6400:2000<2000>	01/07/2022 14:11:01	964583	00:00:30	Failed	No available agents
01/07/2022 14:05:58	6400:2000<2000>	01/07/2022 14:06:28	85643	00:00:30	Failed	No available agents
01/07/2022 14:02:11	6400:2000<2000>	01/07/2022 14:02:41	695423	00:00:30	Failed	No available agents
01/07/2022 13:59:38	6400:2000<2000>	01/07/2022 14:00:19	85689	00:00:41	Failed	No available agents
01/07/2022 13:56:23	6400:2000<2000>	01/07/2022 13:56:57	965482	00:00:34	Failed	No available agents
01/07/2022 13:55:27	6400:2000<2000>	01/07/2022 13:55:55		00:00:28	Failed	Invalid callback number
Total			**15**	**00:19:40**		

Report details

The key metrics for **Queue Callback Activity** report is shown below.

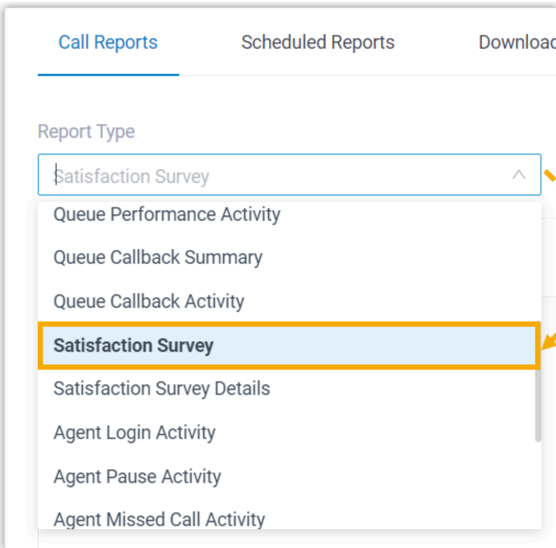
Metric	Description
Time	The time that the caller called to the queue.
Call From	The caller's caller ID.
Callback Time	The time that the system performed the callback.
Callback Number	The callback number that the caller registered.
Waiting Time	The time between the call started and the callback answered.
Callback Result	Whether the callback is successful or not.
Failed Reason	The reason that failed to make the callback.

Satisfaction Survey Report

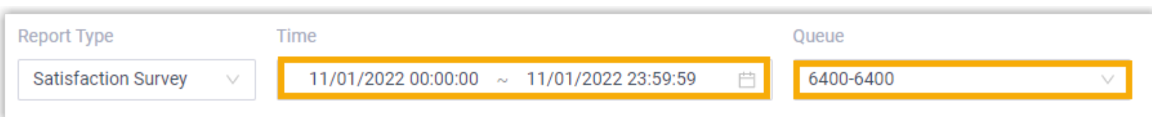
Satisfaction Survey report provides a quick overview of the key pressed collected from callers for a queue and its agents. This topic introduces how to access the report and explains the key metrics in detail.

Access Satisfaction Survey report

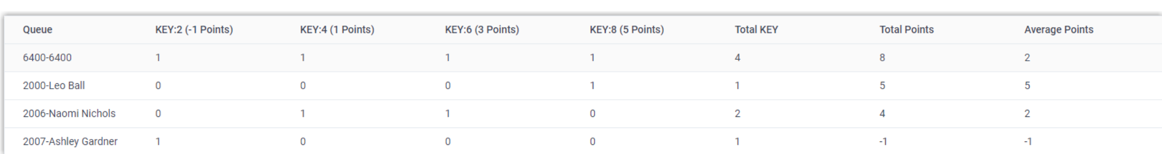
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Satisfaction Survey**.



3. Filter data by system time and queue.



A report that meets the filter criteria is displayed on the page, as shown below.



Queue	KEY:2 (-1 Points)	KEY:4 (1 Points)	KEY:6 (3 Points)	KEY:8 (5 Points)	Total KEY	Total Points	Average Points
6400-6400	1	1	1	1	4	8	2
2000-Leo Ball	0	0	0	1	1	5	5
2006-Naomi Nichols	0	1	1	0	2	4	2
2007-Ashley Gardner	1	0	0	0	1	-1	-1

Report details

The key metrics for **Satisfaction Survey** report is shown below.

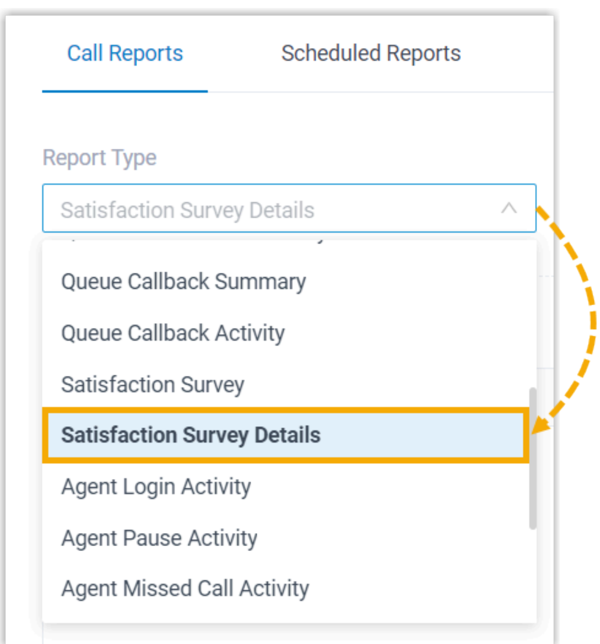
Metric	Description
KEY: `{key_pressed}`(`{numeric}` Points)	The key pressed by caller and corresponding score for the key.
Total KEY	The total number of keys that were collected for the queue or an agent.
Total Points	The total satisfaction survey scores for the queue or an agent.
Average Points	The average satisfaction survey scores for the queue or an agent. **Formula**: **Total Points** / **Total KEY**, where the calculated average points will be truncated to two decimal places without rounding up.

Satisfaction Survey Details Report

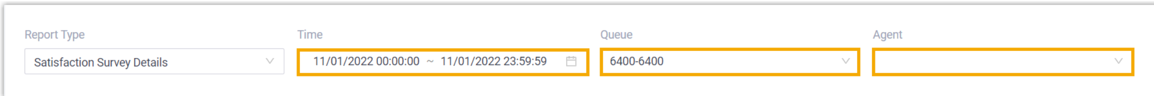
Satisfaction Survey Details report provides granular insights into customers' feedbacks on each queue call handled by an agent. This topic introduces how to access the report and explains the key metrics in detail.

Access Satisfaction Survey Details report

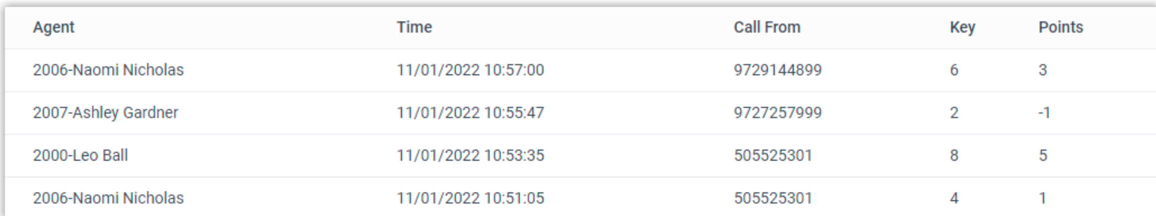
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Satisfaction Survey Details**.



3. Filter data by system time, queue, or agent(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Agent	Time	Call From	Key	Points
2006-Naomi Nicholas	11/01/2022 10:57:00	9729144899	6	3
2007-Ashley Gardner	11/01/2022 10:55:47	9727257999	2	-1
2000-Leo Ball	11/01/2022 10:53:35	505525301	8	5
2006-Naomi Nicholas	11/01/2022 10:51:05	505525301	4	1

Report details

The key metrics for **Satisfaction Survey Details** report is shown below.

Metric	Description
Time	The time that the caller called to the queue.
Call From	The caller's caller ID.
Key	The key that the caller pressed to rate the agent's service.
Points	The score for the key pressed.

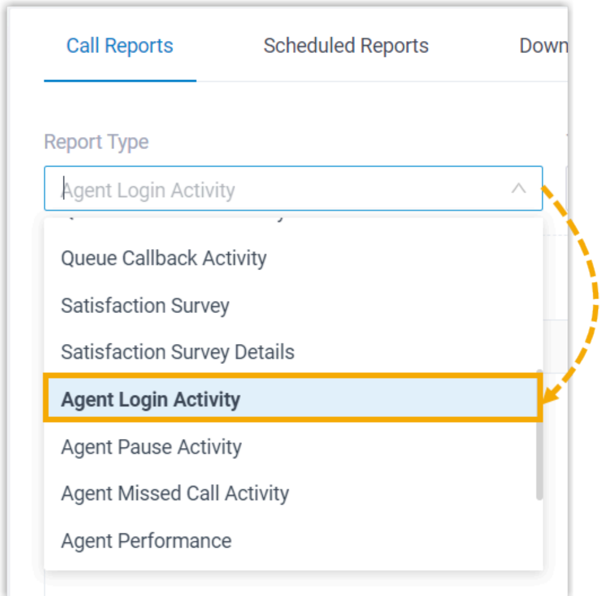
Agent Performance Reports

Agent Login Activity Report

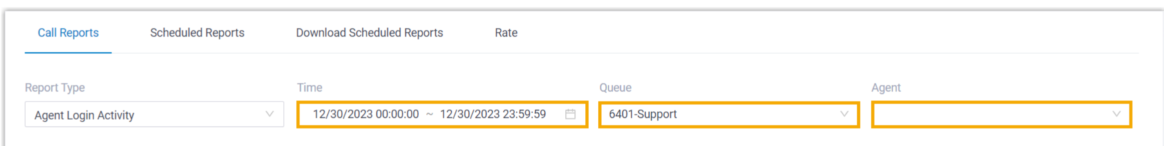
Agent Login Activity report provides a quick overview of the login and logout activities of queue agents. This topic introduces how to access the report and explains the key metrics in detail.

Access Agent Login Activity report

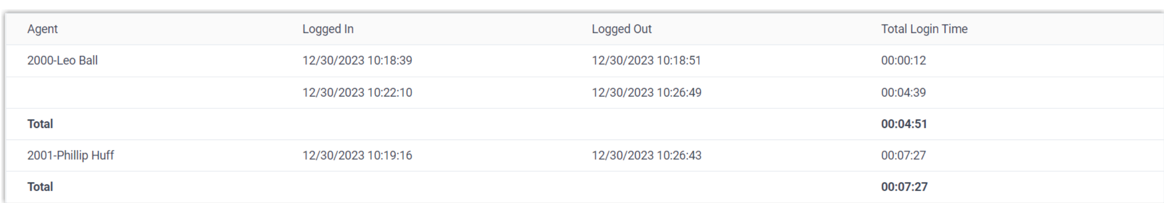
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Agent Login Activity**.



3. Filter data by system time, queue, or agent(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Agent	Logged In	Logged Out	Total Login Time
2000-Leo Ball	12/30/2023 10:18:39	12/30/2023 10:18:51	00:00:12
	12/30/2023 10:22:10	12/30/2023 10:26:49	00:04:39
Total			**00:04:51**
2001-Phillip Huff	12/30/2023 10:19:16	12/30/2023 10:26:43	00:07:27
Total			**00:07:27**

Report details

The key metrics for **Agent Login Activity** report is shown below.

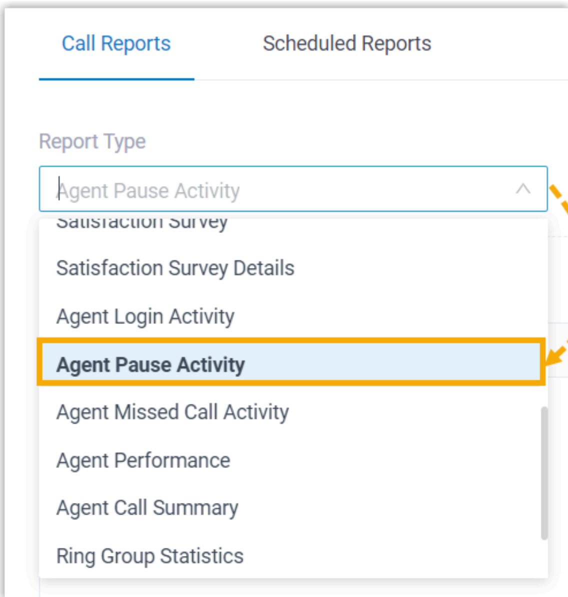
Metric	Description
Logged In	The date and time that the agent logged in to the queue.
Logged Out	The date and time that the agent logged out of the queue.
Total Login Time	The elapsed time between the login time and the logout time.

Agent Pause Activity Report

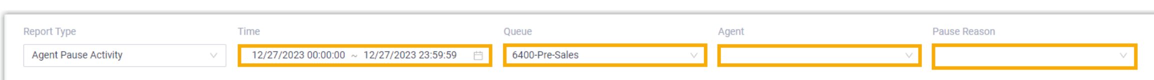
Agent Pause Activity report provides a quick overview of the pause and unpause activities of queue agents. This topic introduces how to access the report and explains the key metrics in detail.

Access Agent Pause Activity report

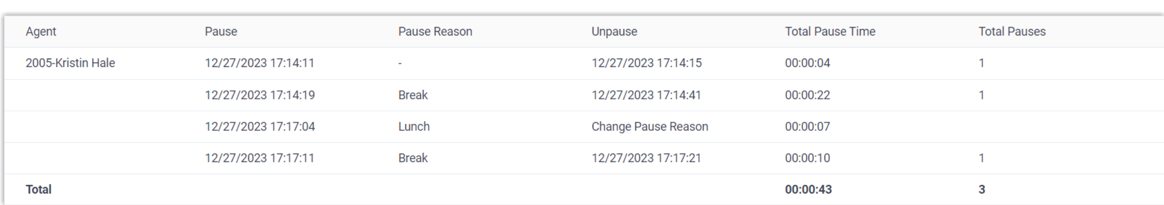
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Agent Pause Activity**.



3. Filter data by system time, queue, agent(s), or pause reason(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Agent	Pause	Pause Reason	Unpause	Total Pause Time	Total Pauses
2005-Kristin Hale	12/27/2023 17:14:11	-	12/27/2023 17:14:15	00:00:04	1
	12/27/2023 17:14:19	Break	12/27/2023 17:14:41	00:00:22	1
	12/27/2023 17:17:04	Lunch	Change Pause Reason	00:00:07	
	12/27/2023 17:17:11	Break	12/27/2023 17:17:21	00:00:10	1
Total				**00:00:43**	**3**

Report details

The key metrics for **Agent Pause Activity** report is shown below.

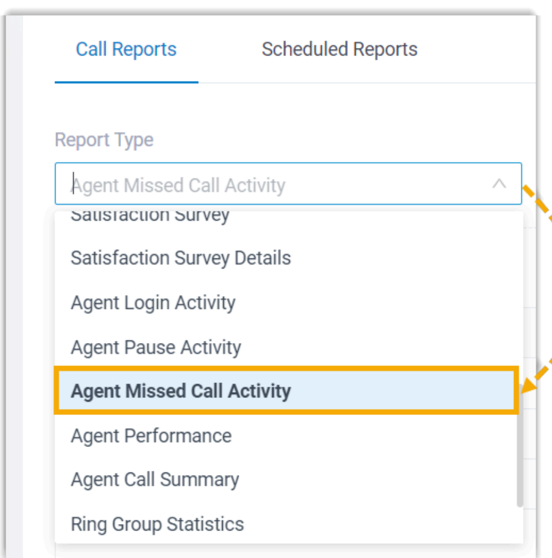
Metric	Description
Pause	The date and time that the agent switched status to **Pause**.
Pause Reason	The reason why the agent switched status to **Pause**.
Unpause	Indicate that the pause reason was changed; or display the date and time that the agent switched status to **Unpause**.
Total Pause Time	The elapsed time between switching to the current pause status and changing to another status (unpause or other pause reason).
Total Pauses	The number of times that the agent paused service, excluding changing pause reason.

Agent Missed Call Activity Report

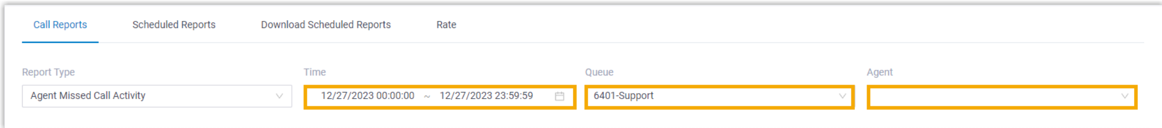
Agent Missed Call Activity report provides a quick overview of missed calls associated with individual agents. This topic introduces how to access the report and explains the key metrics in detail.

Access Agent Missed Call Activity report

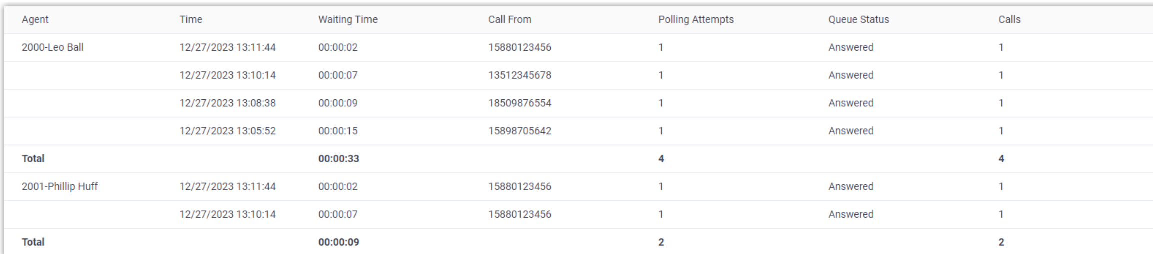
1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Agent Missed Call Activity**.



3. Filter data by system time, queue, or agent(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Agent	Time	Waiting Time	Call From	Polling Attempts	Queue Status	Calls
2000-Leo Ball	12/27/2023 13:11:44	00:00:02	15880123456	1	Answered	1
	12/27/2023 13:10:14	00:00:07	13512345678	1	Answered	1
	12/27/2023 13:08:38	00:00:09	18509876554	1	Answered	1
	12/27/2023 13:05:52	00:00:15	15898705642	1	Answered	1
Total		**00:00:33**		**4**		**4**
2001-Phillip Huff	12/27/2023 13:11:44	00:00:02	15880123456	1	Answered	1
	12/27/2023 13:10:14	00:00:07	15880123456	1	Answered	1
Total		**00:00:09**		**2**		**2**

Report details

We take the above report as an example to introduce the key metrics for **Agent Missed Call Activity** report.

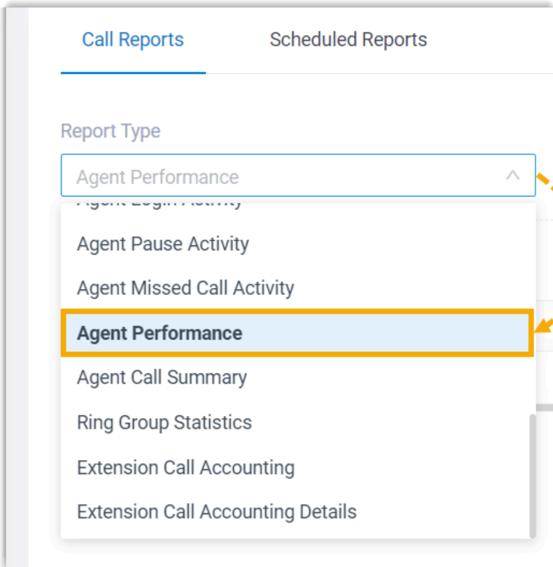
Metric	Description
Time	The date and time that the caller called to the queue.
Waiting Time	The amount of time that the caller waited before being answered or timeout.
Call From	The caller's caller ID.
Polling Attempts	The number of polling attempts to call the agent.
Queue Status	Whether the missed call was answered by other agents in the queue. • **Answered** • **No Answered**
Count	Indicate that this is a missed call, and the value is fixed at **1**.

Agent Performance Report

Agent Performance report provides a quick overview of the performance of individual agents and the associated call queue, as well as granular insights into agent calls. This topic introduces how to access the report and explains the key metrics in detail.

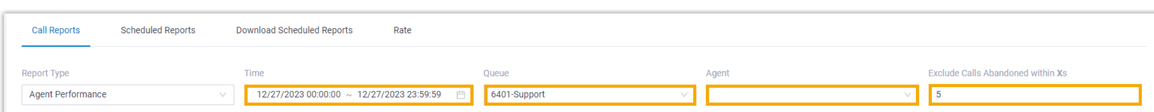
Access Agent Performance report

1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.
2. In the **Report Type** drop-down list, select **Agent Performance**.

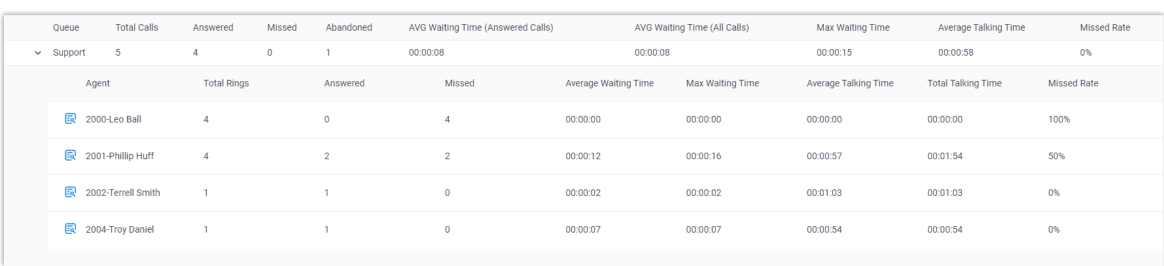


3. Filter data by system time, queue, agent(s), or call abandonment time.

> **Note:**
> To filter out abandoned short calls, specify the ring duration in the **Exclude Calls Abandoned within Xs** field. Calls abandoned within this time frame will NOT be included in the report.



A report that meets the filter criteria is displayed on the page, as shown below.



Queue	Total Calls	Answered	Missed	Abandoned	AVG Waiting Time (Answered Calls)	AVG Waiting Time (All Calls)	Max Waiting Time	Average Talking Time	Missed Rate
Support	5	4	0	1	00:00:08	00:00:08	00:00:15	00:00:58	0%

Agent	Total Rings	Answered	Missed	Average Waiting Time	Max Waiting Time	Average Talking Time	Total Talking Time	Missed Rate
2000-Leo Ball	4	0	4	00:00:00	00:00:00	00:00:00	00:00:00	100%
2001-Phillip Huff	4	2	2	00:00:12	00:00:16	00:00:57	00:01:54	50%
2002-Terrell Smith	1	1	0	00:00:02	00:00:02	00:01:03	00:01:03	0%
2004-Troy Daniel	1	1	0	00:00:07	00:00:07	00:00:54	00:00:54	0%

Report details

We take the above report as an example to introduce the key metrics for **Agent Performance** report.

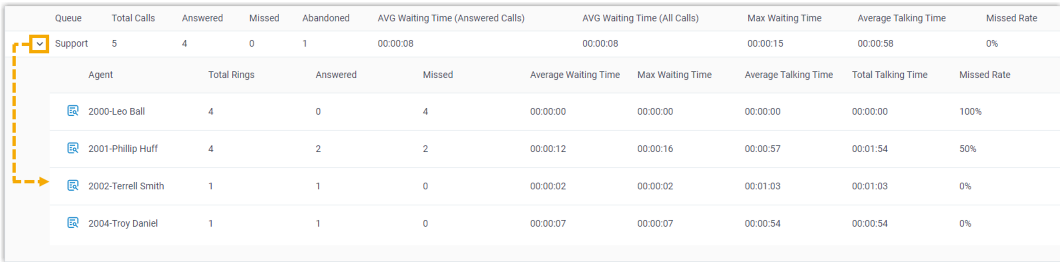
Metrics for queue

Queue	Total Calls	Answered	Missed	Abandoned	AVG Waiting Time (Answered Calls)	AVG Waiting Time (All Calls)	Max Waiting Time	Average Talking Time	Missed Rate
› Support	5	4	0	1	00:00:08	00:00:08	00:00:15	00:00:58	0%

Metric	Description
Total Calls	The total number of calls that the queue received.
Answered	The total number of calls that the queue answered.
Missed	The total number of calls that the queue missed. **Note:** A missed queue call includes, but is not limited to, the following scenarios: • A call exits the queue when the number of **Maximum Callers** is reached. • A call exits the queue when the **Maximum Waiting Time** is reached. • A call is assigned to another queue or extension by queue manager. • A caller presses a key to exit the queue and be routed to another destination.
Abandoned	The total number of calls that the callers abandoned.
AVG Waiting Time (Answered Calls)	The average amount of time that the answered calls had been waiting in the queue before being answered by agents. **Formula**: (**Total Ring Duration of Answered Calls** + **Retry Interval**) / **Total Answered Calls**
AVG Waiting Time (All Calls)	The average amount of time that all inbound calls had been waiting in the queue, regardless of whether they were answered or not. **Formula**: (**Total Ring Duration** + **Retry Interval**) / **Total Calls**
Max Waiting Time	The longest time a caller waited in the queue.
Average Talking Time	The average amount of time that agents spent talking to callers. **Formula**: **Total Talking Time** / **Total Answered Calls**

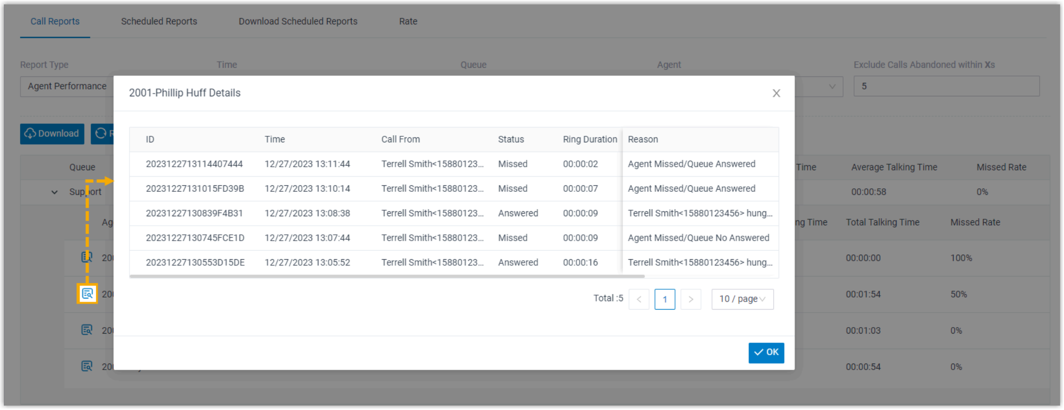
Metric	Description
Missed Rate	The percentage of missed calls in relation to the total received calls. **Formula**: (**Total Missed Calls** / **Total Calls**) * 100%

Metrics for agents



Metric	Description
Total Rings	The total number of calls that the agent received. **Formula**: **Answered** + **Missed**
Answered	The total number of calls that the agent answered.
Missed	The total number of calls that the agent missed. **Note:** If a call is distributed to an agent multiple times, the number of missed calls will be cumulated instead of counting only one missed call.
Average Waiting Time	The average amount of time that the answered calls had been waiting in the queue before being answered by the agent. **Formula**: **Total Ring Duration of Answered Calls** / **Answered**
Max Waiting Time	The longest waiting time of the answered calls.
Average Talking Time	The average amount of time that the agent spent talking to callers. **Formula**: **Total Talk Duration** / **Answered**
Total Talking Time	The total amount of time that the agent spent talking to callers.
Missed Rate	The percentage of missed calls in relation to the total received calls. **Formula**: (**Missed** / **Total Rings**) * 100%

Metrics for agent call logs



Metric	Description
ID	A unique ID for the call.
Time	When the call was received.
Call From	The number and the name of the caller.
Status	Call status for the agent. • **Answered** • **Missed**
Ring Duration	• For answered calls, this indicates the time between the call started and the call answered. • For missed or abandoned calls, this indicates the time between the call started and the call disconnected.
Talk Duration	The time between the call answered and the call ended.
Polling Attempts	The number of polling attempts to call the agent.
Reason	The reason why the call was not answered by the agent or why the call ended.

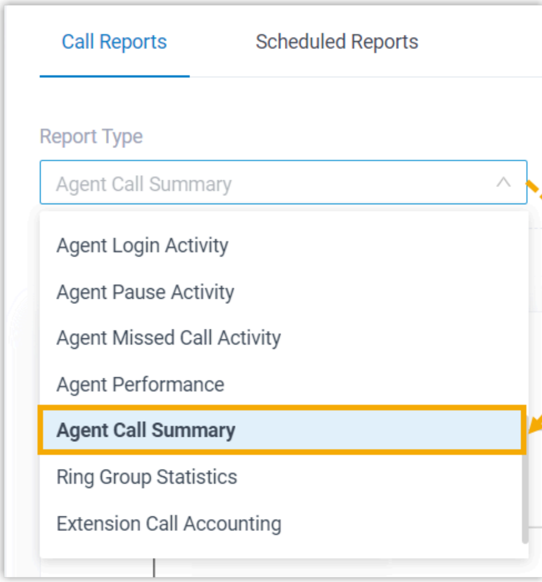
Agent Call Summary Report

Agent Call Summary report provides a quick overview of the internal calls and inbound calls received by queue agents, as well as the outbound calls that were made by queue agents. This topic introduces how to access the report and explains the key metrics in detail.

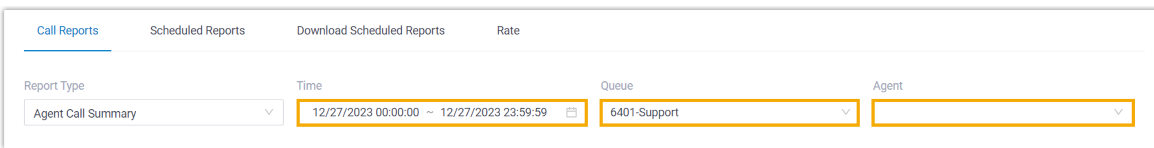
Access Agent Call Summary report

1. Log in to PBX web portal, go to **Reports and Recordings > Call Reports**.

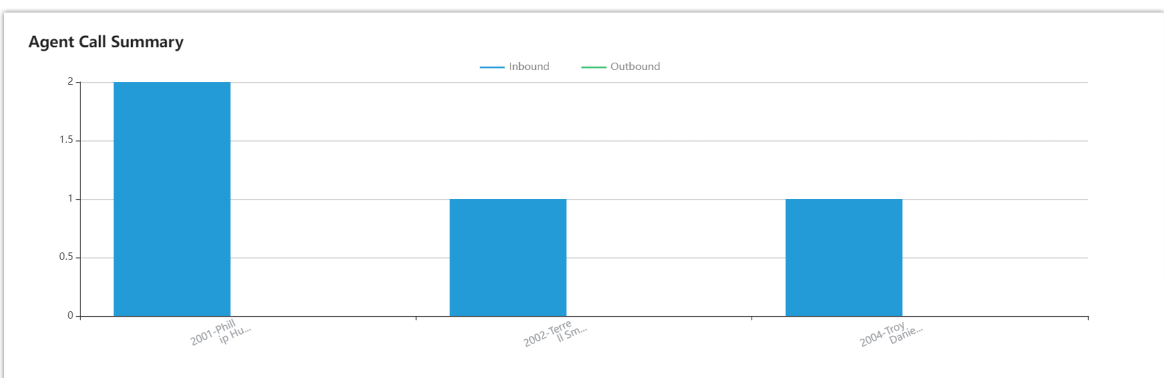
2. In the **Report Type** drop-down list, select **Agent Call Summary**.



3. Filter data by system time, queue, or agent(s).



A report that meets the filter criteria is displayed on the page, as shown below.



Agent	Inbound	Talk Duration	Outbound	Talk Duration	Total Calls	Total Talk Duration	AVG Handle Time	Average Talking Time	AVG Hold Time	Average Waiting Time
2001-Phillip Huff	2	00:01:54	0	00:00:00	2	00:01:54	00:01:09	00:00:57	00:00:00	00:00:12
2002-Terrell Smith	1	00:01:03	0	00:00:00	1	00:01:03	00:01:05	00:01:03	00:00:00	00:00:02
2004-Troy Daniel	1	00:00:54	0	00:00:00	1	00:00:54	00:01:01	00:00:54	00:00:00	00:00:07
Total	**4**	**00:03:51**	**0**	**00:00:00**	**4**	**00:03:51**	**00:01:06**	**00:00:57**	**00:00:00**	**00:00:08**

Report details

The key metrics for **Agent Call Summary** report is shown below.

Metric	Description
Inbound	The number of internal calls and inbound calls that the agent received.
Talk Duration	The amount of time that the agent spent in internal calls and inbound calls.
Outbound	The number of outbound calls that the agent made.
Talk Duration	The amount of time that the agent spent in outbound calls.
Total calls	The total number of internal calls, inbound calls, and outbound calls handled by the agent.
Total Talk Duration	The total amount of time that the agent spent in internal calls, inbound calls, and outbound calls.
AVG Handle Time	The average amount of time that the agent spent in handling the answered calls. **Formula**: (**Total Ring Duration of Answered Calls** + **Total Talk Duration of Answered Calls**) / **Total Answered Calls**
Average Talking Time	The average amount of time that the agent spent in internal calls, inbound calls, and outbound calls. **Formula**: **Total Talk Duration** / **Total Answered Calls**
AVG Hold Time	The average amount of time that calls were held. **Formula**: **Total Hold Duration** / **Total Answered Calls**
Average Waiting Time	The average amount of time that the answered calls had been waiting in the queue before being answered by the agent. **Formula**: **Total Ring Duration of Answered Calls** / **Total Answered Calls**

Queue Preferences

This topic describes the queue preference settings, including distinctive ring tone, queue capacity, queue callback, service level agreement, announcement, and satisfaction survey.

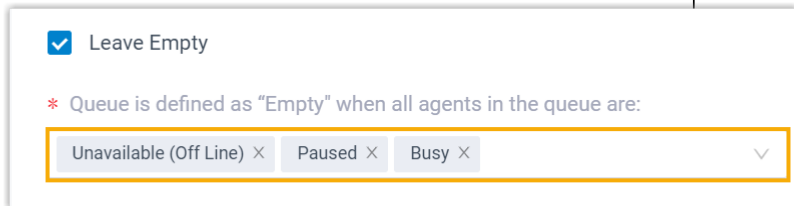
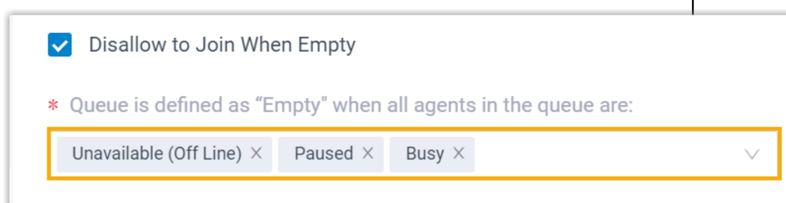
Distinctive ring tone

Setting	Description
Queue Alert Info	Set an "alert info text" to add to Alert-info header in INVITE request for queue calls. When receiving a queue call, the phone will inspect "Alert-Info" header to determine which ring tone it should use for ringing.
Linkus Client Distinctive Ringtone	Select or upload a ringtone for agent's Linkus clients.

Setting	Description
	When an agent receives a call from the queue, the designated ringtone will be played on the agent's Linkus client. **Note:** • You can manage the uploaded custom ringtones on **PBX Settings > Voice Prompt > Custom Ringtone**. • If you select an uploaded custom ringtone (rather than a built-in ringtone), it will only apply to agent's Linkus Web Client and Desktop Client for queue calls. Instead, the Linkus Mobile Client will play the ringtone configured in the app. • If the call is from a contact with a distinctive ringtone set in the agent's Linkus client, the contact's distinctive ringtone will take priority over the queue ringtone.

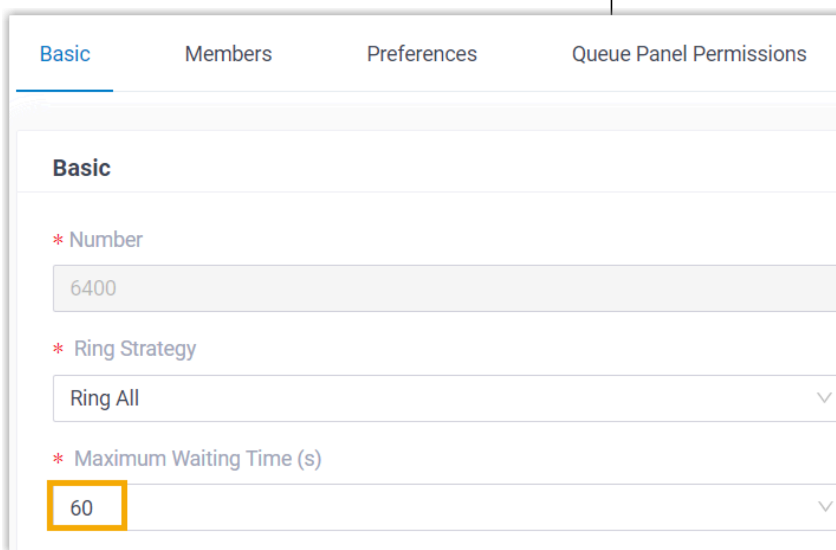
Queue capacity

Setting	Description
Maximum Callers in Queue	The maximum number of callers that can wait in the queue. The default value is 0 (unlimited). **Note:** When the number of callers waiting in queue reaches the **Maximum Callers In Queue**, the system routes the additional calls to **Failover Destination**.
Leave Empty	If enabled, callers already on hold will be forced out of a queue when no agents are available. You can define the scenario(s) in which it will be considered that there are no agents available. **Note:**

Setting	Description
	When all agents are logged out, the queue is considered Empty by default. 
Disallow to Join When Empty	If enabled, callers can NOT join a queue where no agents are available. You can define the scenario(s) in which it will be considered that there are no agents available. **Note:** When all agents are logged out, the queue is considered Empty by default. 

Callback

Setting	Description
Request Callback Method	Define how a caller can request a callback when the queue is busy.
Digit to press	Define what digit a caller can press to request a callback when the queue is busy. **Note:** The option is available only when **Request Callback Method** is set to **Triggered by caller input**.
Timeout (s)	Define the amount of time (in seconds) that a caller can wait in the queue. After the timeout, the system will play the callback option to the caller automatically.

Setting	Description
	Note: The option is available only when **Request Callback Method** is set to **Auto triggered after the timeout**.
Callback Outbound Prefix	Define the prefix of outbound route, which will be used to call the callback number. **Note:** All agents in this queue must have permission to use this outbound route, or the callback would fail.
Callback Timeout	Define how long a callback request can be reserved in the queue. If there are no available agents in the queue within the timeout period, the callback request will be cancelled. • **Enable Queue's Maximum Waiting Time**: Use the timeout period configured in **Queue > Basic > Maximum Waiting Time (s)**.  • **Custom**: Set a custom timeout period in the **Timeout (s)** field. **Note:** The value should be less than the queue's **Maximum Waiting Time (s)**.

Priority queue

Setting	Description
Weight	Specify the initial weight of a queue. You can enter a number between 1 and 999. The larger the number, the greater the weight. The system will compare the weight of multiple queues, and assign incoming calls from the queue with a greater weight to agents first. For example, calls in a queue with a weight of 2 will be answered more quickly than that in a queue with a weight of 1.
Enable Acceleration Weight	Enable acceleration weight to dynamically adjust queue weight according to the waiting time of an incoming call in the queue, so as to avoid the calls in a low-priority queue being waited for too long,
Acceleration (s)	Specify the amount of time a call has been waiting in the queue before the weight is increased by **1**. This ensures that calls with longer waiting time can be prioritized through accelerated weighting, enabling them to be answered more quickly. You can enter a number between 10 and 1800. The system will calculate the total queue weight based on the initial queue weight and the waiting time of a call according to the following formula: **Queue Weight** = **Weight** + (**Waiting Time** / **Acceleration**) * 1 **Note:** If there are decimals in the result, the value will be rounded.

Service level agreement

Setting	Description
SLA Time(s)	The maximum amount of time (in seconds) that an agent needs to answer an incoming call. The default SLA time is 60 seconds.
Evaluation Interval(min)	The time interval to compare the queue's SLA performance against the alarm threshold, so the system can send a notification email accordingly.

Setting	Description
Alarm Threshold(%)	The service level threshold for the queue. The default alarm threshold is 80%.

Satisfaction survey

Setting	Description
Satisfaction Survey Prompt	The prompt played to caller to ask the caller to rate their satisfaction scale after the agent hangs up. The default prompt is "Please rate your satisfaction with our service, press 1 for satisfied, press 2 for dissatisfied. Thank you.". "Thanks for your calling, goodbye." is prompted after the caller presses a key.
End Prompt	The prompt played to callers after they press the key to rate agent's service. **Note:** This option is only available when the **Satisfaction Survey Prompt** has been specified.
Satisfaction Survey Points	The scores for the keys that the caller can press to rate an agent's service. **Note:** This allows you to collect customer feedback and gain valuable insight into agent performance. You can check satisfaction survey score in **Satisfaction Survey** report and **Satisfaction Survey Details** report. For more information, see Satisfaction Survey Report and Satisfaction Survey Details Report.

Key Press Event

Setting	Description
Key	The caller can press the key to enter the specific destination when waiting in queue. Generally, set a **Periodic Announcements** to guide the callers to press the key.

Setting	Description
Key Destination	The destination to route the call when the caller presses a key. • **Hang up**: End the current call. • **Extension**: Route the call to the specified extension. • **Extension Voicemail**: Route the call to voicemail box of the specified extension. • **Group Voicemail**: Route the call to group voicemail box of a queue, a ring group, or a custom group. • **IVR**: Route the call to the specified IVR. • **Call Flow**: Route the call to the specified call flow. • **Ring Group**: Route the call to another ring group. • **Queue**: Route the call to the specified queue. • **External Number**: Route the call to an external number. • **Play Prompt and Exit**: Play a custom prompt, and then hang up the call.

Manage Call Queues

You can not change the queue number after setting up a queue. This topic describes how to edit a queue, and delete queues.

Edit a queue

You can manage the agents, change the ring strategy, or other queue settings.

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. Click beside the queue that you want to edit.
3. Change the queue settings according to your needs.
4. Click **Save** and **Apply**.

Delete queues

1. Log in to PBX web portal, go to **Call Features > Queue**.
2. To delete a queue, do the followings:
    a. Click beside the queue that you want to delete.
    b. Click **OK** and **Apply**.
3. To delete queues in bulk, do the followings:

a. Select the checkboxes of the queues that you want to delete, click **Delete**.
b. Click **OK** and **Apply**.

Supervisor Guide

Call Center Supervisor Guide

This guide provides step-by-step procedures on how you can manage queues and monitor agents on the Call Center Console dashboards - **Wallboard** and **Queue Panel**, and describes how to manage queue call logs on your Linkus UC Clients.

Audience

This guide is intended for call center managers (supervisors) and authorized agents with responsibilities that include managing and monitoring the performance of call queue and agents, as well as ensuring that the call center meets established service level and goals.

> **Note:**
> For guidance on introducing operations to agents that responsible for handling queue calls only, see Call Center Agent Guide.

Call Center management tools

Yeastar P-Series PBX System supports tools such as Wallboard, Queue Panel, and Queue Call Logs, providing call metrics, real-time performance data, and detailed call records to help you monitor and optimize Call Center operations.

- **Wallboard**: Displays call center metrics and KPIs to allow you to monitor and optimize performance.

  For more information, see Wallboard Overview.
- **Queue Panel**: Shows the call metrics and agents' performance in real time, and offer a comprehensive view on activity of call. It is available for you to manage queue calls.

  For more information, see Queue Panel Overview.
- **Queue Call logs**: Shows the call records in a queue in real-time, allowing you to check and manage queue call logs on Linkus UC Clients.

  For more information, see Manage Queue Call Logs.

Wallboard

Wallboard Overview

The Wallboard allows you to easily view real-time information related to queues. This topic describes what you can do on Wallboard and the views displayed on the Wallboard.

> **Note:**
> Wallboard is only available for call center managers (supervisors), and specific agents who have been granted permission by system administrator.

Requirements

To access and use the Wallboard, make sure that your Linkus Web Client and Linkus Desktop Client meet the following requirements.

Clients	Requirement	
Linkus Web Client	**Web Browser**	**Version**
	Google Chrome (recommended)	Chrome 87 or later
	Microsoft Edge	Edge 87 or later
	Opera	Opera 72 or later
Linkus Desktop Client	Version 1.10.2 or later	

What you can do on Wallboard

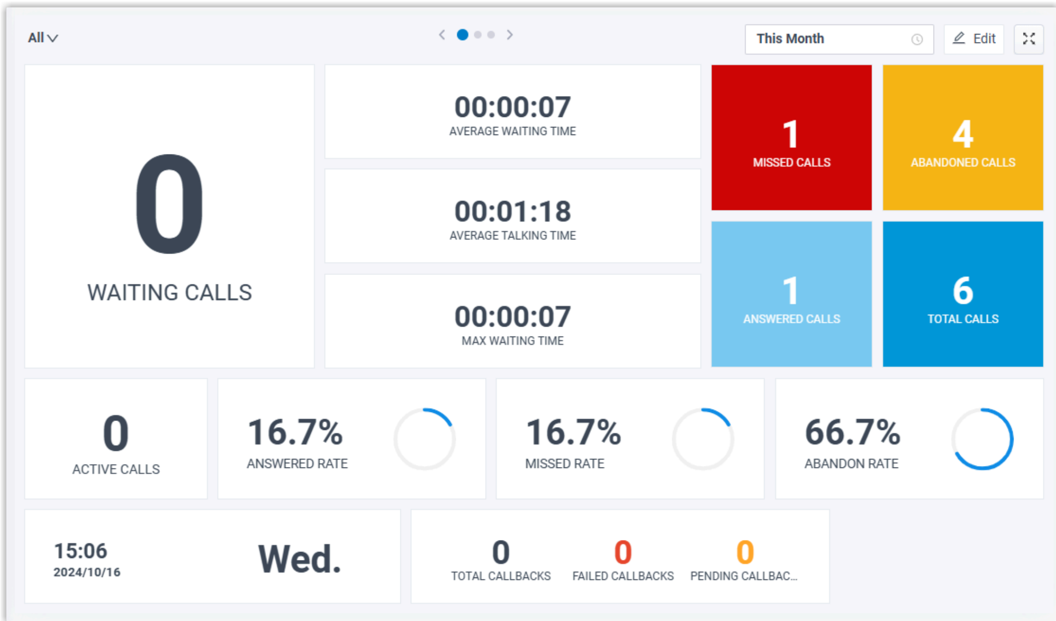
As a queue manager, you can quickly access all the important information about your queues in real time on Wallboard. Yeastar Wallboard drills down into your queue's daily, weekly, or monthly performance, providing an insight into call volumes, response rates, service level, and more.

You can display wallboard for each queue independently as needed. With a Wallboard displayed on a TV or a dedicated "wallboard", queue agents should be able to understand their performance at a glance. In this way, agents are continuously up to date with service level agreements and daily targets, which increases efficiency and workload output.

Types of Wallboard views

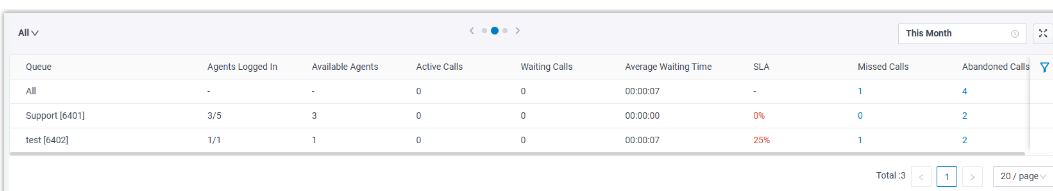
Wallboard view for queue call metrics

Provide a comprehensive display of aggregated data of all queues as well as individual queue metrics, offering a quick overview of key performance metrics.



List view for queue performance metrics

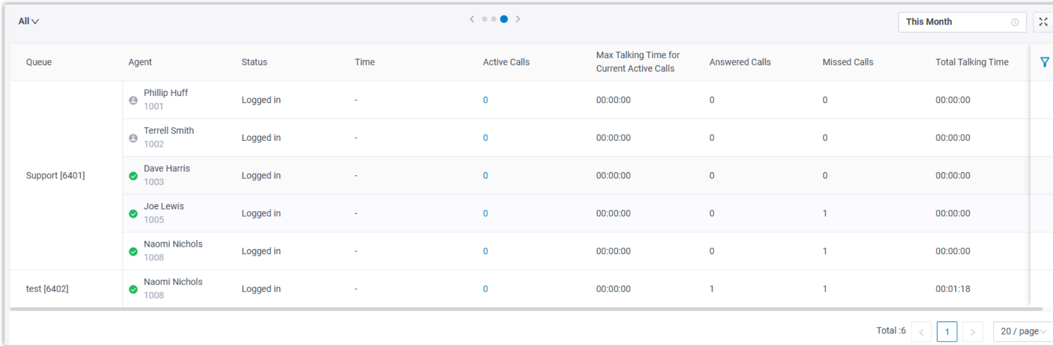
Present key performance metrics in a list format, making it easy to compare and analyze the performance of multiple queues.



Queue	Agents Logged In	Available Agents	Active Calls	Waiting Calls	Average Waiting Time	SLA	Missed Calls	Abandoned Calls
All	-	-	0	0	00:00:07	-	1	4
Support [6401]	3/5	3	0	0	00:00:00	0%	0	2
test [6402]	1/1	1	0	0	00:00:07	25%	1	2

List view for queue agent status

Track agents' presence status, logged in/out status, call statistics, and more in a clear, organized list view.



View Queue Statistics on Wallboard

As a manager of a queue or multiple queues, you can view the queue related statistics to measure the queue performance. This topic describes how to view queue related statistics.

Requirements

- **PBX server**: 37.19.0.70 or later
- **Linkus Desktop Client**: 1.13.3 or later

Prerequisites

- You are a queue manager, or an agent with wallboard access permission assigned.
- You have the permission to access Linkus Web Client or Linkus Desktop Client.
- You have get username and password as well as the server's network information (domain name or IP addresses and ports) from your system administrator.

Step 1. Access Wallboard from Linkus UC Clients

You can access Wallboard from Linkus Web Client or Desktop Client.

1. Log in to Linkus UC Clients.

Log in to Linkus Web Client

> **Tip:**
> If you have received a Linkus welcome email, you can click the login link for Linkus Web Client to quickly log in.

a. Launch your web browser, enter theIP address of Linkus Web Client, press **Enter**.

b. Enter your username and password, then click **LOG IN**.

- **Username**: Email address.
- **Password**: Extension User Password.

Log in to Linkus Desktop Client

> **Tip:**
> If you have received a Linkus welcome email, you can use the login link to quickly log in to Linkus Desktop Client.

a. Open Linkus Desktop Client.

b. Enter the login information, then click **LOG IN**.

- **Username**: Email address.
- **Password**: Extension User Password.
- **Domain**: Enter the domain name or click ⚙ to enter the IP addresses and ports.

2. Go to **Call Center Console > Wallboard**.

Step 2. Filter queue statistics

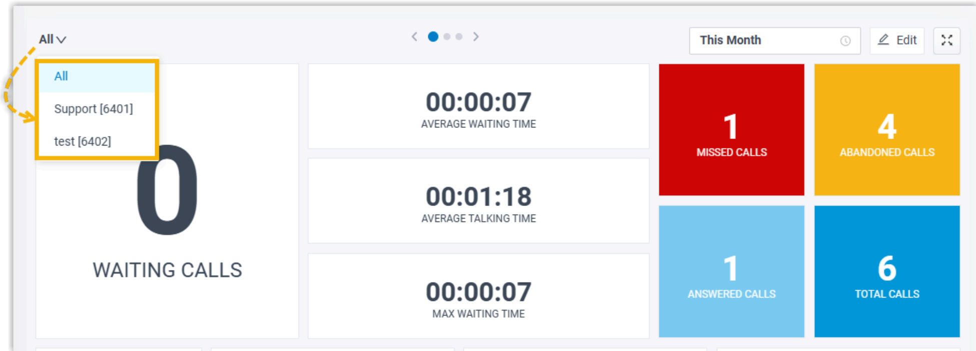
Click on the links below to check how to filter queue statistics in each view:

- Wallboard view for queue call metrics
- List view for queue performance metrics
- List view for queue agent status

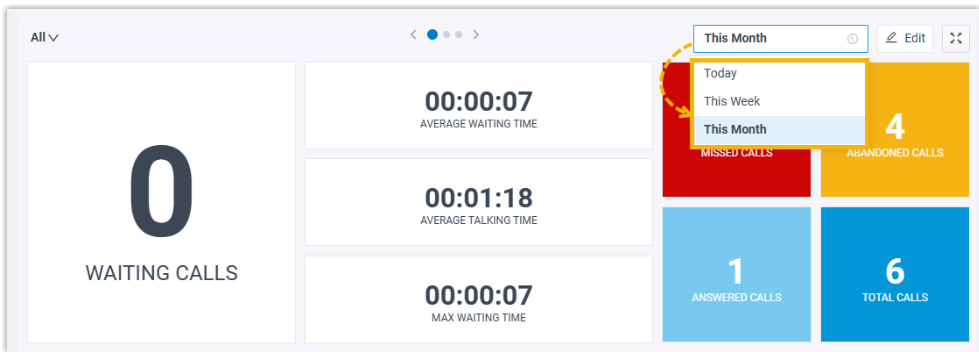
Wallboard view for queue call metrics

Wallboard view for queue call metrics provides a comprehensive display of aggregated data of all queues as well as individual queue metrics. You can choose to view the statistics of all queues or a single queue.

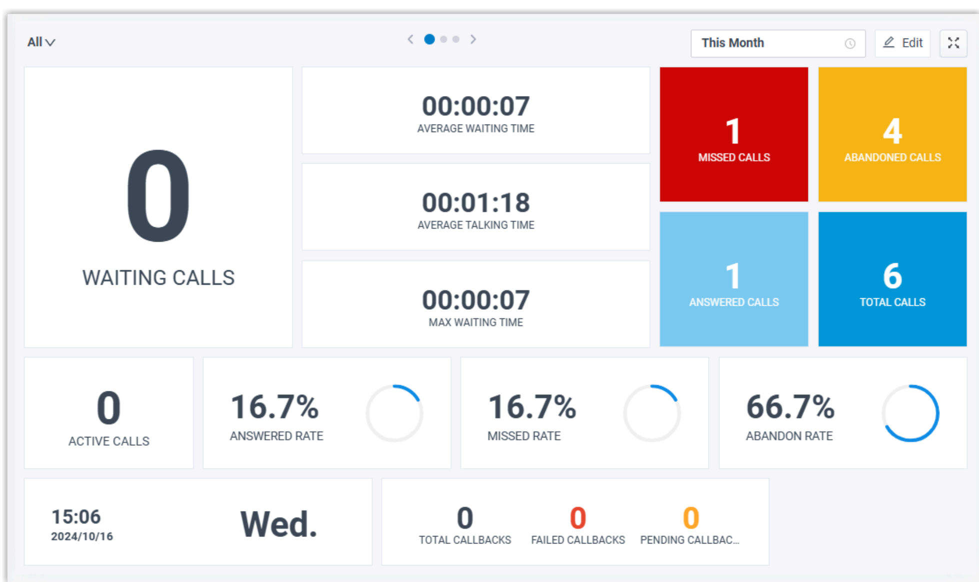
1. At the top-left corner of Wallboard, select the desired queue.



2. At the top-right corner of Wallboard, select the time range of statistics to display.



The call statistics for all queues or a single queue within the specified time range are displayed.



To understand each metric, you can refer to the table below.

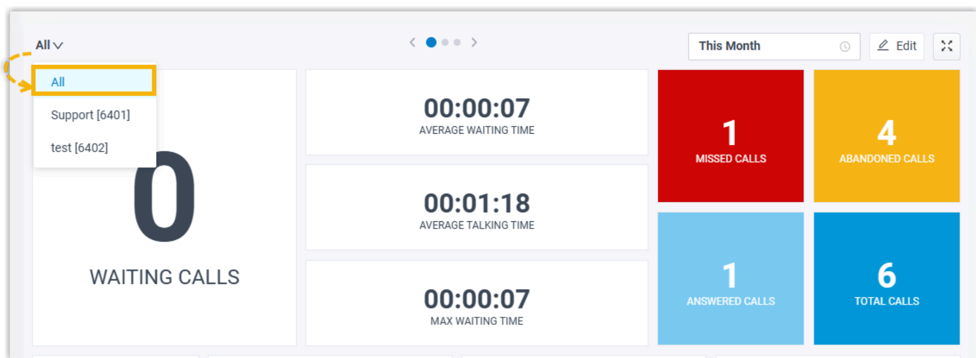
Widget	Description
DATE & TIME	Display the date and time of the PBX.
AVERAGE WAITING TIME	Display the average call waiting time for queue calls answered over a period of time.
AVERAGE TALKING TIME	Display the average amount of time that an agent spends talking to a customer.
MAX WAITING TIME	Display the maximum call waiting time for all calls answered over a period of time.
WAITING CALLS	Display the number of waiting calls in the queue.
ACTIVE CALLS	Display the number of current active calls in the queue.
ANSWERED CALLS	Display the total calls that queue answered over a period of time.
TOTAL CALLS	Display the total calls that queue received over a period of time.
MISSED CALLS	Display the total calls that queue missed over a period of time. **Tip:** You can click on the widget to view the related queue call logs and manage processing status of these call logs. Any other agents who are authorized to view the queue's call logs can see the changes you make on their Linkus clients.
ABANDONED CALLS	Display the total calls that has been abandoned over a period of time. **Tip:** You can click on the widget to view the related queue call logs and manage processing status of these call logs. Any other agents who are authorized to view the queue's call logs can see the changes you make on their Linkus clients.
ANSWERED RATE	Display the answered rate over a period of time for all calls to the queue.
MISSED RATE	Display the missed rate over a period of time for all calls to the queue.
ABANDON RATE	Display the abandon rate over a period of time for all calls to the queue.

Widget	Description
CALL BACKS	Display the following data of queue callback over a period of time: • **TOTAL CALLBACKS**: Display the total callback requests that are successfully made by callers over a period of time. • **FAILED CALLBACKS**: Display the total failed callback attempts over a period of time. • **PENDING CALLBACKS**: Display the total callbacks to be performed.

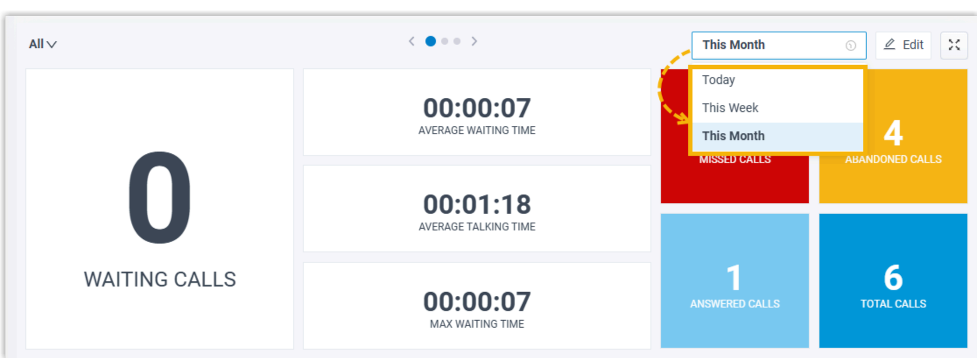
List view for queue performance metrics

List view for queue performance metrics present key performance metrics of all queues in a list format, making it easy to compare and analyze the performance of multiple queues.

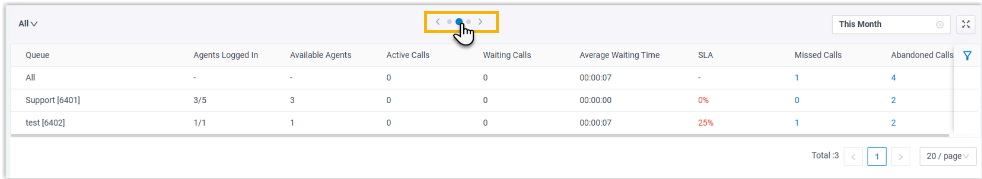
1. At the top-left corner of Wallboard, select **All**.



2. At the top-right corner of Wallboard, select the time range of statistics to display.



3. On the top of Wallboard, click the toggle button to switch to the list view.



The queue metrics for all queues within the specified time range are displayed.

To understand each metric, you can refer to the table below.

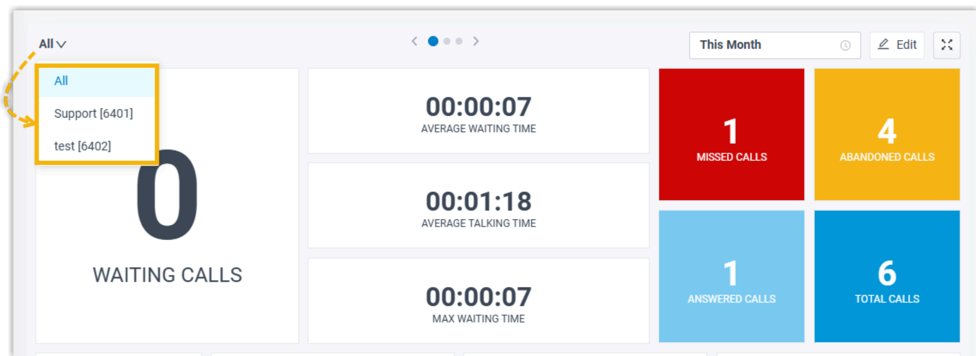
Widget	Description
Agents Logged In	Display the number of agents logged in to the queue, and the total number of agents.
Available Agents	Display the number of agents logged in the queue that are ready to take a call.
Active Calls	Display the number of current active calls in the queue.
Waiting Calls	Display the number of waiting calls in the queue.
Average Talking Time	Display the average amount of time that an agent spends talking to a customer.
Average Waiting Time	Display the average call waiting time for queue calls answered over a period of time.
Max Waiting Time	Display the maximum call waiting time for all calls answered over a period of time.
SLA	Display the Service Level Agreement (SLA) for the queue.
Missed Calls	Display the total calls that queue missed over a period of time.
Abandoned Calls	Display the total calls that has been abandoned over a period of time.
Answered Calls	Display the total calls that queue answered over a period of time.
Total Calls	Display the total calls that queue received over a period of time.
Missed Rate	Display the missed rate over a period of time for all calls to the queue.
Abandon Rate	Display the abandon rate over a period of time for all calls to the queue.
Answered Rate	Display the answered rate over a period of time for all calls to the queue.

Widget	Description
Callbacks	Display the following data of queue callback over a period of time: • **Total Callbacks**: Display the total callback requests that are successfully made by callers over a period of time. • **Failed Callbacks**: Display the total failed callback attempts over a period of time. • **Pending Callbacks**: Display the total callbacks to be performed.

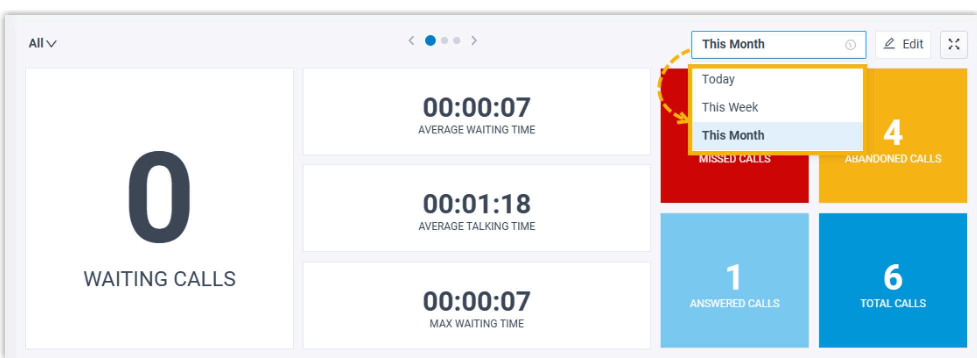
List view for queue agent status

List view for queue agent status allows you to track agents' presence status, logged in/out status, call statistics, and more in a clear, organized list view.

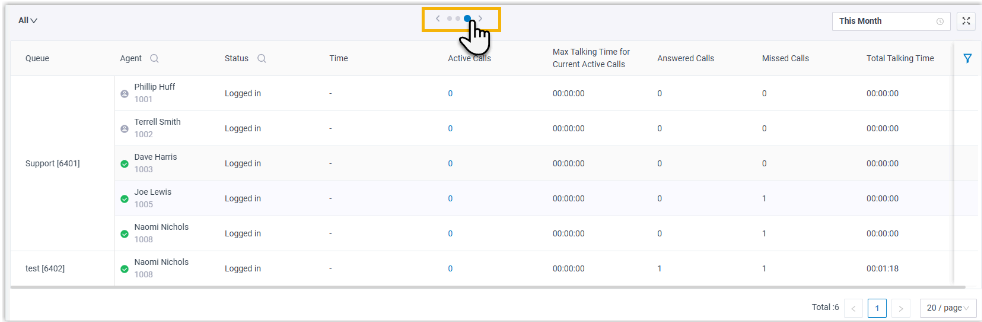
1. At the top-left corner of Wallboard, select the desired queue.



2. At the top-right corner of Wallboard, select the time range of statistics to display.



3. On the top of Wallboard, click the toggle button to switch to the list view.

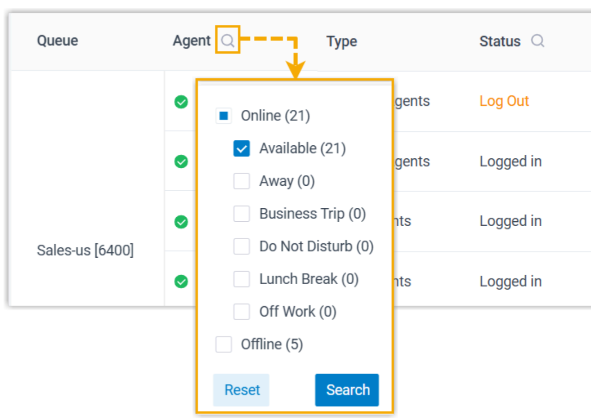


The agent status for all queues or a single queue within the specified time range are displayed.

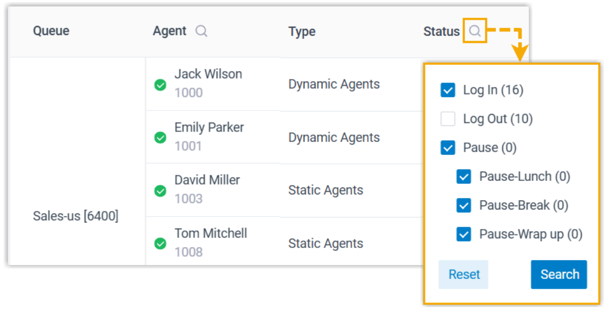
To understand each metric, you can refer to the table below.

<table>
<tr><th>Widget</th><th>Description</th></tr>
<tr><td>Queue</td><td>Display the queues you manage.</td></tr>
<tr><td>Agent</td><td>Display the name, extension number, and extension presence of agents.

You can filter the desired agents from the list by the online status of the extensions.


</td></tr>
<tr><td>Type</td><td>Display the type of agents.</td></tr>
<tr><td>Status</td><td>Display the status of agents.

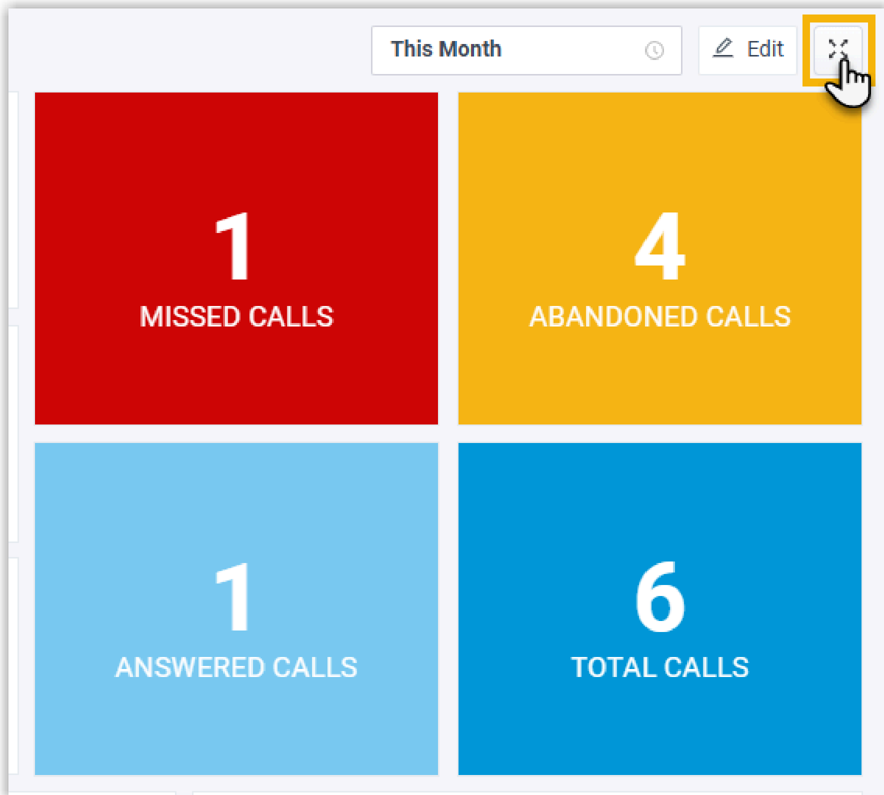
You can filter the desired agents from the list by agent status.</td></tr>
</table>

Widget	Description
	
Time	Display the time for each status. • If **Status** is **Logged in**, **Time** shows the last time the dynamic agent logged in to the queue. **Note:** For static agent, **Time** shows `-`. • If **Status** is **Log Out**, **Time** shows the last time the dynamic agent logged out of the queue. **Note:** For static agent, **Time** shows `-`. • If **Status** is **Paused**, **Time** shows how long the agent paused service.
Active Calls	Display the total number of calls in the queue that the agent is answering. **Tip:** Click on the number, then you will be redirected to Queue Panel to view the calls the agent is answering.
Max Talking Time for Current Active Calls	Display the maximum amount of time that the agent spends talking to a customer among all calls in the queue.
Answered Calls	Display the total number of calls that the agent answered over a period of time.
Missed Calls	Display the total number of calls that the agent missed over a period of time.
Total Talking Time	Display the total talking time that the agent answered queue calls over a period of time.

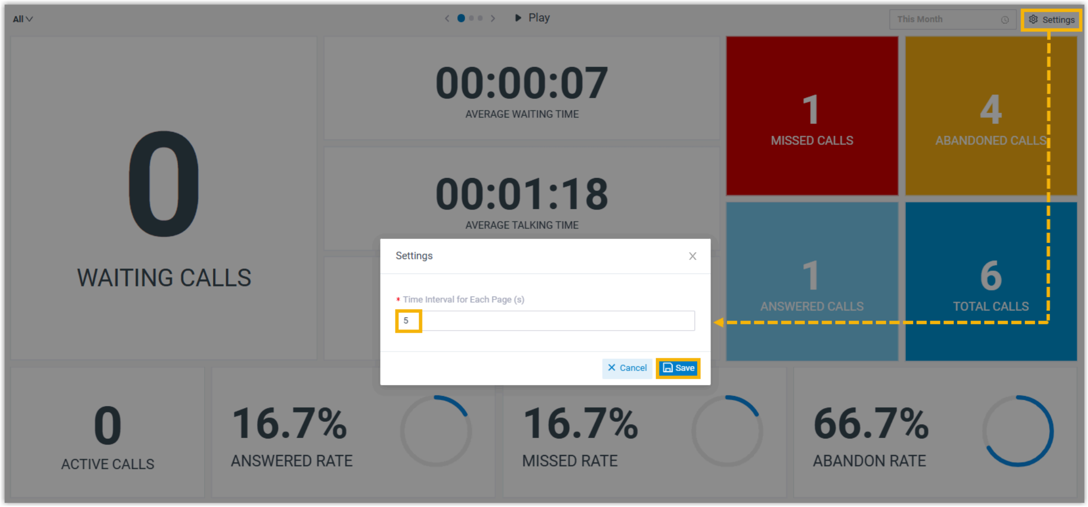
(Optional) Step 3. Display Wallboard independently

Set the Wallboard to display independently in a separate browser window.

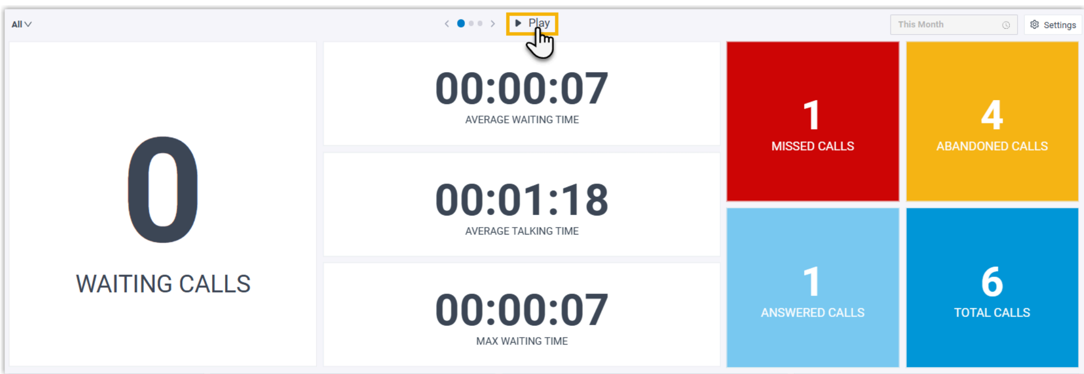
1. At the top-right corner of Wallboard, click .



2. **Optional:** Set the Wallboard to automatically toggle between wallboard view and list view with a scrolling display.
    a. At the top-right corner of Wallboard, click **Settings** to set the time to toggle, then save the setting.



b. On the top of Wallboard, click **Play**.



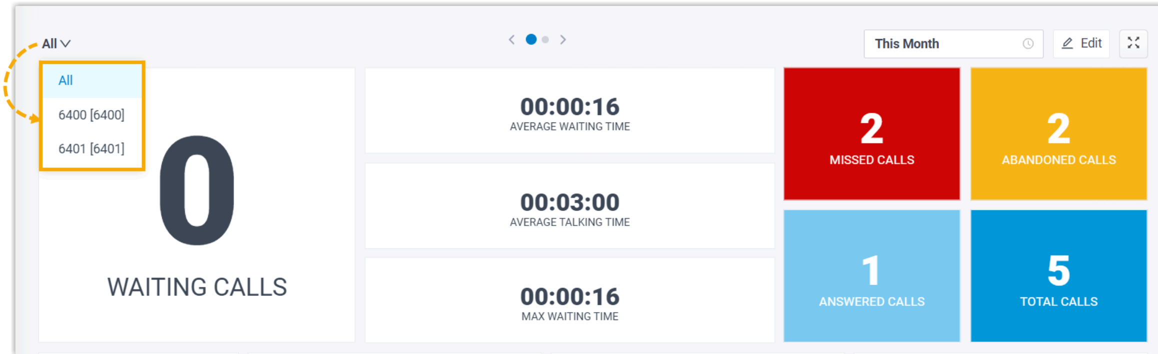
The Wallboard automatically toggles between wallboard view and list view with a scrolling display at the specified time interval.

Manage Wallboard Widgets

Widgets displayed on Wallboard are customizable. You can place a widget in a way that is easy to see. This topic describes how to add, resize, lock, delete, reset, and add a note to a widget.

Add a widget

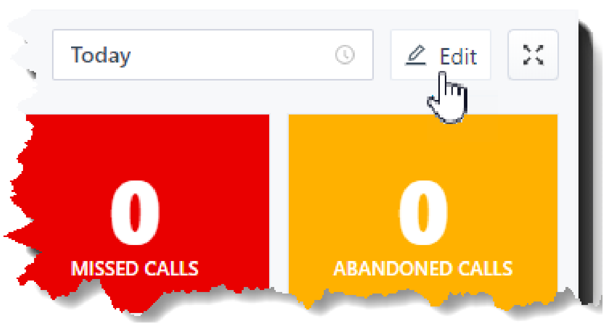
1. At the top-left corner of the Wallboard, select **All** or select a specific queue.



Note:

- If you select **All**, the changes you make to Wallboard widgets will be applied to the current view only.
- If you select a specific queue, the changes you make to Wallboard widgets will be applied to the view for all the single queue.

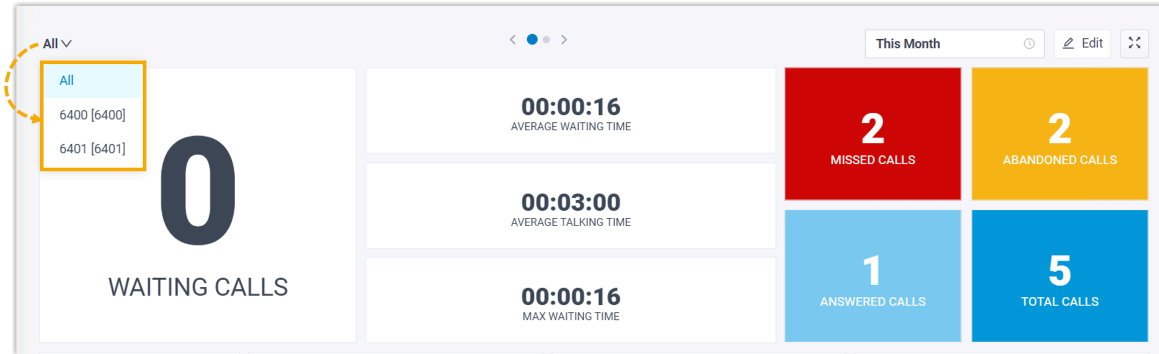
2. At the top-right corner of the Wallboard, click **Edit**.



3. Click **Add Widget**.
4. In the **Type** drop-down list, select a statistic type.
5. In the **Note** field, enter the short description according to your needs.
6. Click **Save**.

Resize a widget

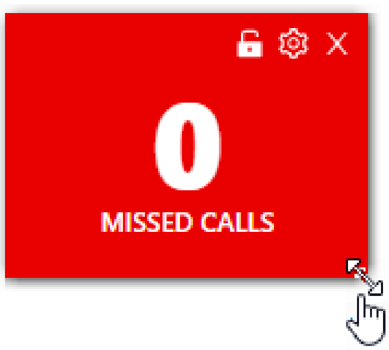
1. At the top-left corner of the Wallboard, select **All** or select a specific queue.



Note:

- If you select **All**, the changes you make to Wallboard widgets will be applied to the current view only.
- If you select a specific queue, the changes you make to Wallboard widgets will be applied to the view for all the single queue.

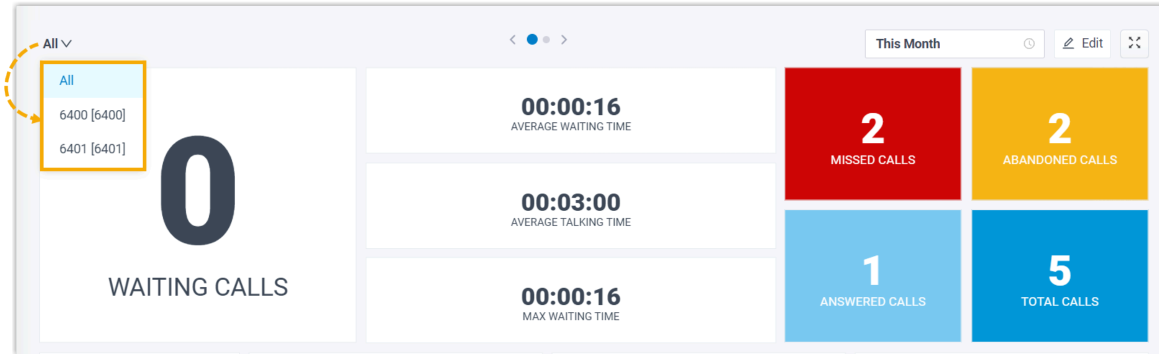
2. At the top right corner of the Wallboard, click **Edit**.
3. Hover your mouse over the lower right corner of the widget.
4. Hold the widget and then drag the border frame around it up/down and left/right to resize it.



5. Click **Save**.

Move and lock a widget on a fixed position

1. At the top-left corner of the Wallboard, select **All** or select a specific queue.



Note:

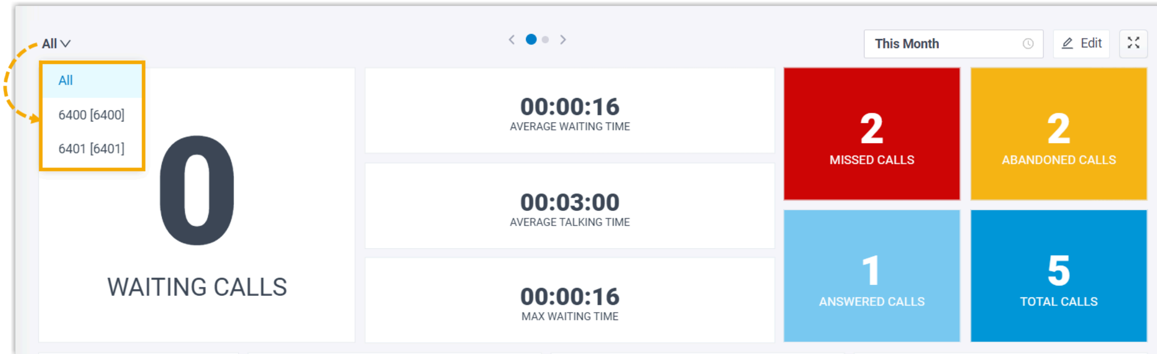
- If you select **All**, the changes you make to Wallboard widgets will be applied to the current view only.
- If you select a specific queue, the changes you make to Wallboard widgets will be applied to the view for all the single queue.

2. At the top right corner of the Wallboard, click **Edit**.
3. Move the widget to a desired position.
4. Click  on the desired widget.

5. Click **Save**.

Delete a widget

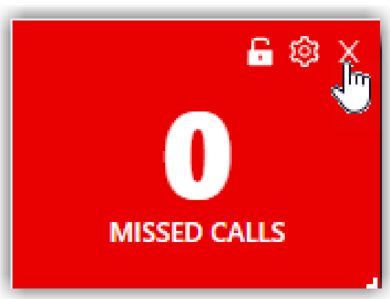
1. At the top-left corner of the Wallboard, select **All** or select a specific queue.



Note:

- If you select **All**, the changes you make to Wallboard widgets will be applied to the current view only.
- If you select a specific queue, the changes you make to Wallboard widgets will be applied to the view for all the single queue.

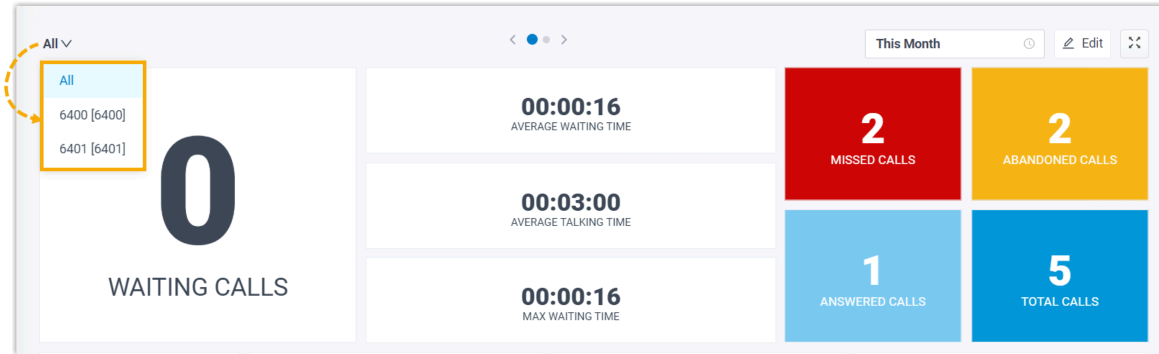
2. At the top right corner of the Wallboard, click **Edit**.
3. Click × on the desired widget.



4. Click **Save**.

Add a note to the bottom of the widget

1. At the top-left corner of the Wallboard, select **All** or select a specific queue.



Note:

- If you select **All**, the changes you make to Wallboard widgets will be applied to the current view only.
- If you select a specific queue, the changes you make to Wallboard widgets will be applied to the view for all the single queue.

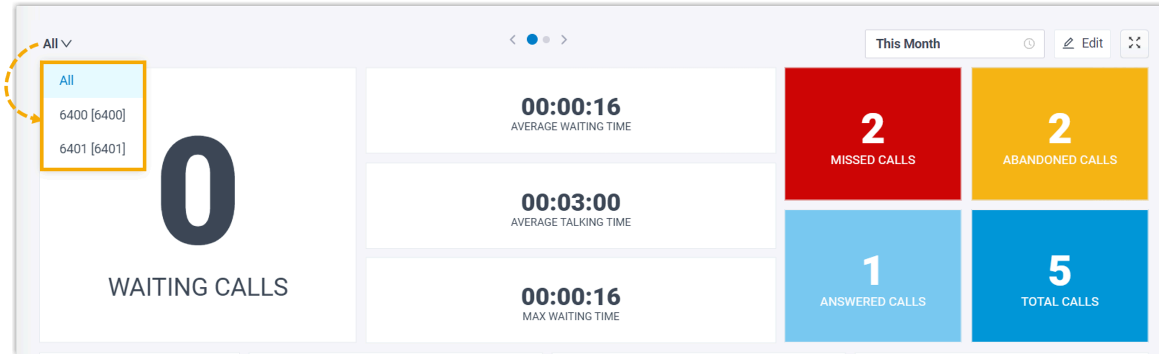
2. At the top right corner of the Wallboard, click **Edit**.
3. Click ⚙ on the desired widget.

4. In the **Note** field, enter the short description according to your needs.
5. Click **Save**.

Reset widgets

Reset widgets to the default settings and discard changes you have made.

1. At the top-left corner of the Wallboard, select **All** or select a specific queue.

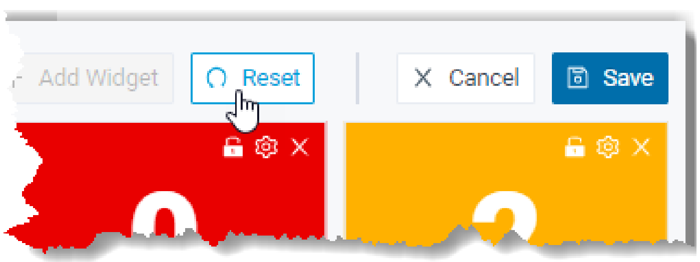


Note:

- If you select **All**, the changes you make to Wallboard widgets will be applied to the current view only.
- If you select a specific queue, the changes you make to Wallboard widgets will be applied to the view for all the single queue.

2. At the top right corner of the Wallboard, click **Edit**.
3. Click **Reset** and **Save**.

   The custom position, note, and size of the widgets will be reset to back to the default settings.



Queue Panel

Queue Panel Overview

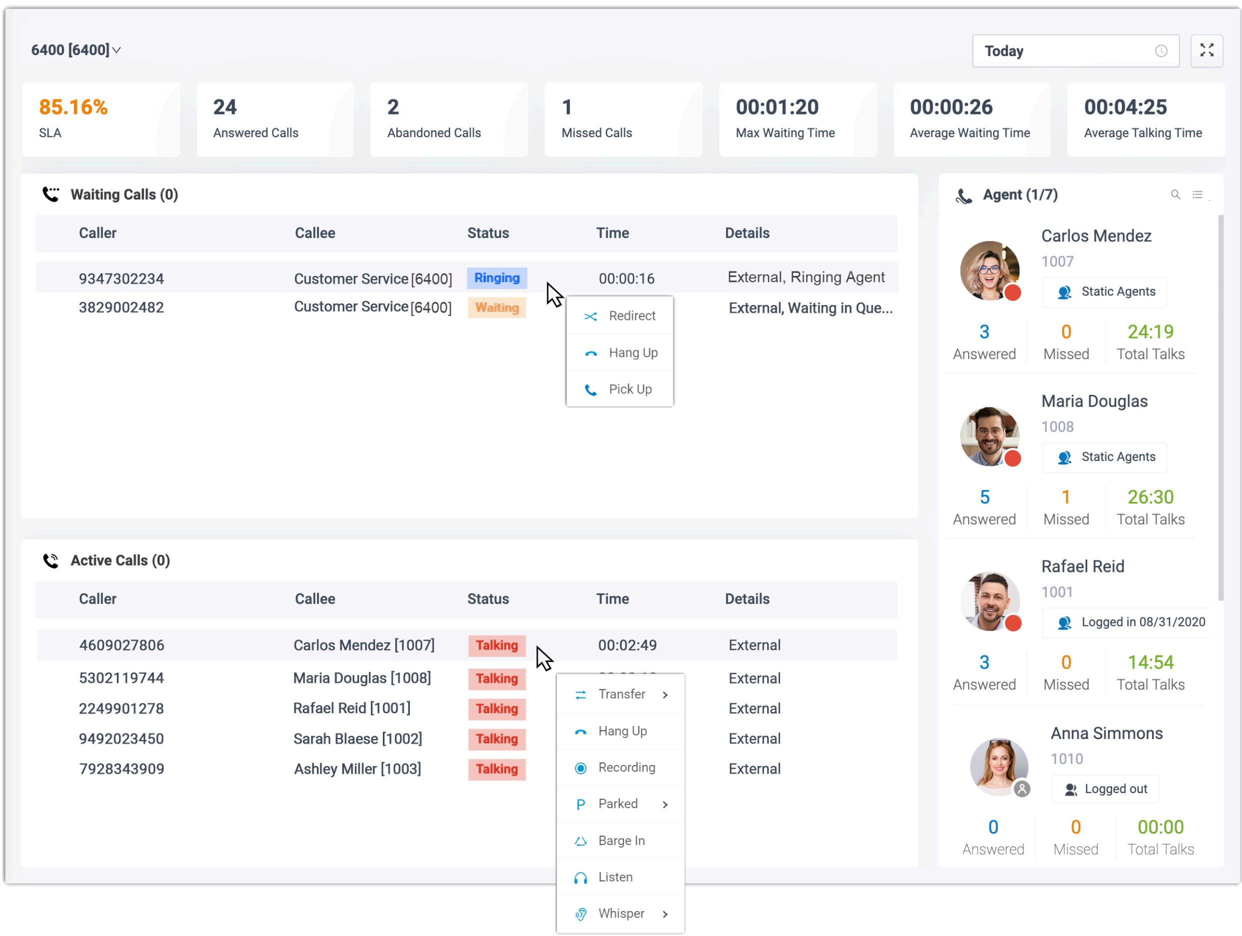
This topic describes what you can do on Queue Panel, and the permissions of queue manager and agents.

Requirements

To access and use the Queue Panel, make sure that your Linkus Web Client and Linkus Desktop Client meet the following requirements.

Clients	Requirement	
Linkus Web Client	**Web Browser**	**Version**
	Google Chrome (recommended)	Chrome 87 or later
	Microsoft Edge	Edge 87 or later
	Opera	Opera 72 or later
Linkus Desktop Client	Version 1.10.2 or later	

What you can do on Queue Panel



With an easy-to-use interface on Yeastar Queue Panel, you can view call statistics, change agent status, manage queue calls quickly and efficiently, and manage processing status of missed or abandoned queue calls.

- View call statistics of each queue and each agent.
- Change agent status in the queue, including login, logout, pause, and unpause.
- Manage queue calls:

  - **Call distribution**: Redirect incoming calls, and transfer calls.
  - **Call connection**: Pick up ringing calls, and hang up calls.
  - **Call parking**: Park calls.
  - **Call recording**: Monitor and switch recording status.
  - **Call monitoring**: Barge in a call, listen to a call, and whisper to a call.
- Manage processing status of missed or abandoned queue calls, including not deal, dealing, and dealt.

Queue Panel permissions

What you can do on Queue Panel depends on the following permission. The permission is assigned by your system administrator.

- Switch agents' status
- Call distribution management (Redirect, Transfer, Drag and Drop operation)
- Allow for picking up or hanging up agents' calls
- Call monitoring operations (Listen, Whisper, Barge In)
- Call parking operation
- Switch agent's recording status
- Show Company Contacts Matching Results

> **Note:**
> Once enabled, the user's visibility permission rules for company contacts will be ignored to display the matching results.

Access and Use Queue Panel

This topic describes how a queue manager can access the queue panel to check the queue related statistics and manage the calls of one or more queues.

Requirements

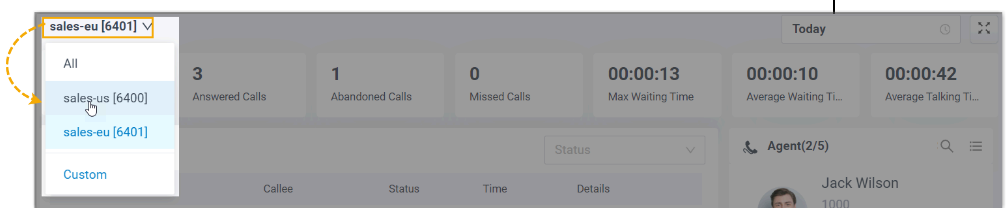
- The firmware of PBX server is 37.19.0.70 or later.
- To access and use the Queue Panel, make sure that your Linkus Web Client and Linkus Desktop Client meet the following requirements.

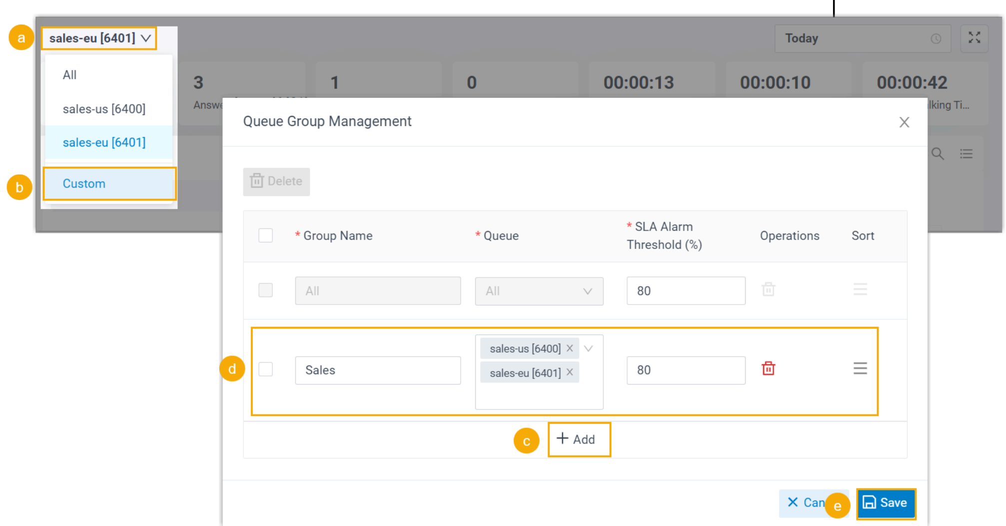
Clients	Requirement	
Linkus Web Client	**Web Browser**	**Version**
	Google Chrome (recommended)	Chrome 87 or later

Clients	Requirement	
	Microsoft Edge	Edge 87 or later
	Opera	Opera 72 or later
Linkus Desktop Client	Version 1.13.3 or later	

Procedure

1. Log in to Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. If you manage more than one queue, set the desired queue range to view the corresponding statistics.

<table>
<tr><th>Queue Range</th><th>Instruction</th></tr>
<tr><td>A specific queue</td><td>

a. At the top-left corner of the queue panel, click the current queue.
b. In the drop-down queue list, select the desired queue.</td></tr>
<tr><td>A group of queues</td><td>

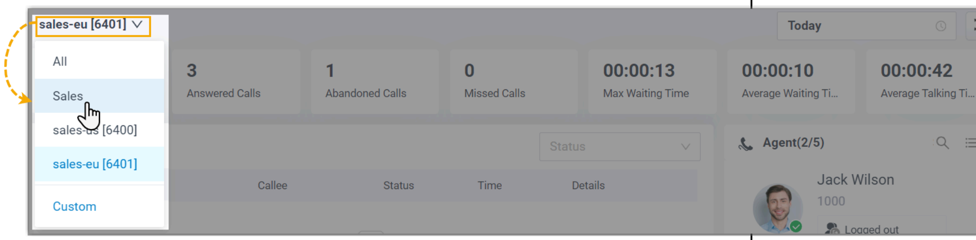
a. At the top-left corner of the queue panel, click the current queue.
b. In the drop-down queue list, select Custom.
c. In the pop-up window, click Add to add a queue group.
d. Configure a queue group.</td></tr>
</table>

<table>
<tr><th>Queue Range</th><th>Instruction</th></tr>
<tr><td></td><td>

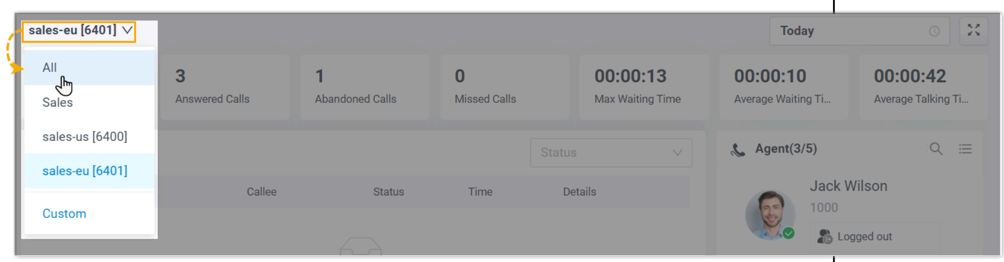
- **Group Name**: Enter a name to help you identify the queue group.
- **Queue**: In the drop-down list, select the desired queues.
- **SLA Alarm Threshold (%)**: Specify the SLA rate before an alert is triggered.
- **Sort**: Optional. Adjust the display order of the queue group in the queue list.

e. Click **Save**.

f. In the drop-down queue list, select the queue group.



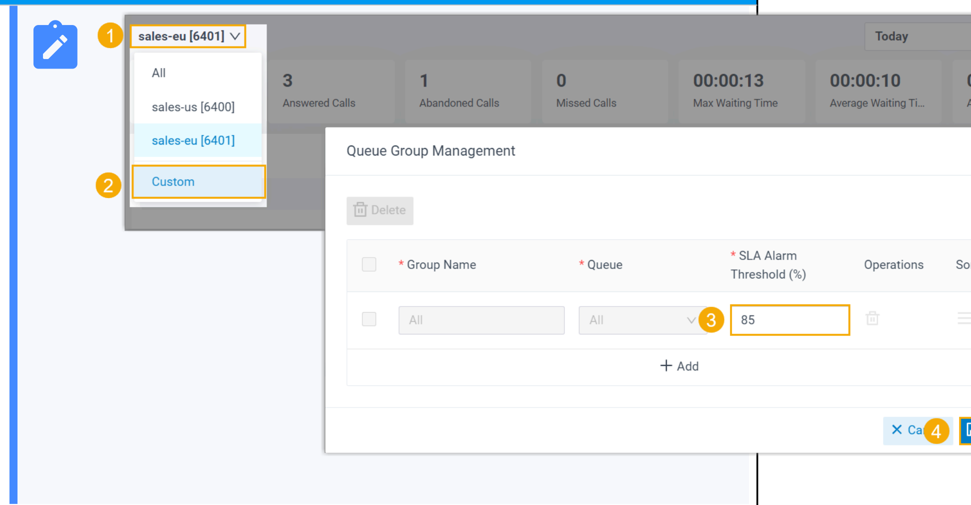
</td></tr>
<tr><td>All queues</td><td>



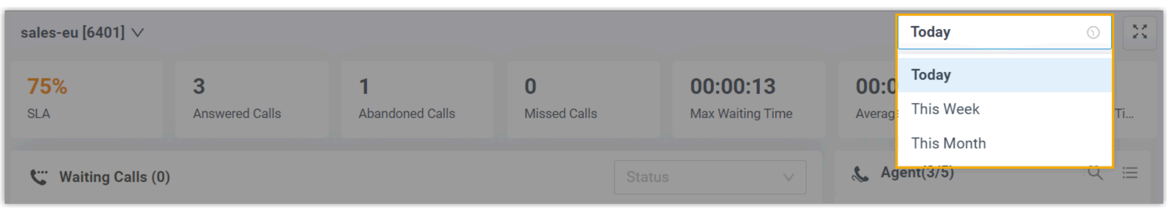
a. At the top-left corner of the queue panel, click the current queue.

b. In the drop-down queue list, select **All**.

> **Note:**
> If you want to change the threshold of **SLA** for this queue range, select **Custom**, then edit the rate in the pop-up window.
</td></tr>
</table>

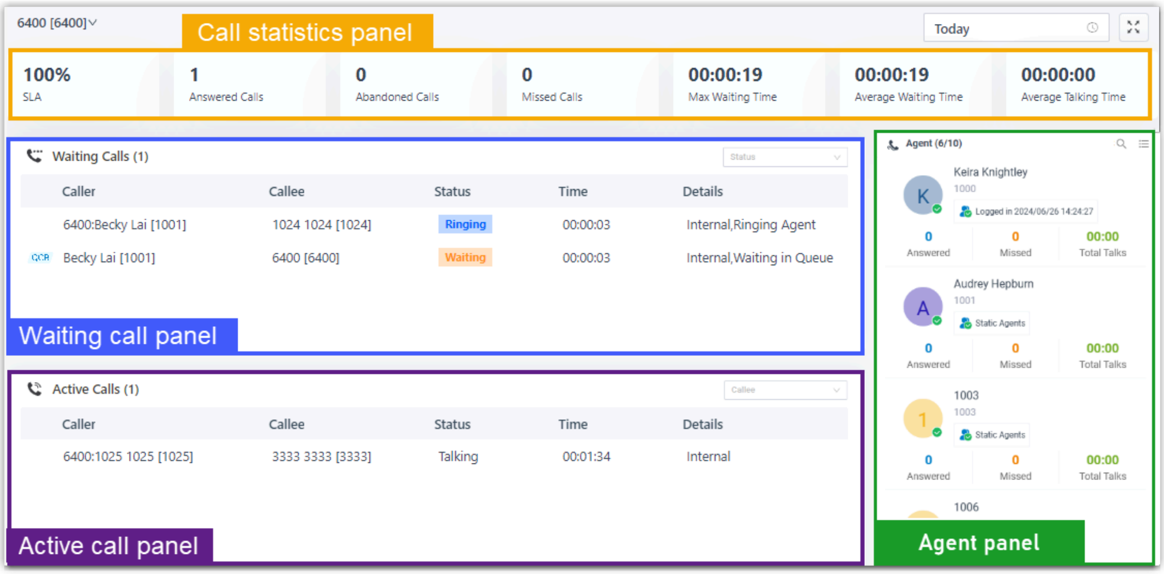
Queue Range	Instruction
	

3. Select a time range.
    - **Today**: View statistics of today.
    - **This Week**: View statistics of this week.
    - **This Month**: View statistics of this month.



4. **Optional:** Click  to display queue panel in a separate browser window.

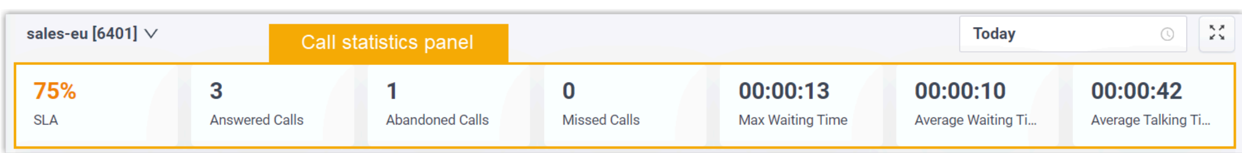
    For example, display the queue panel of Service in a browser window; display the queue panel of Sales in another browser window.
5. Check and manage calls and queue statistics in the corresponding panels.



- [Check queue data on the call statistics panel]
- [Check and manage calls on the waiting call panel]
- [Check and manage calls on the active call panel]
- [Check and manage agent status on the agent panel]

Check queue data on the call statistics panel

You can check the call statistics of the specified range of queue(s).



To understand each metric, you can refer to the table below.

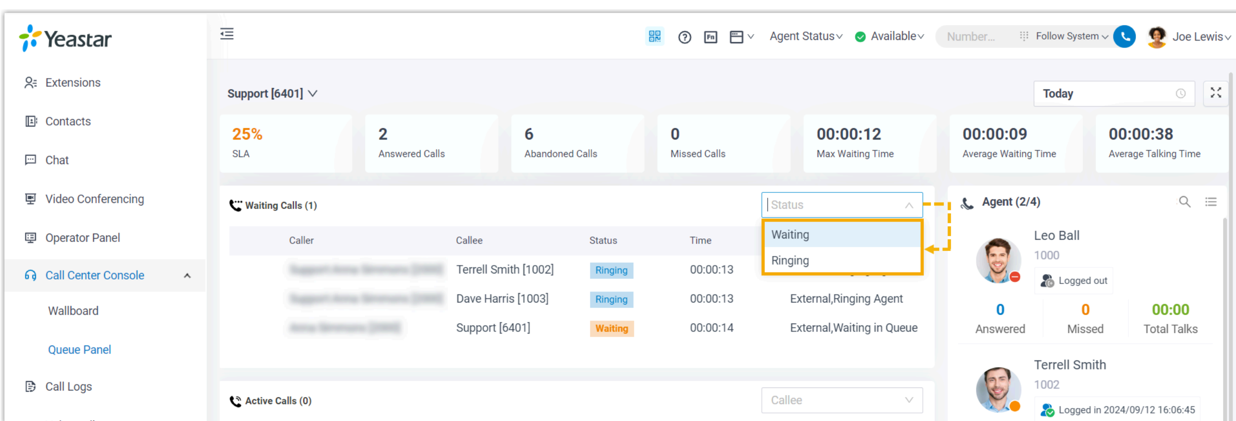
Call statistics	Description
SLA	Display the percentage of calls answered within the target response time (SLA) for the queue(s).
Answered calls	Display the total calls that queue agents answered over a period of time.
Abandoned Calls	Display the total calls that have been abandoned over a period of time. **Tip:** You can click on the widget to view detailed information about related call logs and manage the processing status.
Missed Calls	Display the total calls that queue missed over a period of time.

Call statistics	Description
	Tip: You can click on the widget to view detailed information about related call logs and manage the processing status.
Max Waiting Time	Display the maximum call waiting time for all calls answered over a period of time.
Average Waiting Time	Display the average waiting time over a period of time for all queue calls.
Average Talking Time	Display the average talking time over a period of time for all queue calls.

Check and manage calls on the waiting call panel

You can check the details of incoming call that is in ringing or waiting state in real time, including caller, callee, queue, status, time, and details. You can also manage the calls as needed.

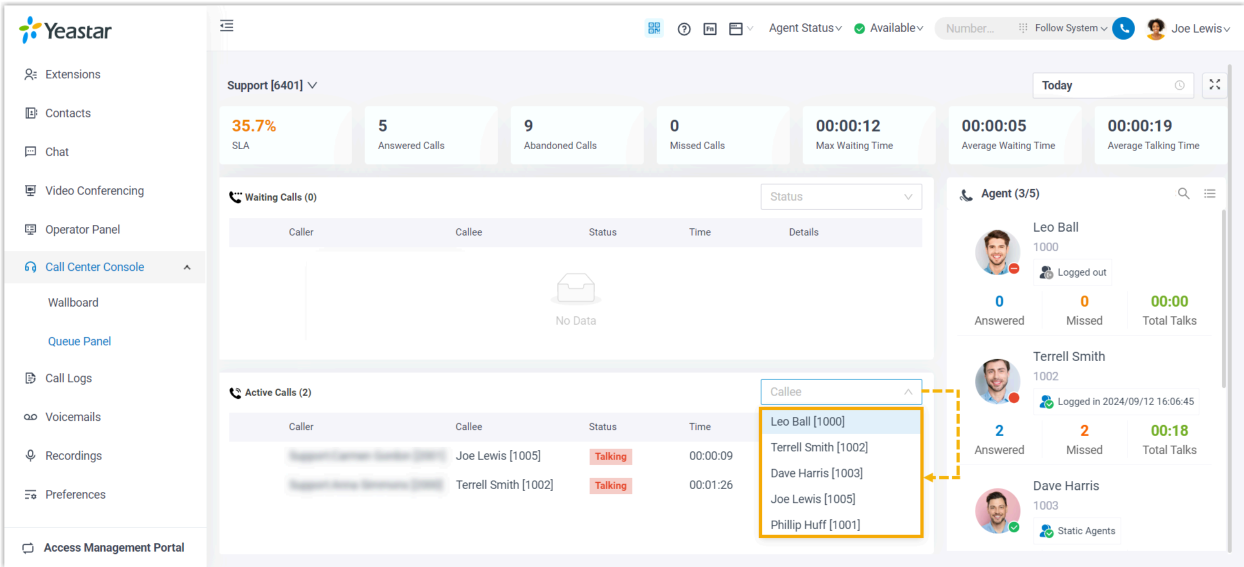
> **Note:**
> The QCB indicates that the caller has requested a callback.



Check and manage calls on the active call panel

You can check the details of answered calls in real time, including caller, callee, queue, status, time, and details. You can also manage the calls as needed.

> **Note:**
> The QCB indicates that this is a callback.

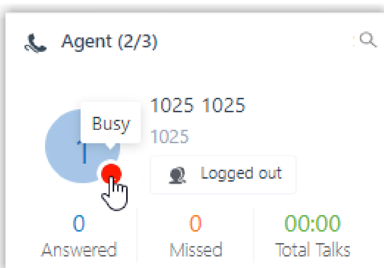


Check and manage agent status on the agent panel

You can check the agent details in the queue(s), including the agent's presence, queue status, and the agent's queue call statistics.

Agent's presence

To see an agent's presence status, hover your mouse over the presence icon.

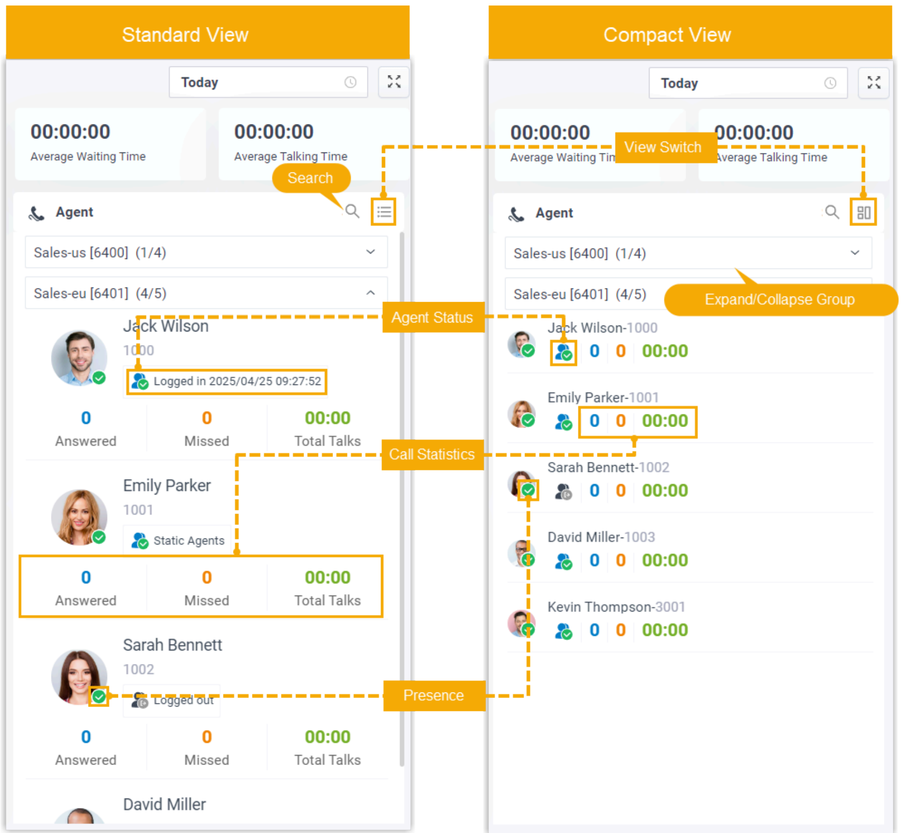


Queue Status

Icon	Presence
	The agent has logged in to the queue, and is available to receive a call.
	The agent logged out of the queue.
	The agent has paused receiving the queue calls.

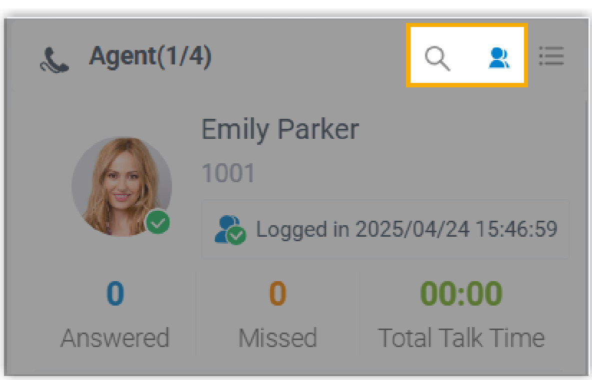
View Switch

By default, **Standard View** is displayed. You can click the **View Switch** button to switch to the **Compact View**, which allows you to view and manage queue agents more efficiently.



Search and Filter

You can search and filter from the list using the following options to find the desired agents quickly and efficiently.



Option	Description
	Search the specific agent.
	Filter and display only online agents that meet with both of the following conditions: • The extension status is online, meaning it is logged in to a Linkus client, or registered on an endpoint. • The agent status is set to **Log In**, **Unpause**, or **Pause**.

Manage Agent Status

Manage an Agent's Status in a Queue

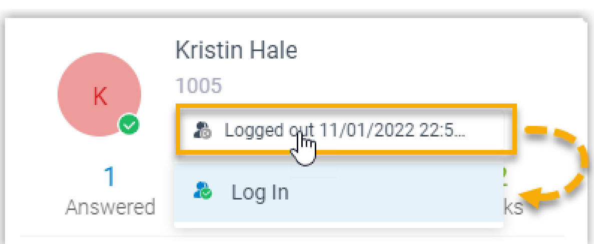
As a queue manager, you can change an agent's status remotely. This topic describes how to log an agent in to a queue, log an agent out of a queue, pause agents' service, and unpause agents' service.

Requirements

- Only a queue manager can change agents' status.
- To change agents' status, make sure that you have been granted the **Switch group members' presence** permission by the system administrator.

Log an agent in to a queue

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Agent** panel, hover your mouse over the logged-out agent, and change the status.

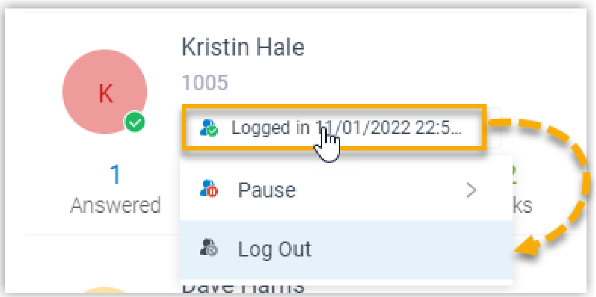


a. Click the agent status.
b. Click **Log In**.

Log an agent out of a queue

> **Note:**
> The static agent can not log out of a queue.

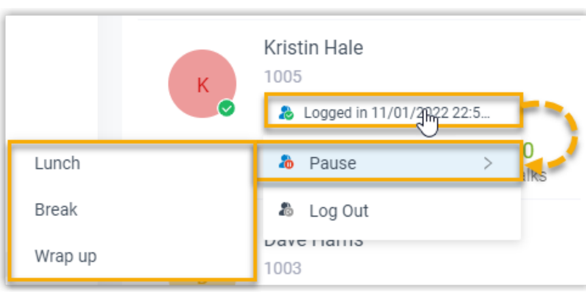
1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Agent** panel, hover your mouse over the logged-in agent, and change the status.



   a. Click the agent status.
   b. Click **Log Out**.

Pause an agent's service

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Agent** panel, hover your mouse over the logged-in agent, and change the status.

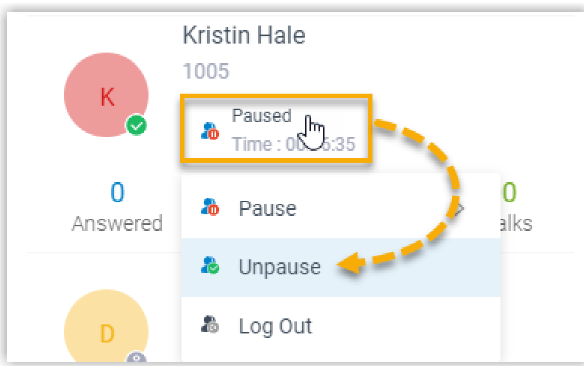


   a. Click the agent status.
   b. Click **Pause**.
   c. **Optional:** In the pause reason list, select a reason.

The system will not distribute queue calls to the paused agent.

Unpause an agent's service

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Agent** panel, hover your mouse over the logged-in agent, and change the status.



   a. Click the agent status.
   b. Click **Unpause**.

   The agent becomes available to receive queue calls.

Manage Queue Calls

Pick up a Call

If a call is ringing and has not been answered for a long time, in order to save the callers' user's waiting time, you can pick up the ringing call. This topic describes how to pick up a ringing call.

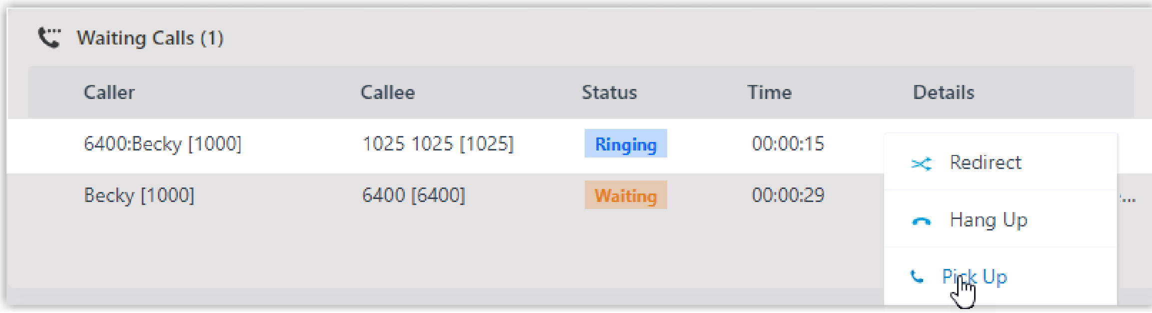
Requirements

To pick up agents' incoming calls, make sure that you have been granted the **Allow for picking up or hanging up agents' calls** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Right click the incoming call, and select **Pick Up**.

   The PBX system routes the call to your extension.

4. Answer the call.

Redirect a Call

If a call has not been answered for a long time, in order to save the caller's waiting time, you can redirect the incoming call to another extension, ring group, queue, or extension's voicemail. This topic describes how to redirect an incoming call that is in the ringing status.

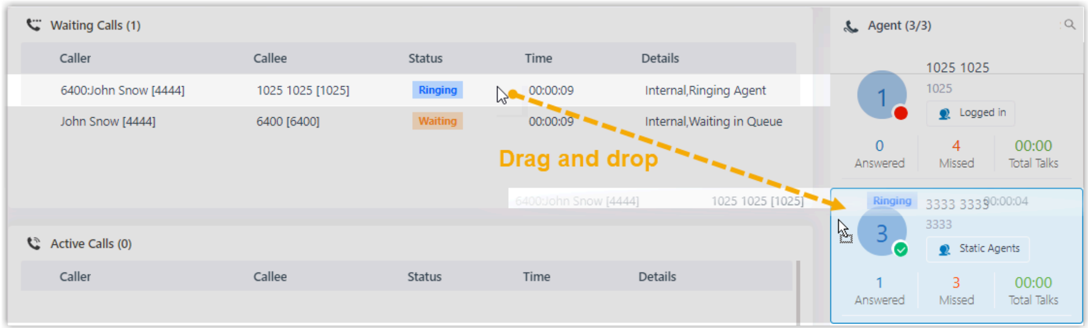
Requirements

To redirect agents' incoming calls, make sure that you have been granted the **Call distribution management (Redirect, Transfer, Drag and Drop operation)** permission by the system administrator.

Redirect a call to an extension

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Redirect the call to an extension user in one of the following methods:
   - Drag the call and drop it on a desired agent displayed in **Agent** panel.

     The agent will receive an incoming call.

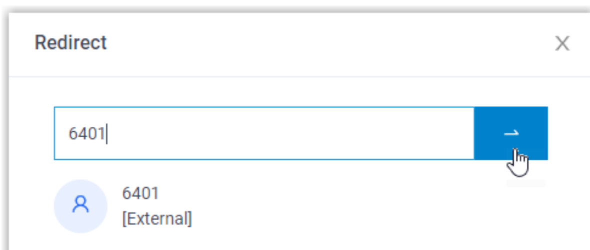


- Right click the call, and click **Redirect**.

  On the pop-up panel, enter an extension number, and click →.

  The agent will receive an incoming call.

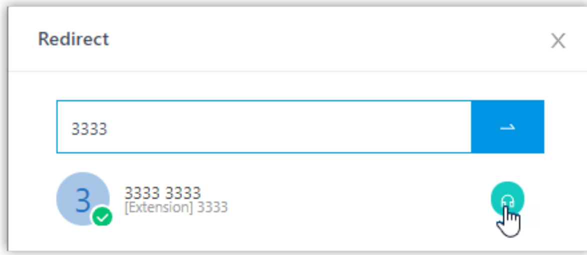
> **Tip:**
> You can also click the extension user from the matching results to transfer the call.



Redirect a call to extension voicemail

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Right click the incoming call, and select **Redirect**.
4. In the pop-up window, enter an extension number to search the extension user.
5. From the matching results, click to redirect the call.

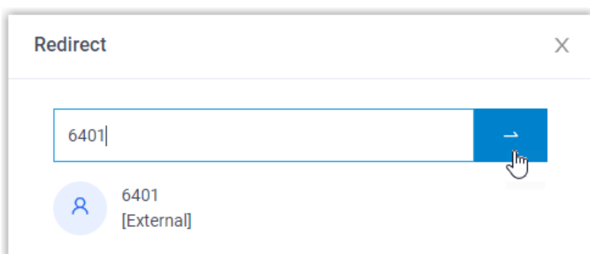
   The call is redirected to the extension's voicemail and the caller can leave a message to the extension user.



Redirect a call to another ring group or queue

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Redirect the call to a ring group or a queue.
    a. Right click the call, and click **Redirect**.
    b. In the pop-up window, enter a ring group number or a queue number, and click .

    The system will route the call the ring group or queue.



Transfer a Call

This topic describes how to transfer an active call.

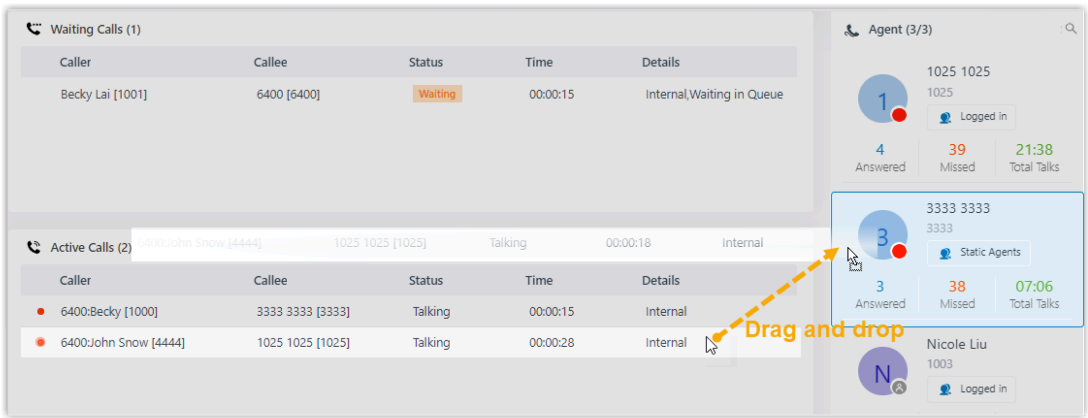
Requirements

To transfer members' active calls, make sure that you have been granted the **Call distribution management (Redirect, Transfer, Drag and Drop operation)** permission by the system administrator.

Transfer a call to an agent

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an active call.
3. Transfer the call to an extension user in one of the following methods:
    - Drag the call and drop it on a desired extension displayed in **Agents** panel.

      The agent will receive an incoming call.

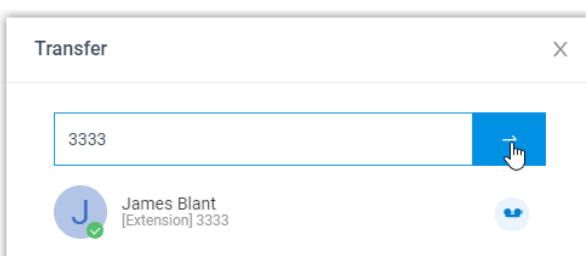
      

    - Right click the call, click **Transfer**, and select a transferred party.

      In the pop-up window, enter a target extension number, and click .

      The system routes the call to the agent, the extension user will receive an incoming call.

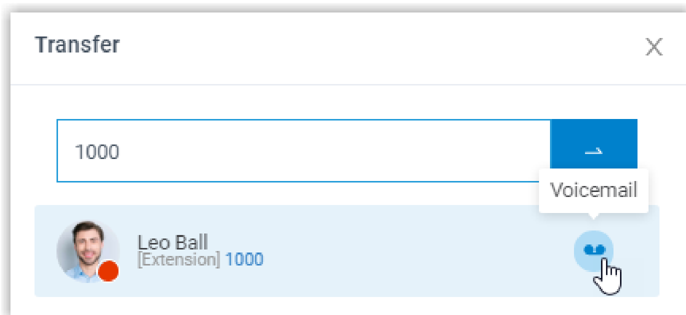
      > **Tip:**
      > You can also click the extension user from the matching results to transfer the call.

Transfer a call to an extension's voicemail

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an active call.
3. Right click the call, and select **Transfer**.
4. In the pop-up window, enter an extension number to search the extension user.
5. From the matching results, click to transfer the call.

   The system routes the call to the extension's voicemail. The caller can leave a message to the selected extension user.

Park a Call

Call parking is a method of holding a call on a phone, so that anyone can retrieve the call on another phone. This topic describes how to park a call.

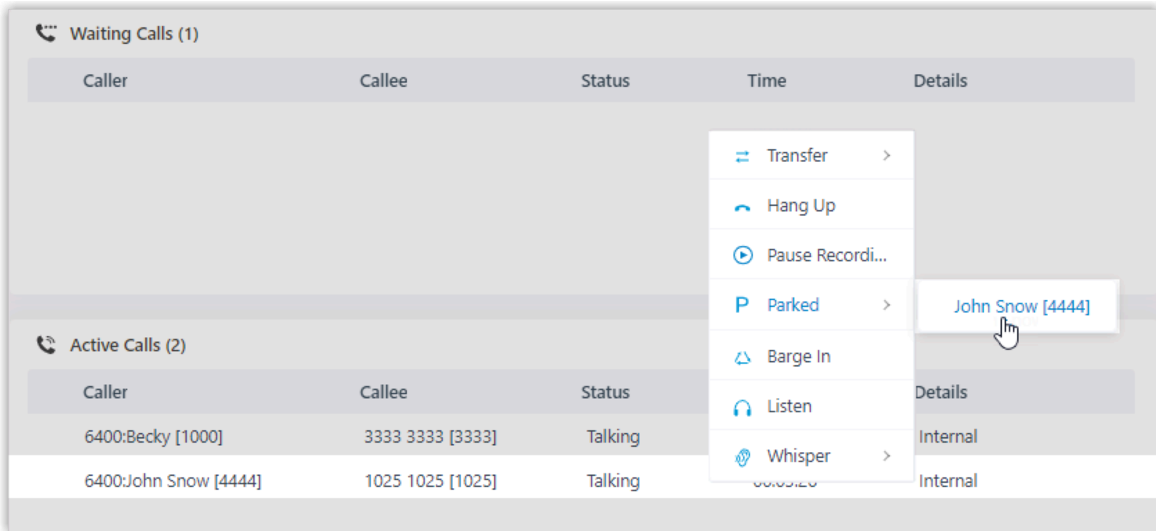
Requirements

To park agents' active calls, make sure that you have been granted the **Call parking operation** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an answered call.
3. Right click the answered call, and select **Parked**.
4. Select the parked party.

The call is parked on an available parking number. The system puts the parked party's call on hold, and plays a prompt to tell the other party where to retrieve the call.



Switch Call Recording Status

If administrator has enabled call recording for specific queues, the specified queue calls would be recorded as soon as they are established. Being granted with specific recording operation permissions, you can pause the call recording to avoid sensitive information being recorded. Moreover, you can start recording a queue call when necessary, even if it is not a call specified to be recorded by administrator.

Requirements

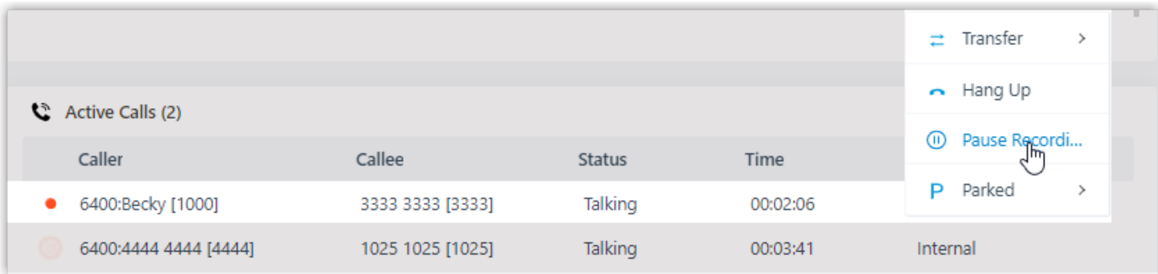
- To switch call recording status for yourself, make sure that the **Pause/Resume** permission or **Start/Pause/Resume** permission is assigned to your extension by the system administrator.

> **Note:**
> - **Pause/Resume** permission allows you to pause or resume the recording during a queue call that is specified to be recorded.
> - **Start/Pause/Resume** permission allows you to start, pause, or resume the recording during any queue calls, be the calls specified to be recorded or not.

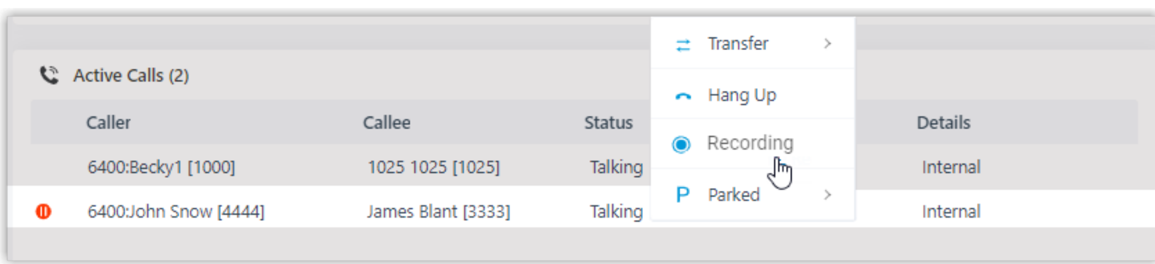
- To switch call recording status for other agents, make sure that you have been granted the **Switch agent's recording status** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over a call being recorded.
3. To pause recording, right click the call, and click **Pause Recording**.

   The recording icon stops flashing, and changes to .
4. To start or resume recording, right click the call, and click **Recording**.

   The recording icon is changed to  and flashing.

Monitor a Call

Call monitoring is the process of monitoring conversations between employees and customers for improving communication and customer service. This topic describes how to monitor a call.

Scenario

For sales and support in call center, call monitoring is a way to manage call quality, increase agent efficiency, improve agent performance, and develop sales or marketing strategies.

You can monitor agents' conversations in the following ways:

- **Call listening**: Listen to the active call between the agent and customer to ensure that quality standards are met, without the agent or customer knowing.
- **Call whispering**: Talk to the agent, and give assistance to the agent during an active call, without the customer hearing the discussion.
- **Call barging**: Join the call to speak with both the agent and customer, provide immediate assistance, and improve customer satisfaction.

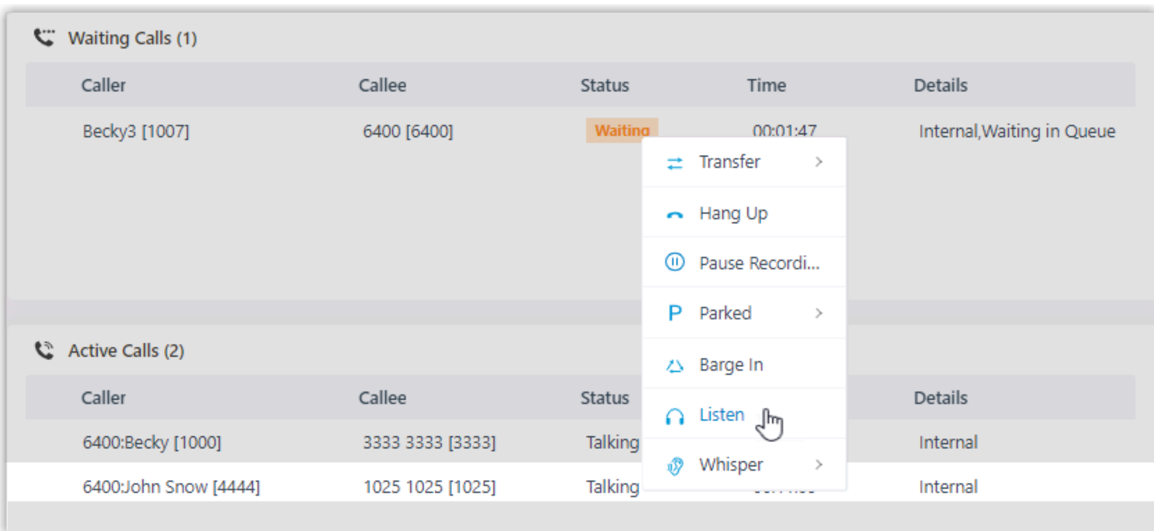
Requirements

- You are queue manager.
- To monitor agents' calls, make sure that you have been granted the **Call monitoring operations (Listen, Whisper, Barge In)** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an active call.
3. Right click the call, and select a monitor mode: **Barge In**, **Listen**, or **Whisper**.

   The system places a call to your extension.

4. Answer the call.

Hang up a Call

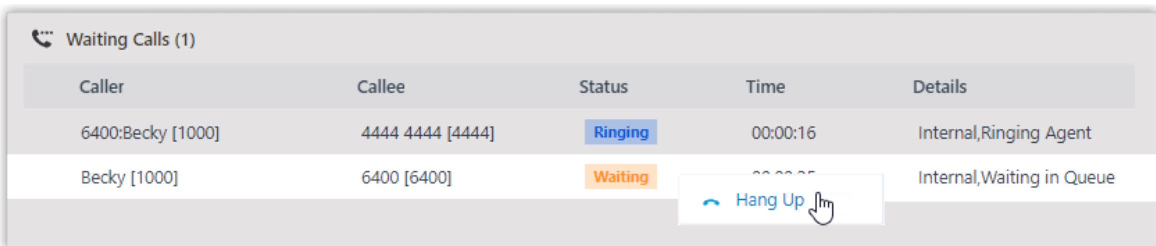
This topic describes how to hang up a call.

Requirements

To hang up agents' calls, make sure that you have been granted the **Allow for picking up or hanging up agents' calls** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** or **Active Calls** panel, hover your mouse over a call.
3. Right click the call, and select **Hang Up**.



4. In the pop-up dialog box, click **OK**.

   The system ends the call.

Place a Call to an Agent

This topic describes how to place a call to an agent quickly on Call Center Console.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Agent** panel, hover your mouse over the agent's avatar.
3. Double-click the avatar.

   A call is placed to the agent, and a call window pops up that allows you to manage the call.

Manage Queue Call Logs

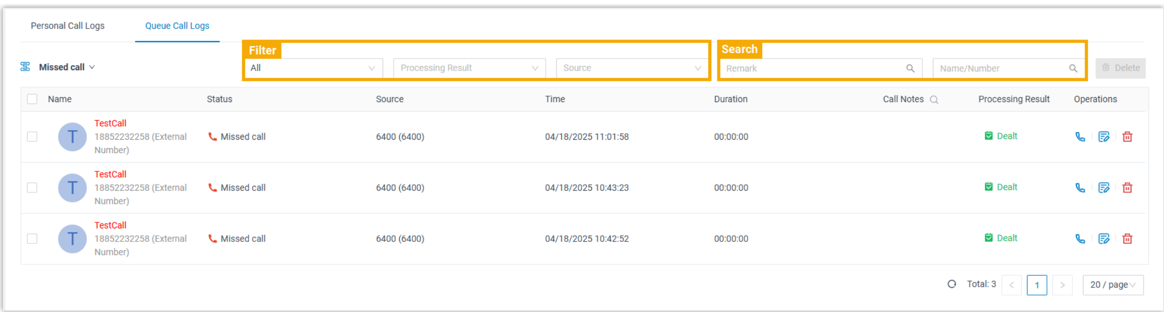
This topic describes how queue managers can view and manage the call logs of missed queue calls on their Linkus Web Client, Desktop Client, and Mobile Client.

Requirements

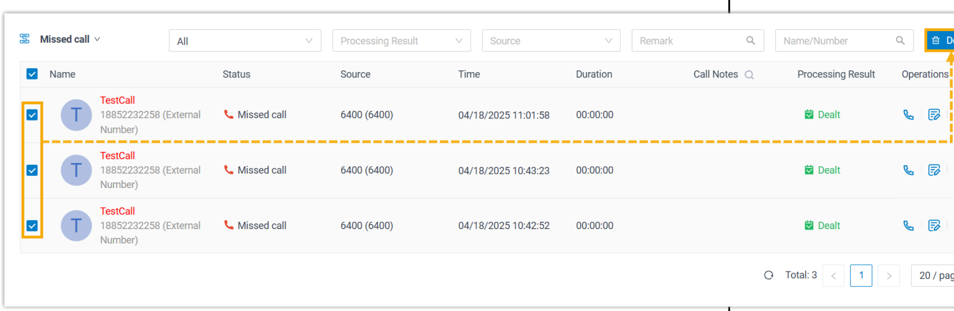
- The firmware version of PBX server is 37.18.0.1883.18.0.1884.18.0.18 or later.
- System administrator has granted you the viewing and deleting permission of missed queue call logs.

Manage missed queue call logs on Linkus Web Client

1. Log in to Linkus Web Client, go to **Call Logs > Queue Call Logs**.
2. **Optional**: At the top of the list, filter or search the desired missed call logs.

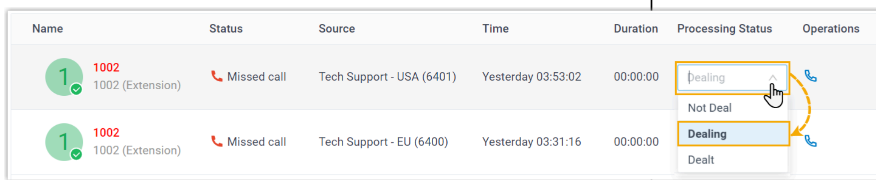


3. Manage the missed queue call logs according to your needs.

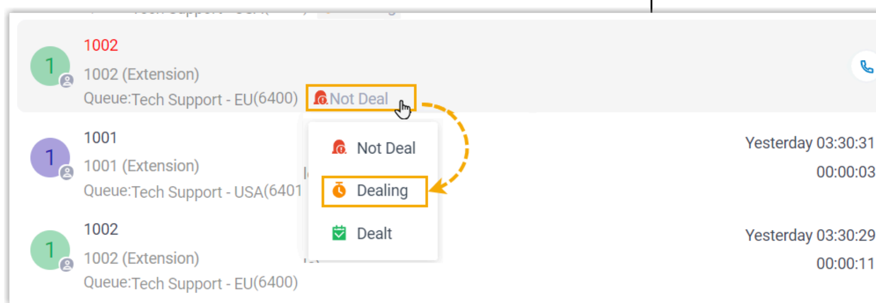
<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td>Delete missed queue call logs</td><td>You can delete missed queue call log via the following methods:
• To delete a single call log, click beside the call log.
• To bulk delete call logs, select the checkboxes of the desired missed call logs, then click Delete.
</td></tr>
<tr><td>Place a call to the caller</td><td>You can directly place a call from a call log via the following methods:
• Double click the desired call log.</td></tr>
</table>

<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td></td><td>• Click beside the call log.</td></tr>
<tr><td>Change the processing status of a missed queue call</td><td>
If you decide to handle a missed queue call, or you have handled it, you can change the processing status of the missed queue call.

• Figure 1. Linkus Web Client



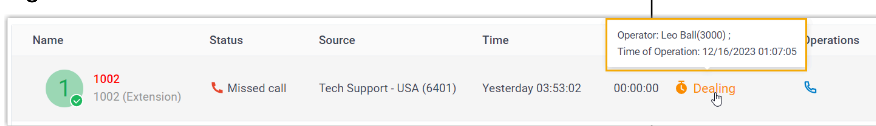
• Figure 2. Linkus Desktop Client



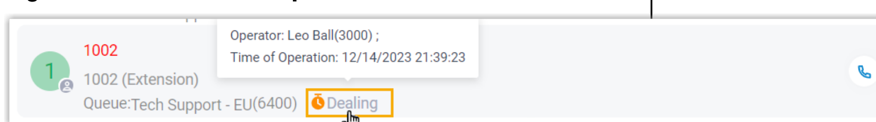
a. Click the processing status beside the call log.
b. In the drop-down list, select the desired one.

The processing status is changed; All the authorized agents can see the change, and check the operation record by hovering mouse over the processing status.

• Figure 3. Linkus Web Client



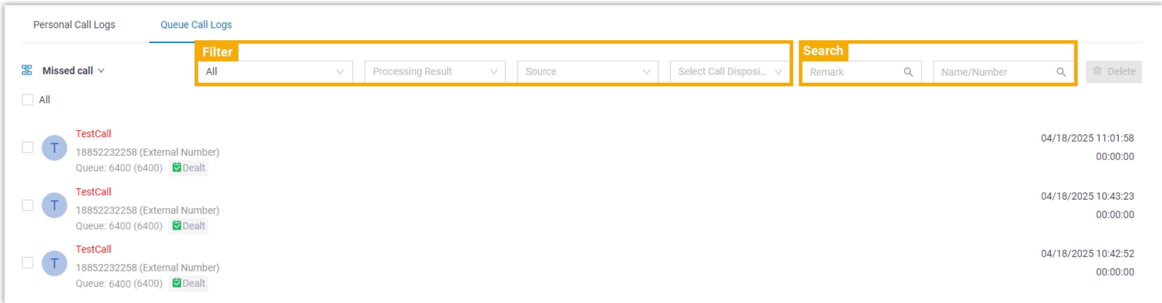
• Figure 4. Linkus Desktop Client



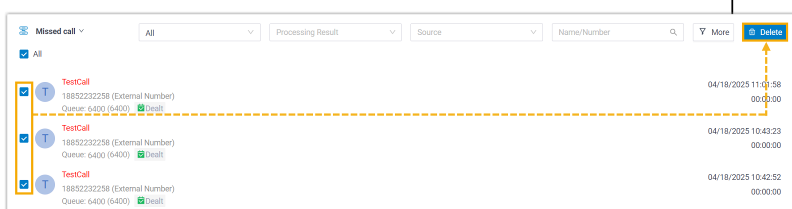
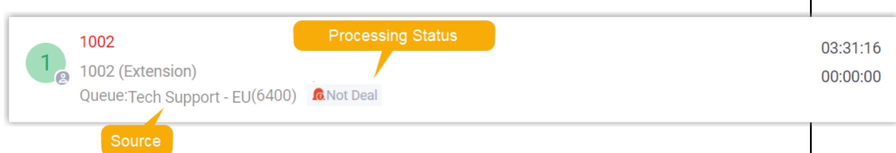
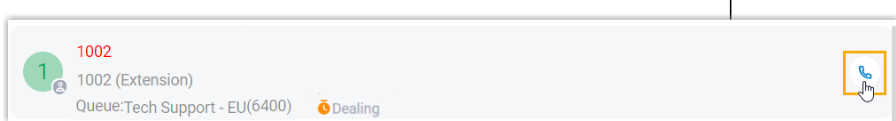
</td></tr>
</table>

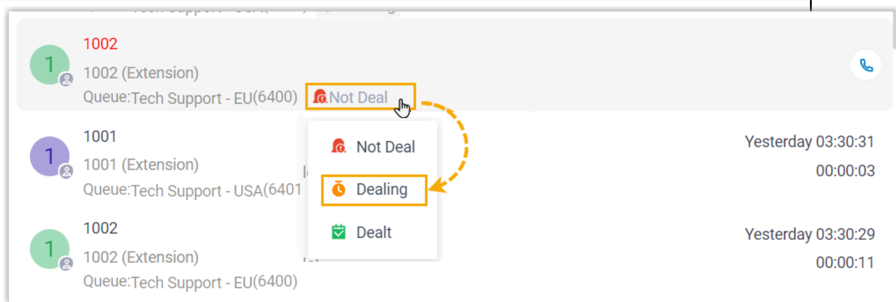
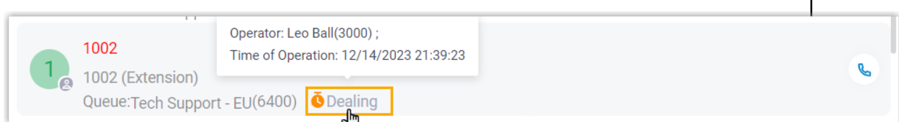
Manage missed queue call logs on Linkus Desktop Client

1. Log in to Linkus Desktop Client, go to **Call Logs > Queue Call Logs**.
2. **Optional:** At the top of the list, filter or search the desired missed call logs.



3. Manage the missed queue call logs according to your needs.

Operation	Instruction
Delete missed queue call logs	You can delete missed queue call logs via the following methods: • To delete a single call log, click beside the call log. • To bulk delete call logs, select the checkboxes of the desired missed call logs, then click **Delete**. 
Check the details of queue call logs	You can conveniently check the source of the queue call logs, as well as the processing status of missed queue calls.  • **Source**: The queue the call came from. • **Processing Status**: The processing status of a missed queue call.
Place a call	You can directly place a call from a call log via the following methods: • Double click the desired call log. • Hover your mouse over the call log, then click . 
Change the processing status of a missed queue call	If you decide to handle a missed queue call, or you have handled it, you can change the processing status of the missed queue call.

Operation	Instruction
	 a. Click the processing status beside the call log. b. In the drop-down list, select the desired processing status. The processing status is changed; All the authorized agents can see the change, and check the operation record by hovering mouse over the processing status. 

Manage missed queue call logs on Linkus Mobile Client

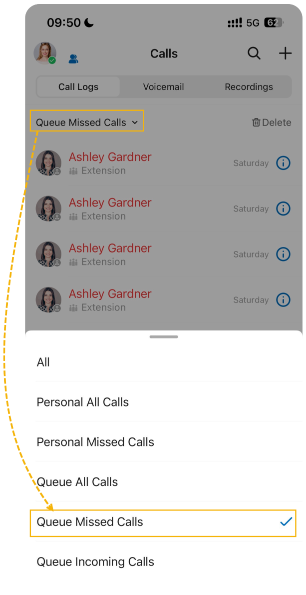
Requirements

Make sure that the version of your Linkus Mobile Client meets the following requirements:

- **Linkus iOS Client**: Version 5.10.3 or later
- **Linkus Android Client**: Version 5.10.3 or later

Procedure

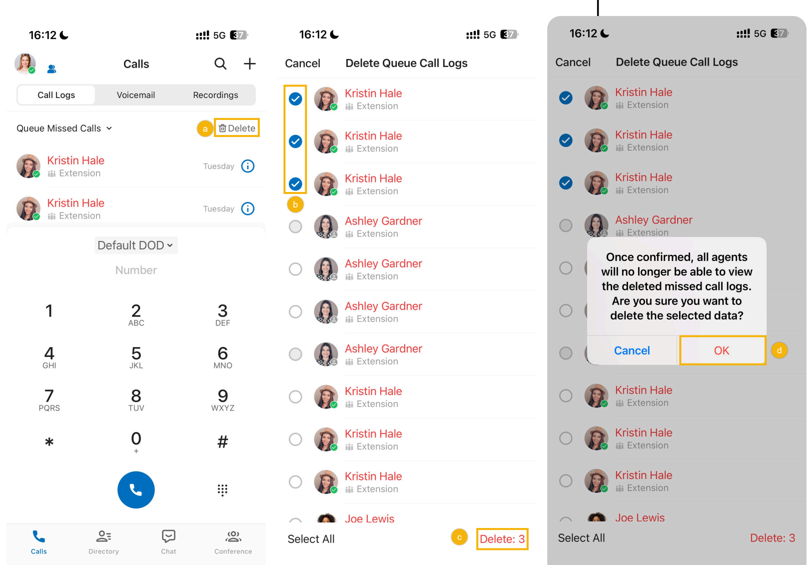
1. Log in to Linkus Mobile Client, go to **Calls > Call Logs**.
2. At the top-left corner, select **Queue Missed Calls**.



3. Manage the missed queue call logs according to your needs.

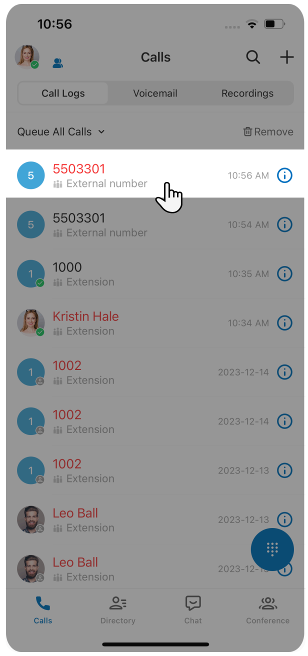
<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td>Delete missed queue call logs</td><td>You can delete missed queue call logs as follows:

To delete a single call log, swipe left on the desired call log, then tap Delete.
To bulk delete call logs, do as follows:

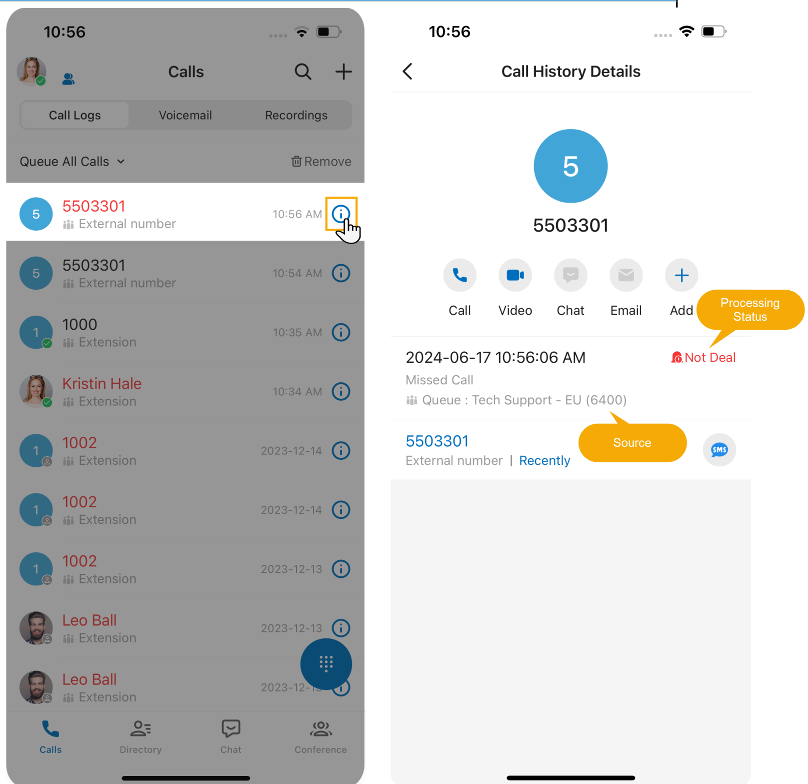


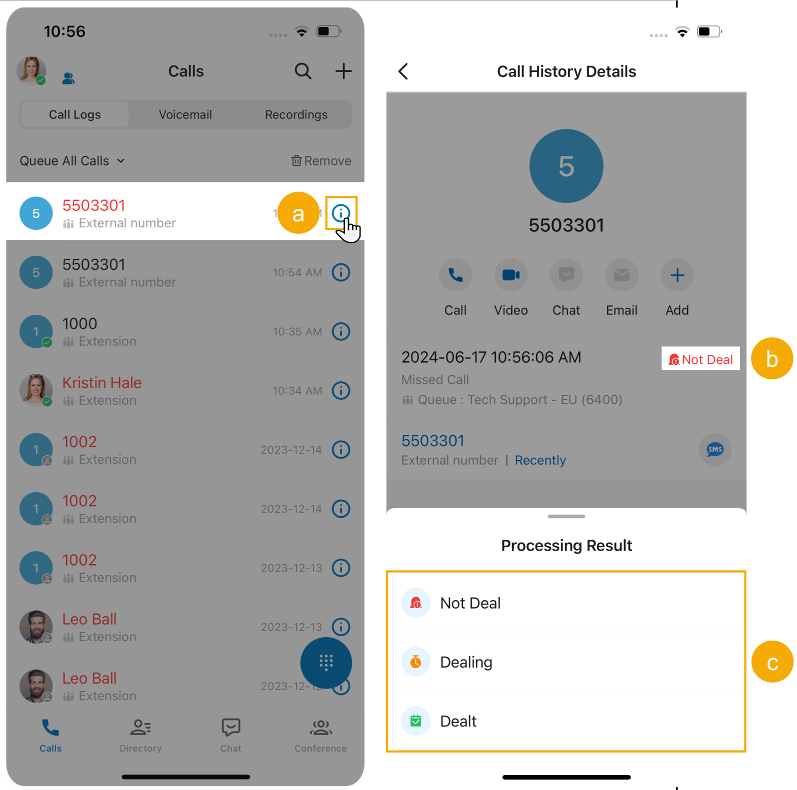
<ol type="a">
At the top-right corner, tap Delete.
Select the checkboxes of the desired missed queue call logs.
Tap Delete.
</td></tr>
</table>

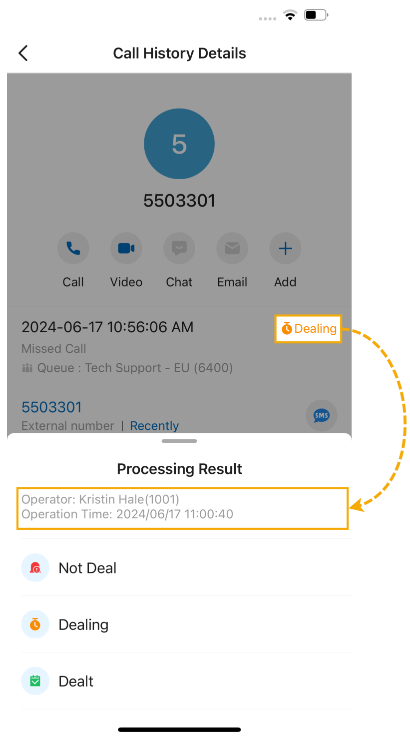
<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td></td><td>d. In the pop-up window, tap OK to confirm your operation.</td></tr>
<tr><td>Place a call to the caller</td><td>You can directly place a call from a call log by tapping the call log.



</td></tr>
<tr><td>Check the details of queue call logs</td><td>You can conveniently check the source of the queue call logs, as well as the processing status of missed queue calls.</td></tr>
</table>

Operation	Instruction
	 a. Tap beside the desired queue call log. b. Check the details of the call log. • **Source**: The queue the call came from. • **Processing Status**: The processing status of a missed queue call.
Change the processing status of a missed queue call	If you decide to handle a missed queue call, or you have handled it, you can change the processing status of the missed queue call.

Operation	Instruction
	 a. Tap beside the desired queue call log. b. Tap the processing status beside the call log details. c. Select the desired processing status. The processing status is changed; All the authorized agents can see the change and check the operation record.

Operation	Instruction
	

Agent Guide

Call Center Agent Guide

This guide provides guidance on how to manage your availability status in queues, and process queue call interactions using a unified agent portal available on web, desktop, and mobile devices.

Audience

This guide is intended for customer service representatives (agents) who handle inbound voice calls from customers.

Agent portal

To enhance communication mobility and improve agent productivity, the Yeastar Call Center provides a unified agent portal integrated into the Linkus UC Clients that is available on mobile, desktop, and web-based platforms. Agents can efficiently handle queue calls anytime anywhere through the supported clients.

Supported Client	Description
Linkus Web / Desktop Client	The Linkus Web Client and Desktop Client allow agents to access the call center functionalities from intuitive Call Center workspaces, **Wallboard** and **Queue Panel**, equipped with all the necessary tools for efficient call interaction and queue management. • For queue-related operational instructions for the agents using the **Queue Panel**, see Agent operations on Web Client / Desktop Client. • For operational instructions for agents with access to the **Wallboard**, see Call Center Supervisor Guide. • For more information about utilizing Linkus Web Client or Desktop Client, see Linkus Web Client User Guide or Linkus Desktop Client User Guide.
Linkus Mobile Client	Available as a mobile application, Linkus Mobile Client provides agents with access to essential call features, allowing them to handle queue calls and update their availability status from their mobile devices, ensuring that agents can stay connected and responsive on the go. • For queue-related operational instructions on Linkus Mobile Client, see Agent operations on Mobile Client. • For more information about utilizing Linkus Mobile Client, see Linkus Mobile Client User Guide.

Agent Operations on Web Client / Desktop Client

Access and use Queue Panel

This topic describes how a queue agent can access and use Queue Panel on Linkus Web Client or Desktop Client.

Requirements

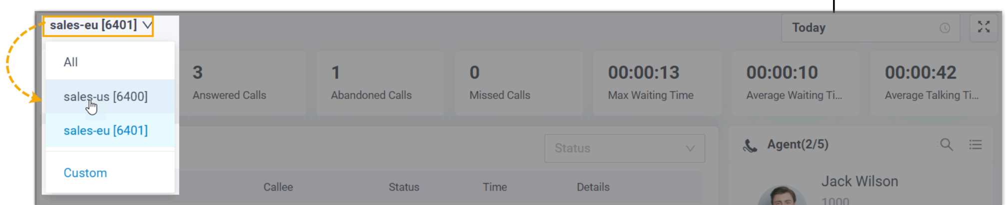
- The firmware of PBX server is 37.19.0.70 or later.
- To access and use the Queue Panel on Linkus Web Client or Desktop Client, make sure the following requirements are met.

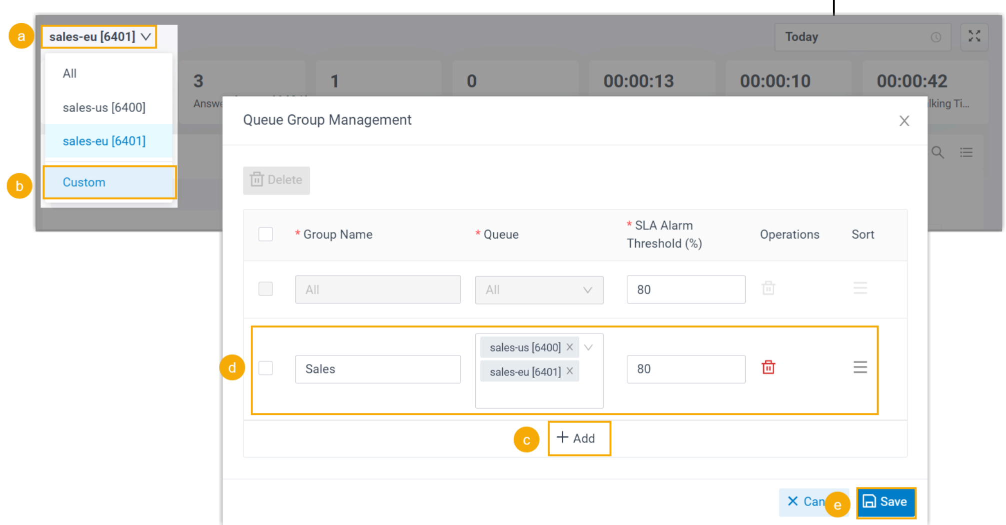
Client	Requirement
Linkus Web Client	Make sure your web browser meet the following requirements. ◦ Google Chrome (recommended): **Chrome 87** or later ◦ Microsoft Edge: **Edge 87** or later ◦ Opera: **Opera 72** or later

Client	Requirement
Linkus Desktop Client	The version of Linkus Desktop Client is **1.13.1** or later

Procedure

1. Log in to Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. If you belong to more than one queue, set the queue range to view the corresponding statistics.

<table>
<tr><th>Queue Range</th><th>Instruction</th></tr>
<tr><td>A specific queue</td><td>


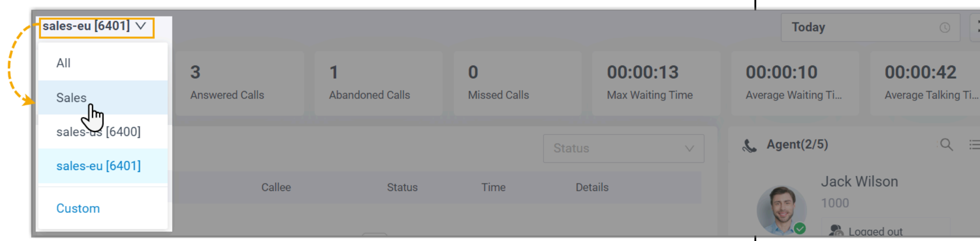
a. At the top-left corner of the queue panel, click the current queue.
b. In the drop-down queue list, select the desired queue.
</td></tr>
<tr><td>A group of queues</td><td>


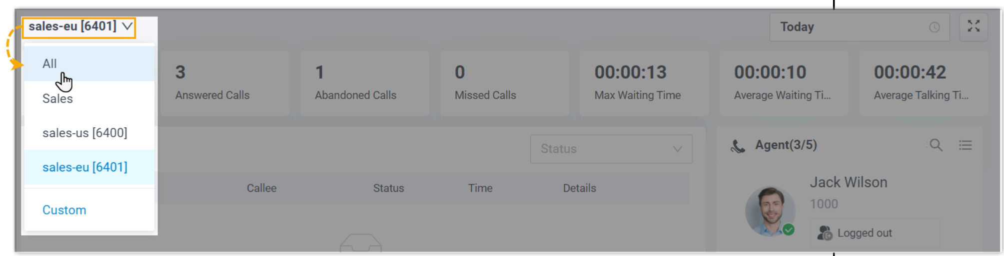
a. At the top-left corner of the queue panel, click the current queue.
b. In the drop-down queue list, select Custom.
c. In the pop-up window, click Add to add a queue group.
d. Configure a queue group.
• Group Name: Enter a name to help you identify the queue group.
</td></tr>
</table>

<table>
<tr><th>Queue Range</th><th>Instruction</th></tr>
<tr><td></td><td>

- **Queue**: In the drop-down list, select the desired queues.
- **SLA Alarm Threshold (%)**: Specify the SLA rate before an alert is triggered.
- **Sort**: Optional. Adjust the display order of the queue group in the queue list.

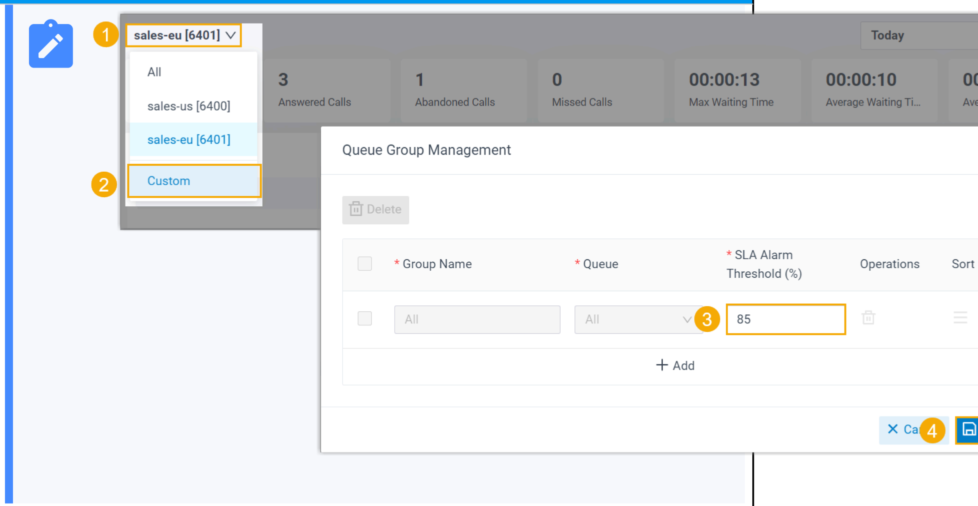
e. Click **Save**.
f. In the drop-down queue list, select the queue group.



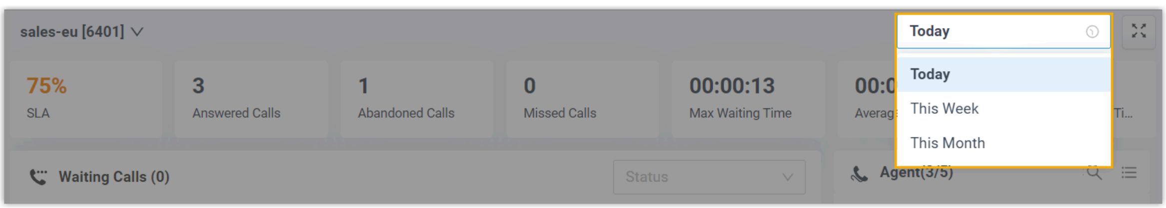
</td></tr>
<tr><td>All queues</td><td>


a. At the top-left corner of the queue panel, click the current queue.
b. In the drop-down queue list, select **All**.

> **Note:**
> If you want to change the threshold of **SLA** for this queue range, select **Custom**, then edit the rate in the pop-up window.
</td></tr>
</table>

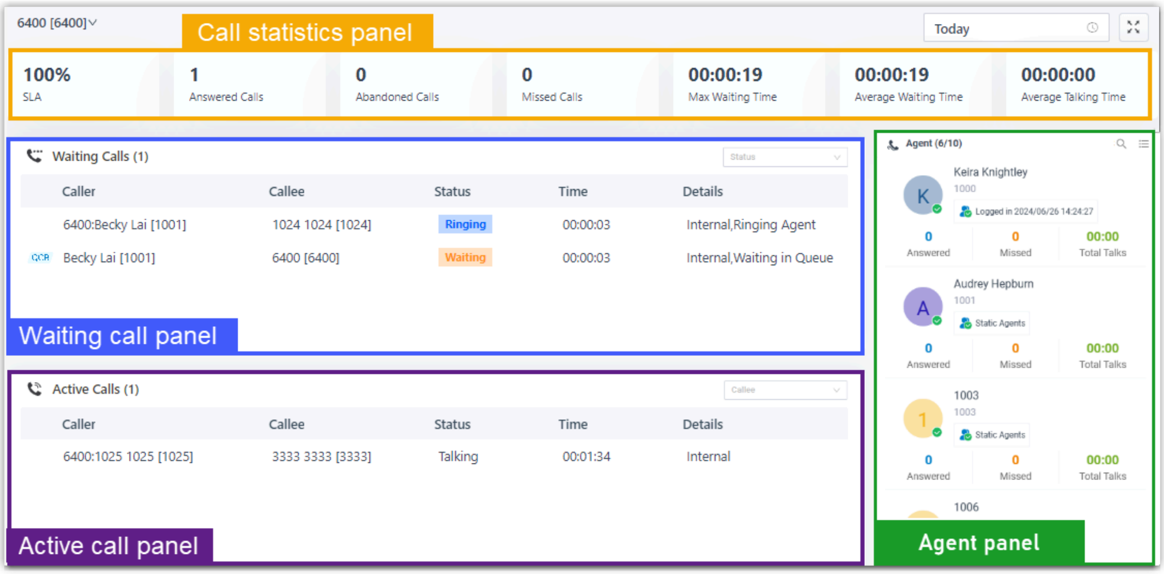
Queue Range	Instruction
	

3. Select a time range.
   - **Today**: View statistics of today.
   - **This Week**: View statistics of this week.
   - **This Month**: View statistics of this month.



4. **Optional:** Click  to display queue panel in a separate browser window.

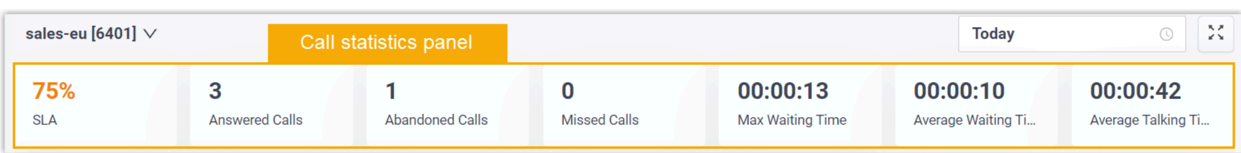
   For example, display the queue panel of Service in a browser window; display the queue panel of Sales in another browser window.
5. Check queue statistics and handle queue calls in the following panels.



- [Check queue data on the call statistics panel]
- [Check and manage calls on the waiting call panel]
- [Check and manage calls on the active call panel]
- [Check and manage agent status on the agent panel]

Check queue data on the call statistics panel

You can check the call statistics of the specified range of queue(s).



To understand each metric, you can refer to the table below.

Call statistics	Description
SLA	Display the percentage of calls answered within the target response time (SLA) for the queue(s).
Answered calls	Display the total calls that queue agents answered over a period of time.
Abandoned Calls	Display the total calls that have been abandoned over a period of time. **Tip:** You can click on the widget to view detailed information about related call logs and manage the processing status.
Missed Calls	Display the total calls that queue missed over a period of time.

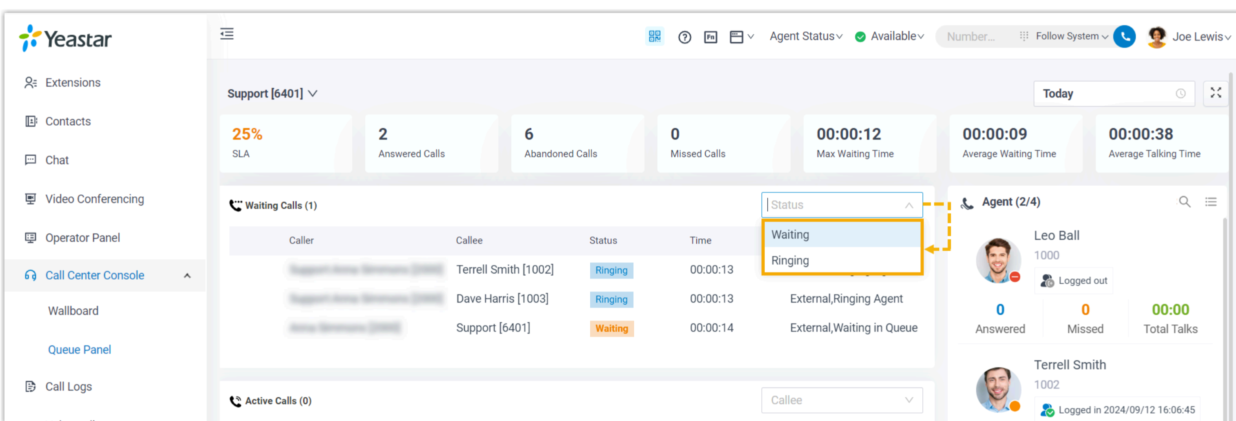
Call statistics	Description
	Tip: You can click on the widget to view detailed information about related call logs and manage the processing status.
Max Waiting Time	Display the maximum call waiting time for all calls answered over a period of time.
Average Waiting Time	Display the average waiting time over a period of time for all queue calls.
Average Talking Time	Display the average talking time over a period of time for all queue calls.

Check and manage calls on the waiting call panel

You can check the details of incoming call that is in ringing or waiting state in real time, including caller, callee, queue, status, time, and details. You can also manage the calls as needed.

Note:

The QCB indicates that the caller has requested a callback.

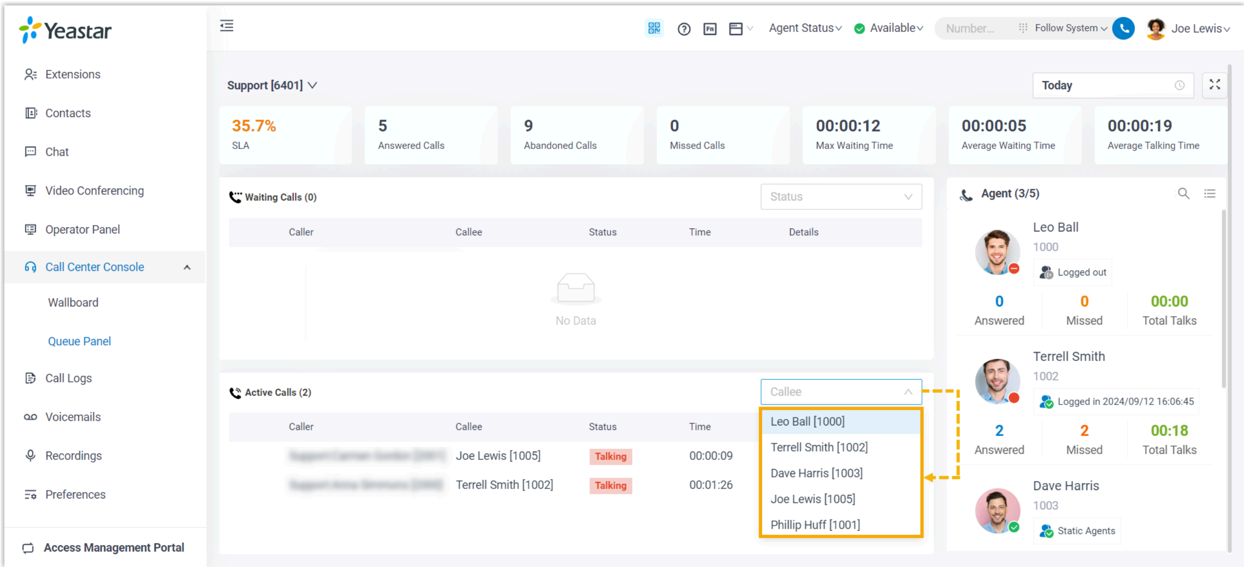


Check and manage calls on the active call panel

You can check the details of answered calls in real time, including caller, callee, queue, status, time, and details. You can also manage the calls as needed.

Note:

The QCB indicates that this is a callback.

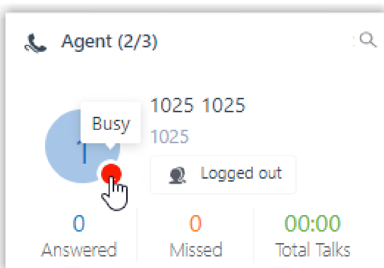


Check and manage agent status on the agent panel

You can check the agent details in the queue(s), including the agent's presence, queue status, and the agent's queue call statistics.

Agent's presence

To see an agent's presence status, hover your mouse over the presence icon.

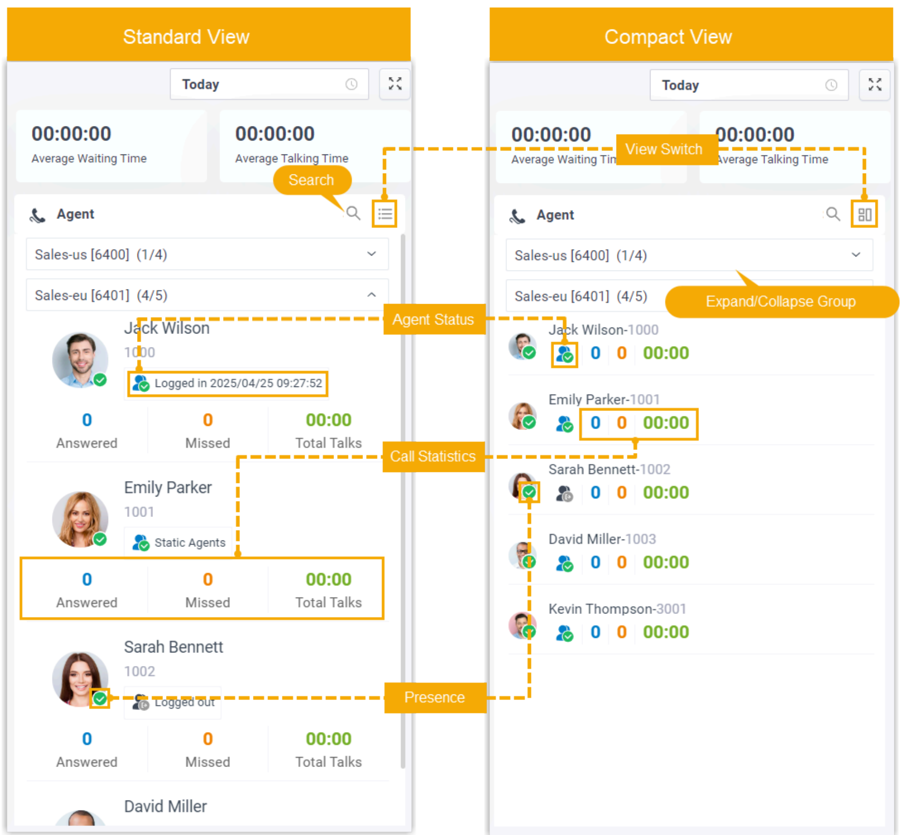


Queue Status

Icon	Presence
	The agent has logged in to the queue, and is available to receive a call.
	The agent logged out of the queue.
	The agent has paused receiving the queue calls.

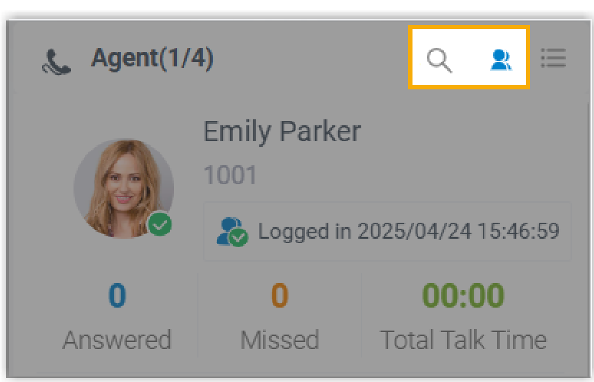
View Switch

By default, **Standard View** is displayed. You can click the **View Switch** button to switch to the **Compact View**, which allows you to view and manage queue agents more efficiently.



Search and Filter

You can search and filter from the list using the following options to find the desired agents quickly and efficiently.



Option	Description
	Search the specific agent.
	Filter and display only online agents that meet with both of the following conditions: • The extension status is online, meaning it is logged in to a Linkus client, or registered on an endpoint. • The agent status is set to **Log In**, **Unpause**, or **Pause**.

Manage Agent Status

Manage Your Status in Queues

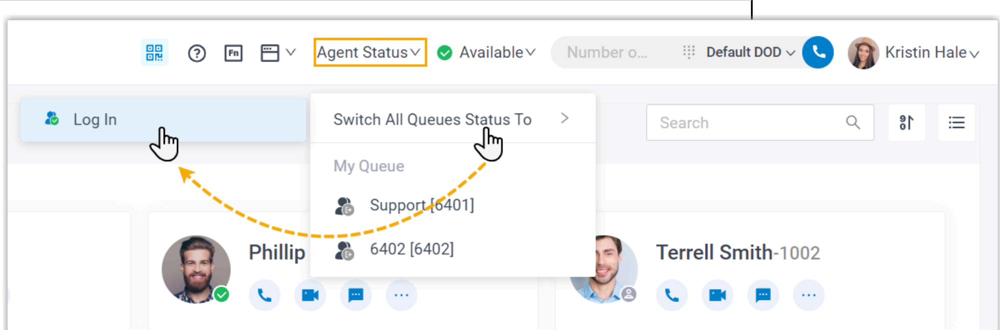
As an agent of a queue or multiple queues, you can change your own status in a specific queue or in all queues on Linkus Web Client or Desktop Client. This topic describes how to log in to and out of queues, pause and unpause queue calls.

Log in to queues

> **Note:**
> This operation is only available for dynamic agents.

Log in to all queues

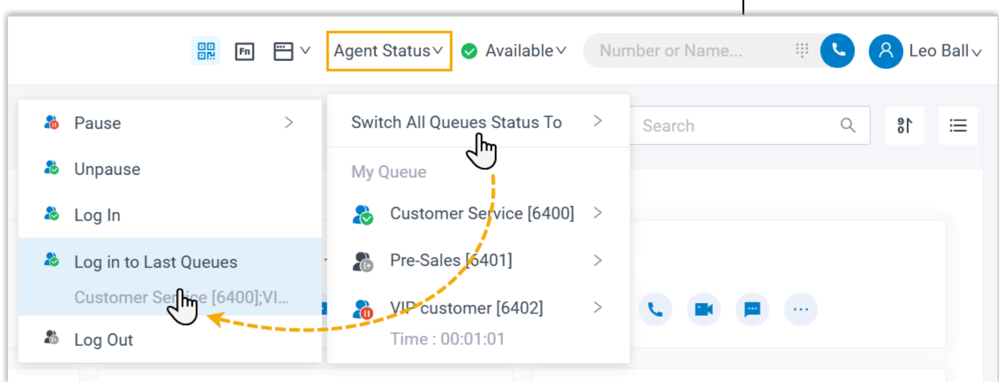
You can log in to all queues by either of the following methods:

Method	Instruction
Log in to all queues from Toolbar	 1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**.

Method	Instruction
	2. Hover your mouse over **Switch All Queue Status To**. 3. Click **Log In**.
Log in to all queues using feature code	1. Obtain the **Log In to All Queues** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*77`, simply dial `*77` to log in to all queues you are assigned to.

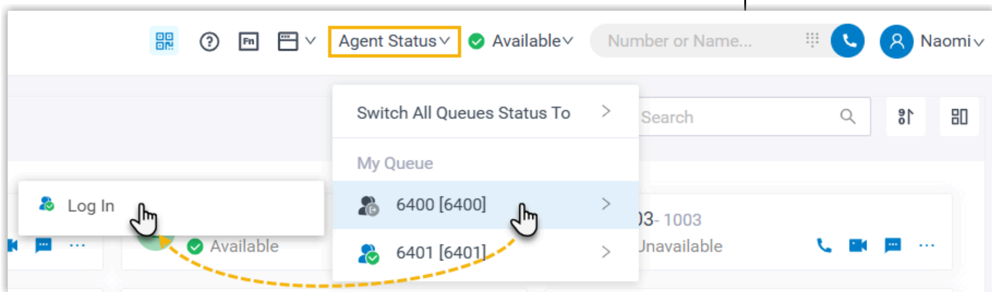
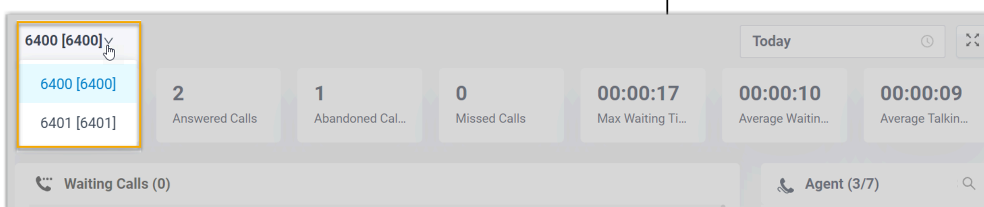
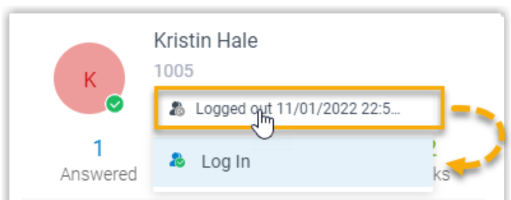
Log in to all previously logged-in queues

You can log in to all queues you were previously logged in to by either of the following methods, without needing to select each queue manually.

Method	Instruction
Log in to last logged-in queues from Toolbar	 1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**. 2. Hover your mouse over **Switch All Queue Status To**. 3. Click **Log in to Last Queues**.
Log in to last logged-in queues using feature code	1. Obtain the **Log in to Last Queues** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*78`, simply dial `*78` to log in to all queues you previously logged in to.

Log in to a specific queue

You can log in to a specific queue by any of the following methods:

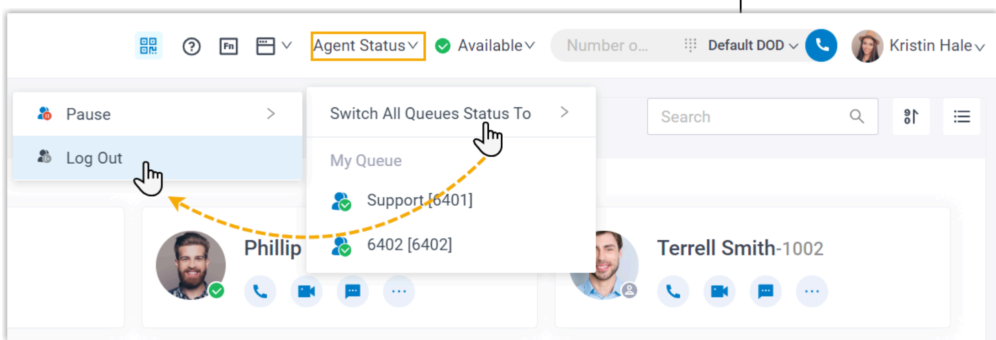
Method	Instruction
Log in to a specific queue from Toolbar	 1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**. 2. Hover your mouse over the desired queue. 3. Click **Log In**.
Log in to a specific queue from Queue Panel	1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**. 2. In the top-left corner of the Queue Panel, select a desired queue.  3. On the **Agent** panel, hover your mouse over your extension and change the status.  a. Click the agent status. b. Click **Log In**.
Log in to a specific queue using feature code	1. Obtain the **Log in/Log out** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*7`, to log in to queue 6400, simply dial `*76400`.

Log out of queues

> **Note:**
> This operation is only available for dynamic agents.

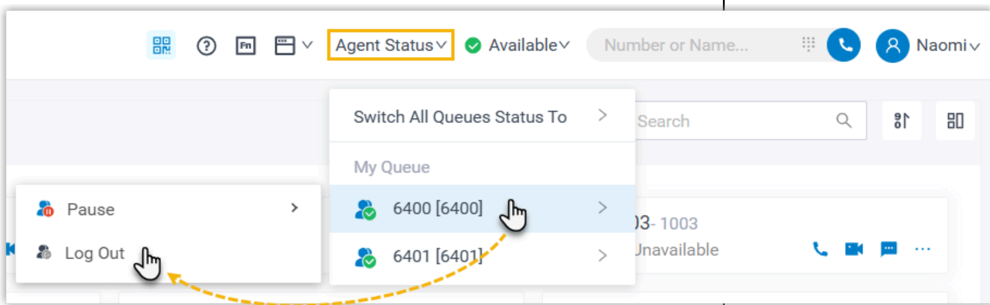
Log out of all queues

You can log out of all queues by either of the following methods:

Method	Instruction
Log out of all queues from Toolbar	 1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**. 2. Hover your mouse over **Switch All Queue Status To**. 3. Click **Log Out**.
Log out of all queues using feature code	1. Obtain the **Log Out of All Queues** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*077`, simply dial `*077` to log out of all queues you are assigned.

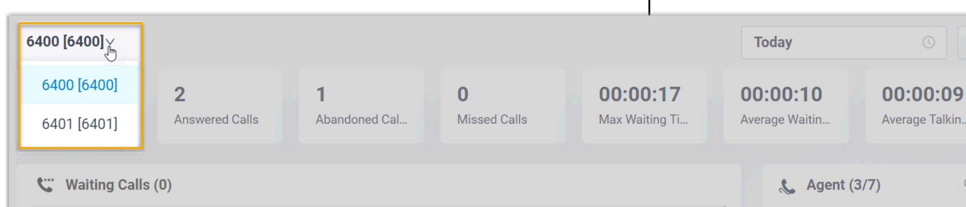
Log out of a specific queue

You can log out of a specific queue by any of the following methods:

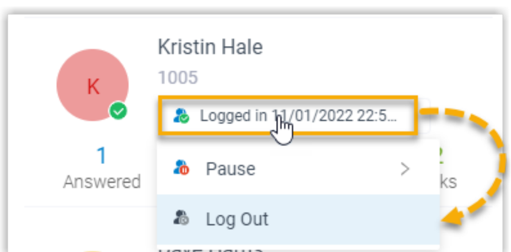
<table>
<tr><th>Method</th><th>Instruction</th></tr>
<tr><td>Log out of a specific queue from Toolbar</td><td>


1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**.
2. Hover your mouse over the desired queue.
3. Click **Log Out**.
</td></tr>
<tr><td>Log out of a specific queue from Queue Panel</td><td>

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. In the top-left corner of the Queue Panel, select a desired queue.



3. On the **Agent** panel, hover your mouse over your extension and change the status.



a. Click the agent status.
b. Click **Log Out**.
</td></tr>
<tr><td>Log out of a specific queue using feature code</td><td>

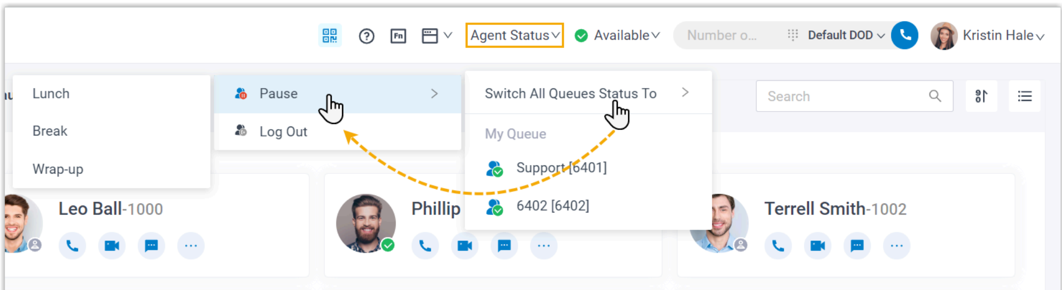
1. Obtain the **Log in/Log out** feature code from the system administrator.
2. Dial the feature code.

For example, if the feature code is `*7`, to log out of queue 6400, simply dial `*76400`.
</td></tr>
</table>

Pause queue calls

As a queue agent (be it static or dynamic), you can pause receiving the queue calls when you are away from desk. The queue will not distribute calls to you after you pause queue calls.

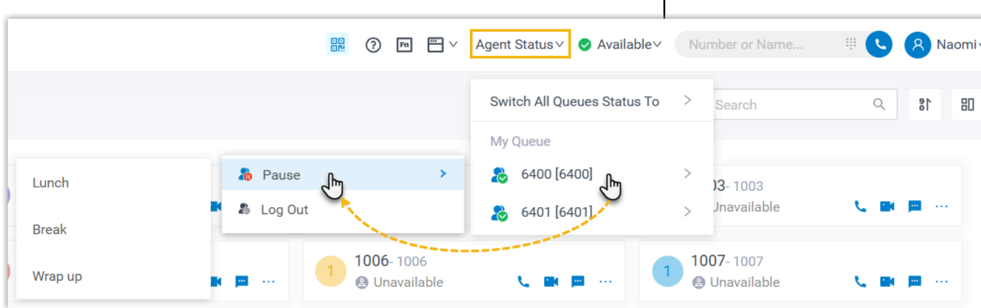
Pause service in all queues



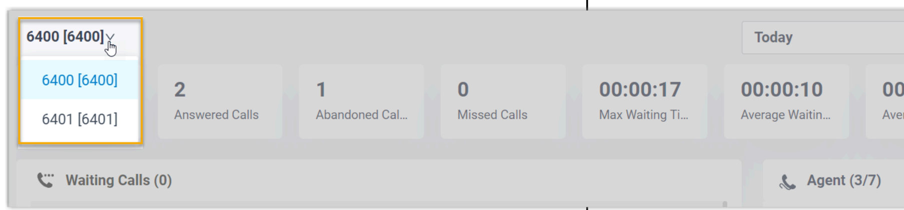
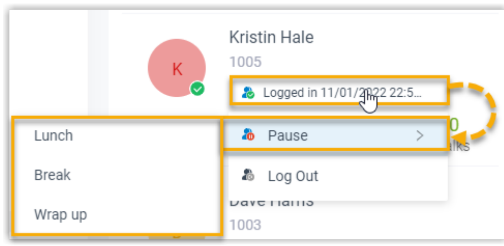
1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**.
2. Hover your mouse over **Switch All Queue Status To**.
3. Click **Pause**.
4. **Optional:** In the pause reason list, select a specific reason.

Pause service in a specific queue

You can pause service in a specific queue by any of the following methods:

<table>
<tr><th>Method</th><th>Instruction</th></tr>
<tr><td>Pause service in a specific queue from Toolbar</td><td>


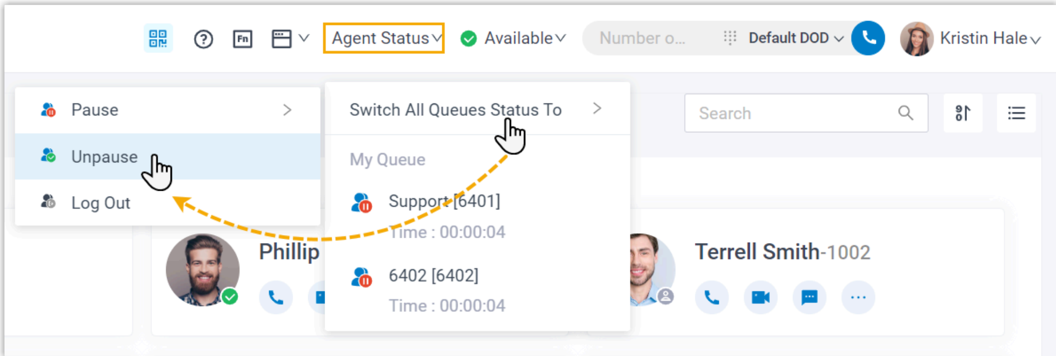
1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**.
2. Hover your mouse over the desired queue.
3. Click **Pause**.
4. **Optional:** In the pause reason list, select a specific reason.
</td></tr>
</table>

Method	Instruction
Pause service in a specific queue from Queue Panel	1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**. 2. In the top-left corner of the Queue Panel, select a desired queue.  3. On the **Agent** panel, hover your mouse over your extension and change the status.  a. Click the agent status. b. Click **Pause**. c. **Optional:** In the pause reason list, select a specific reason.
Pause service in a specific queue using feature code	1. Obtain the **Pause/Unpause** feature code and the **Pause Reason** feature codes from the system administrator. 2. Dial the feature code. For example, if the **Pause/Unpause** feature code is `*07`, to pause service in queue 6400, do as follows: • To directly pause without reason, dial `*076400`. • To pause with specific reason, dial `*076400` plus the pause reason feature code, e.g. `*076400*03`.

Unpause queue calls

As a queue agent (be it static or dynamic), you can resume receiving queue calls when you are ready to take a call.

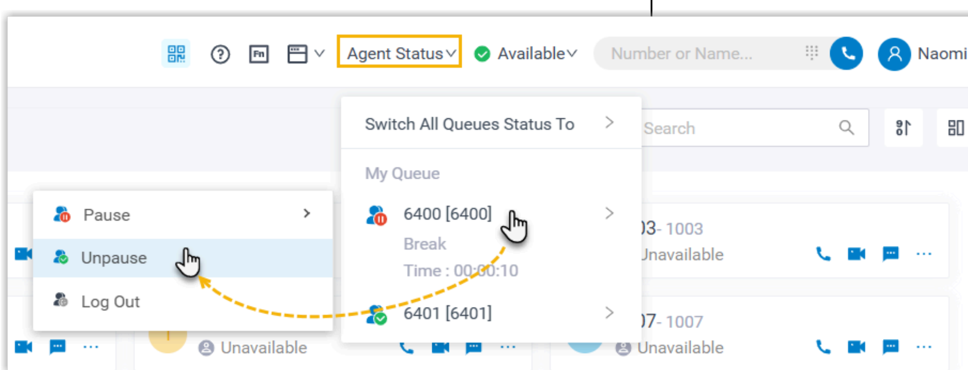
Unpause service in all queues

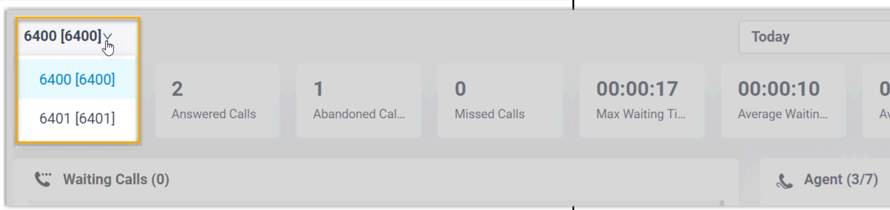
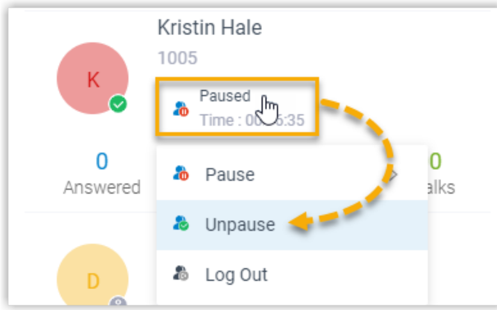


1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**.
2. Hover your mouse over **Switch All Queue Status To**.
3. Click **Unpause**.

Unpause service in a specific queue

You can unpause service in a specific queue by any of the following methods:

Method	Instruction
Unpause service in a specific queue from Toolbar	 1. In the top navigation bar of Linkus Web Client or Desktop Client, click **Agent Status**. 2. Hover your mouse over the desired queue. 3. Click **Unpause**.
Unpause service in a specific queue from Queue Panel	1. In the Web Client or Desktop Client, go to **Call Center Console > Queue Panel**. 2. In the top-left corner of the Queue Panel, select a desired queue.

Method	Instruction
	 3. On the **Agent** panel, hover your mouse over your extension and change the status.  a. Click the agent status. b. Click **Unpause**.
Unpause service in a specific queue using feature code	1. Obtain the **Pause/Unpause** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*07`, to unpause service in queue 6400, dial `*076400`.

Related information

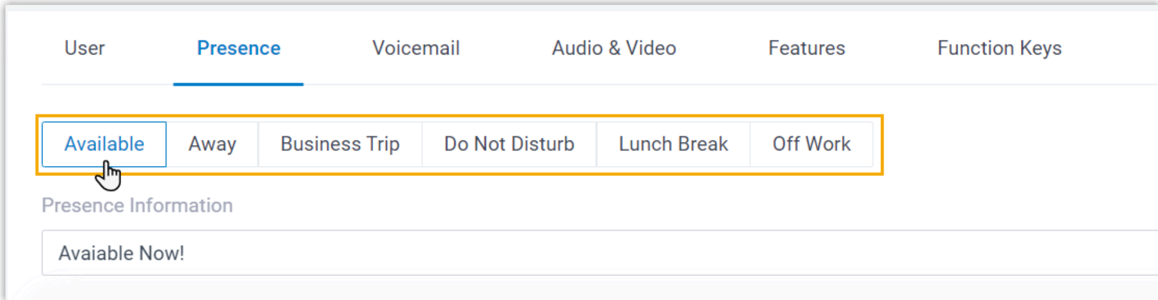
[Automatically Switch Agent Status Based on Extension Presence]()

Automatically Switch Agent Status Based on Extension Presence

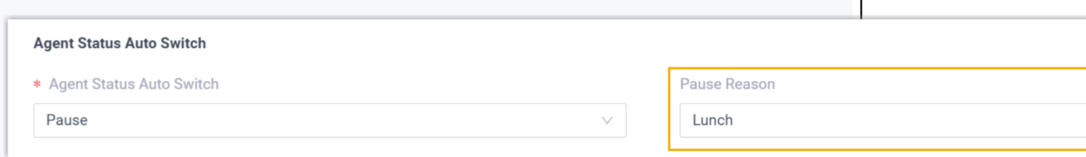
This topic describes how to set your agent status to automatically change along with your extension presence on Linkus Web Client or Desktop Client.

Procedure

1. Log in to Linkus Web Client or Desktop Client, go to **Preferences > Presence**.
2. On the status bar, select a presence status to edit.



3. Scroll down to the **Options** section, then select an action in the **Agent Status Auto Switch** drop-down list.

Option	Description
Log In	When your extension changes to the presence status, you will automatically log in to all the queues to which you belong. • **Dynamic agent**: Log in to the queues. • **Static agent**: Resume receiving calls from the queues.
Log in to Last Queues	When your extension changes to the presence status, you will automatically log in to all previously logged-in queues. • **Dynamic agent**: Log in to the queues. • **Static agent**: Resume receiving calls from the queues.
Log Out	When your extension changes to the presence status, you will automatically log out from all the queues to which you belong. **Note:** The logout operation is only available for **dynamic agent**.
Pause	When your extension changes to the presence status, you will automatically pause receiving queue calls. **Note:** You can select a specific pause reason in the **Pause Reason** drop-down list. 
Do Nothing	When your extension changes to the presence status, your agent status in the queues remains unaffected.

4. To configure the agent status auto-switch for more presence status, repeat Step **2 - 3**.
5. Click **Save**.

Handle Queue Calls on Queue Panel

Pick up a Call

If a call is ringing and has not been answered for a long time, in order to save the callers' user's waiting time, you can pick up the ringing call. This topic describes how to pick up a ringing call.

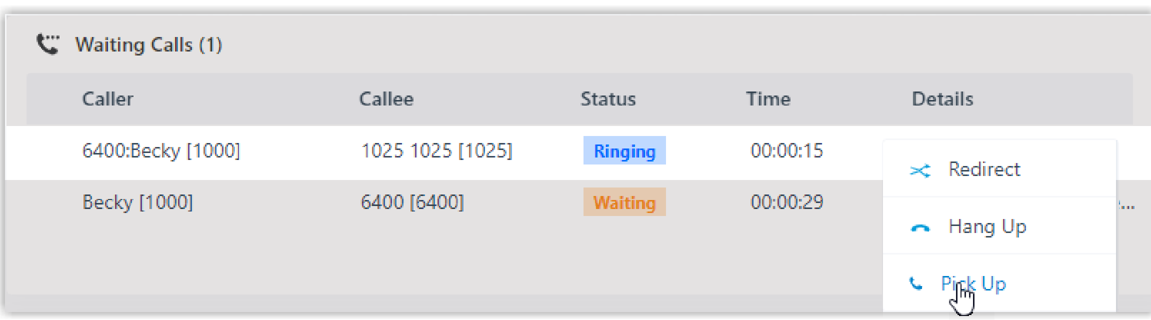
Requirements

To pick up agents' incoming calls, make sure that you have been granted the **Allow for picking up or hanging up agents' calls** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Right click the incoming call, and select **Pick Up**.

   The PBX system routes the call to your extension.

4. Answer the call.

Redirect a Call

If a call has not been answered for a long time, in order to save the caller's waiting time, you can redirect the incoming call to another extension, ring group, queue, or extension's voicemail. This topic describes how to redirect an incoming call that is in the ringing status.

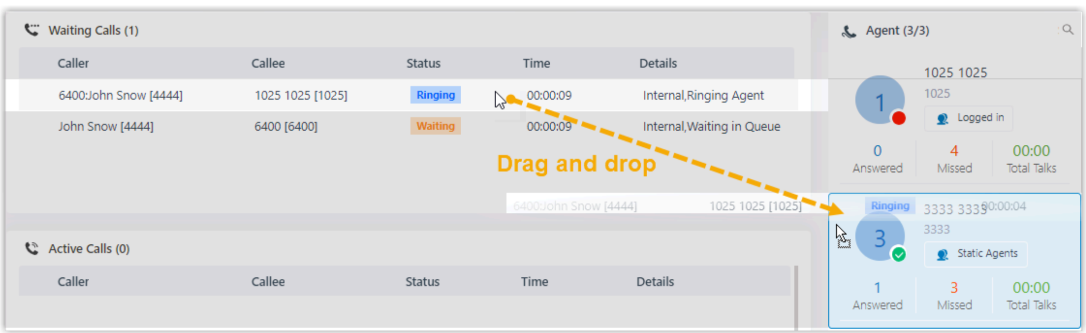
Requirements

To redirect agents' incoming calls, make sure that you have been granted the **Call distribution management (Redirect, Transfer, Drag and Drop operation)** permission by the system administrator.

Redirect a call to an extension

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Redirect the call to an extension user in one of the following methods:
    - Drag the call and drop it on a desired agent displayed in **Agent** panel.

      The agent will receive an incoming call.

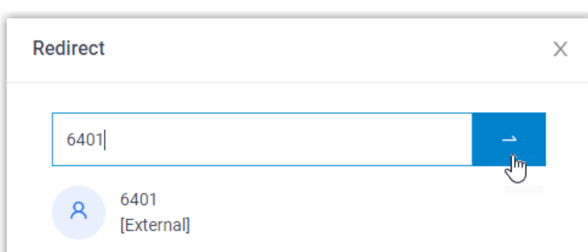
      

    - Right click the call, and click **Redirect**.

      On the pop-up panel, enter an extension number, and click →.

      The agent will receive an incoming call.

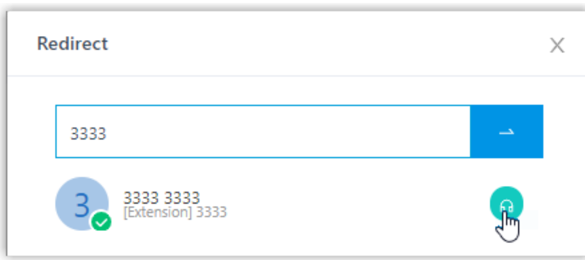
      > **Tip:**
      > You can also click the extension user from the matching results to transfer the call.

Redirect a call to extension voicemail

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Right click the incoming call, and select **Redirect**.
4. In the pop-up window, enter an extension number to search the extension user.
5. From the matching results, click to redirect the call.

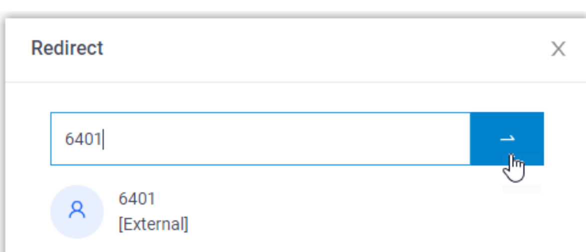
   The call is redirected to the extension's voicemail and the caller can leave a message to the extension user.



Redirect a call to another ring group or queue

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** panel, hover your mouse over a call that is in Ringing status.
3. Redirect the call to a ring group or a queue.
   a. Right click the call, and click **Redirect**.
   b. In the pop-up window, enter a ring group number or a queue number, and click .

      The system will route the call the ring group or queue.



Transfer a Call

This topic describes how to transfer an active call.

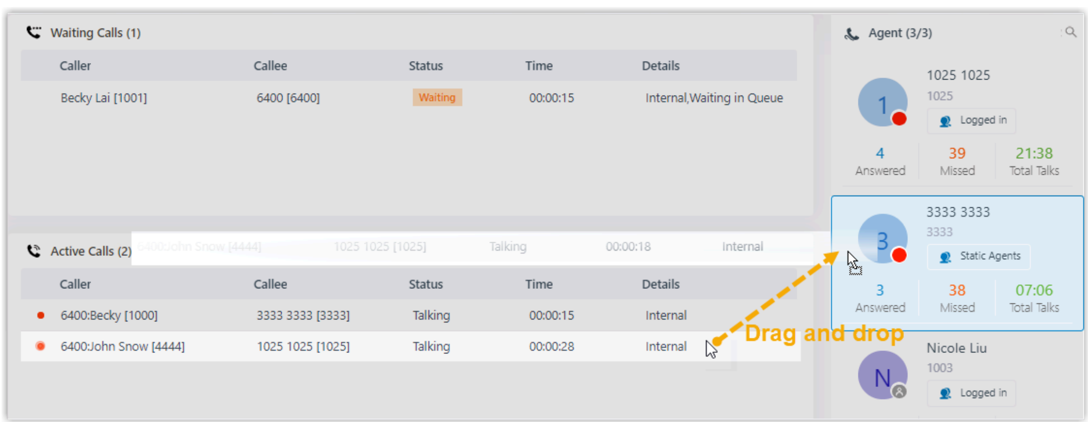
Requirements

To transfer members' active calls, make sure that you have been granted the **Call distribution management (Redirect, Transfer, Drag and Drop operation)** permission by the system administrator.

Transfer a call to an agent

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an active call.
3. Transfer the call to an extension user in one of the following methods:
    - Drag the call and drop it on a desired extension displayed in **Agents** panel.

      The agent will receive an incoming call.

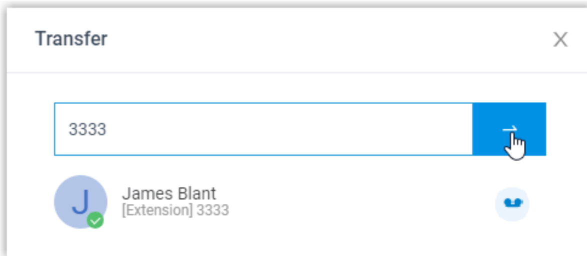
      

    - Right click the call, click **Transfer**, and select a transferred party.

      In the pop-up window, enter a target extension number, and click .

      The system routes the call to the agent, the extension user will receive an incoming call.

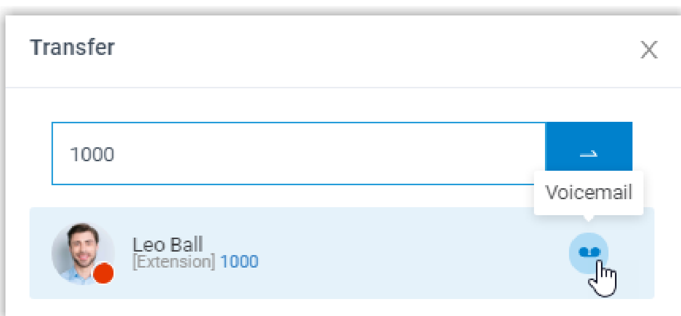
> **Tip:**
> You can also click the extension user from the matching results to transfer the call.



Transfer a call to an extension's voicemail

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an active call.
3. Right click the call, and select **Transfer**.
4. In the pop-up window, enter an extension number to search the extension user.
5. From the matching results, click to transfer the call.

   The system routes the call to the extension's voicemail. The caller can leave a message to the selected extension user.



Park a Call

Call parking is a method of holding a call on a phone, so that anyone can retrieve the call on another phone. This topic describes how to park a call.

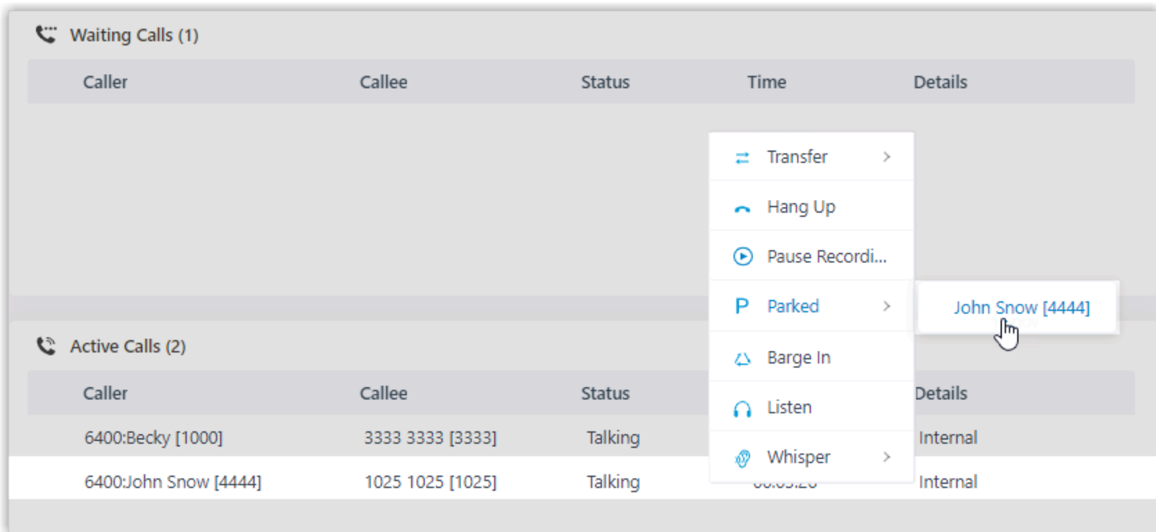
Requirements

To park agents' active calls, make sure that you have been granted the **Call parking operation** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Active Calls** panel, hover your mouse over an answered call.
3. Right click the answered call, and select **Parked**.
4. Select the parked party.

   The call is parked on an available parking number. The system puts the parked party's call on hold, and plays a prompt to tell the other party where to retrieve the call.



Hang up a Call

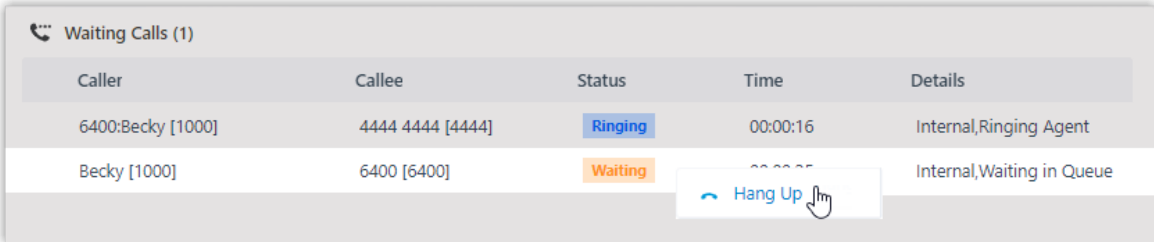
This topic describes how to hang up a call.

Requirements

To hang up agents' calls, make sure that you have been granted the **Allow for picking up or hanging up agents' calls** permission by the system administrator.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Waiting Calls** or **Active Calls** panel, hover your mouse over a call.
3. Right click the call, and select **Hang Up**.



4. In the pop-up dialog box, click **OK**.

   The system ends the call.

Place a Call to an Agent

This topic describes how to place a call to an agent quickly on Call Center Console.

Procedure

1. In the Linkus Web Client or Desktop Client, go to **Call Center Console > Queue Panel**.
2. On the **Agent** panel, hover your mouse over the agent's avatar.
3. Double-click the avatar.

   A call is placed to the agent, and a call window pops up that allows you to manage the call.

Add Notes to a Call

This topic describes how to add notes during a queue call or in the wrap-up time to capture important details for future reference.

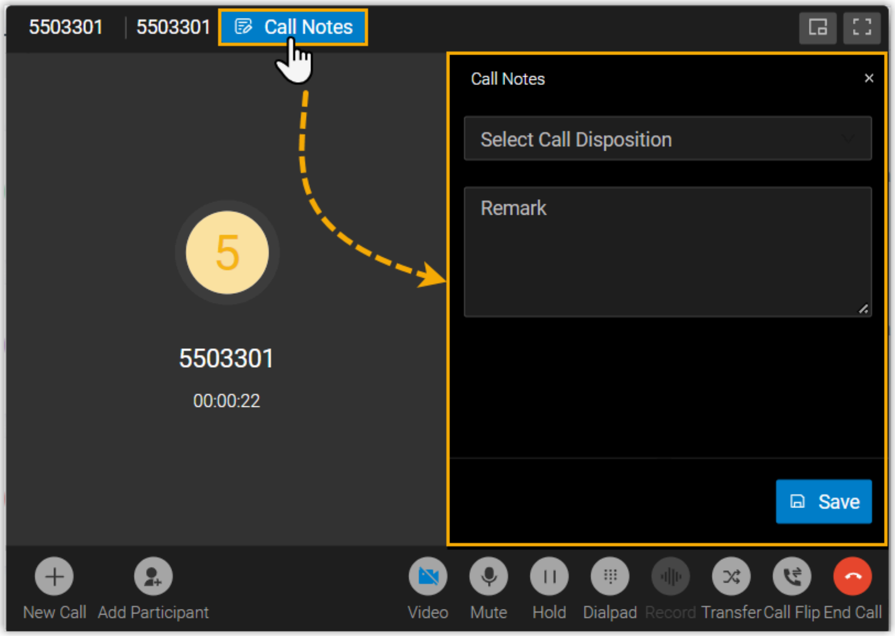
Requirements

- The firmware of the PBX server is version 37.18.0.102 or later
- System administrator has configured call disposition codes on server, and granted you the permission to use call note feature.

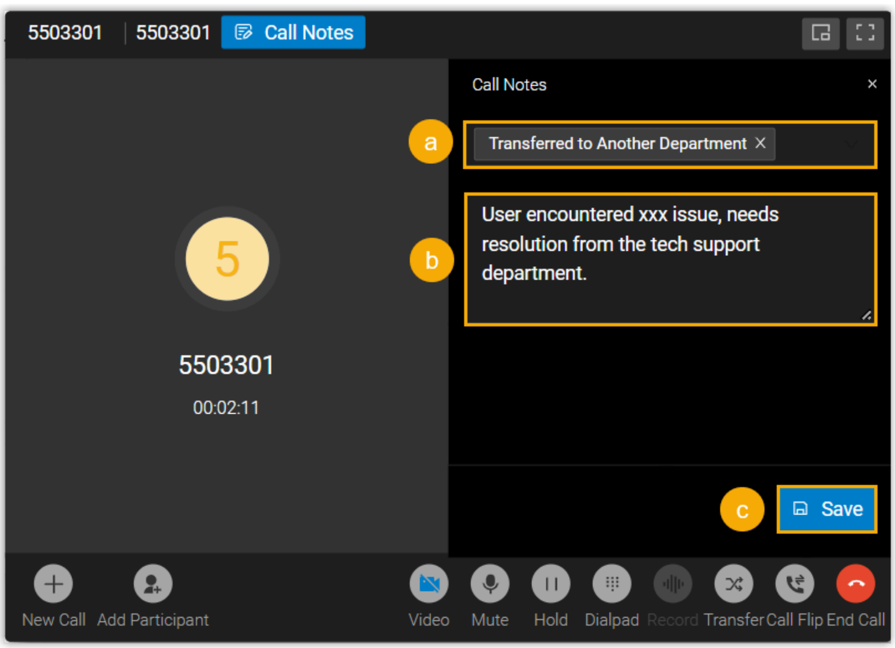
Add call notes in-call

During a queue call, you can add call notes to capture essential information or decision made in the conversation.

1. During an active call, click **Call Notes** to open the call note panel.



2. In the side panel, add tags and remarks for the call according to your needs.



   a. In the **Select Call Disposition** drop-down list, select a disposition code.
   b. In the **Remark** field, enter short descriptions to note down essential information for the call.
   c. Click **Save**.

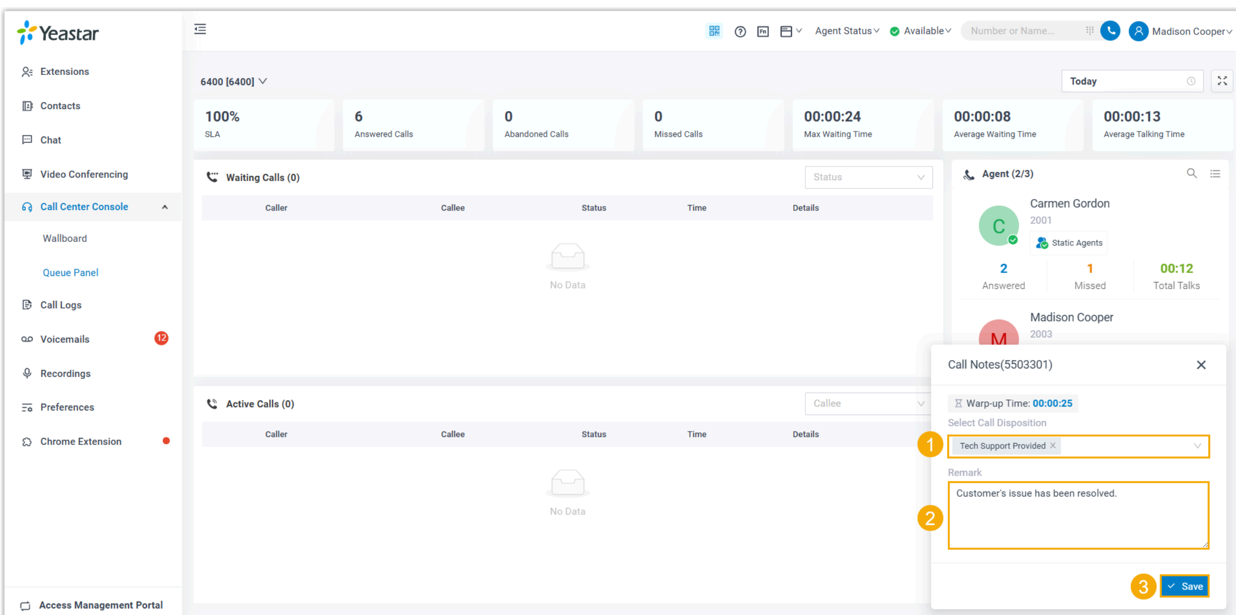
An "Edited Successfully" prompt pops up, indicating that call note is saved successfully.

> **Note:**
> You can modify and save the notes multiple times before the call ends.

Add call notes in wrap-up time

When you finish a queue call and enter the wrap-up time, a call note panel will appear, where you can add or edit call notes.

> **Note:**
> After call, you can check and edit call notes in the corresponding call log. For more information, see Manage Queue Call Logs.



1. In the **Select Call Disposition** drop-down list, select a disposition code.
2. In the **Remark** field, enter short descriptions to note down essential information for the call.
3. Click **Save**.

Manage Queue Call Logs

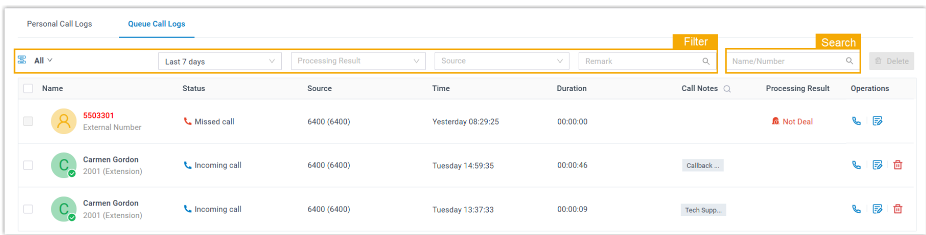
This topic describes how to check and manage the queue call logs on Linkus Web Client or Desktop Client.

Requirements

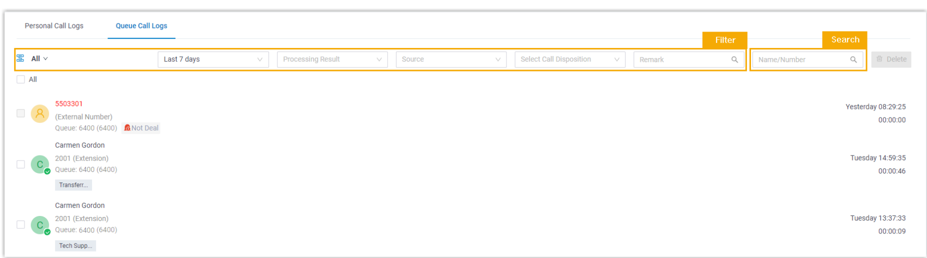
System administrator has granted you the viewing permission of queue call logs.

Procedure

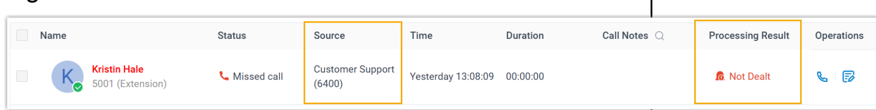
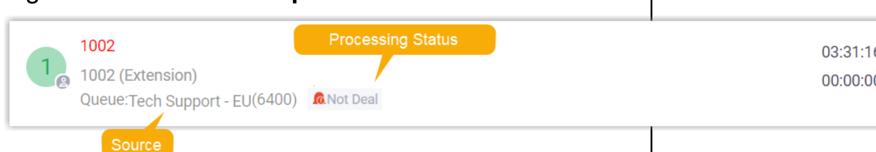
1. Log in to Linkus Web Client or Desktop Client, go to **Call Logs > Queue Call Logs**.
2. **Optional:** At the top of the list, filter or search the desired call logs.
    - Figure 5. **Linkus Web Client**

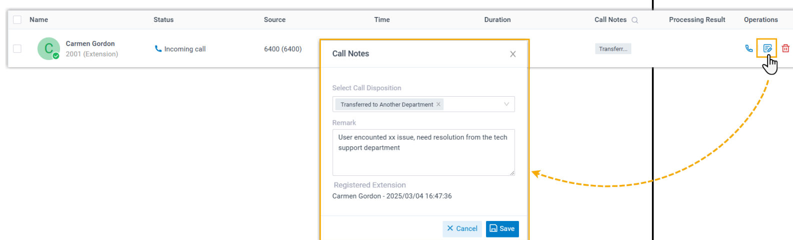
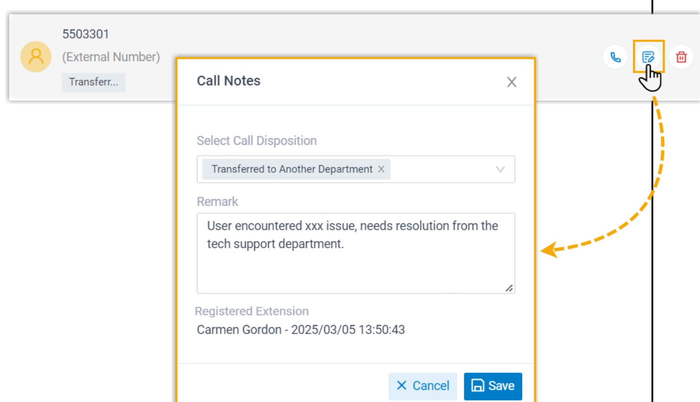
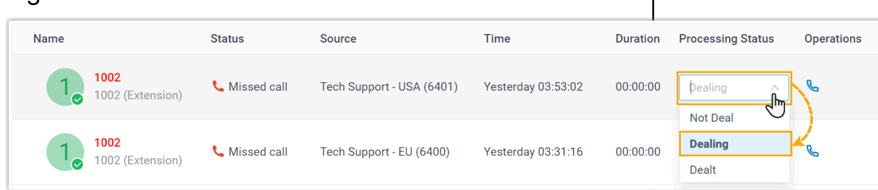


    - Figure 6. **Linkus Desktop Client**



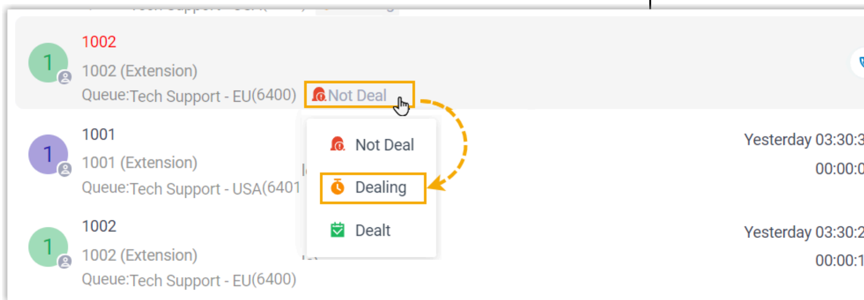
3. Manage the call logs according to your needs.

Operation	Instruction
Check the details of queue call logs	You can conveniently check the source of the queue call logs, as well as the processing status of missed queue calls. • Figure 7. **Linkus Web Client**  • Figure 8. **Linkus Desktop Client** 

Operation	Instruction
	Where **Source** indicates the queue the call came from, and **Processing Status** indicates the processing status of a missed queue call.
Check and edit call notes	You can check or edit the call notes for a call in the corresponding call log. • Figure 9. **Linkus Web Client**  • Figure 10. **Linkus Desktop Client**  a. Click beside the desired call log. b. In the call note panel, edit the information as needed, then click **Save**.
Place a call to the caller	You can directly place a call from a call log via the following methods: • Double click the desired call log. • Click beside the call log.
Change the processing status of a missed queue call	If you decide to handle a missed queue call, or you have handled it, you can change the processing status of the missed queue call. • Figure 11. **Linkus Web Client** 

<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td></td><td>

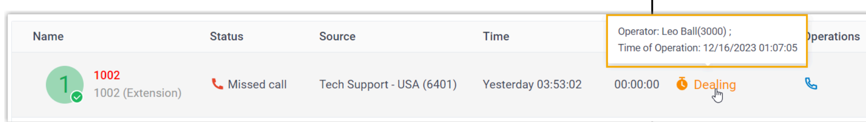
- Figure 12. **Linkus Desktop Client**



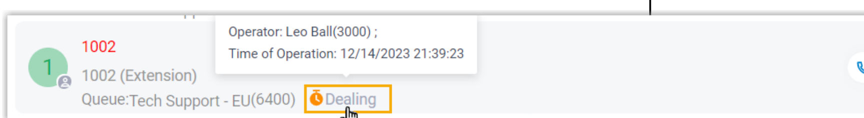
a. Click the processing status beside the call log.
b. In the drop-down list, select the desired one.

The processing status is changed; All the authorized agents can see the change, and check the operation record by hovering mouse over the processing status.

- Figure 13. **Linkus Web Client**



- Figure 14. **Linkus Desktop Client**

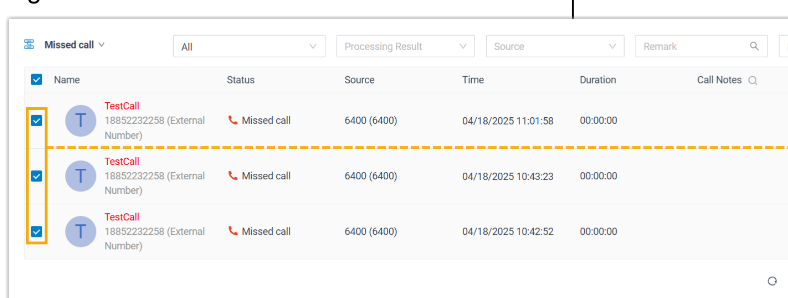


</td></tr>
<tr><td>Delete incoming queue call logs</td><td>

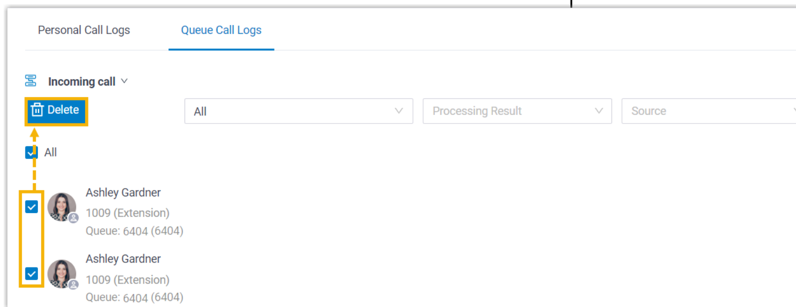
Note:
Only supports to delete the call logs of queue calls that you have answered.

You can delete incoming queue call logs via the following methods:

- To delete a single call log, click beside the call log.
- To bulk delete call logs, select the checkboxes of the desired incoming call logs, then click **Delete**.
  - Figure 15. **Linkus Web Client**



</td></tr>
</table>

Operation	Instruction
	◦ Figure 16. **Linkus Desktop Client** 

Agent Operations on Mobile Client

Manage Agent Status

Manage Your Status in Queues

As an agent of a queue or multiple queues, you can change your own status in a specific queue or in all queues on Linkus Mobile Client. This topic describes how to log in to and out of queues, pause and unpause queue calls.

Requirements

Make sure that the version of your Linkus Mobile Client meets the following requirements:

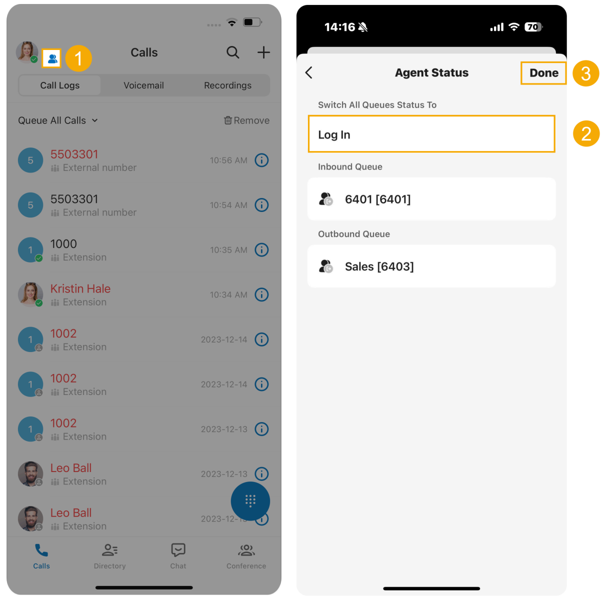
- **Linkus iOS Client**: Version 5.12.4 or later
- **Linkus Android Client**: Version 5.12.3 or later

Log in to queues

> **Note:**
> This operation is only available for dynamic agents.

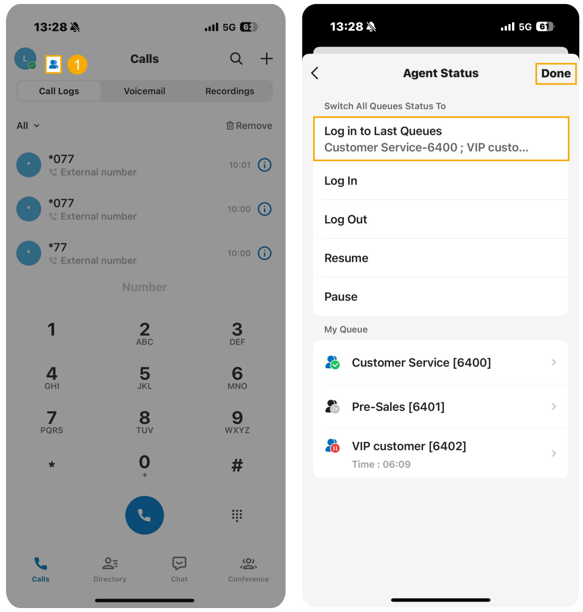
Log in to all queues

You can log in to all queues by either of the following methods:

Method	Instruction
Log in to all queues via the mobile interface	 1. At the top-left corner of Linkus Mobile Client, tap  beside your account. You are redirected to the **Agent Status** page. 2. In the **Switch All Queues Status To** section, tap **Log In**. 3. At the top-right corner, tap **Done**.
Log in to all queues using feature code	1. Obtain the **Log In to All Queues** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*77`, simply dial `*77` to log in to all queues you are assigned to.

Log in to all previously logged-in queues

You can log in to all queues you were previously logged in to by either of the following methods, without needing to select each queue manually.

<table>
<tr><th>Method</th><th>Instruction</th></tr>
<tr><td>Log in to last logged-in queues via the mobile interface</td><td>

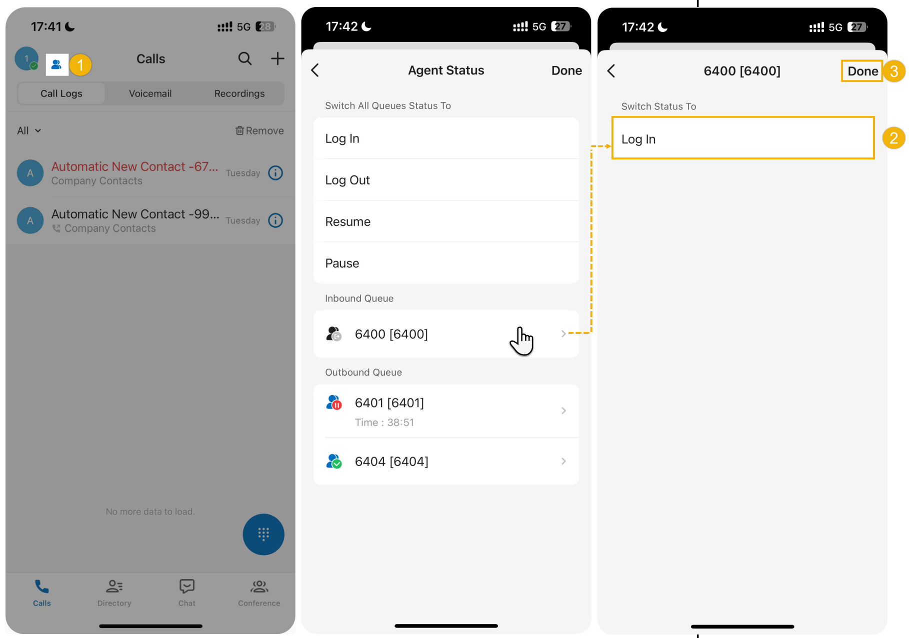
At the top-left corner of Linkus Mobile Client, tap beside your account.

You are redirected to the Agent Status page.
In the Switch All Queues Status To section, tap Log in to Last Queues.
At the top-right corner, tap Done.
</td></tr>
<tr><td>Log in to last logged-in queues using feature code</td><td>
Obtain the Log in to Last Queues feature code from the system administrator.
Dial the feature code.

For example, if the feature code is <code>*78</code>, simply dial <code>*78</code> to log in to all queues you previously logged in to.
</td></tr>
</table>

Log in to a specific queue

You can log in to a specific queue by any of the following methods:

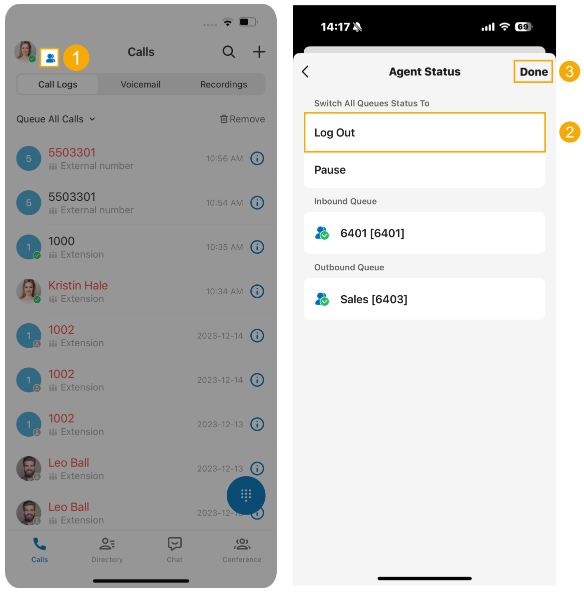
Method	Instruction
Log in to a specific queue via the mobile interface	 1. At the top-left corner of Linkus Mobile Client, tap beside your account. You are redirected to the **Agent Status** page. 2. Tap the desired queue, then tap **Log In**. 3. At the top-right corner, tap **Done**.
Log in to a specific queue using feature code	1. Obtain the **Log in/Log out** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*7`, to log in to queue 6400, simply dial `*76400`.

Log out of queues

> **Note:**
> This operation is only available for dynamic agents.

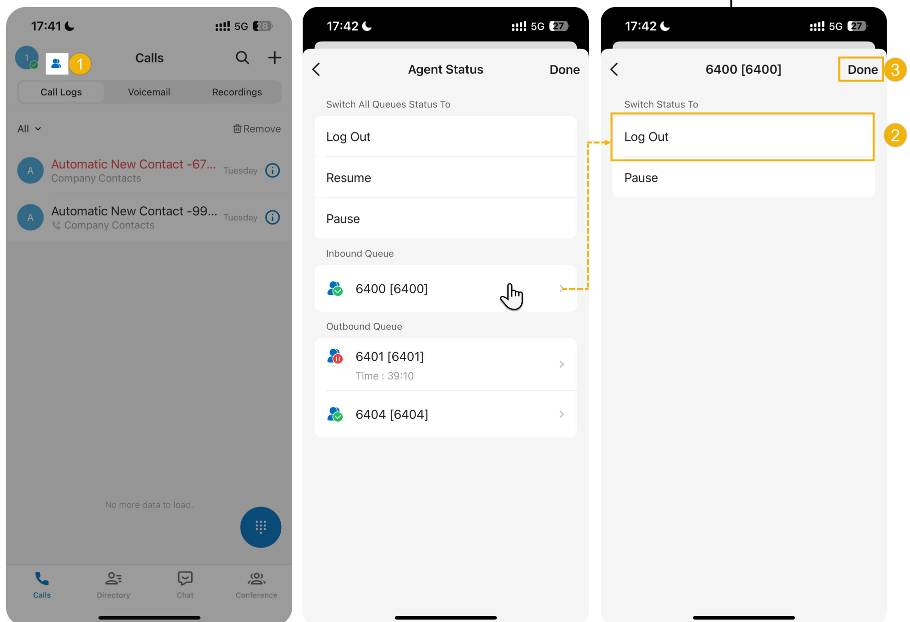
Log out of all queues

You can log out of all queues by either of the following methods:

Method	Instruction
Log out of all queues via the mobile interface	 1. At the top-left corner of Linkus Mobile Client, tap beside your account. You are redirected to the **Agent Status** page. 2. In the **Switch All Queues Status To** section, tap **Log Out**. 3. At the top-right corner, tap **Done**.
Log out of all queues using feature code	1. Obtain the **Log Out of All Queues** feature code from the system administrator. 2. Dial the feature code. For example, if the feature code is `*077`, simply dial `*077` to log out of all queues you are assigned.

Log out of a specific queue

You can log out of a specific queue by any of the following methods:

<table>
<tr><th>Method</th><th>Instruction</th></tr>
<tr><td>Log out of a specific queue via the mobile interface</td><td>


At the top-left corner of Linkus Mobile Client, tap beside your account.
You are redirected to the Agent Status page.
Tap the desired queue, then tap Log out.
At the top-right corner, tap Done.

</td></tr>
<tr><td>Log out of a specific queue using feature code</td><td>

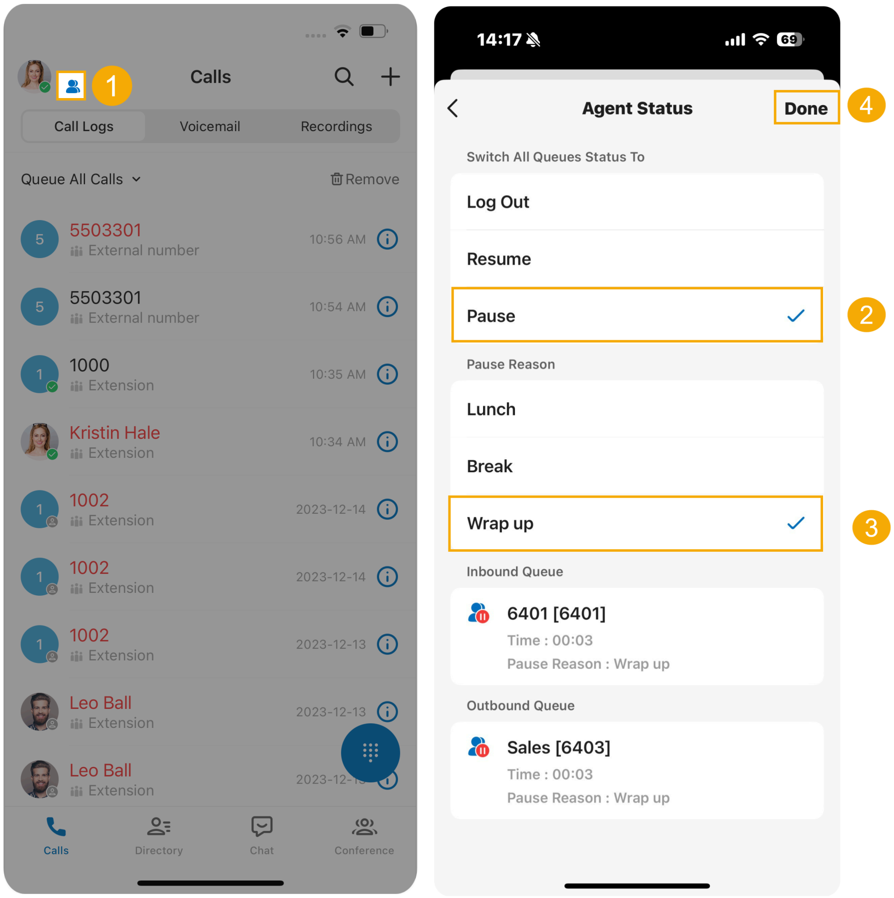
Obtain the Log in/Log out feature code from the system administrator.
Dial the feature code.
For example, if the feature code is <code>*7</code>, to log out of queue 6400, simply dial <code>*76400</code>.

</td></tr>
</table>

Pause queue calls

As a queue agent (be it static or dynamic), you can pause receiving queue calls when you are unavailable. The queue will not distribute calls to you after you pause queue calls.

Pause service in all queues

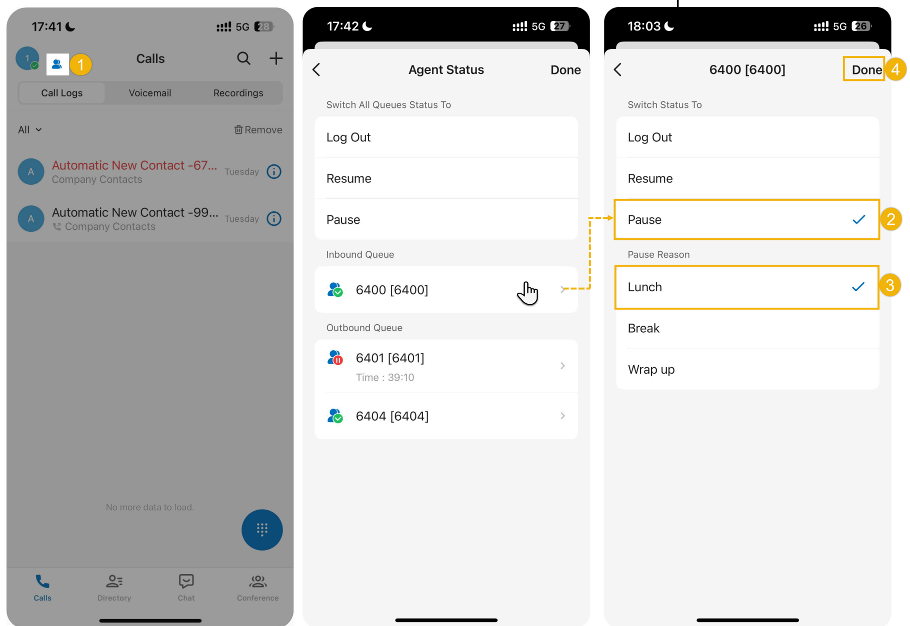


1. At the top-left corner of Linkus Mobile Client, tap beside your account.

   You are redirected to the **Agent Status** page.
2. In the **Switch Status To** section, tap **Pause**.
3. **Optional:** In the **Pause Reason** section, select a specific reason.
4. At the top-right corner, tap **Done**.

Pause service in a specific queue

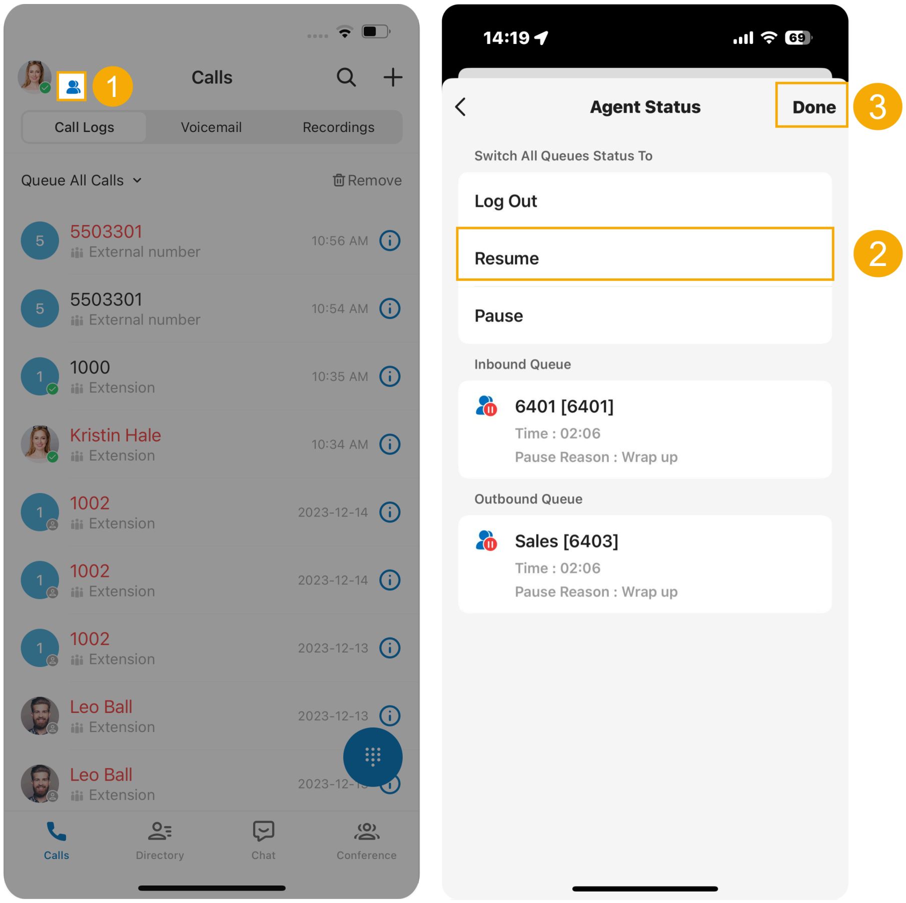
You can pause service in a specific queue by any of the following methods:

Method	Instruction
Pause service in a specific queue via the mobile interface	 1. At the top-left corner of Linkus Mobile Client, tap  beside your account. You are redirected to the **Agent Status** page. 2. Tap the desired queue, then tap **Pause**. 3. **Optional:** In the **Pause Reason** section, select a specific reason. 4. At the top-right corner, tap **Done**.
Pause service in a specific queue using feature code	1. Obtain the **Pause/Unpause** feature code and the **Pause Reason** feature codes from the system administrator. 2. Dial the feature code. For example, if the **Pause/Unpause** feature code is `*07`, to pause service in queue 6400, do as follows: • To directly pause without reason, dial `*076400`. • To pause with specific reason, dial `*076400` plus the pause reason feature code, e.g. `*076400*03`.

Unpause queue calls

As a queue agent (be it static or dynamic), you can resume receiving queue calls when you are ready to take a call.

Unpause service in all queues

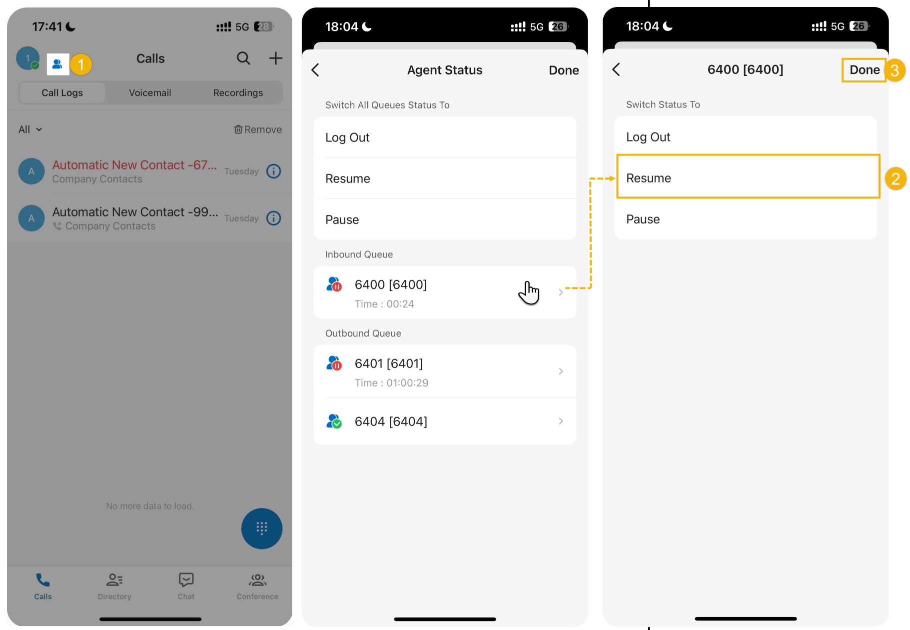


1. At the top-left corner of Linkus Mobile Client, tap beside your account.

   You are redirected to the **Agent Status** page.
2. In the **Switch Status To** section, tap **Resume**.
3. At the top-right corner, tap **Done**.

Unpause service in a specific queue

You can unpause service in a specific queue by any of the following methods:

<table>
<tr><th>Method</th><th>Instruction</th></tr>
<tr><td>Unpause service in a specific queue via the mobile interface</td><td>

At the top-left corner of Linkus Mobile Client, tap beside your account.
You are redirected to the Agent Status page.
Tap the desired queue, then tap Resume.
At the top-right corner, tap Done.</td></tr>
<tr><td>Unpause service in a specific queue using feature code</td><td>Obtain the Pause/Unpause feature code from the system administrator.
Dial the feature code.
For example, if the feature code is <code>*07</code>, to unpause service in queue 6400, dial <code>*076400</code>.</td></tr>
</table>

Related information

[Automatically Switch Agent Status Based on Extension Presence]

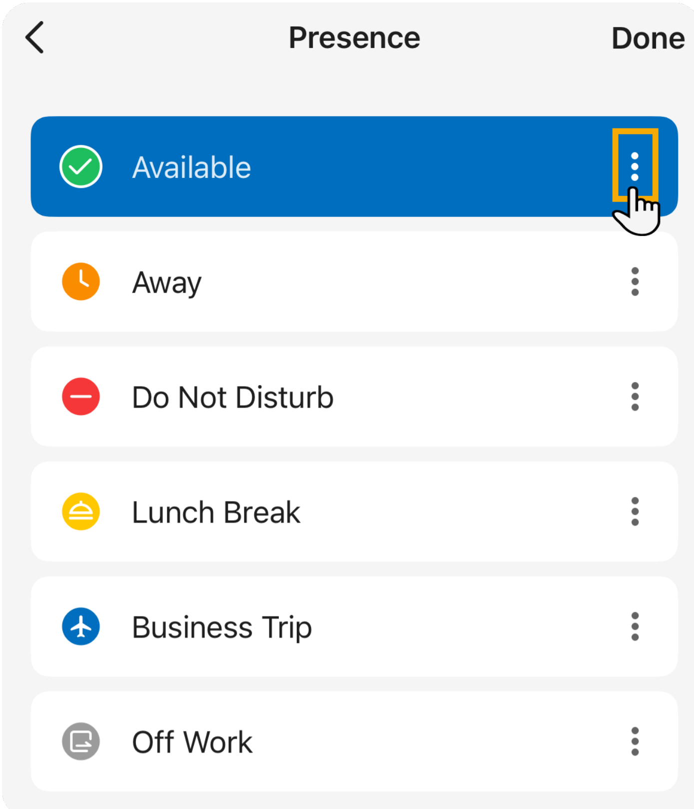
Automatically Switch Agent Status Based on Extension Presence

This topic describes how to set your agent status to automatically change along with your extension presence on Linkus Mobile Client.

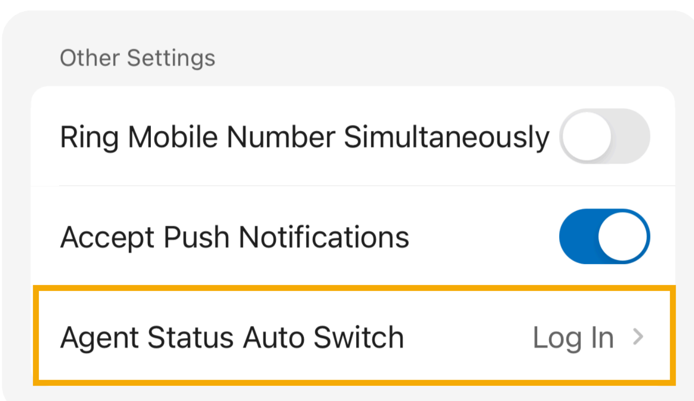
Procedure

1. At the top-left corner of Linkus Mobile Client, tap your account.

2. Go to **Current Presence**.
3. In the **Presence** list, click ⋮ beside the desired presence status.



4. Scroll down to the **Other Settings** section, then tap **Agent Status Auto Switch**.



5. Select an action according to your need.

Option	Description
Log In	When your extension changes to the presence status, you will automatically log in to all the queues to which you belong. • **Dynamic agent**: Log in to the queues.

Option	Description
	• **Static agent**: Resume receiving calls from the queues.
Log in to Last Queues	When your extension changes to the presence status, you will automatically log in to all previously logged-in queues. • **Dynamic agent**: Log in to the queues. • **Static agent**: Resume receiving calls from the queues.
Log Out	When your extension changes to the presence status, you will automatically log out from all the queues to which you belong. **Note:** The logout operation is only available for **dynamic agent**.
Pause	When your extension changes to the presence status, you will automatically pause receiving queue calls. **Note:** You can select a specific pause reason in the **Pause Reason** drop-down list.
Do Nothing	When your extension changes to the presence status, your agent status in the queues remains unaffected.

6. To configure the agent status auto-switch for more presence status, repeat Step **3** - **5**.

Handle Queue Calls on Linkus Mobile Client

This topic describes how to handle queue calls on Linkus Mobile Client.

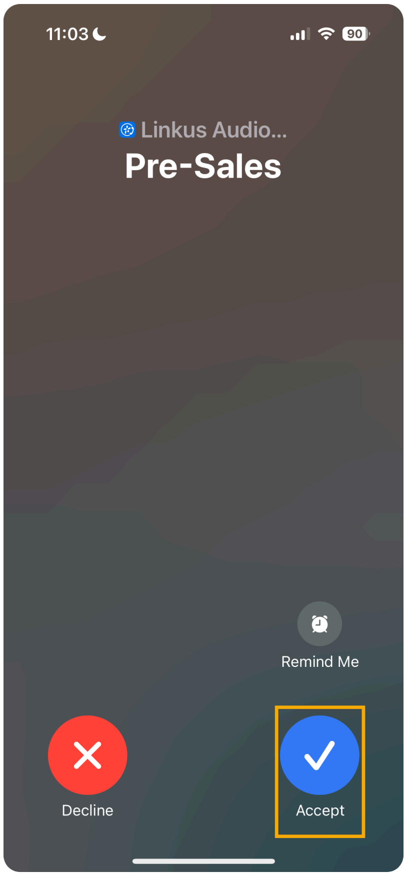
Prerequisites

- You have logged in to Linkus Mobile Client, and logged in to your call queue.
- Linkus Mobile Client is enabled in Ring Strategy (Path: **Account > Presence >** ⋮ **> Ring Strategy**).
- The **Call Waiting** feature is enabled (Path: **Account > Settings > Advanced > Call Waiting**).

Answer a call

If an incoming queue call reaches your extension while you are on Linkus Mobile Client, an incoming call notification appears.

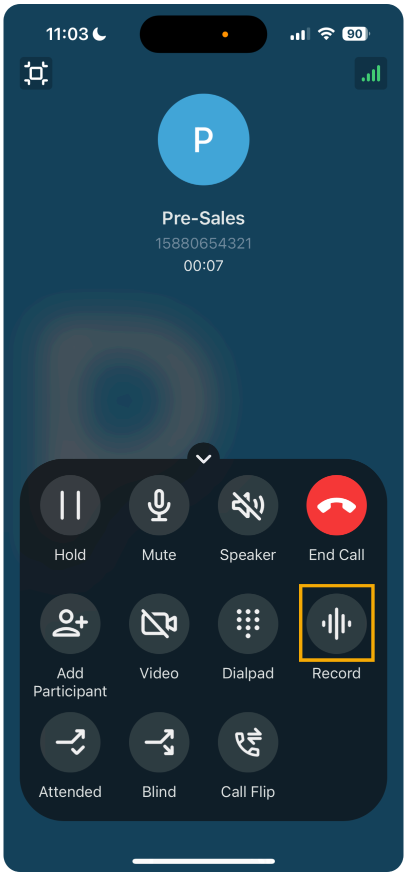
You can answer the call by tapping **Accept** (for iOS phone) or **Answer**(for Android phone).



Record a call

> **Note:**
> To implement this operation, make sure that the system administrator has granted your extension the permission to record calls.

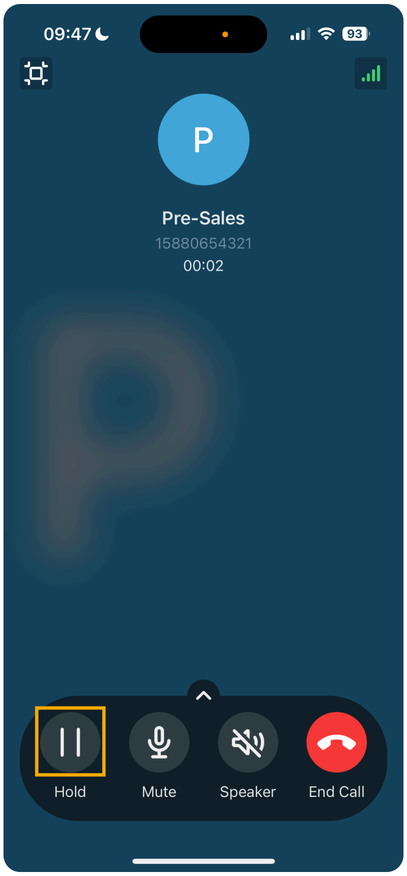
During an active call, tap (**Record**) on the call screen.



Hold / resume a call

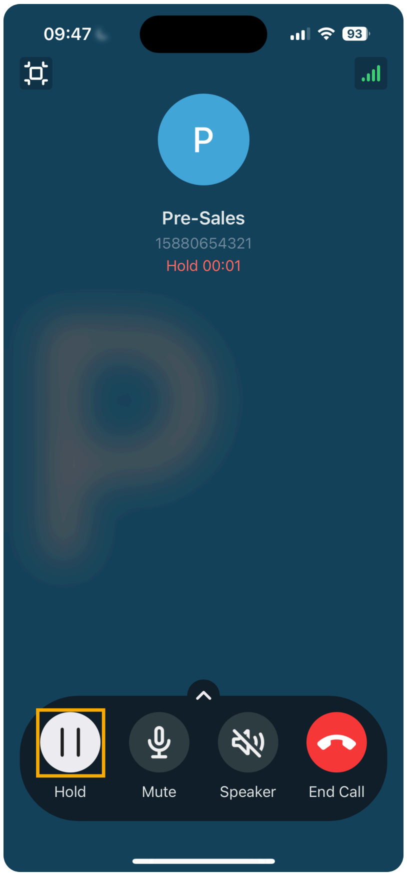
You can place a queue call on hold temporarily to gather information or consult with colleagues, and resume the call when you are ready.

- To put a call on hold, tap ❙❙ (**Hold**) on the call screen during an active call.



The caller can not communication with you, and a pre-recorded audio file is played to the caller on hold.

- To resume the call, tap ❙❙ (**Hold**) again on the call screen.



You and the caller can communication with each other now.

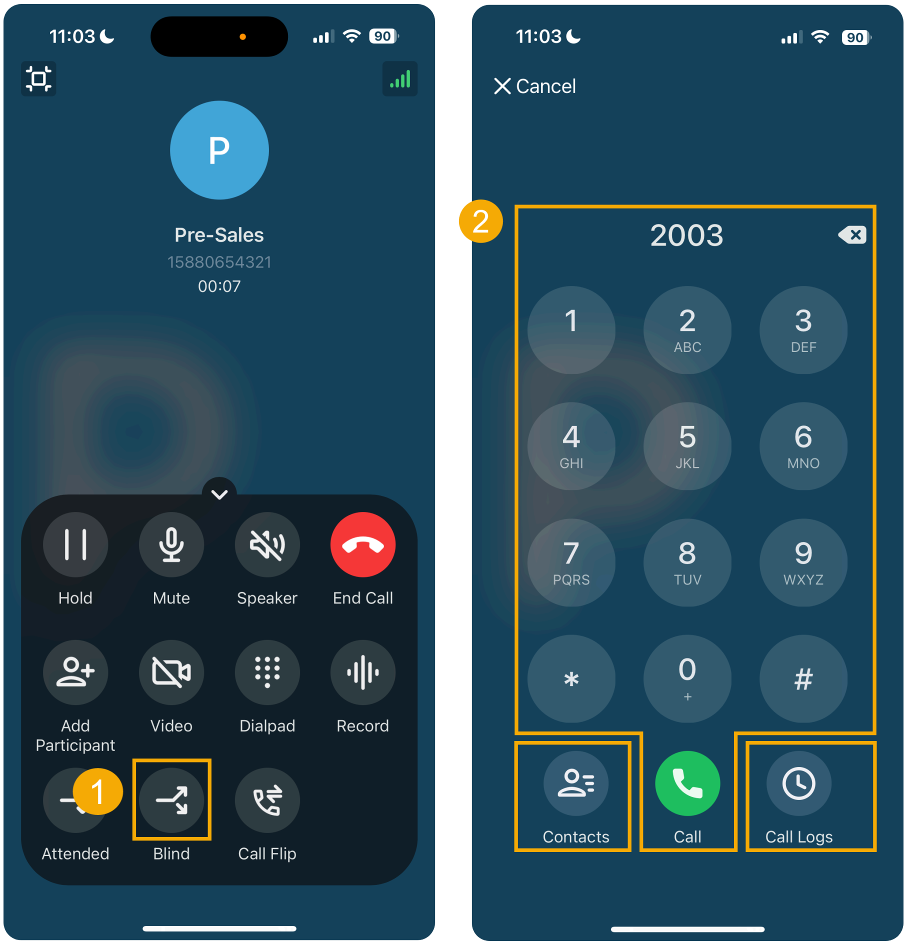
Transfer a call

You may need to transfer calls to other departments, or colleagues if you cannot handle the issue yourself.

There are two types of call transfer:

- **Blind Transfer**: Transfer an ongoing call to a third party immediately without giving him or her prior notification.
- **Attended Transfer**: Put the ongoing call on hold and establish a second call with third party to pass on all relevant information and get his or her consent before transferring the call.

Perform a blind transfer



1. During an active call, tap (**Blind**) on the call screen.

   The call is put on hold.
2. Select the desired individuals in any of the following ways:
   - **Contacts**: Select a contact from your Linkus directory.
   - **Dialpad**: Enter the desired phone number on the dialpad, then tap .
   - **Call Logs**: Select a contact from call logs.

   The current call is disconnected; The specified contact will receive the call. When the call is answered, the other two parties are connected.

Perform an attended transfer

1. During an active call, tap (**Attended**) on the call screen.

   The call is put on hold.
2. Select the desired individual using either of the following methods.
   - **Contacts**: Select a contact from your Linkus directory.
   - **Dialpad**: Enter the desired phone number on the dialpad, then tap .
   - **Call Logs**: Select a contact from call logs.

   The specified extension user or contact will receive a call.
3. If the specified extension user or contact answers the call, you can talk to the contact to pass on all relevant information first, then tap **Attended**.

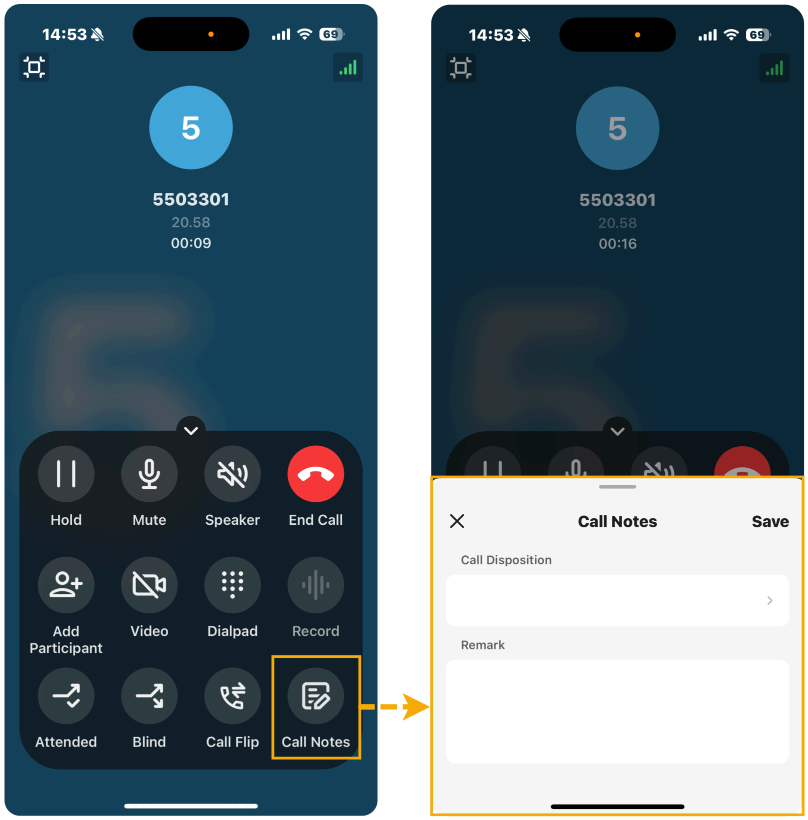
   The current call is disconnected; The other two parties are connected.

Add notes to a call

You can add notes to a queue call during the call or in the wrap-up time.

Add notes in-call

During a queue call, you can add call notes to capture essential information or decision made in the conversation.

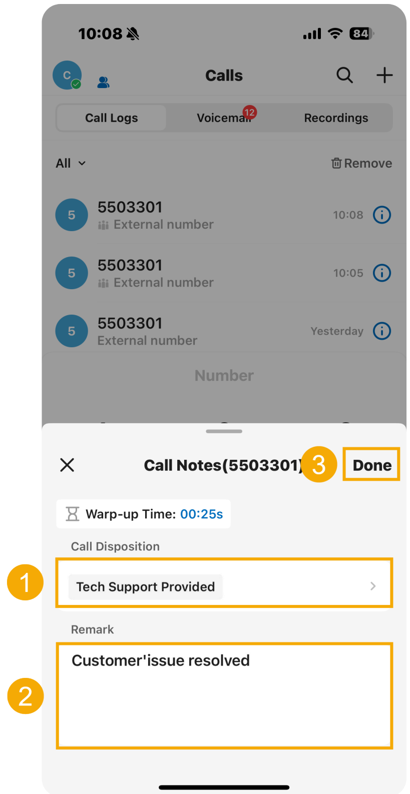


1. During an active call, tap (**Call Notes**).
2. In the call note panel, do as follows:
    a. In the **Call Disposition** field, select one or more disposition codes as call tag.
    b. In the **Remark** field, enter short descriptions to note down essential information for the call.
    c. Tap **Save**.

Add notes in wrap-up time

When you finish a queue call and enter the wrap-up time, a call note panel will appear, where you can add or edit call notes.

> **Note:**
> After call, you can check and edit call notes in the corresponding call log. For more information, see Manage Queue Call Logs.

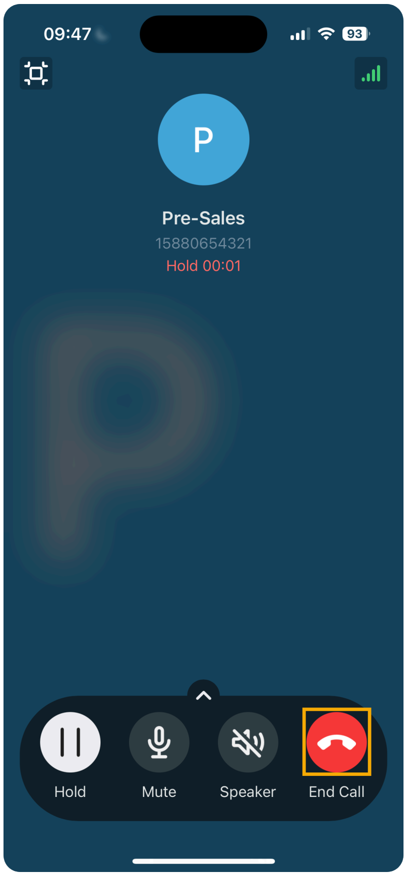


1. In the **Call Disposition** field, select one or more disposition codes as call tag.
2. In the **Remark** field, enter short descriptions to note down essential information for the call.
3. At the top-right corner of the panel, tap **Done**.

Hang up a call

You can end the call once you have successfully address the caller's concerns or completed the necessary actions.

To hang up a call, tap  in the call screen.



Manage Queue Call Logs

This topic describes how to check and manage the queue call logs on Linkus Mobile Client.

Requirements

PBX Server

Contact the system administrator to make sure that the server meets the following requirements:

- The firmware version of PBX server is 37.18.0.18 or later.
- System administrator has granted you the viewing permission of queue call logs.

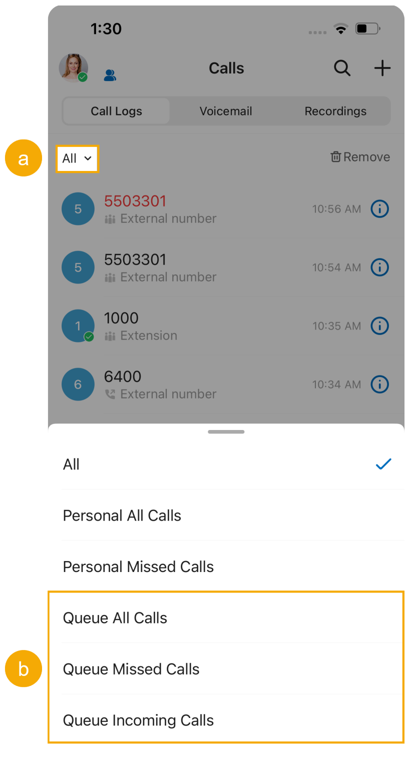
Linkus Mobile Client

Make sure that the version of your Linkus Mobile Client meets the following requirements:

- **Linkus iOS Client**: Version 5.10.3 or later
- **Linkus Android Client**: Version 5.10.3 or later

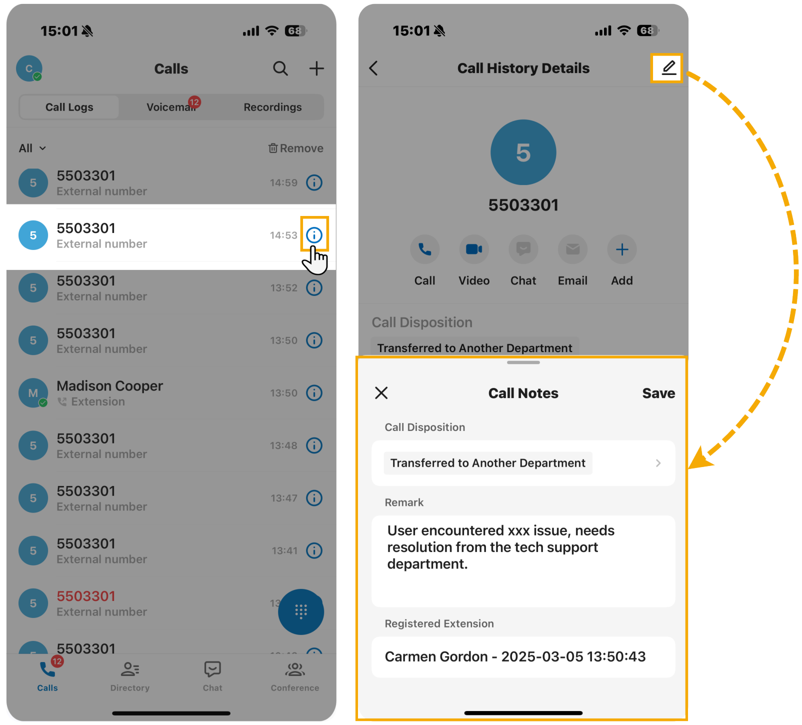
Procedure

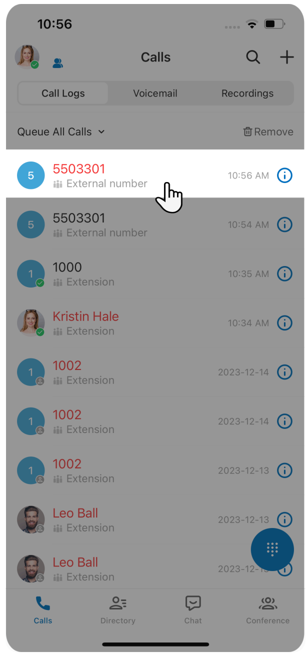
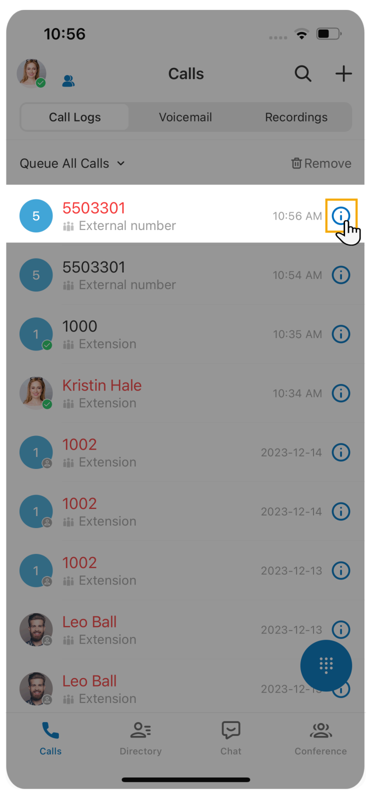
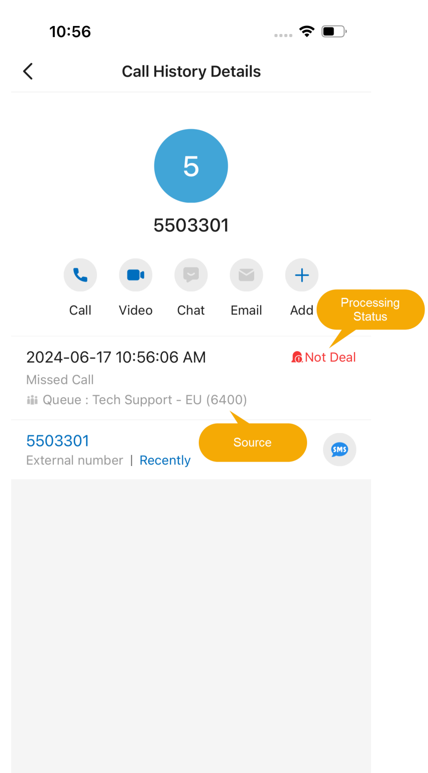
1. Log in to Linkus Mobile Client, go to **Calls > Call Logs**.
2. At the top-left corner, filter the desired queue call logs.

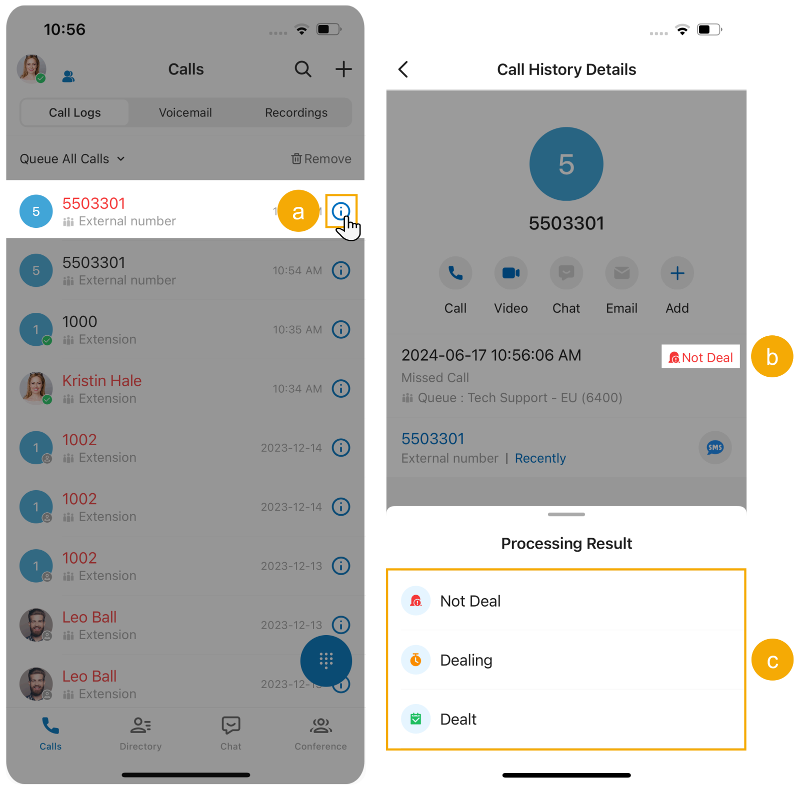


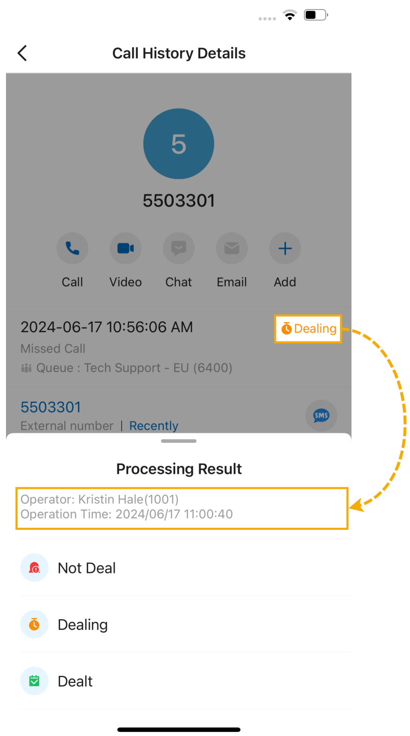
   - **Queue All Calls**: Logs of the queue calls that you have answered and the queue has missed.
   - **Queue Missed Calls**: Logs of the queue calls that the queue has missed.
   - **Queue Incoming Calls**: Logs of the queue calls that you have answered.
3. Manage the call logs according to your needs.

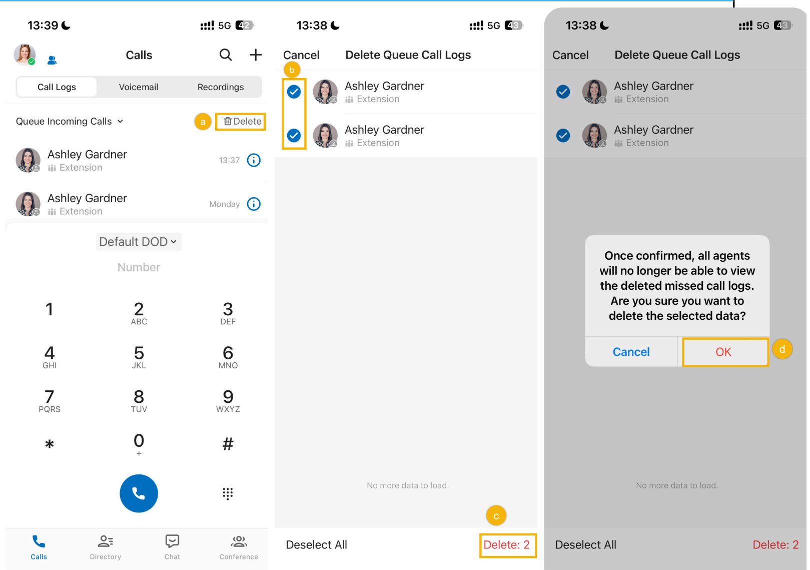
Operation	Instruction
Check and edit call notes	You can check or edit the call notes for a call in the corresponding call log.

Operation	Instruction
	 a. Tap beside the desired call log. b. At the top-right corner, tap . c. In the call note panel, edit the information as needed, then tap **Save**.
Place a call to the caller	You can directly place a call from a call log by tapping the call log.

Operation	Instruction
	
Check the details of queue call logs	You can conveniently check the source of the queue call logs, as well as the processing status of missed queue calls.  a. Tap beside the desired queue call log. b. Check the details of the call log.

Operation	Instruction
	• **Source**: The queue the call came from. • **Processing Status**: The processing status of a missed queue call.
Change the processing status of a missed queue call	If you decide to handle a missed queue call, or you have handled it, you can change the processing status of the missed queue call.  a. Tap ⓘ beside the desired queue call log. b. Tap the processing status beside the call log details. c. Select the desired processing status. The processing status is changed; All the authorized agents can see the change and check the operation record.

Operation	Instruction
	
Delete incoming queue call logs	**Note:** Only supports to delete the call logs of queue calls that you have answered. You can delete incoming queue call logs via the following methods: • To delete a single call log, swipe left on the desired call log, then tap **Delete**. • To bulk delete call logs, do as follows:

<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td></td><td>


a. At the top-right corner, tap **Delete**.
b. Select the checkboxes of the desired incoming queue call logs.
c. Tap **Delete**.
d. In the pop-up window, tap **OK** to confirm your operation.
</td></tr>
</table>

Omnichannel Messaging Guide

Omnichannel Messaging Overview

Yeastar P-Series PBX System provides an omnichannel messaging feature, enabling business to integrate multiple digital channels into the system. This allows business agents to interact seamlessly with customers across multiple channels, including text messages, social media, and more, on a unified platform. ensuring agent productivity while enhancing the customer experience.

Highlights

Yeastar omnichannel messaging feature provides the following highlights:

All-in-one Message Inbox

Agents are able to receive and respond to customers' queries from different messaging channels directly on their Linkus UC Clients, greatly saving their time by eliminating the need of switching between apps or services to check for messages. The messages are stored on the PBX server, providing a central record of all the messaging sessions.

Customer Contact using Business Number

Agents can contact customers using a business number, while keeping their own personal mobile number private. If necessary, the messaging session can be easily elevated to a call to reach the customer, so that the agent can resolve issues faster via voice call.

Seamless Collaboration across Agents

Agents can hand off customers' issue to another agent by transferring the conversation, the new agent can quickly review the whole chat history and take over the conversation without hassle.

Flexible Chat Assignment

Route your business messages from different messaging channels to agents, who can share the workload across teams to reduce customer service response time. Chats can be automatically assigned to the first agent who responds to a session in the queue, or agents can manually take over sessions as needed.

Roles in omnichannel messaging

Users can access the omnichannel messaging feature and perform different tasks based on their roles and responsibilities, as the following table lists.

Role	Description
System Administrator	System administrators that are responsible for configuring and maintaining the omnichannel messaging features, including setting up communication channels, setting routing rules, assigning agents, and managing conversation histories. For more information, see Omnichannel Messaging Administrator Guide.
Agent	Agents that are responsible for interacting with customers from various messaging channels, handling inquiries, resolving issues, and providing support and services. For more information, see Omnichannel Messaging Agent Guide.

Administrator Guide

Omnichannel Messaging Administrator Guide

This guide provides detailed instructions for system administrators to set up and manage the PBX omnichannel messaging feature, implementing smooth communication on the PBX system across various channels.

Audience

This guide is intended for system administrators responsible for configuring and maintaining the omnichannel messaging feature.

Requirements

Subscribe to **Enterprise Plan** or **Ultimate Plan** to ensure that the **Omnichannel Messaging** feature is available.

Steps to set up omnichannel messaging

1. **Set up message channels**

   To enable your contact center to handle digital channels interactions, you need to add the communication channels in the PBX system, and configure settings for each channel, such as message sending rate, inbound messaging routing rule, etc., for smooth operation.

Refer to the individual channel setup articles for the requirements and detailed instructions.

Channel	Instruction
SMS	To reach customers directly on their mobile phones using SMS, you can set up SMS channels on Yeastar PBX with the following supported SMS service providers: • Set up an SMS Channel for Apidaze • Set up an SMS Channel for Bandwidth • Set up an SMS Channel for Flowroute • Set up an SMS Channel for SIPTRUNK • Set up an SMS Channel for Telnyx • Set up an SMS Channel for Twilio • Set up an SMS Channel for VoiceMeUp For SMS Service Providers that are not listed above, they can add their SMS service to Yeastar P-Series PBX System using SMS API. After the integration is complete, you can create an SMS channel for the Service Provider on your PBX. For more information about the SMS service integration and the SMS channel setup after the integration, see Integrate SMS Service with Yeastar P-Series PBX System using SMS API.
Social media	To interact with customers through popular social media platforms, you can set up social media channels on Yeastar PBX with the following supported social media. • Set up a Facebook Channel • Set up a Live Chat Channel • Set up a WhatsApp Channel

2. Set up message queue

Define a group of agents to receive the inbound messages. When an agent of the queue picks up a session, he or she is able to respond to the messages in the session, and the session is automatically assigned to the agent.

For more information, see Create a Message Queue and Manage Message Queues.

3. Set up message campaign

To send a message to multiple recipients, you can create a message campaign. This allows you to set up and manage bulk messaging tasks, enabling you to deliver a single message to multiple target numbers at once.

For more information, see Create an SMS Campaign and Create a WhatsApp Campaign.

4. **Manage message history**

   Get access to the detailed records of customer message interactions from various channels, allowing you to have a complete overview of each conversation journey.

   For more information, see Check and Manage External Chat Logs and Download External Chat Logs.

Message Channel Setup

Apidaze

Set up an SMS Channel for Apidaze

This topic describes how to set up a Apidaze SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

The Yeastar PBX should meet the following requirements:

- **Firmware**: Version 37.20.0.124 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Domain Name**: PBX can be remotely accessed via a domain name.

> **Note:**
> - Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
> - If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

- Configure Network for Remote Access by a Yeastar FQDN
- Configure Network for Remote Access by a Yeastar Domain Name
- Configure Network for Remote Access by a Domain Name

Supported message types and limits

Supported message types

The Apidaze SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by Apidaze.

> **Important:**
> When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

Prerequisites

You have obtained the following information from the Apidaze Service Provider:

- API key
- Secret
- Phone number used for message sending and receiving

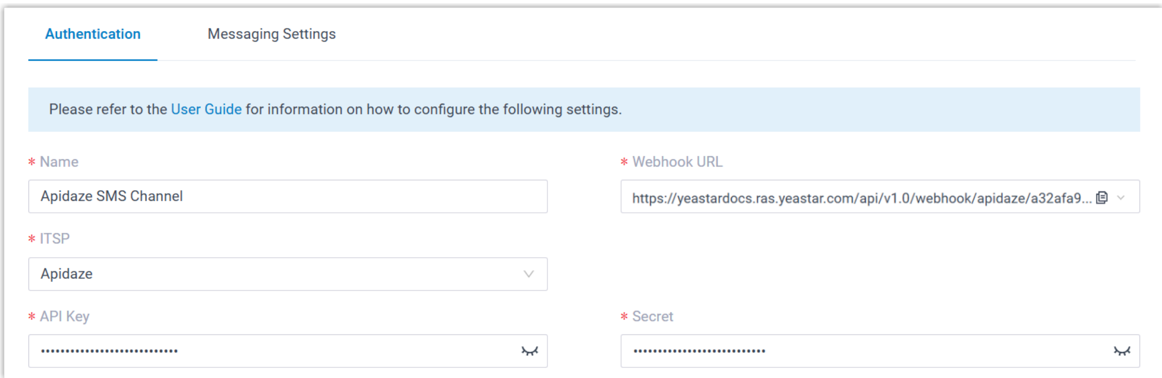
> **Note:**
> If business needs to communicate with US-based customers, make sure that the phone number has been completed with 10DLC registration to avoid disruption in message delivery.

Procedure

- Step 1. Create and configure an SMS channel on PBX
- Step 2. Configure webhook in Apidaze

Step 1. Create and configure an SMS channel on PBX

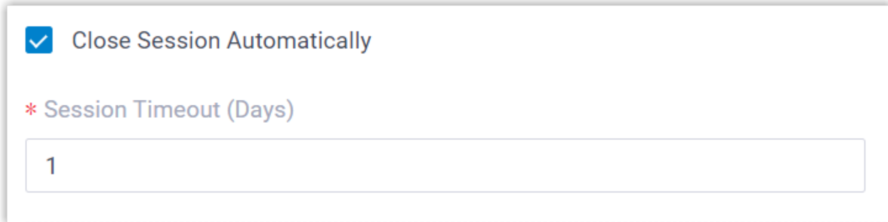
1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of Apidaze.



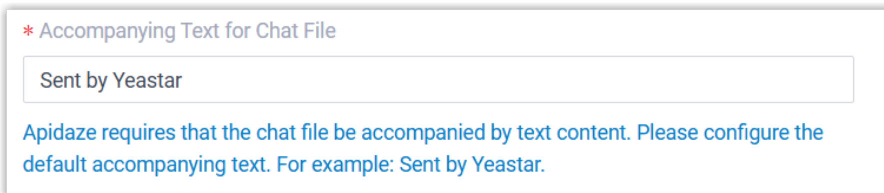
   - **Name**: Enter a name to help you identify the channel.
   - **ITSP**: Select **Apidaze**.
   - **API Key**: Enter the API key obtained from Apidaze.
   - **Secret**: Enter the Secret obtained from Apidaze.
4. In the **Messaging Setting** tab, configure the channel.
   a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

      Note:
      - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
      - If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

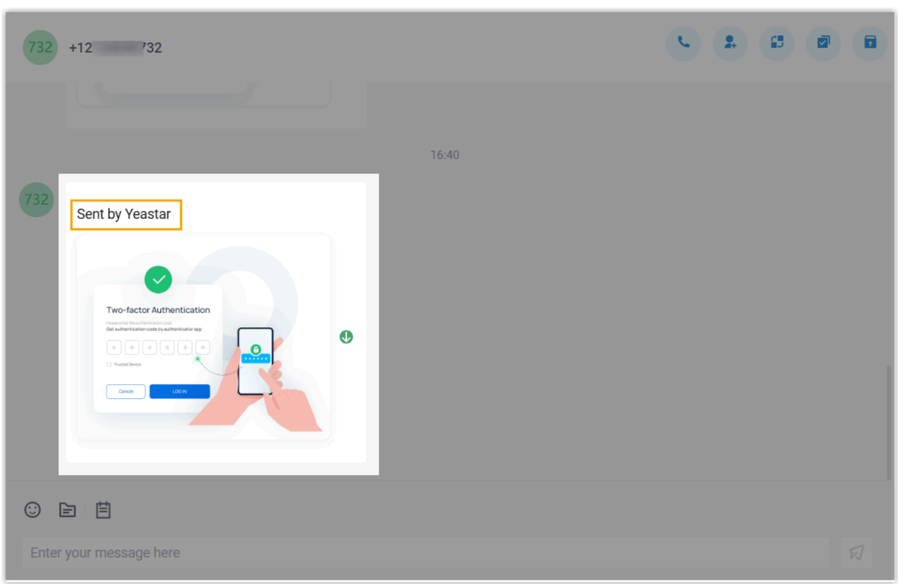
b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



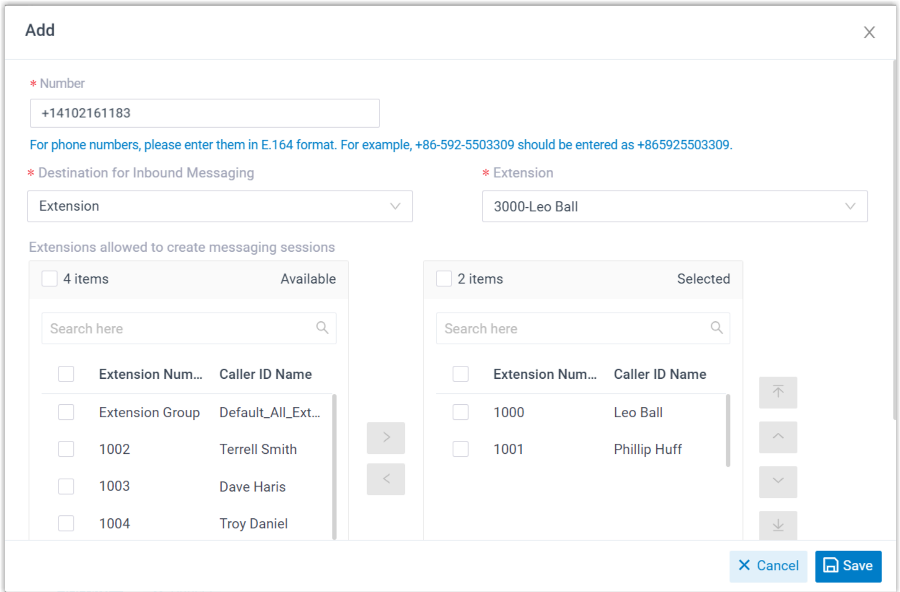
c. In the **Accompanying Text for Chat File** field, specify the default text that will be sent along with chat files.



The message recipient will see the text displayed alongside the chat files.



d. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

> **Note:**
> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing.

Option	Description
(Transmitted via API)	**Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

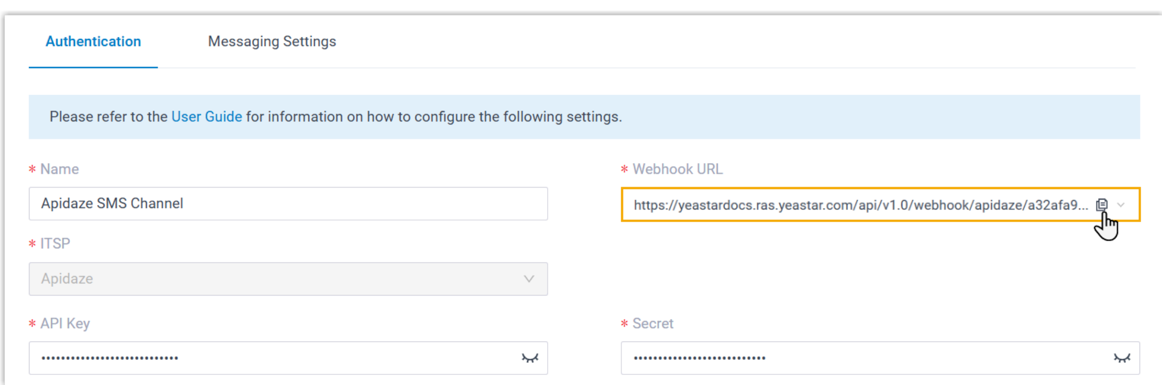
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

e. Click **Save**.

5. Click **Save**.

Step 2. Configure webhook in Apidaze

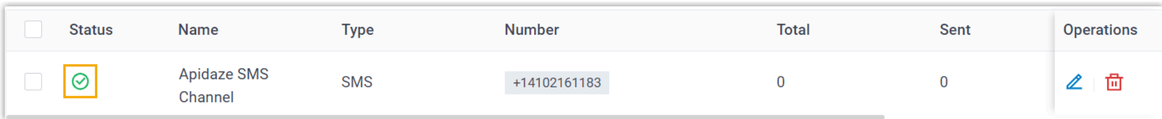
1. On PBX web portal, go to **Messaging > Message Channel**.
2. Click the SMS channel you created.
3. In the **Authentication** tab, select a desired URL from the **Webhook URL** drop-down list, then copy the URL.



4. In Apidaze, configure messaging webhook for the phone number using the PBX's webhook URL to receive inbound messages.

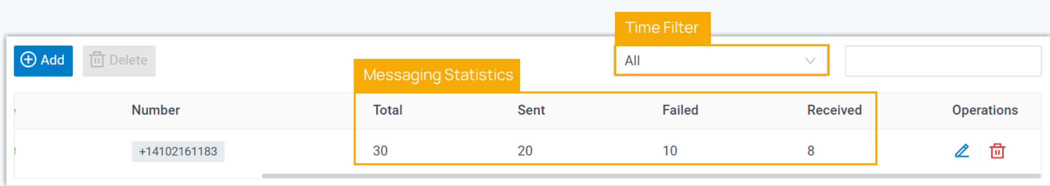
Result

- A messaging channel is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

> **Note:**
> - For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
> - You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs](#)
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client](#)
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client](#)

Bandwidth

Set up an SMS Channel for Bandwidth

This topic describes how to set up a Bandwidth SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

The Yeastar PBX should meet the following requirements:

- **Firmware**: Version 37.20.0.124 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Domain Name**: PBX can be remotely accessed via a domain name.

> **Note:**
> - Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
> - If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

- Configure Network for Remote Access by a Yeastar FQDN
- Configure Network for Remote Access by a Yeastar Domain Name
- Configure Network for Remote Access by a Domain Name

Supported message types and limits

Supported message types

The Bandwidth SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by Bandwidth. For more information, see Bandwidth supported MMS file types.

> **Important:**

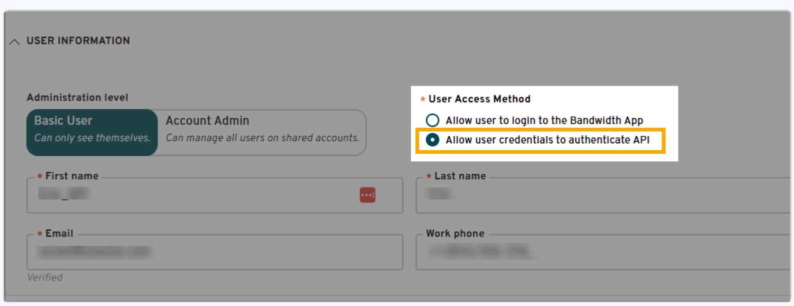
> When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

Prerequisites

- You have created a sub-account and associated with your location in Bandwidth.

> **Note:**
> Ensure that the **Allow user credentials to authenticate API** option is enabled for the account.
>
> 
>

- You have purchased phone number(s) in Bandwidth.

Procedure

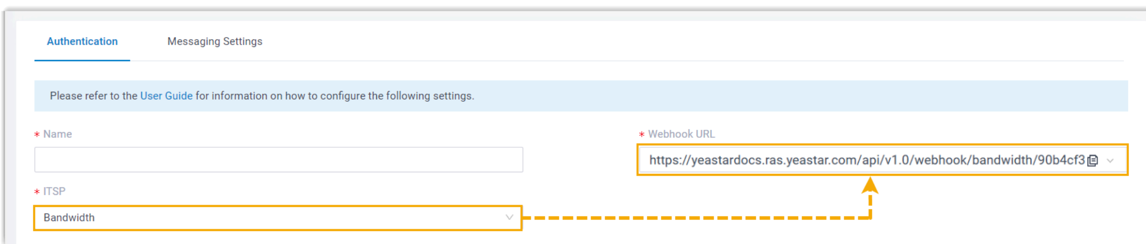
- Step 2. Configure a number for SMS on Bandwidth
- Step 3. Create and configure an SMS channel on PBX
- Step 1. Obtain a Webhook URL on PBX

Step 1. Obtain a Webhook URL on PBX

Obtain a Webhook URL from PBX web portal first, which is required when you configure a number for SMS on Bandwidth.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **ITSP** drop-down list, select **Bandwidth**, then select and copy the desired **Webhook URL**.

> **Important:**
> The URL will change once you leave the current page, please make sure you use the latest Webhook URL for the configuration on the service provider's customer portal.



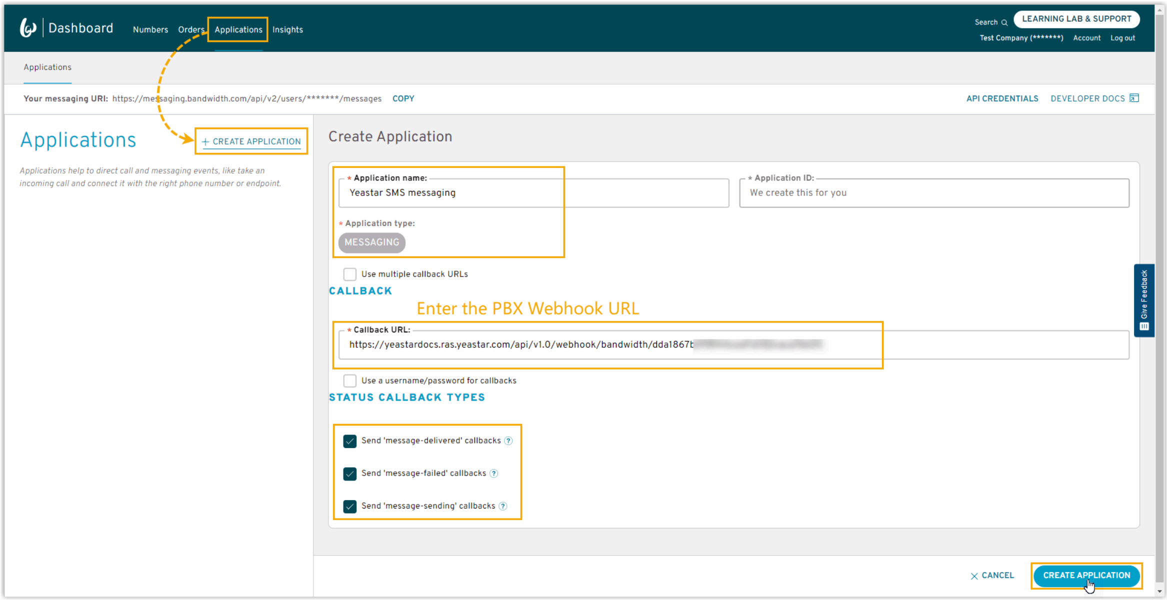
4. Note down the Webhook URL.

Step 2. Configure a number for SMS on Bandwidth

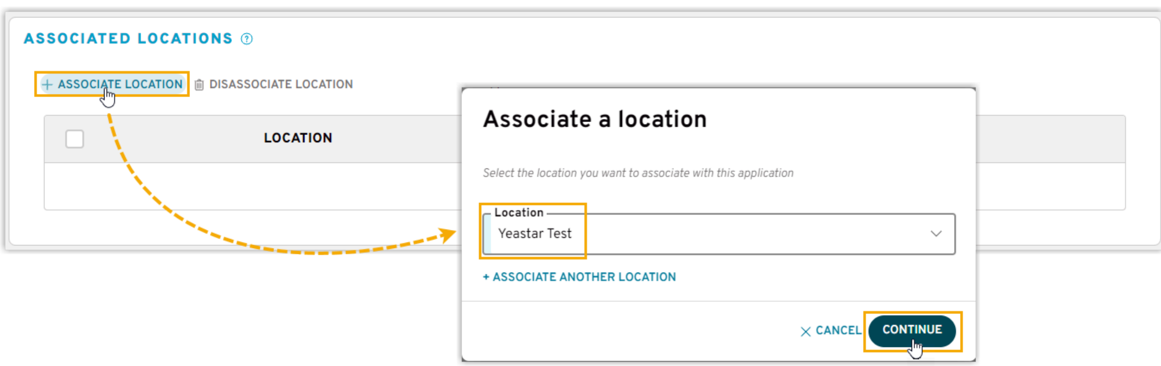
> **Important:**
> According to US legislation (A2P 10DLC SMS), 10DLC (10-digit Long Code) phone numbers that are used for A2P (Application-to-Person) messaging MUST be registered, otherwise SMS messages sent to US numbers from unregistered 10DLC numbers will be blocked.
>
> If your business needs to communicates with US-based customers, you should confirm the registration requirements with the SMS service provider and complete the phone number registration to avoid disruption in message delivery.

Log in to Bandwidth portal, and complete the followings:

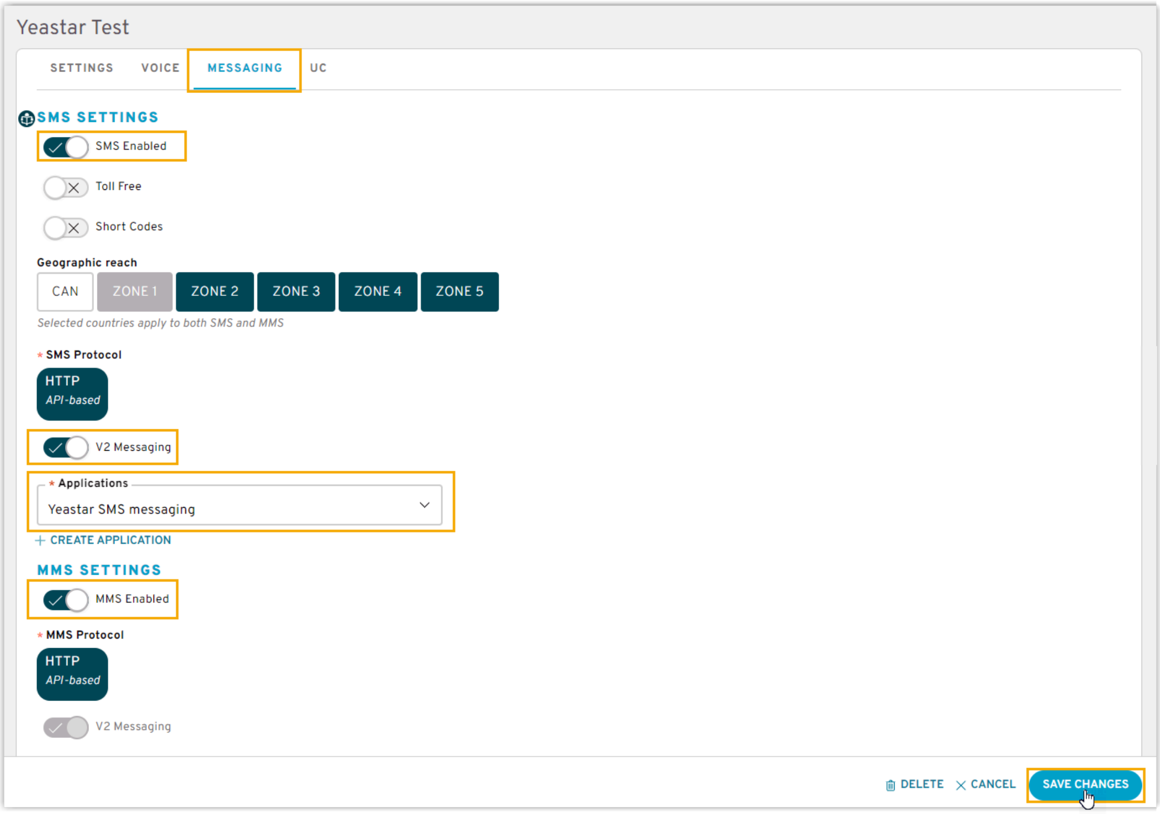
1. Create an application using a sub-account and configure the callback with PBX's Web-hook URL.



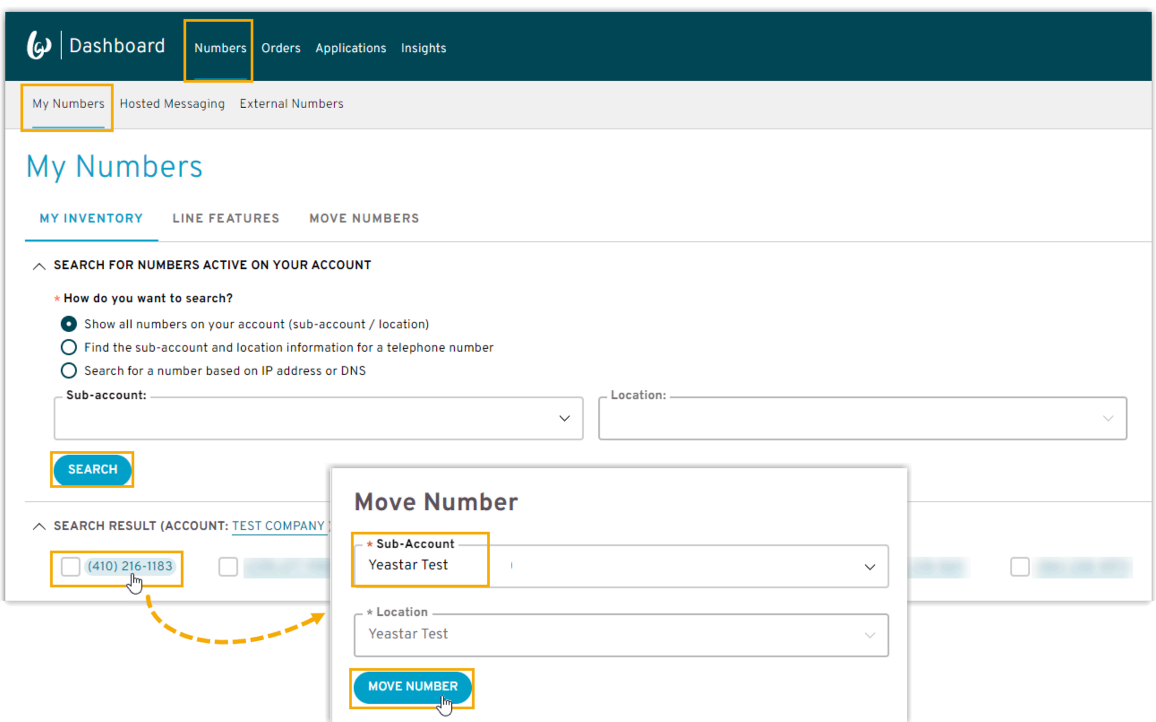
2. On the details page of the new application, associate the application with your location.



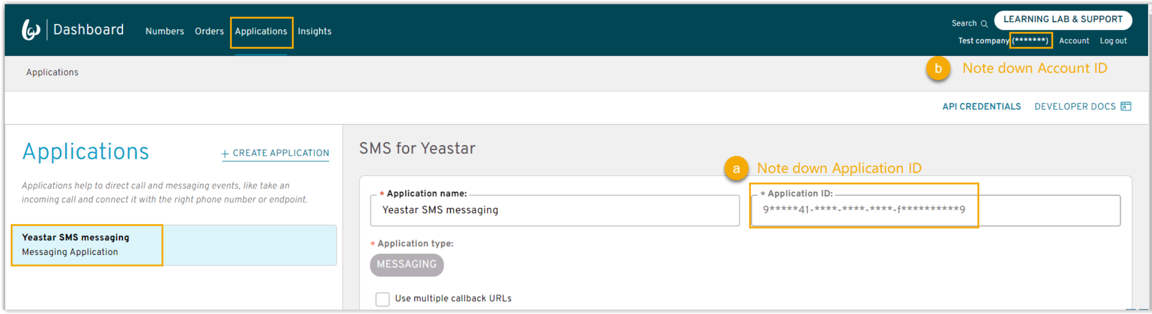
3. Enable HTTP SMS and MMS messaging for your location and the associated application.



4. Search the number that you want to use for SMS and associate it with your sub-account.



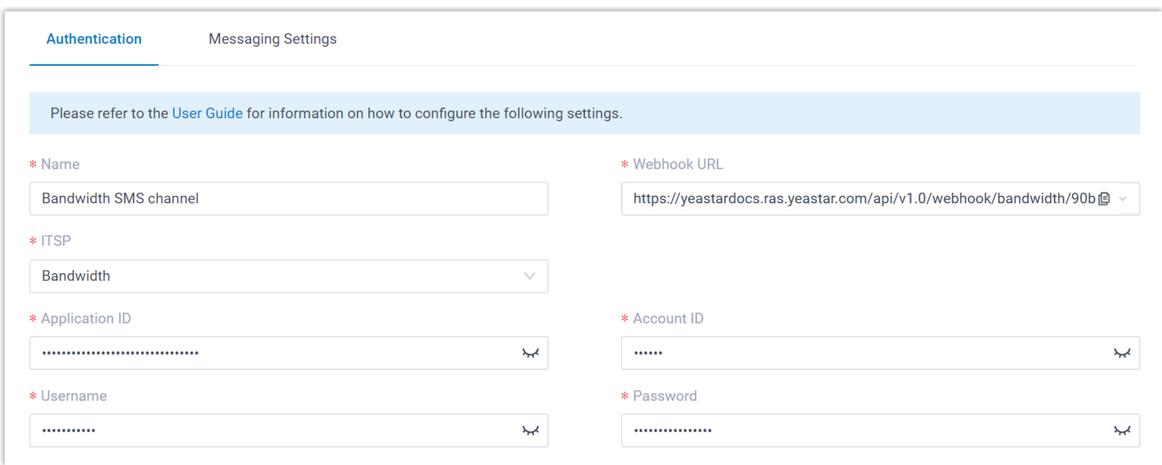
5. Note down the **Application ID** and **Account ID** for the integration with PBX.



Step 3. Create and configure an SMS channel on PBX

Create an SMS channel on PBX, and configure the channel with the authentication information and number obtained from Bandwidth.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of Bandwidth.

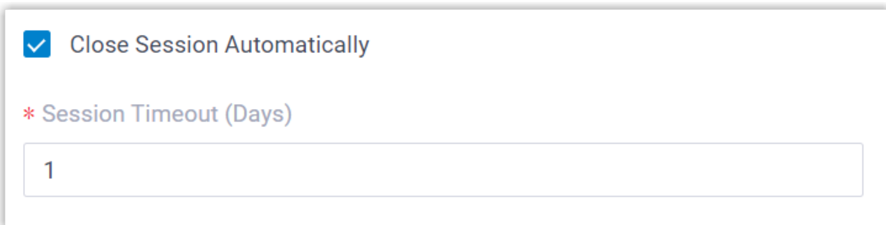


   - **Name**: Enter a name to help you identify the channel.
   - **ITSP**: Select **Bandwidth**.
   - **Application ID**: Paste the Application ID obtained from Bandwidth.
   - **Account ID**: Enter the Account ID of your Bandwidth account.
   - **Username**: Enter the user name of your Bandwidth account.
   - **Password**: Enter the password associated with your Bandwidth account.
4. In the **Messaging Settings** tab, configure the channel.

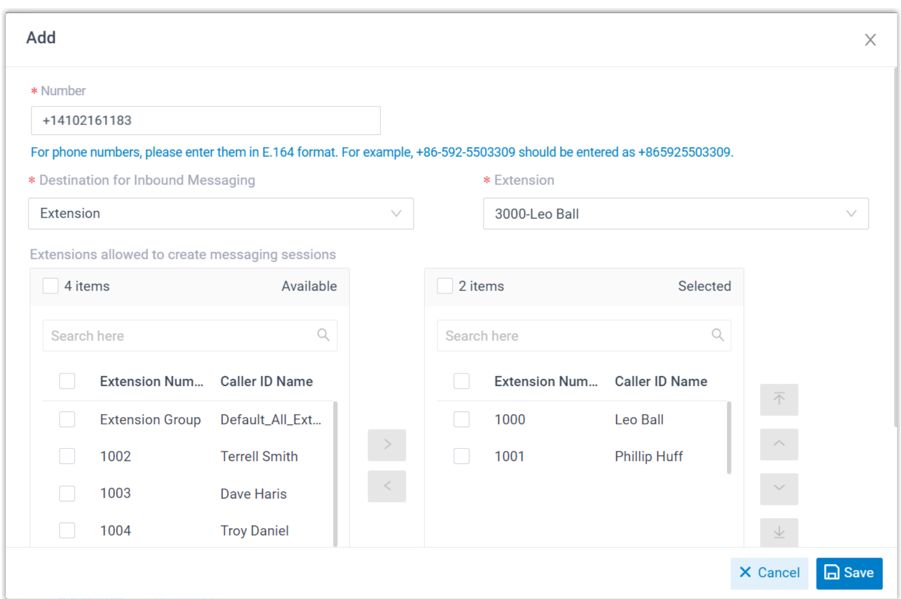
a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

> **Note:**
> - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
> - If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

> **Note:**
> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

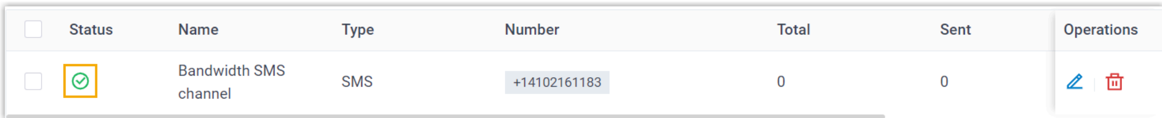
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

d. Click **Save**.

5. Click **Save**.

Result

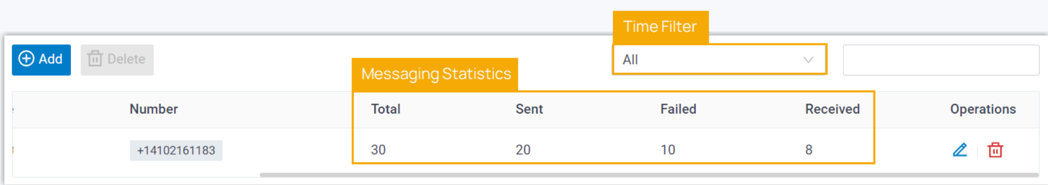
- A messaging channel is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

Note:

- For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
- You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs]
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client]
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client]

Flowroute

Set up an SMS Channel for Flowroute

This topic describes how to set up a Flowroute SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

Platform	Requirement
Yeastar PBX	• **Firmware**: Version 37.20.0.124 or later • **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP) • **Domain Name**: PBX can be remotely accessed via a domain name. **Note:** ◦ Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. ◦ If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. For more information about the domain configuration, see the following topics: ◦ Configure Network for Remote Access by a Yeastar FQDN ◦ Configure Network for Remote Access by a Yeastar Domain Name ◦ Configure Network for Remote Access by a Domain Name
Flowroute	**API Version**: v2.1 **Note:** You can check or update the API version on Flowroute (Path: **PREFERENCE > API Control > SMS Webhook Version**).

Supported message types and limits

Supported message types

The Flowroute SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by Flowroute. For more information, see Flowroute supported MMS file types.

> **Important:**
> When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

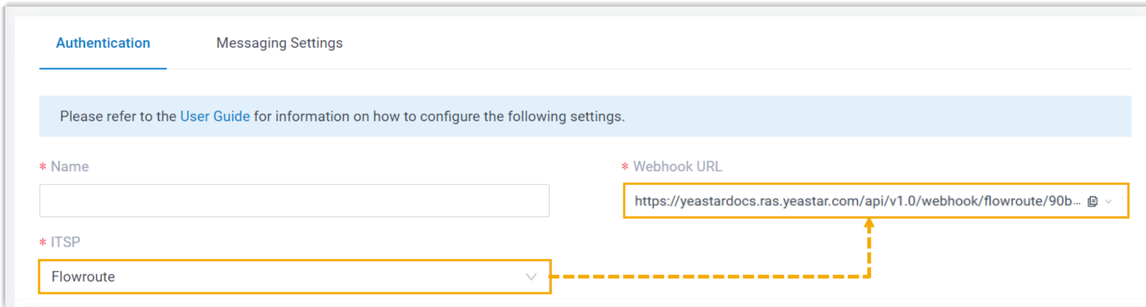
Procedure

Step 1. Obtain a Webhook URL on PBX

Obtain a Webhook URL from PBX web portal first, which is required when you configure a number for SMS on Flowroute.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **ITSP** drop-down list, select **Flowroute**, then select and copy the desired **Webhook URL**.

> **Important:**
> The URL will change once you leave the current page, please make sure you use the latest Webhook URL for the configuration on the service provider's customer portal.



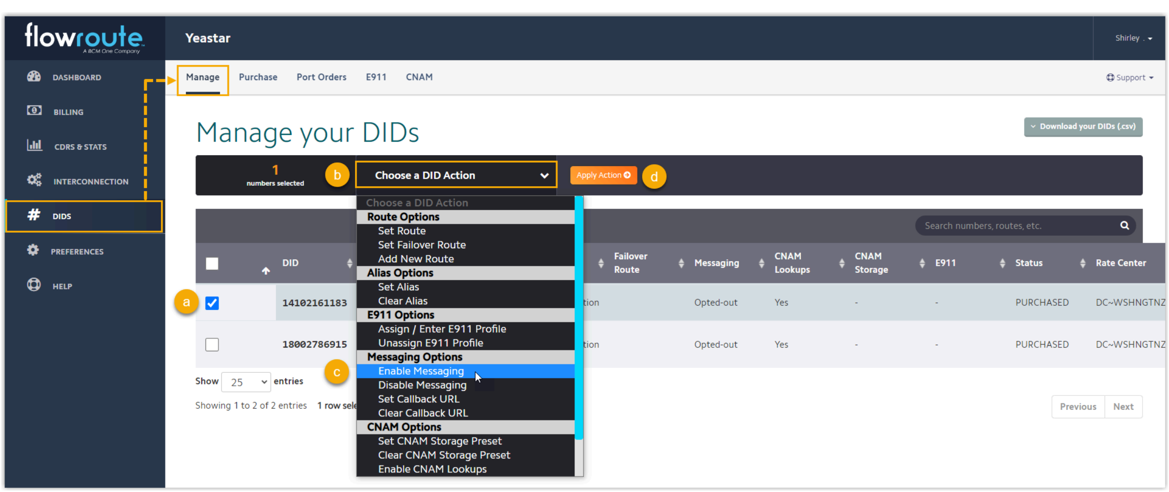
4. Note down the Webhook URL.

Step 2. Configure a number for SMS on Flowroute

> **Important:**
> According to US legislation (A2P 10DLC SMS), 10DLC (10-digit Long Code) phone numbers that are used for A2P (Application-to-Person) messaging MUST be registered, otherwise SMS messages sent to US numbers from the unregistered 10DLC numbers will be blocked.
>
> If your business communicates with US-based customers, you should confirm the registration requirements with the SMS service provider and complete the phone number registration to avoid disruption in message delivery.

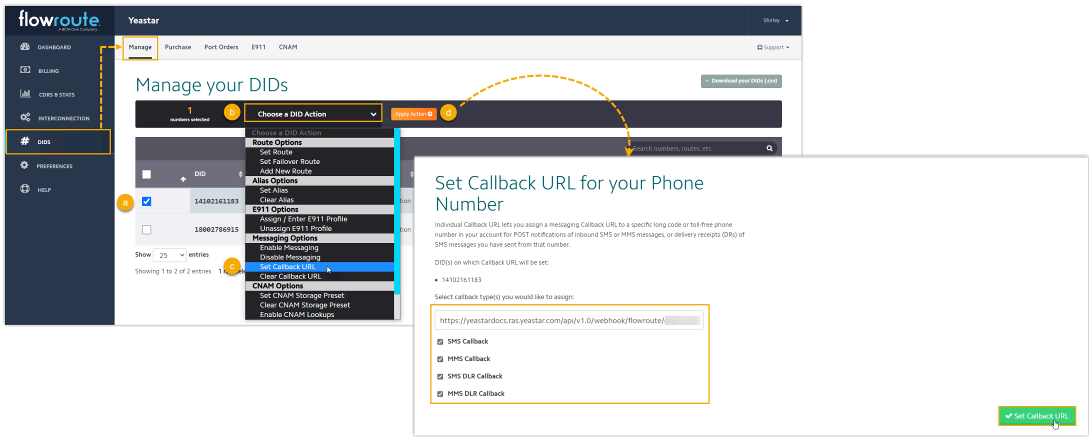
Log in to Flowroute portal, and complete the following settings:

1. Enable the messaging feature for the desired DID number.

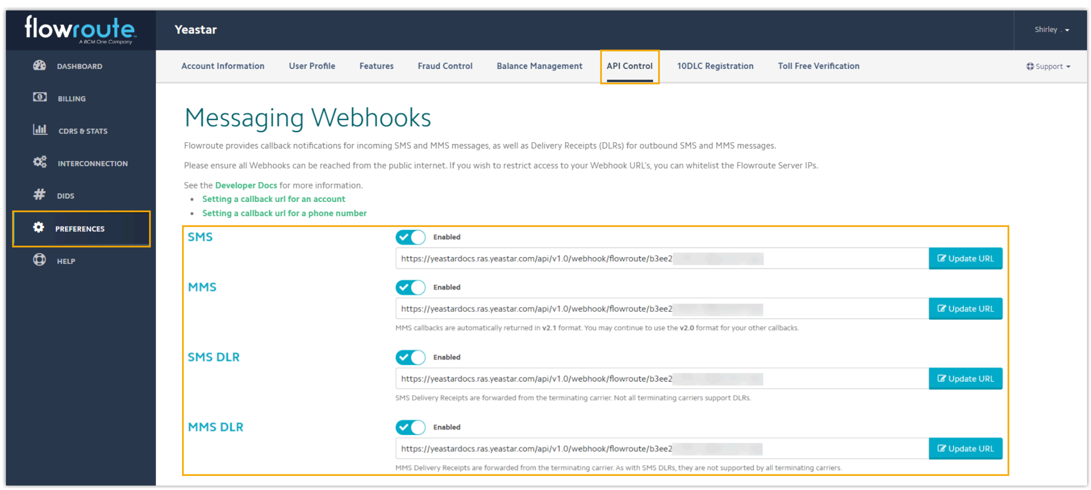


2. Configure messaging webhook according to your needs.

- If you only need to receive callback notification for inbound messages sent from a specific number, configure messaging webhook with PBX's Webhook URL for the number individually.

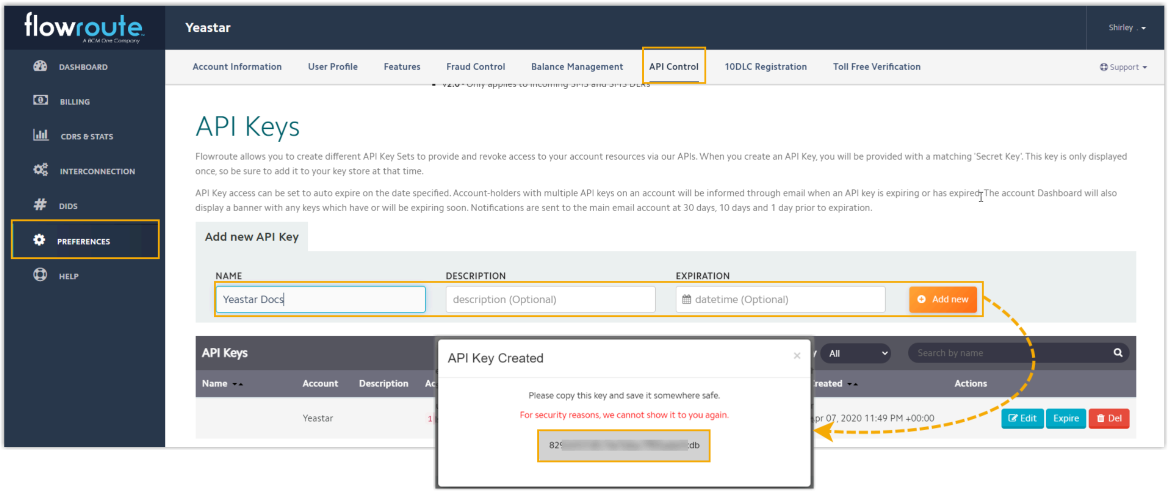


- If you need to receive callback notification for inbound messages sent from all the numbers in your account, configure global messaging webhook with PBX's Webhook URL as shown below.

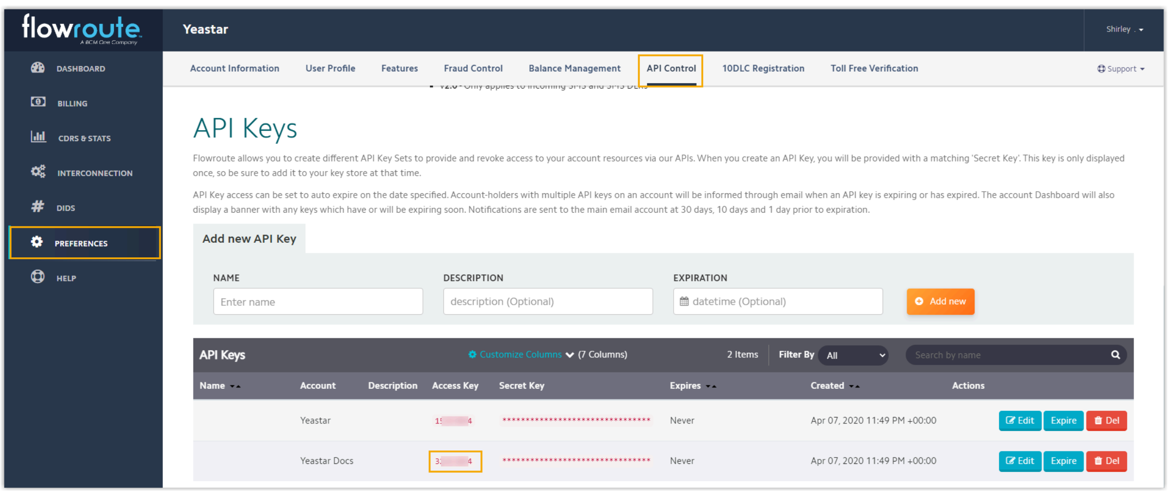


3. Create an API key for the integration with PBX.

> **Important:**
> You MUST note down the generated key in the pop-up window, as it is only displayed ONCE.



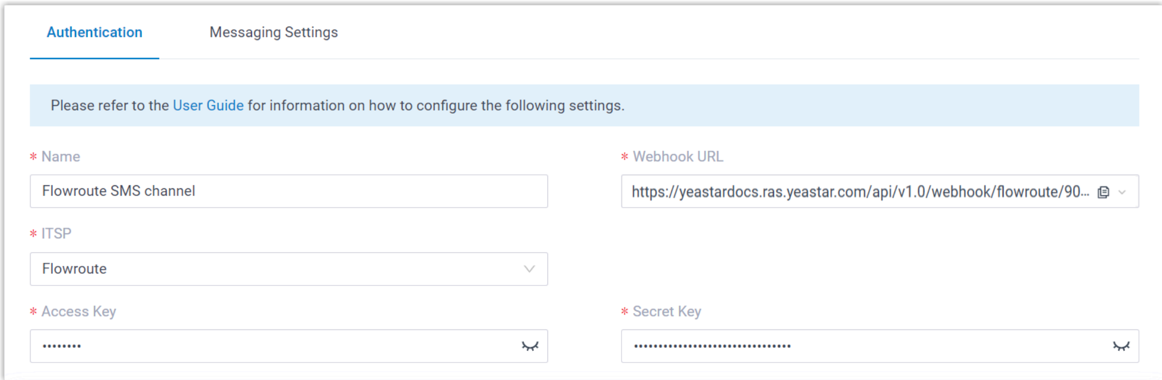
4. Note down the **Access Key** of the API key.



Step 3. Create and configure an SMS channel on PBX

Create an SMS channel on PBX, and configure the channel with the authentication information and number obtained from Flowroute.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of Flowroute.

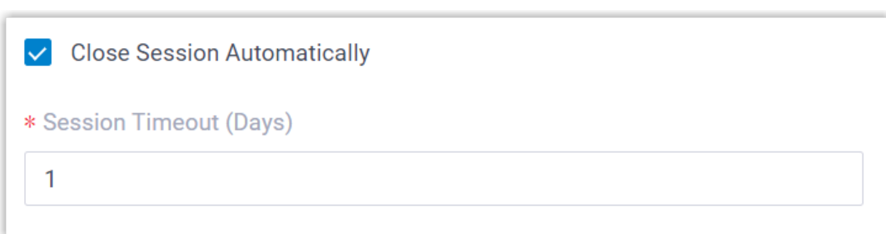


- **Name**: Enter a name to help you identify the channel.
- **ITSP**: Select **Flowroute**.
- **Access Key**: Paste the access key obtained from Flowroute.
- **Secret Key**: Paste the API key obtained from Flowroute.

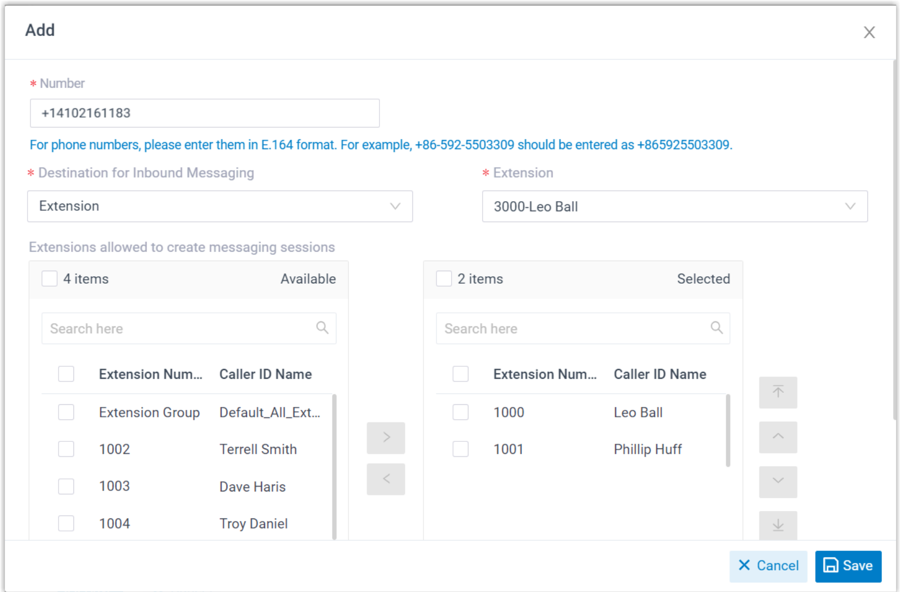
4. In the **Messaging Settings** tab, configure the channel.
   a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

   > **Note:**
   > - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
   > - If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

   b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.

   c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

> **Note:**
> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing.

Option	Description
(Transmitted via API)	**Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

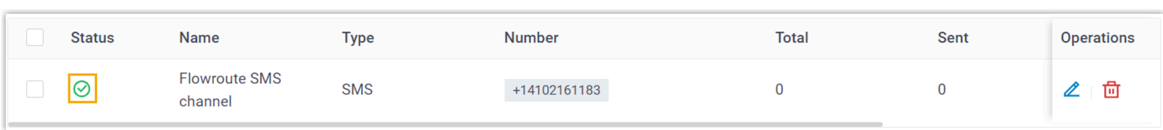
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

d. Click **Save**.

5. Click **Save**.

Result

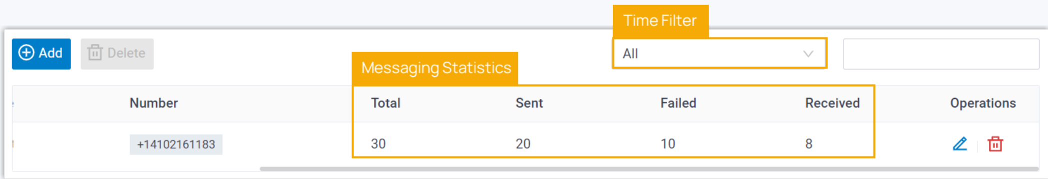
- A messaging channel is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

> **Note:**
> - For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.

- You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs](#)
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client](#)
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client](#)

SIPTRUNK

Set up an SMS Channel for SIPTRUNK

This topic describes how to set up a SIPTRUNK SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

Platform	Requirement
Yeastar PBX	• **Firmware**: Version 37.20.0.124 or later • **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP) • **Domain Name**: PBX can be remotely accessed via a domain name. **Note:** ◦ Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. ◦ If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain

<table>
<tr><th>Platform</th><th>Requirement</th></tr>
<tr><td></td><td>name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:
◦ Configure Network for Remote Access by a Yeastar FQDN
◦ Configure Network for Remote Access by a Yeastar Domain Name
◦ Configure Network for Remote Access by a Domain Name</td></tr>
<tr><td>SIPTRUNK</td><td>• Telephone number: The DID number(s) should be SMS/MMS compatible and registered with 10DLC.

Important:
According to US legislation (A2P 10DLC SMS), 10DLC (10-digit Long Code) phone numbers that are used for A2P (Application-to-Person) messaging MUST be registered, otherwise SMS messages sent to US numbers from the unregistered 10DLC numbers will be blocked.

If your business communicates with US-based customers, you should complete the 10DLC registration for your phone numbers to avoid disruption in message delivery.

Tip:
Submit a request to your service provider for the required number(s). For more information, see SMS Process & Expectations.</td></tr>
</table>

Supported message types and limits

Supported message types

The SIPTRUNK SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by SIP-TRUNK.

> **Important:**
> When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the

country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

Procedure

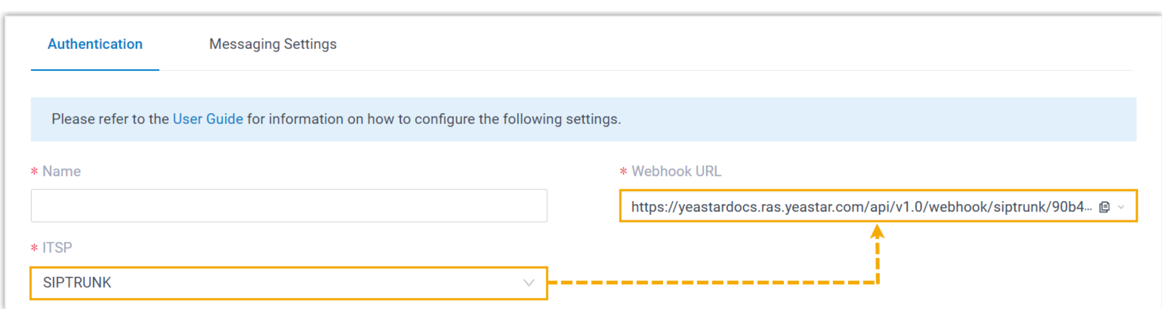
- Step 1. Obtain a Webhook URL on PBX
- Step 2. Configure messaging feature on SIPTRUNK
- Step 3. Create and configure an SMS channel on PBX

Step 1. Obtain a Webhook URL on PBX

Obtain a Webhook URL from PBX web portal first, which is required when you configure a number for SMS on SIPTRUNK.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **ITSP** drop-down list, select **SIPTRUNK**, then select and copy the desired **Webhook URL**.

Important:
The URL will change once you leave the current page, please make sure you use the latest Webhook URL for the configuration on the service provider's customer portal.

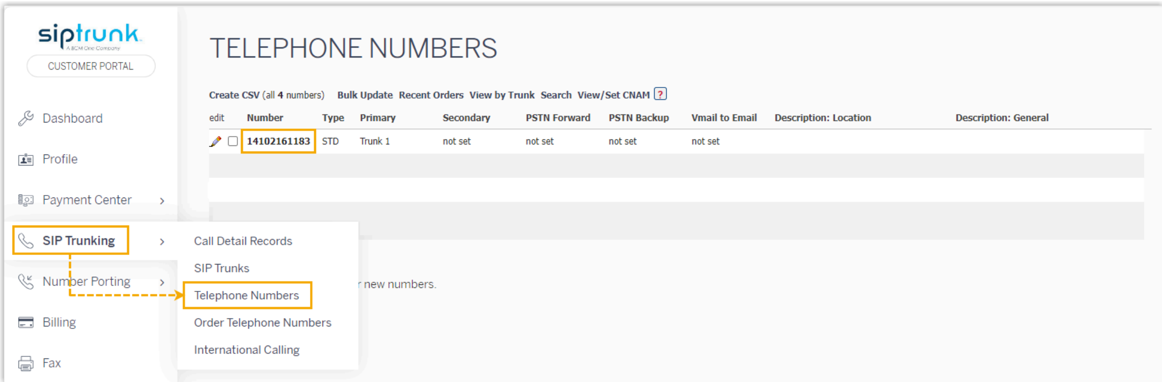


4. Note down the Webhook URL.

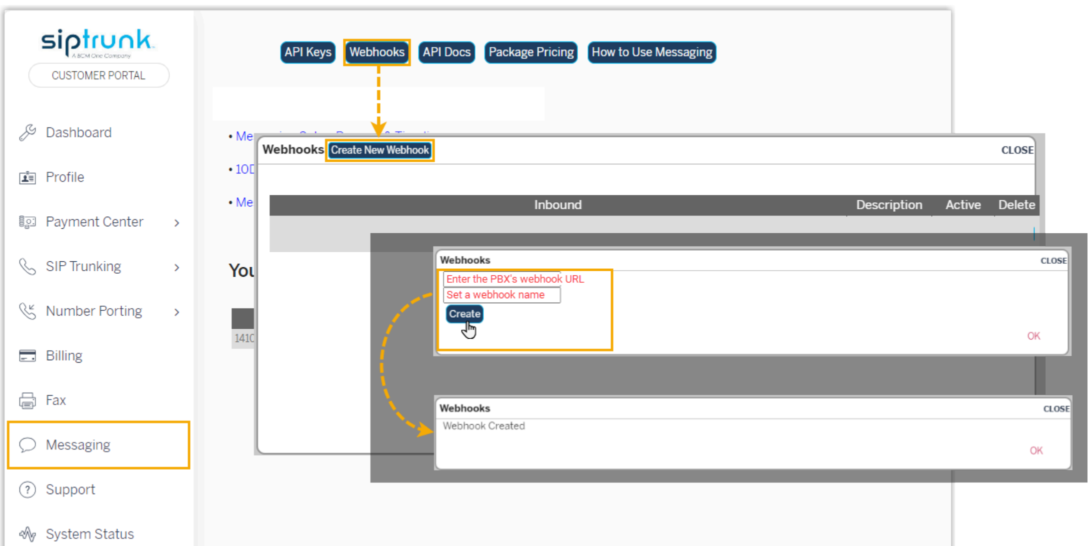
Step 2. Configure messaging feature on SIPTRUNK

Log in to SIPTRUNK customer portal, and complete the following settings:

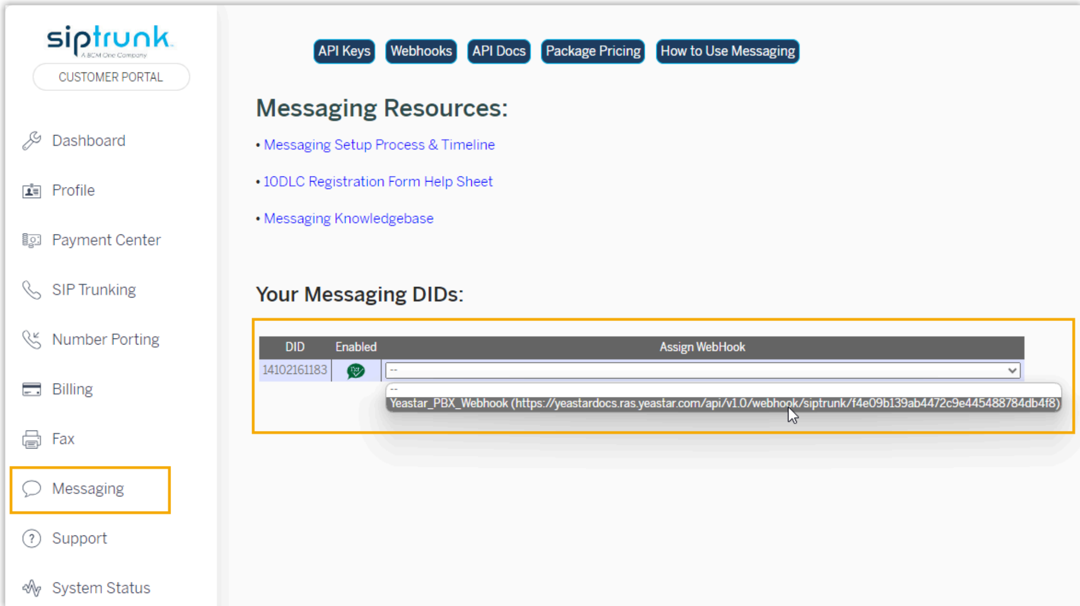
1. Note down the desired DID number to be added to the SMS channel.



2. Configure messaging webhook for the DID number.
    a. Create a Webhook using the PBX's Webhook URL.

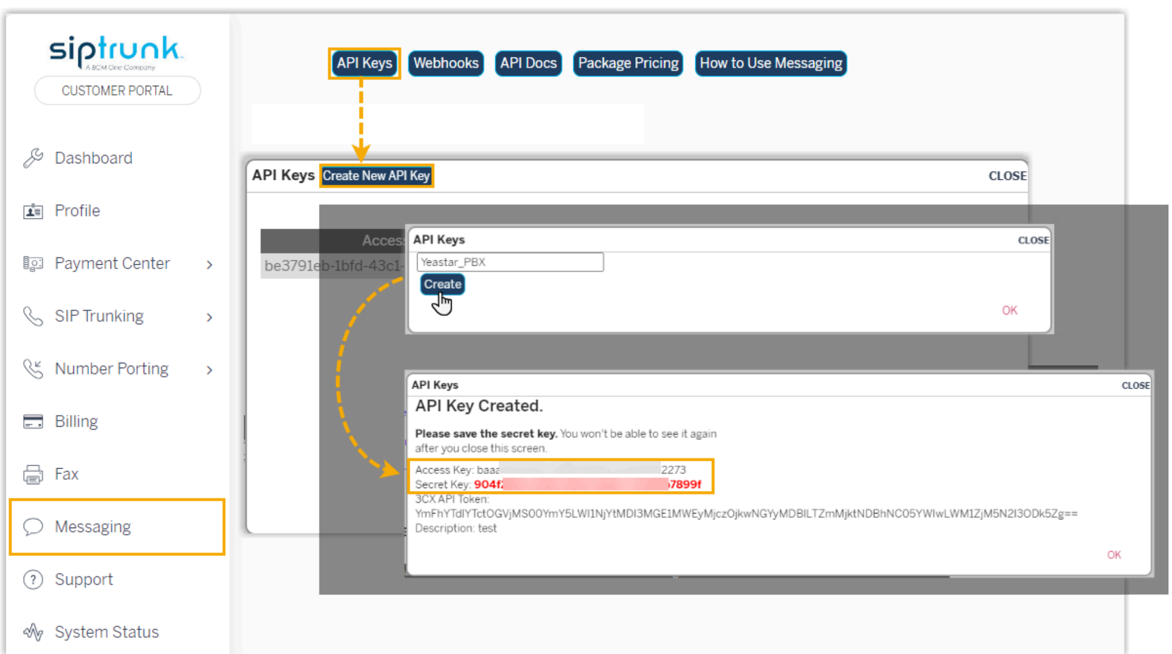


    b. Assign the Webhook to the DID number.



3. Create an API key for the integration with PBX, and note down the **Access Key** and **Secret Key**.

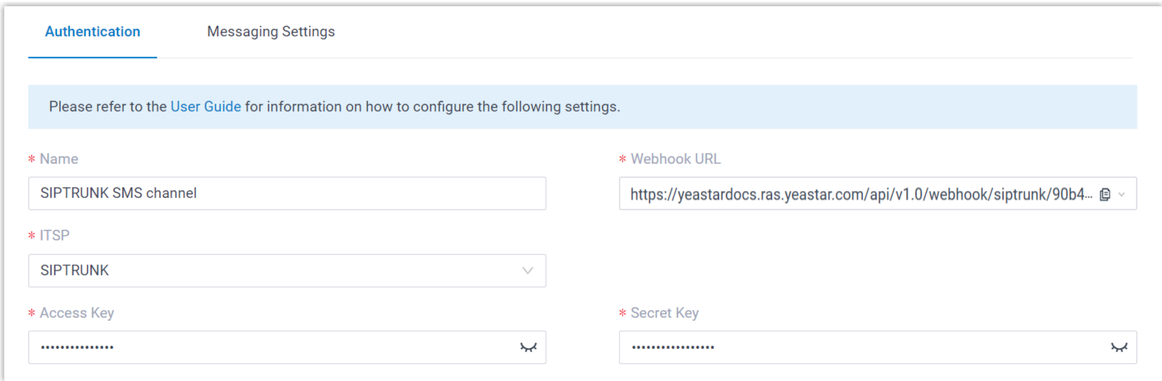
> **Important:**
> Make sure that you have copied and properly saved the **Secret Key** before closing the pop-up window, as it is only displayed ONCE.



Step 3. Create and configure an SMS channel on PBX

Create an SMS channel on PBX, and configure the channel with the authentication information and number obtained from SIPTRUNK.

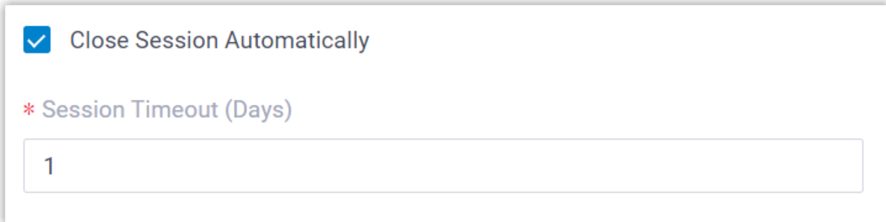
1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of SIPTRUNK.



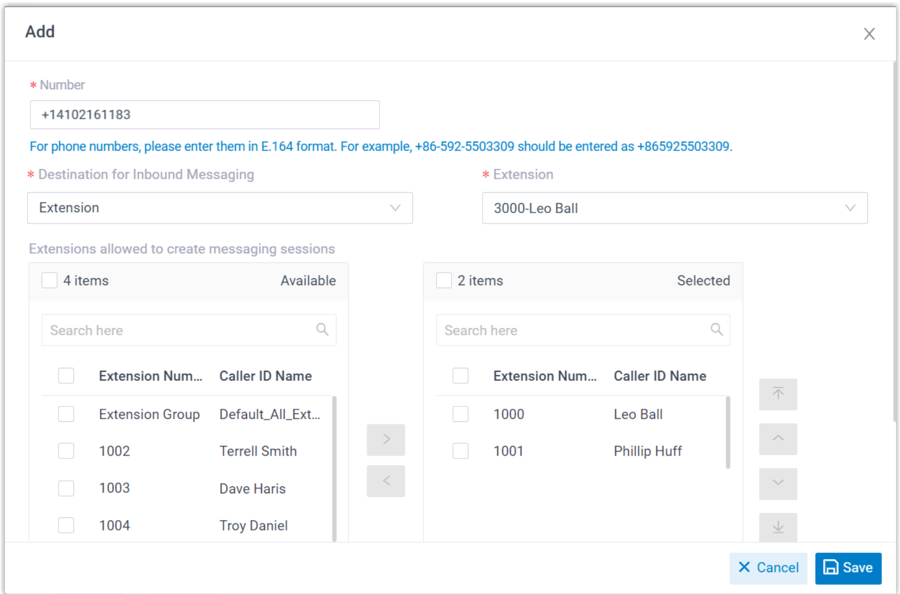
   - **Name**: Enter a name to help you identify the channel.
   - **ITSP**: Select **SIPTRUNK**.
   - **Access Key**: Paste the access key obtained from SIPTRUNK.
   - **Secret Key**: Paste the secret key obtained from SIPTRUNK.
4. In the **Messaging Settings** tab, configure the channel.
   a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

   > **Note:**
   > - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
   > - If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

   b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

> **Note:**
> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list.

Option	Description
	All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

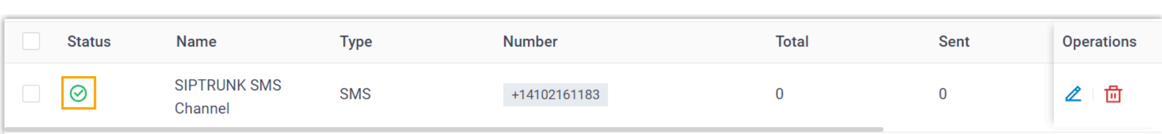
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

d. Click **Save**.

5. Click **Save**.

Result

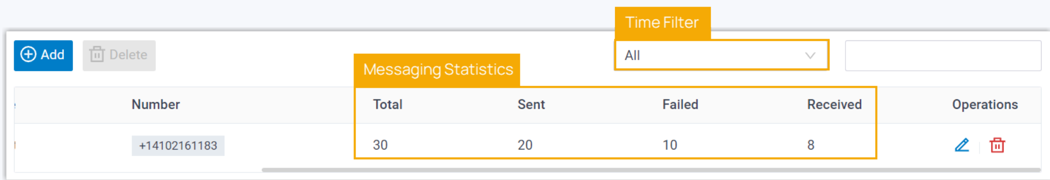
- A messaging channel is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

Note:

- For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
- You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs]
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client]
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client]

Telnyx

Set up an SMS Channel for Telnyx

This topic describes how to set up a Telnyx SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

The Yeastar PBX should meet the following requirements:

- **Firmware**: Version 37.20.0.124 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Domain Name**: PBX can be remotely accessed via a domain name.

> **Note:**
> - Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
> - If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

- Configure Network for Remote Access by a Yeastar FQDN
- Configure Network for Remote Access by a Yeastar Domain Name
- Configure Network for Remote Access by a Domain Name

Supported message types and limits

Supported message types

The Telnyx SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by Telnyx. For more information, see Telnyx supported MMS file types.

> **Important:**
> When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

Procedure

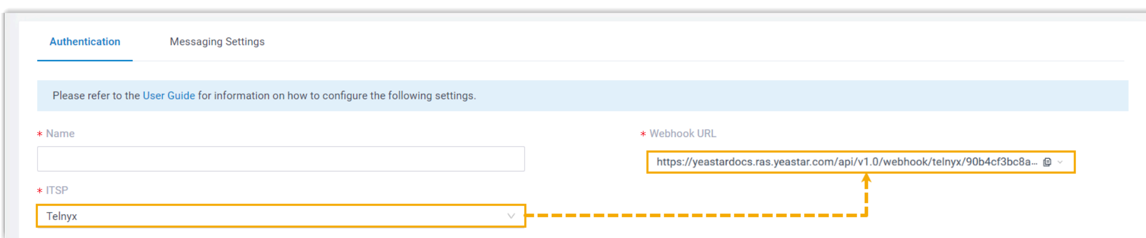
- Step 1. Obtain a Webhook URL on PBX
- Step 2. Configure a number for SMS on Telnyx
- Step 3. Create and configure an SMS channel on PBX

Step 1. Obtain a Webhook URL on PBX

Obtain a Webhook URL from PBX web portal first, which is required when you configure a number for SMS on Telnyx.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **ITSP** drop-down list, select **Telnyx**, then select and copy the desired **Webhook URL**.

> **Important:**
> The URL will change once you leave the current page, please make sure you use the latest Webhook URL for the configuration on the service provider's customer portal.



4. Note down the Webhook URL.

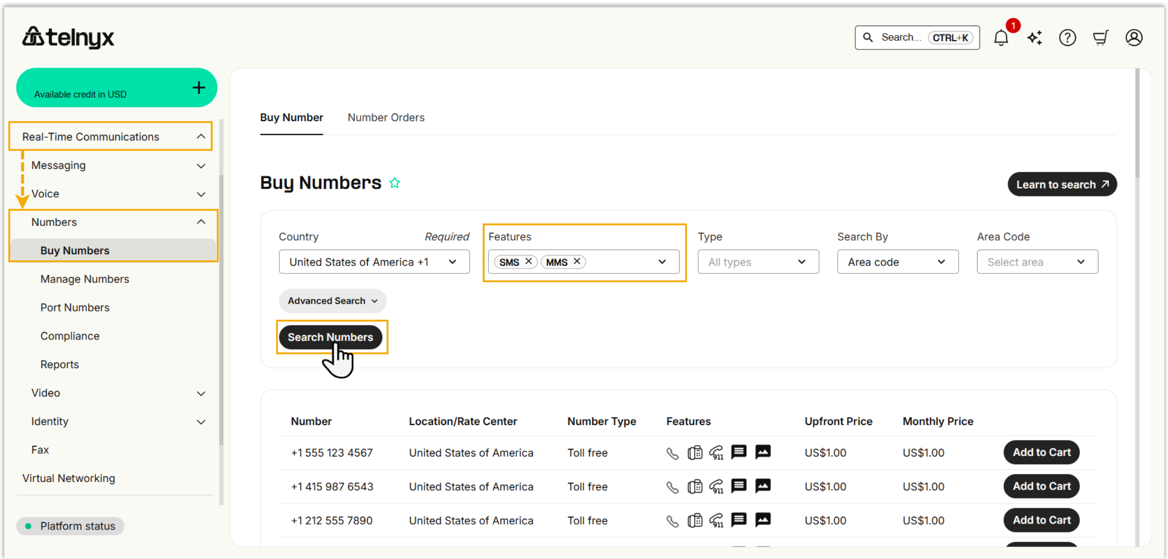
Step 2. Configure a number for SMS on Telnyx

> **Important:**
> According to US legislation (A2P 10DLC SMS), 10DLC (10-digit Long Code) phone numbers that are used for A2P (Application-to-Person) messaging MUST be registered, otherwise SMS messages sent to US numbers from the unregistered 10DLC numbers will be blocked.

If your business communicates with US-based customers, you should confirm the registration requirements with the SMS service provider and complete the phone number registration to avoid disruption in message delivery.

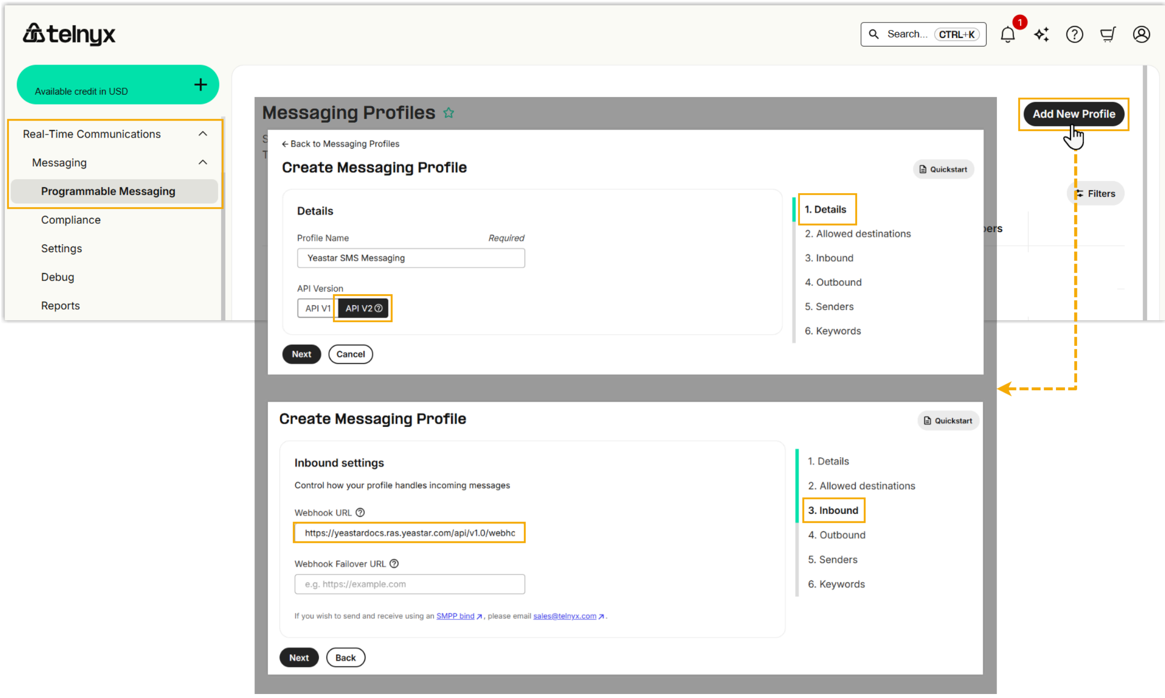
Log in to Telnyx portal, and complete the following settings:

1. Search and purchase a DID number with SMS feature.

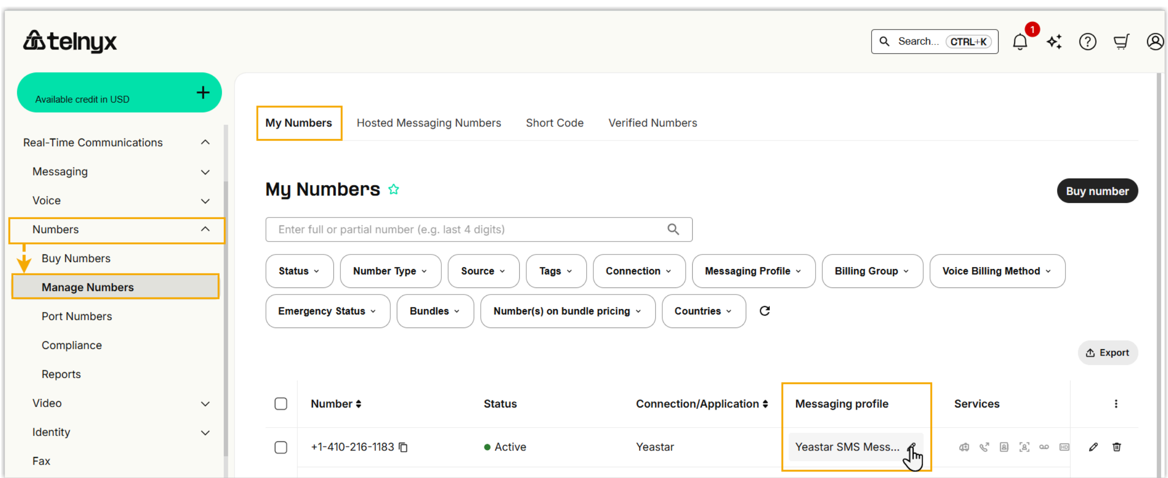


2. Create a message profile and configure messaging webhook with PBX's Webhook URL.

Note:
For any settings not shown, configure them according to your actual requirements.

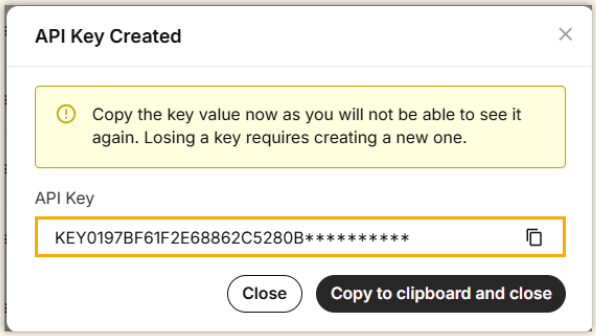


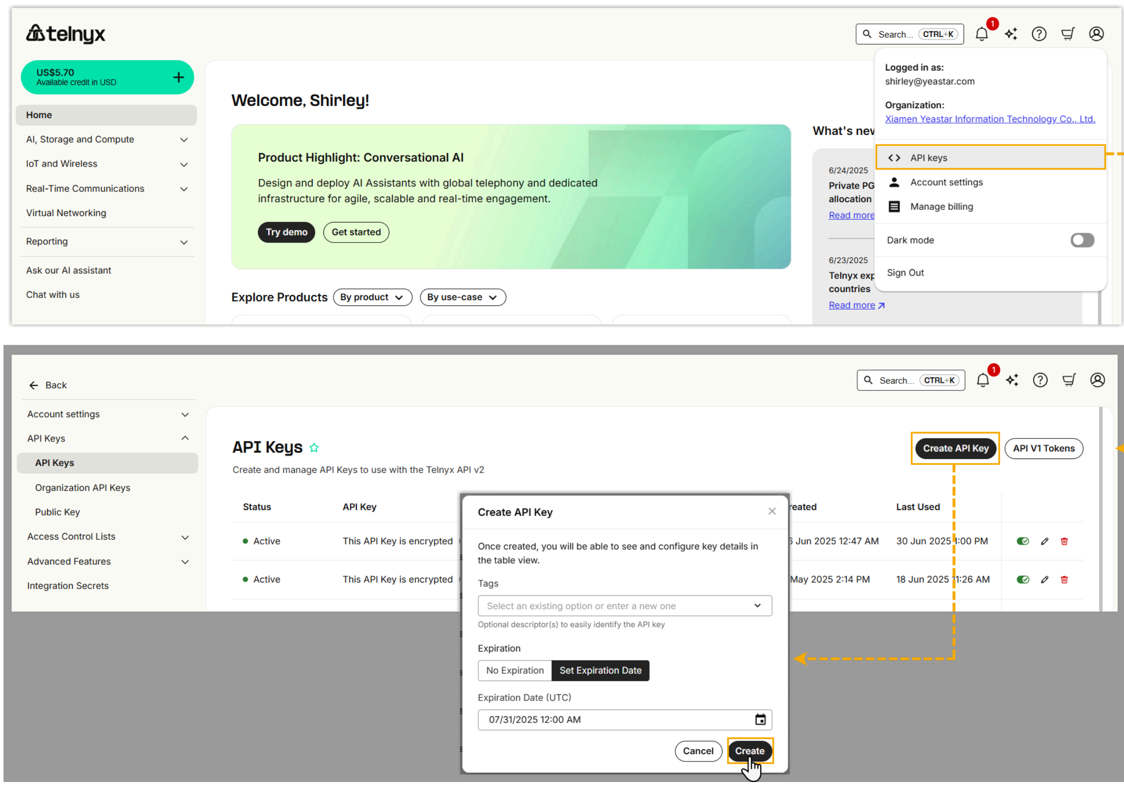
3. Assign the message profile to the purchased DID number.



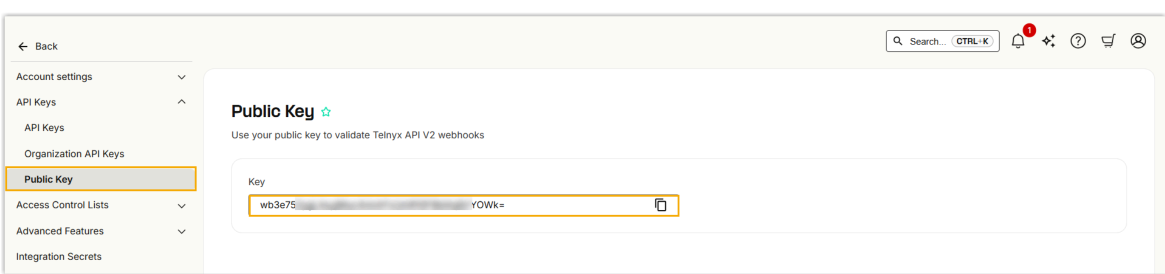
4. Create an API key for the integration with PBX.

> **Important:**
> Properly copy and save the API key after it is created, as it will only be displayed once. You will not be able to view the key again after you close the API key display window.



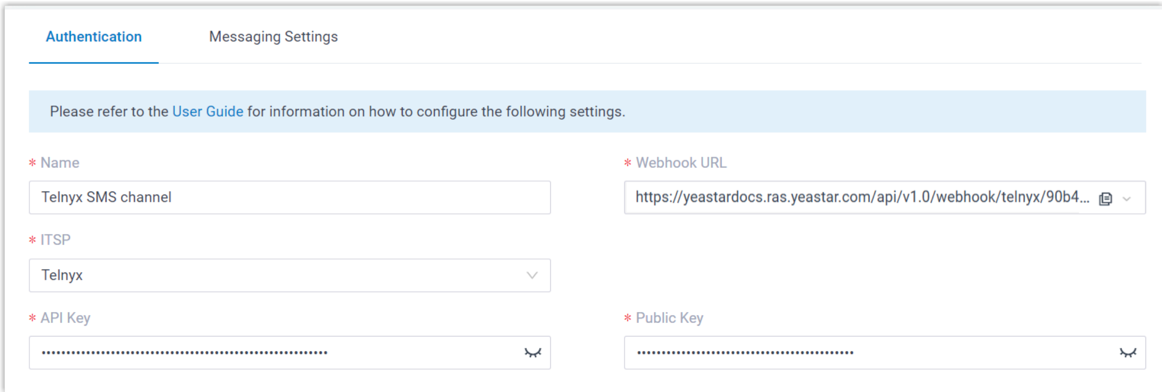


5. Note down the Public key in **Public Key** page.



Step 3. Create and configure an SMS channel on PBX

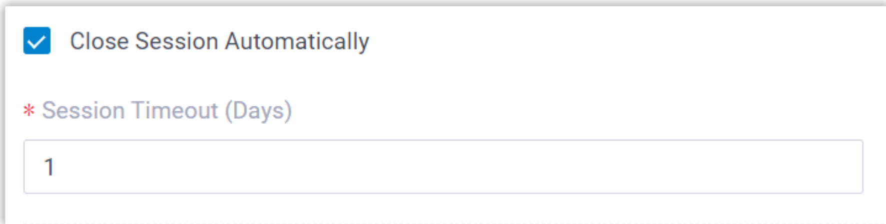
1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of Telnyx.



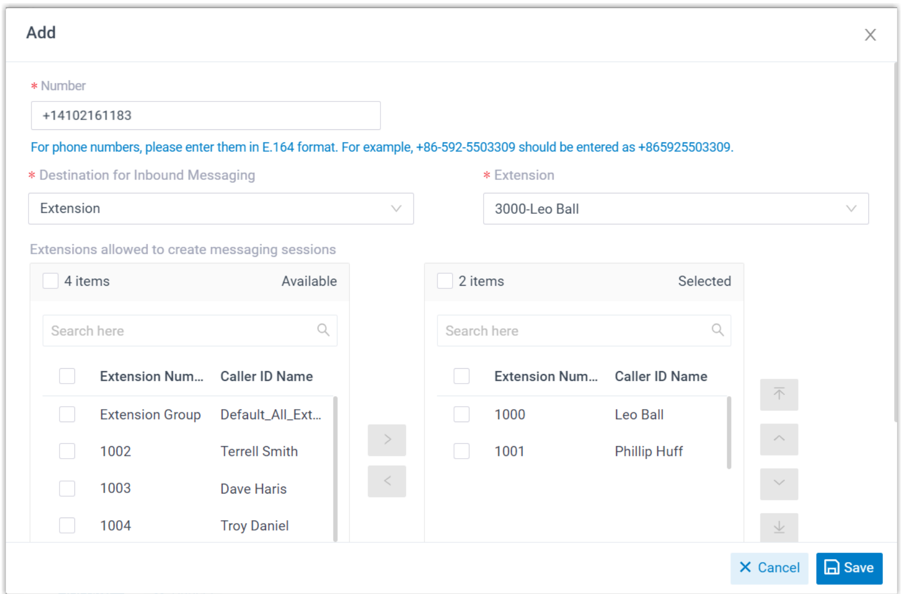
    - **Name**: Enter a name to help you identify the channel.
    - **ITSP**: Select **Telnyx**.
    - **API Key**: Paste the API Key obtained from Telnyx.
    - **Public Key**: Paste the Public Key obtained from Telnyx.
4. In the **Messaging Settings** tab, configure the channel.
    a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

    > **Note:**
    > - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
    > - If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

    b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

> **Note:**
> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list.

Option	Description
	All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

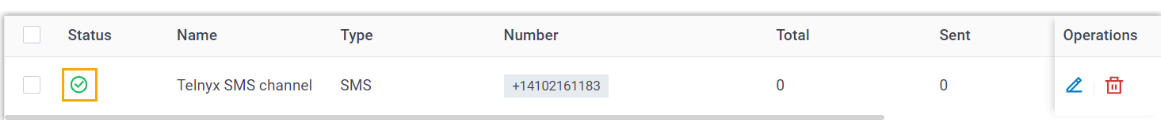
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

d. Click **Save**.

5. Click **Save**.

Result

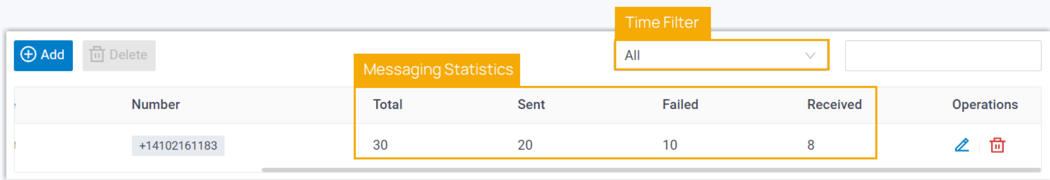
- A messaging channel is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

Note:

- For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
- You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs](#)
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client](#)
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client](#)

Twilio

Set up an SMS Channel for Twilio

This topic describes how to set up a Twilio SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

The Yeastar PBX should meet the following requirements:

- **Firmware**: Version 37.20.0.124 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Domain Name**: PBX can be remotely accessed via a domain name.

> **Note:**
> - Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
> - If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

- Configure Network for Remote Access by a Yeastar FQDN
- Configure Network for Remote Access by a Yeastar Domain Name
- Configure Network for Remote Access by a Domain Name

Supported message types and limits

Supported message types

The Twilio SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by Twilio. For more information, see Twilio supported MMS file types.

> **Important:**
> When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

Procedure

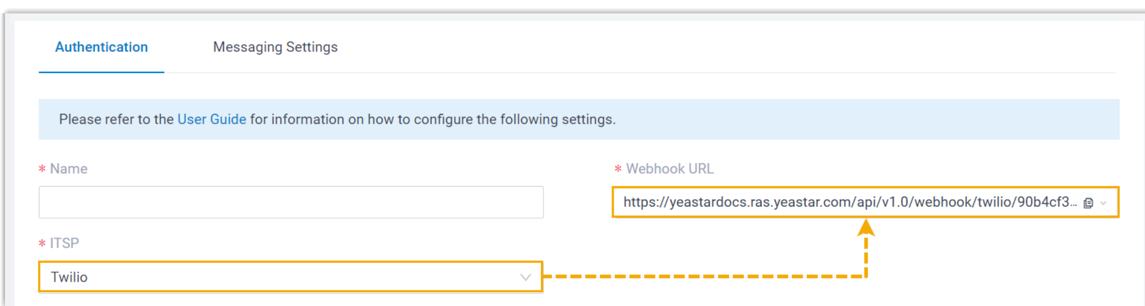
- Step 1. Obtain a Webhook URL on PBX
- Step 2. Configure a number for SMS on Twilio
- Step 3. Create and configure an SMS channel on PBX

Step 1. Obtain a Webhook URL on PBX

Obtain a Webhook URL from PBX web portal first, which is required when you configure a number for SMS on Twilio.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **ITSP** drop-down list, select **Twilio**, then select and copy the desired **Webhook URL**.

> **Important:**
> The URL will change once you leave the current page, please make sure you use the latest Webhook URL for the configuration on the service provider's customer portal.



4. Note down the Webhook URL.

Step 2. Configure a number for SMS on Twilio

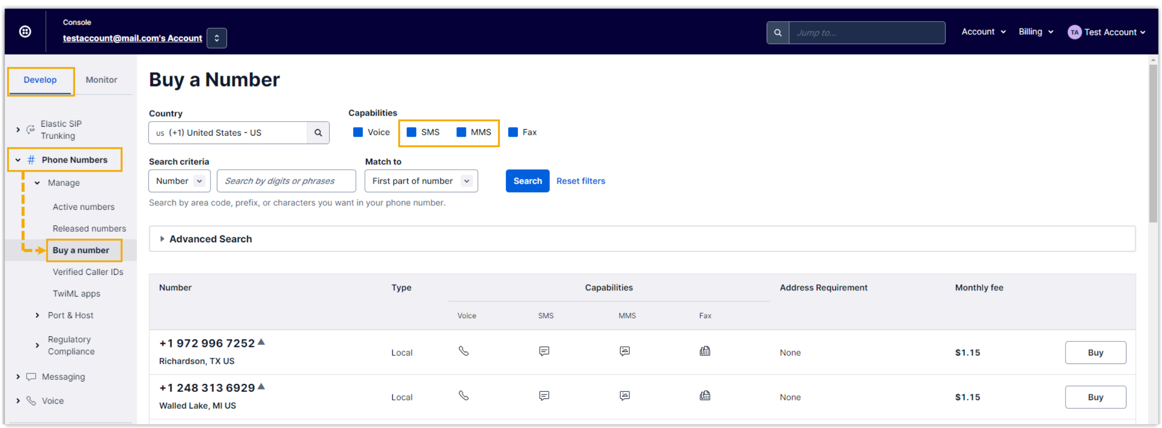
> **Important:**
> According to US legislation (A2P 10DLC SMS), 10DLC (10-digit Long Code) phone numbers that are used for A2P (Application-to-Person) messaging MUST be registered, otherwise SMS messages sent to US numbers from the unregistered 10DLC numbers will be blocked.

> **!** If your business communicates with US-based customers, you should confirm the registration requirements with the SMS service provider and complete the phone number registration to avoid disruption in message delivery.

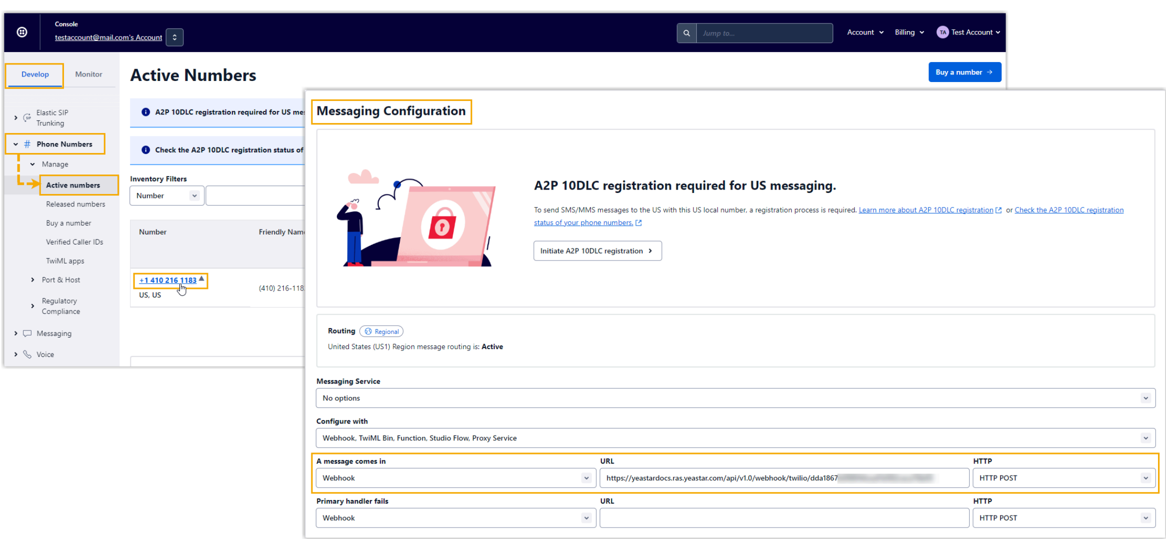
Log in to Twilio portal, and complete the followings:

1. Search and purchase a number with SMS feature.

> **Tip:**
> You can check the SMS service pricing here.

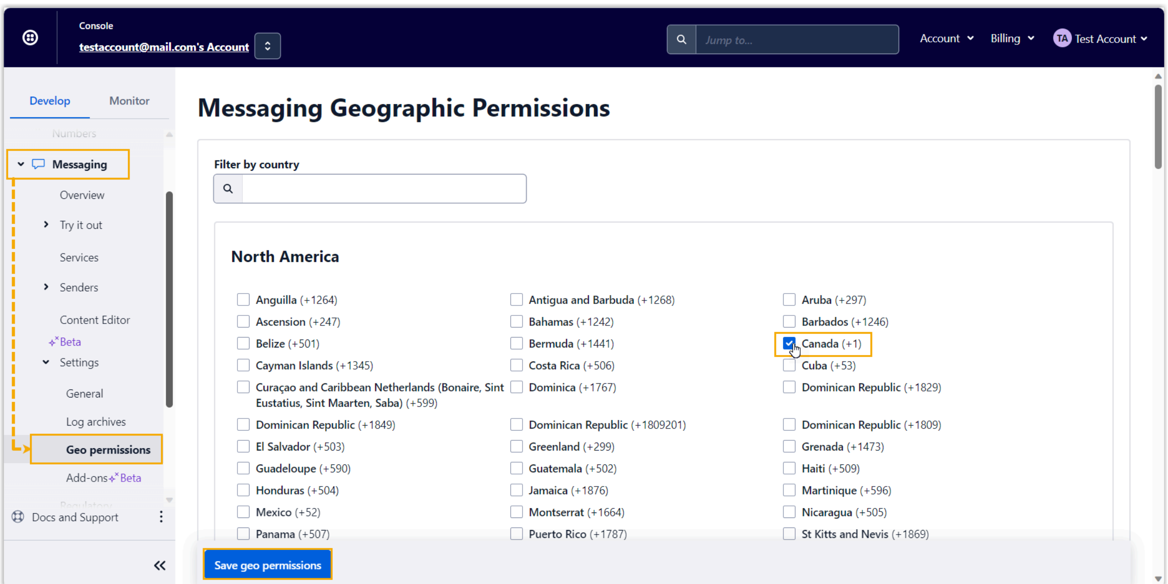


2. Edit the purchased number to configure the messaging webhook with PBX's Webhook URL.



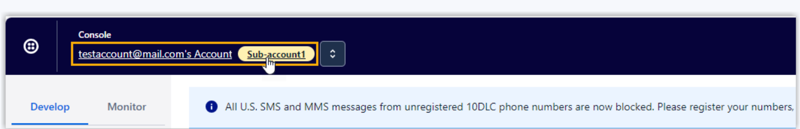
3. Enable the geographic permission for the desired region(s) where you want to send SMS messages, so that messages can be successfully sent to the phone numbers within the region(s).

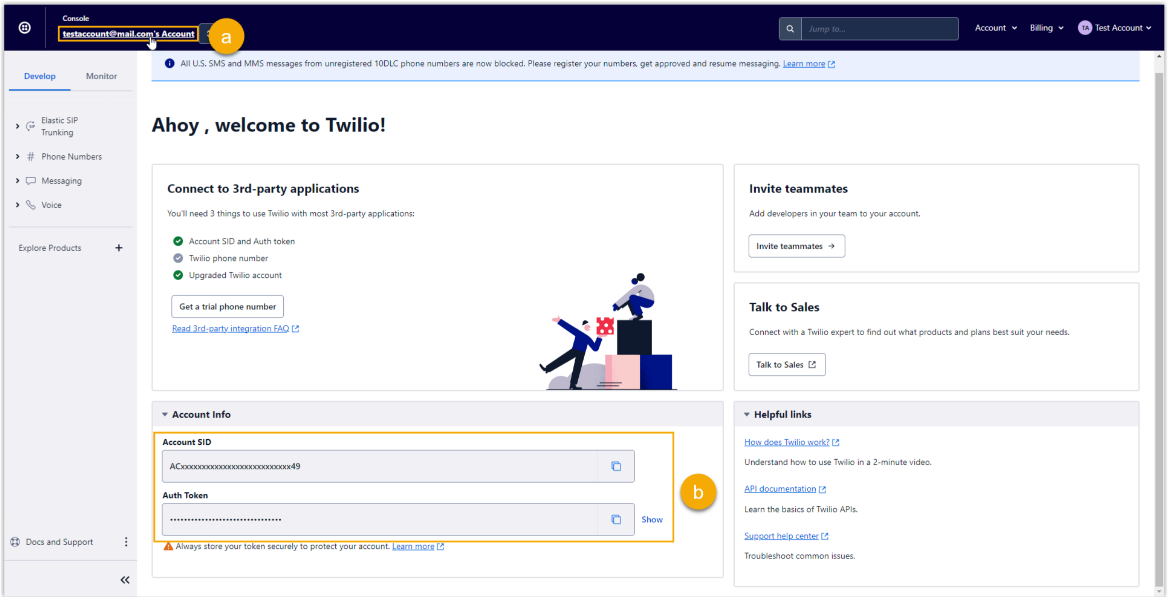
> **Note:**
> This setting should be completed in the parent account.



4. Go to your account's dashboard, note down the **Account SID** and **Auth Token**, as you will need to use it on PBX later.

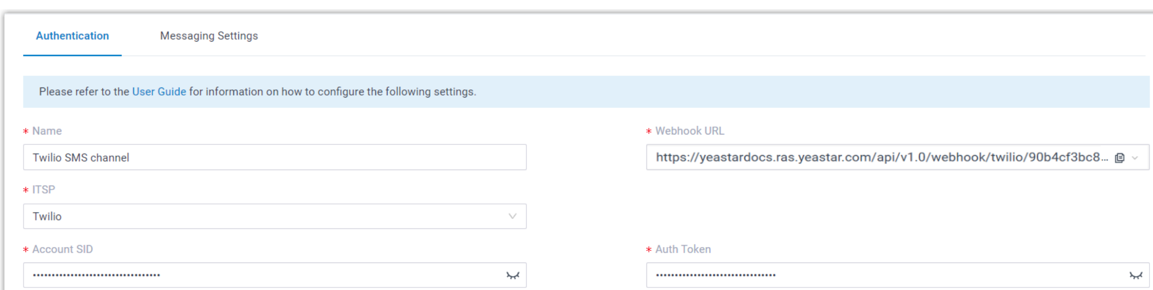
> **Note:**
> The account MUST be the one used for purchasing the number. That is, if the number is purchased using a sub-account, you need to access the sub-account's dashboard to obtain the information.





Step 3. Create and configure an SMS channel on PBX

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of Twilio.

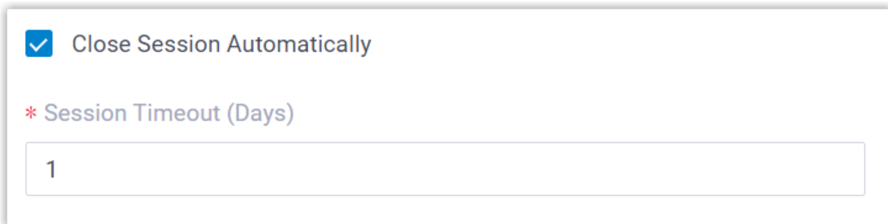


   - **Name**: Enter a name to help you identify the channel.
   - **ITSP**: Select **Twilio**.
   - **Account SID**: Paste the Account SID obtained from Twilio.
   - **Auth Token**: Paste the Auth Token obtained from Twilio.
4. In the **Messaging Settings** tab, configure the channel.
   a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

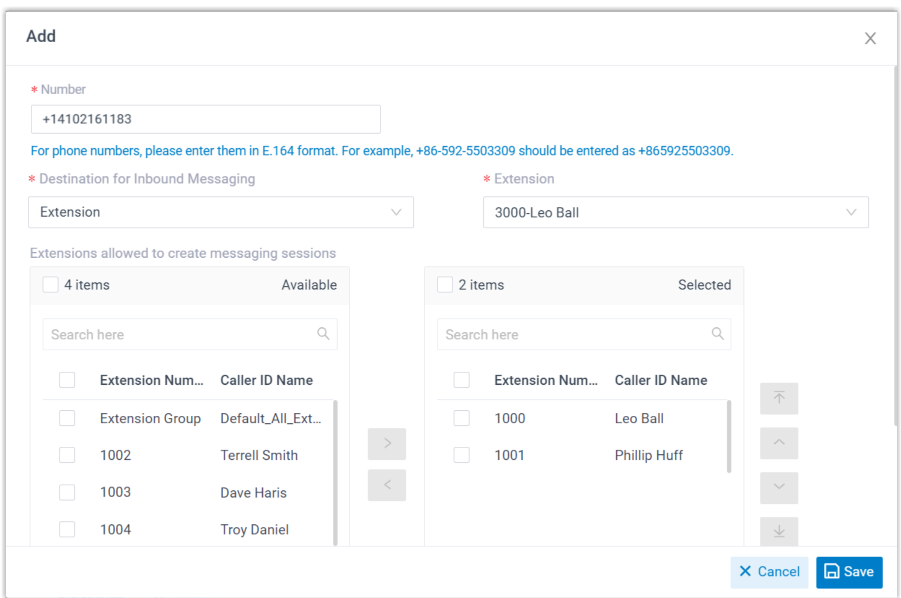
   > **Note:**

- If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
- If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

Note:

> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

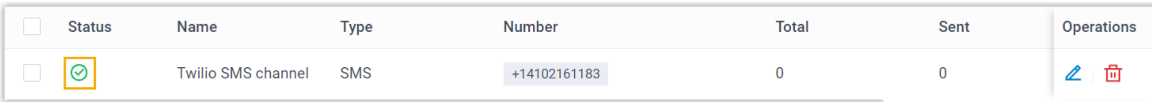
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

d. Click **Save**.

5. Click **Save**.

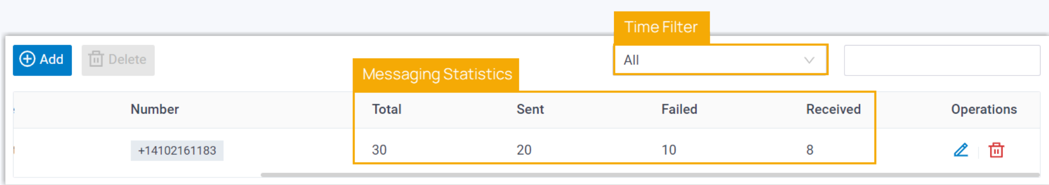
Result

- A messaging channel for Twilio is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

> **Note:**
> - For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
> - You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs]
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client]
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client]

VoiceMeUp

Set up an SMS Channel for VoiceMeUp

This topic describes how to set up a VoiceMeUp SMS channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to SMS messages from customers on their Linkus UC Clients.

Requirements

The Yeastar PBX should meet the following requirements:

- **Firmware**: Version 37.20.0.124 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Domain Name**: PBX can be remotely accessed via a domain name.

> **Note:**
> - Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
> - If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

- Configure Network for Remote Access by a Yeastar FQDN
- Configure Network for Remote Access by a Yeastar Domain Name
- Configure Network for Remote Access by a Domain Name

Supported message types and limits

Supported message types

The VoiceMeUp SMS channel supports text messages and multimedia messages (MMS), where the supported MMS file types are determined by VoiceMeUp.

> **Important:**

When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.

Limits

- **File size**: Max. 100 MB
- **File retention period**: 72 hours

Procedure

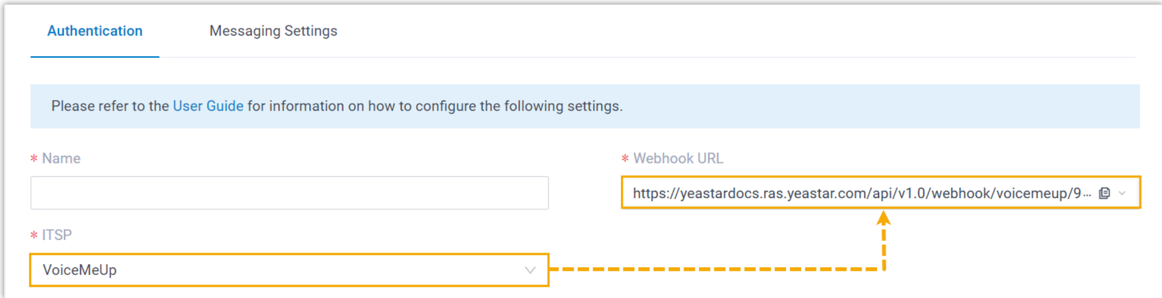
- Step 1. Obtain a Webhook URL on PBX
- Step 2. Configure messaging feature on VoiceMeUp
- Step 3. Create and configure an SMS channel on PBX

Step 1. Obtain a Webhook URL on PBX

Obtain a Webhook URL from PBX web portal first, which is required when you configure a number for SMS on VoiceMeUp.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **ITSP** drop-down list, select **VoiceMeUp**, then select and copy the desired **Webhook URL**.

> **Important:**
> The URL will change once you leave the current page, please make sure you use the latest Webhook URL for the configuration on the service provider's customer portal.



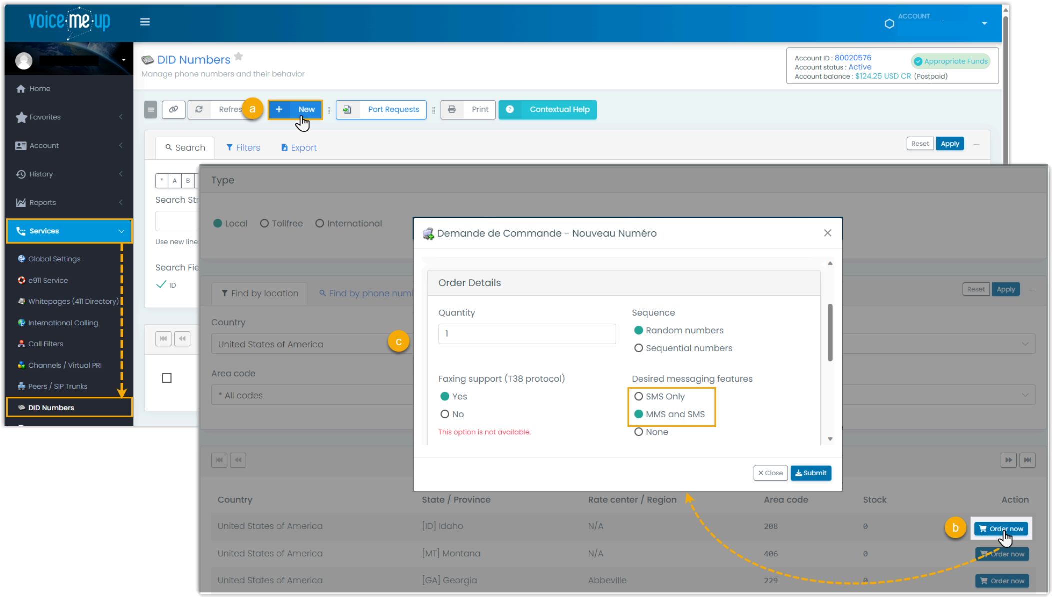
4. Note down the Webhook URL.

Step 2. Configure messaging feature on VoiceMeUp

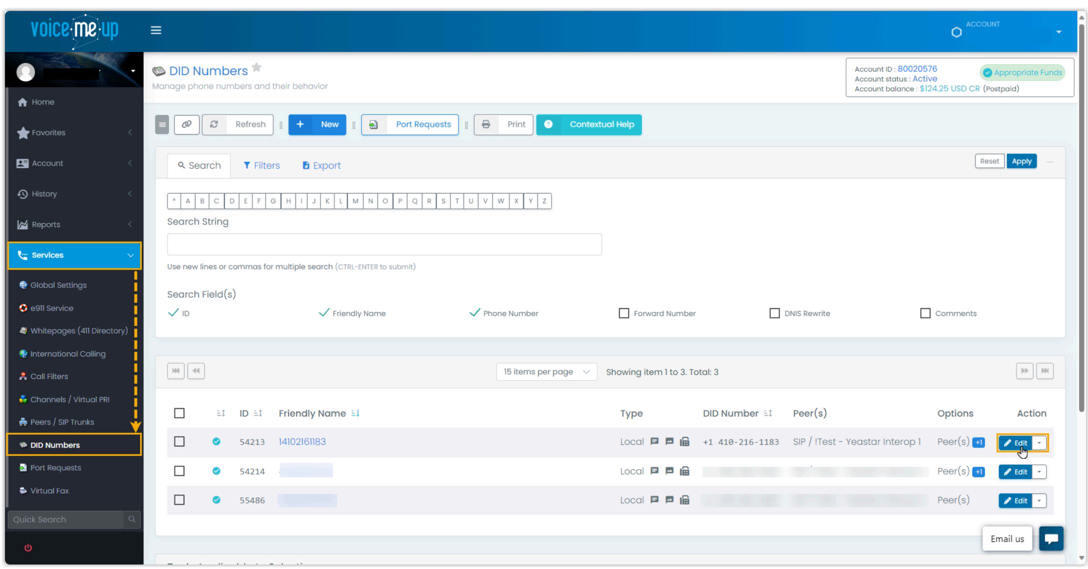
Log in to VoiceMeUp customer portal, and complete the following settings:

1. Purchase a DID number with SMS feature.

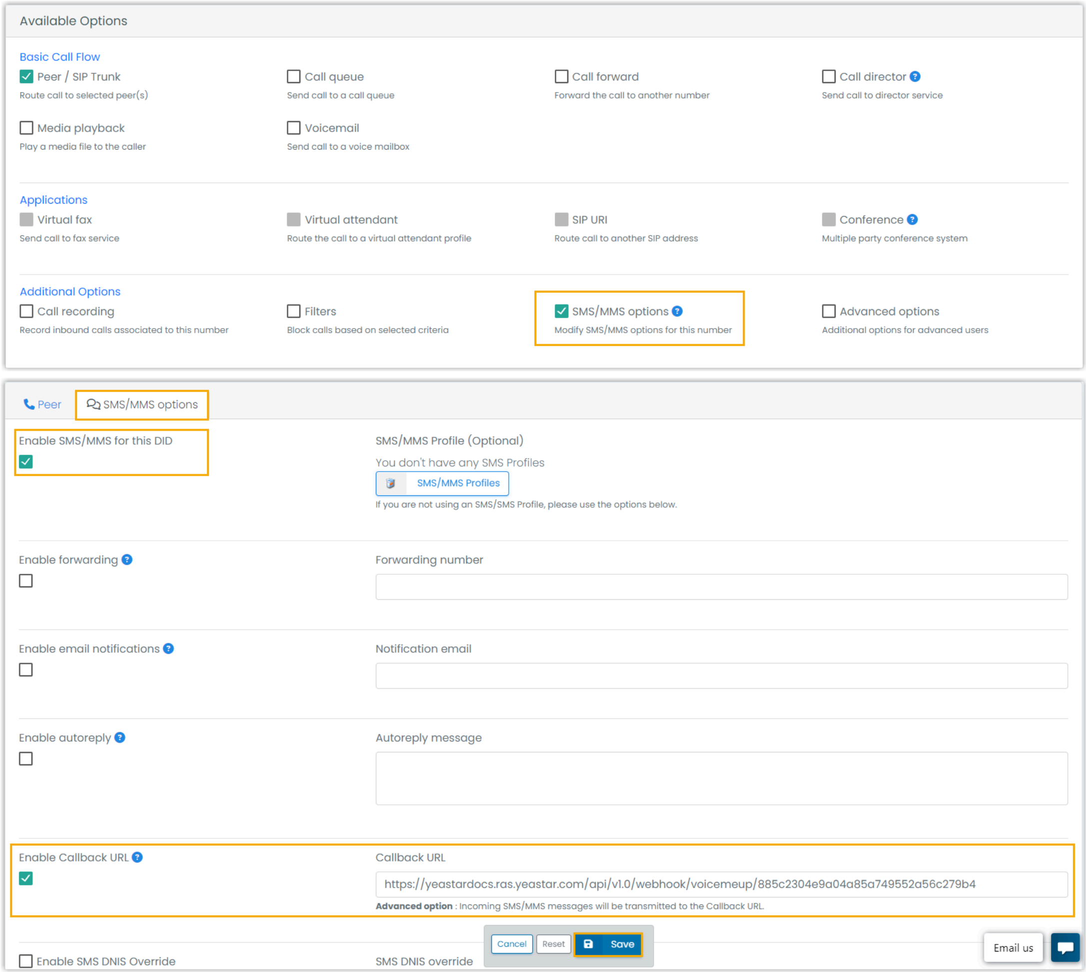
> **Important:**
> According to US legislation (A2P 10DLC SMS), 10DLC (10-digit Long Code) phone numbers that are used for A2P (Application-to-Person) messaging MUST be registered, otherwise SMS messages sent to US numbers from the unregistered 10DLC numbers will be blocked.
>
> If your business communicates with US-based customers, you should contact the SMS service provider to complete 10DLC registration for your DID number to avoid disruption in message delivery.



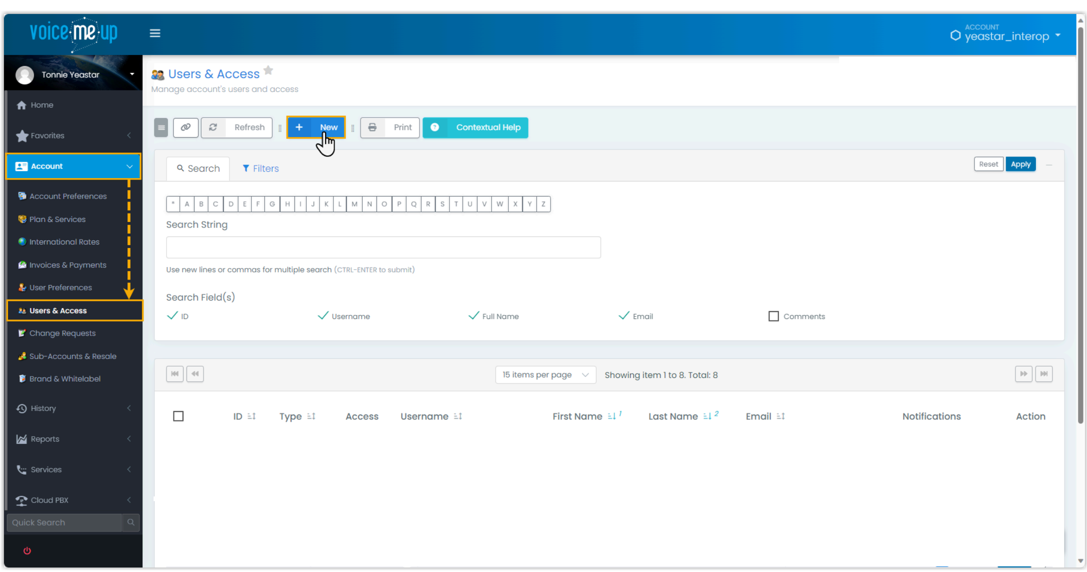
2. Configure messaging webhook for the DID number.
    a. Go to the edition page of the desired DID number.



    b. Enable SMS/MMS for the DID number, and configure the Callback URL using the [PBX's Webhook URL](#).

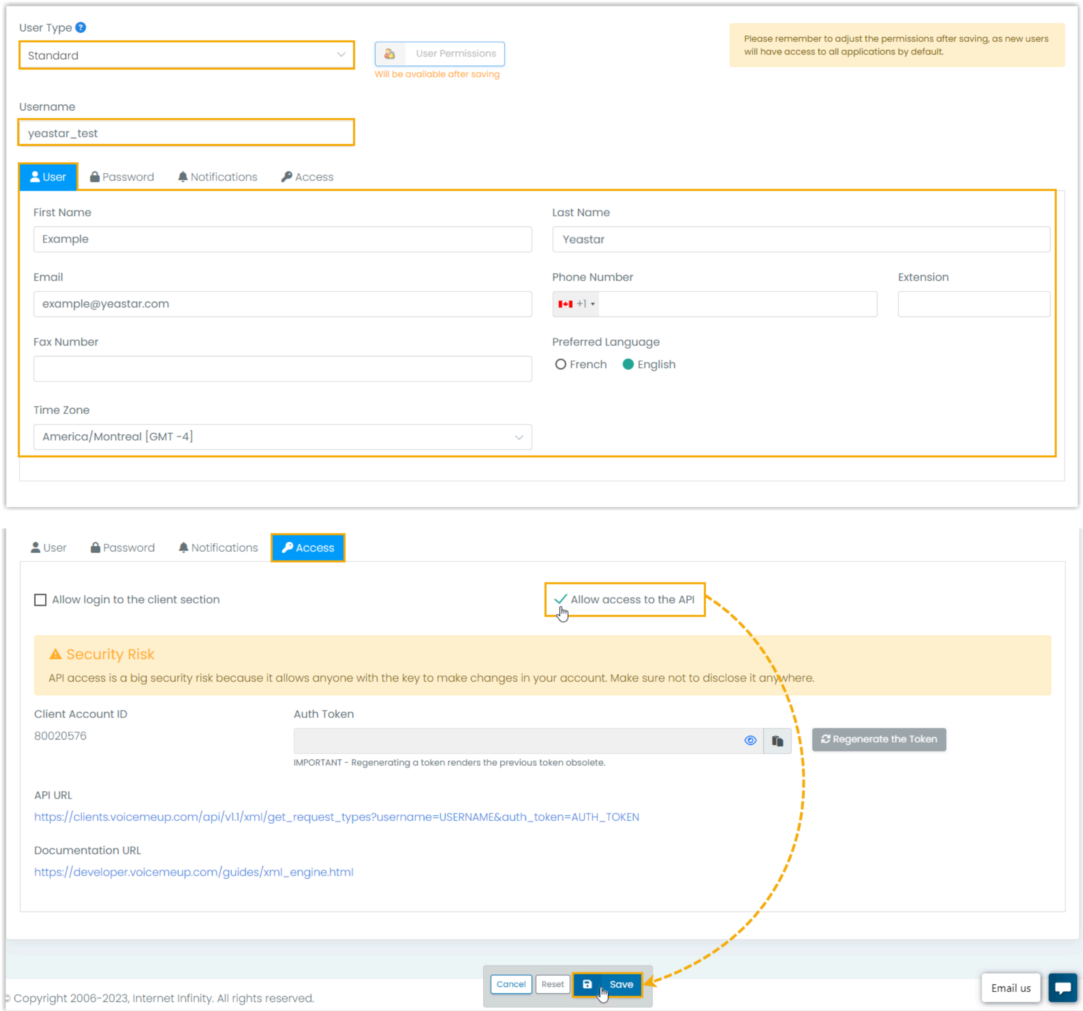


3. Configure a user account used for the integration with PBX.
    a. Create a user account.



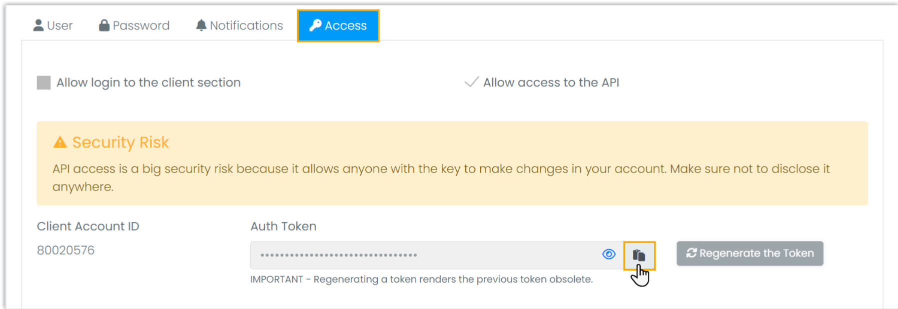
b. Configure the account information, and enable API access for the account.

> **Note:**
> Note down the username you set, as you will need it later on PBX.



An account is created successfully; You are redirected the user account list.

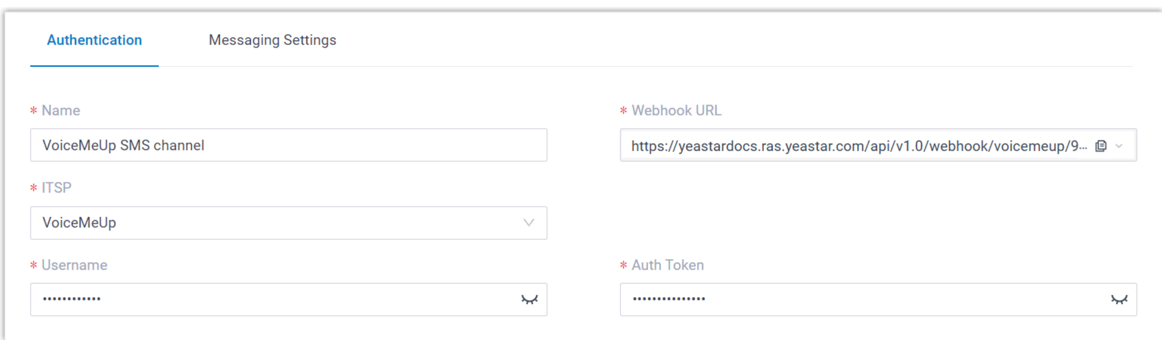
c. Go to the account's details page, and obtain the **Auth Token** for the integration.



Step 3. Create and configure an SMS channel on PBX

Create an SMS channel on PBX, and configure the channel with the authentication information and number obtained from VoiceMeUp.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, enter the authentication information of VoiceMeUp.

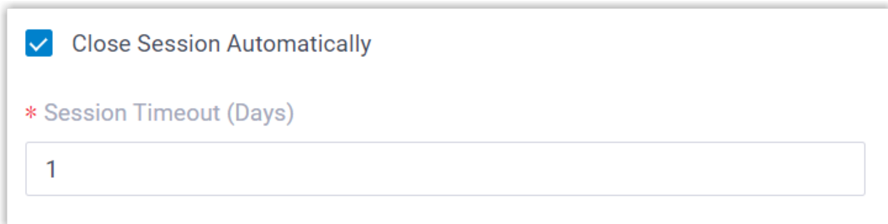


   - **Name**: Enter a name to help you identify the channel.
   - **ITSP**: Select **VoiceMeUp**.
   - **Username**: Paste the username of the VoiceMeUp account.
   - **Auth Token**: Paste the auth token of the VoiceMeUp account.
4. In the **Messaging Settings** tab, configure the channel.
   a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

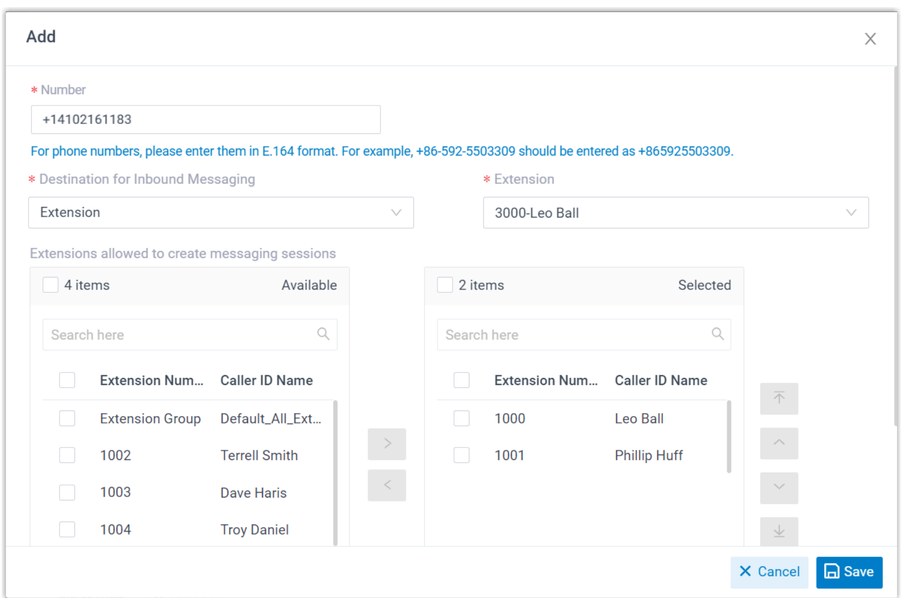
   > **Note:**
   > - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.

- If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

  Note:
  The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

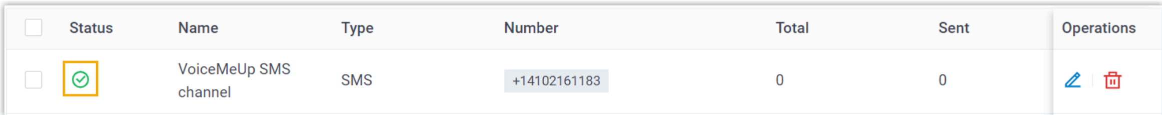
- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

d. Click **Save**.

5. Click **Save**.

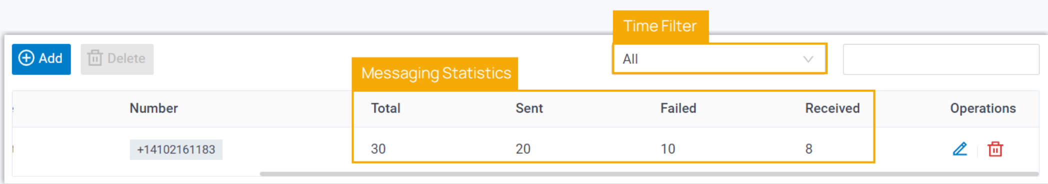
Result

- A messaging channel is created successfully. You can see the channel displayed in the Messaging Channel list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

> **Note:**
> - For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
> - You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs]()
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client]()
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client]()

Custom SMS Channel

Integrate SMS Service with Yeastar P-Series PBX System using SMS API

Yeastar P-Series PBX System allows Service Providers to integrate their SMS service with the PBX system using SMS API. This topic describes how Service Provider can achieve the interaction of SMS service with Yeastar PBX using API, and introduces how PBX administrators can set up an SMS channel for the Service Provider on PBX system.

Requirements

To implement the SMS service integration with Yeastar P-Series PBX System, Yeastar PBX and Service Provider must meet the following requirements.

<table>
<tr><th>Platform</th><th>Requirement</th></tr>
<tr><td>Yeastar PBX</td><td>

- **Firmware**: Version 37.20.0.124 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Domain Name**: PBX can be remotely accessed via a domain name.

Note:

- Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
- If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

- Configure Network for Remote Access by a Yeastar FQDN
- Configure Network for Remote Access by a Yeastar Domain Name
- Configure Network for Remote Access by a Domain Name

</td></tr>
<tr><td>Service Provider</td><td>

- **API**: Service Provider should provide the following API interfaces.
  - HTTPS REST API for sending messages.

</td></tr>
</table>

Platform	Requirement
	◦ (Optional) If the service provider requires PBX to verify its identity, an HTTPS REST API for verifying authentication should also be provided. • **Customer Portal Feature**: Service Provider should offer the following features on its customer portal. ◦ Provide an **API key** to authenticate API requests sent from PBX system. ◦ (Optional) If the Service Provider requires signature verification for webhook requests sent to the PBX, a **Secret** should also be provided for the PBX to verify the authenticity of the webhook requests. ◦ Support for configuring **Webhook** through the customer portal. • **Number Format**: Phone numbers should follow the E.164 format.

Authenticate requests

As the SMS service integration is implemented via API interactions between Service Provider and PBX, the Service Provider should provide an **API key** and a **Secret** for the request authentication of APIs and webhooks in the integration.

- **API key**

  The API key is used to authenticate the API requests sent from PBX to Service Provider.

  The PBX will pass the API key in the header of each API request under an `Authorization` field, as shown below:

  ```
  Authorization: Bearer {api_key}
  ```

  Upon receiving an API request, Service Provider verifies the API key extracted from the request header. If the API key is valid, the Service Provider should execute the corresponding actions as specified in the request. Otherwise, the API request fails.
  For more information about the API request, see the followings:
  - (Optional) Verify SMS channel connectivity
  - Send messages through Service Provider
- **Secret**
  The Secret is used to authenticate the webhook requests sent from Service Provider to PBX.

  Note:

> Whether the Secret is required depends on whether the Service Provider uses it for signature verification in webhook request.

When sending a message to PBX via webhook, the Service Provider needs to utilize the **Secret** along with the SHA256 algorithm to generate a signature based on the webhook request body, and pass the signature in the header of each webhook request under an `X-Signature-256` field, as shown below:

> **Important:**
> The signature included in the request header must be in all lowercase letters.

```
X-Signature-256: sha256={signature}
```

Upon receiving a webhook request, PBX calculates a signature using the **Secret** along with SHA256 algorithm based on the received webhook request body, then compares the result with the signature extracted from the request header. If the signatures match, it indicates that the webhook request is valid and PBX will deliver the message retrieved from the request body to the message recipient. Otherwise, the webhook request will be rejected.

For more information about the webhook request, see Receive messages from Service Provider.

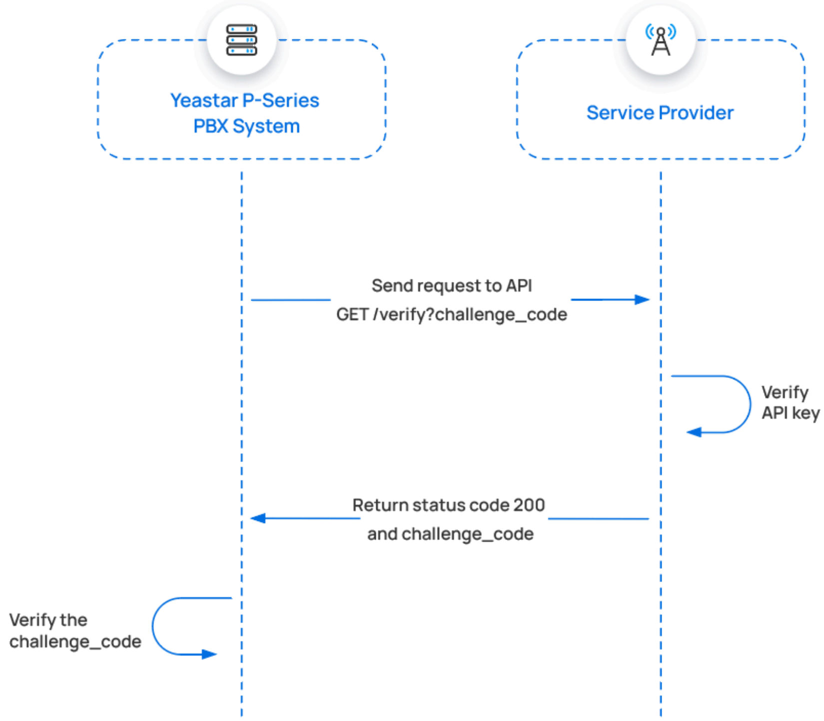
(Optional) Verify SMS channel connectivity

> **Note:**
> Whether to perform this operation depends on the Service Provider's requirement for identity verification. If not required, it can be skipped.

Once an SMS channel has been established on PBX web portal, the system will periodically send API requests to Service Provider using the **API address for verifying authentication** and **API key** to verify the connectivity of the channel.

Interaction flow

The process of channel connectivity verification is shown below:



1. PBX initiates an API request, containing a randomly generated challenge code.
2. Upon receiving the API request, Service Provider validates the API key.
3. If the API key is valid, Service Provider should return a status code `200`, and include the challenge code in the response body.
4. Upon receiving the response, PBX checks if the returned challenge code matches the one it sent.

   If the challenge code matches, it indicates that the channel connection is successful.

API request sent by PBX

Below is the structure and explanation of the API request sent by PBX for channel connectivity verification.

Request method

GET

Request URL

```
{api_address_for_verifying_authentication}
```

For example:

```
https://service-provider.example.com/verify
```

Headers

Parameter	Type	Description
Authorization	String	Pass the API key in the header. **Format**: Bearer *{api_key}*

Query parameter

Parameter	Type	Description
challenge	String	Challenge code. A random string that is generated by PBX.

Request example

```
GET /
verify?challenge=mAWpGnyeTZgguOPYlWitGPlRJYIhoLMy
 HTTP/1.1
Host: service-provider.example.com
Authorization: Bearer {api_key}
```

API response returned by Service Provider

Service Provider should return the API response in JSON format.

Success response

If the request is successful, Service Provider should return the following information in the response:

- HTTP status code `200`
- The challenge code that was sent by PBX in the request

For example:

```
HTTP/1.1 200 OK
Body: mAWpGnyeTZgguOPYlWitGPlRJYIhoLMy
```

If the challenge code in the response body matches the one sent by PBX, it indicates that the channel has successfully connected.

In this case, the channel status on PBX web portal is displayed as (Connected).

Error response

If the request fails, Service Provider should return the error information in the response according to the following format.

Parameter	Type	Description
code	String	Error code.
title	String	Error type (Customizable).
detail	String	Detailed information of the error (Customizable).

The following example shows a response of a failed channel connectivity verification.

```
HTTP/1.1 401 Unauthorized
{
    "errors": [
        {
            "code": "10004",
            "title": "Authentication failed",
            "detail": "No key found matching the ID
 with the provided secret."
        }
    ]
}
```

Exceptions and troubleshooting

If channel connectivity verification fails, the channel on PBX web portal will display an abnormal status. Service Provider can troubleshoot the cause of the anomaly by checking the error code and response body.

- **Error code**

  The table below lists the error codes defined in the PBX.

Error Code	Error Message	Description
10001	channel.ErrInvalidPhoneNumber	Invalid phone number.
10002	channel.ErrInvalidParam	Invalid parameter in the request.
10003	channel.ErrUnsupportMedia	Resource type not supported (MMS).
10004	channel.ErrAuthFail	Authentication failed.
10005	channel.ErrAuthFail	No permission.
10006	channel.ErrTooManyRequest	Too many requests.
10007	channel.ErrServiceUnavailable	Service unavailable on recipient's platform.
10008	channel.ErrExceedsSizeLimit	File size exceeds the limit.

- **Exceptions**

  The table below lists the possible abnormal channel statuses and their trigger conditions.

Channel Status	Trigger Condition
Unauthorized	◦ Authentication failed, Service Provider returns HTTP status code `401`/`403`/`404`. ◦ The returned challenge code does not match the one sent by the PBX.
Services of the recipient platform are unavailable	Service Provider returns HTTP status code `500`.
Unknown	Service Provider returns HTTP status code except for `401`/`403`/`404`/`500`, and returns error information in the response body according to the format defined by the PBX.
Request Failed	◦ Service Provider does not return an HTTP status code, possibly due to TCP connection issues or non-existent domain.

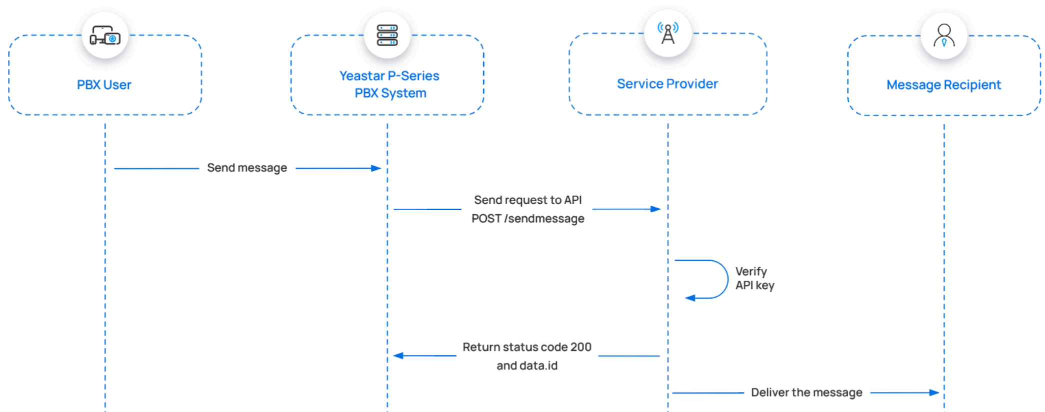
Channel Status	Trigger Condition
	◦ Service Provider returns HTTP status code except for `401`/`403`/`404`/`500`, and does not return a response body or the returned response body is not in JSON format.

Send messages through Service Provider

When a PBX user sends a message, PBX will send an API request to the Service Provider using the **API interface for sending messages** and **API key**, so as to deliver the message to external message recipient through Service Provider.

Interaction flow

The process of sending a message through Service Provider is shown below:



1. A PBX user sends a message.
2. PBX initiates an API request to send a message through the Service Provider.
3. Upon receiving the API request, the Service Provider validates the API key.
4. If the API key is valid, the Service Provider should return a status code `200` and a `data.id` to pass the unique ID of the message.
5. Service Provider delivers the message to the message recipient.

API request sent by PBX

Below is the structure and explanation of the API request sent by PBX for sending a message through Service Provider.

Request method

POST

Request URL

```
{api_address_for_sending_message}
```

For example:

```
https://service-provider.example.com/sendmessage
```

Headers

Parameter	Type	Description
Content-Type	String	Define the content type of the request payload. **Valid value**: application/json
Authorization	String	Pass the API key in the header. **Format**: Bearer *{api_key}*

Request body

PBX will pass the outbound message in the request body.

Parameter	Type	Description
from	String	Phone number of the message sender. **Note:** This parameter should be in E.164 format. For example, `+8618012121222`.
to	String	Phone number of the message recipient. **Note:** This parameter should be in E.164 format. For example, `+8618012121222`.
text	String	The textual content of the message.
media_urls	Array<String>	The URL(s) pointing to the media content of the message.

Request example

Here are examples of sending SMS/MMS messages to a phone number through Service Provider.

- Send an SMS message

```
POST /sendmessage HTTP/1.1
Host: service-provider.example.com
Content-Type: application/json
Authorization: Bearer {api_key}

{
    "from": "+8618012121222",
    "text": "Hello, World!",
    "to": "+8618012121223"
}
```

- Send an MMS message

```
POST /sendmessage HTTP/1.1
Host: service-provider.example.com
Content-Type: application/json
Authorization: Bearer {api_key}

{
    "from":"+8618012121222",
    "to":"+8618012121223",

 "media_urls":["yeastardocs.ras.yeastar.com/
api/chat/70dee7e2f95041ca890f222ace06c2dc"]
}
```

API response returned by Service Provider

Service Provider should return the API response in JSON format.

Success response

If the request is successful, Service Provider should return the following information in the response:

- HTTP status code `200`
- A parameter `data.id` to pass the unique ID of the message

For example:

```
HTTP/1.1 200 OK
{
    "data": {
        "id":"b301ed3f-1490-491f-995f-6e64e69674d4",
  // Message ID (Required, and MUST be different every
 time)

        }
}
```

Error response

If the API request fails, Service Provider should return the error information in the response according to the following format.

Parameter	Type	Description
code	String	Error code.
title	String	Error type (Customizable).
detail	String	Detailed information of the error (Customizable).

The following example shows a response of a failed message sending request.

```
HTTP/1.1 400 Bad Request
{
    "errors": [
        {
            "code": "10001",
            "title": "Invalid 'to' address",
            "detail": "The 'to' address should be a
 single valid number."
        }
    ]
}
```

Exceptions and troubleshooting

If message delivery fails, an error prompt will be displayed on the PBX user's Linkus client. Service Provider can troubleshoot the cause of the anomaly by checking the error code and response body.

- **Error code**

  The table below lists the error codes defined in the PBX.

Error Code	Error Message	Description
10001	channel.ErrInvalidPhoneNumber	Invalid phone number.
10002	channel.ErrInvalidParam	Invalid parameter in the request.
10003	channel.ErrUnsupportMedia	Resource type not supported (MMS).
10004	channel.ErrAuthFail	Authentication failed.
10005	channel.ErrAuthFail	No permission.
10006	channel.ErrTooManyRequest	Too many requests.
10007	channel.ErrServiceUnavailable	Service unavailable on recipient's platform.
10008	channel.ErrExceedsSizeLimit	File size exceeds the limit.

- **Exceptions**

  The table below lists the possible error prompts and their trigger conditions.

Error Prompt	Trigger Condition
Failed to send	◦ Service Provider does not return a `data.id`. ◦ Service Provider returns HTTP status code `404`, prompting service not found. ◦ Message delivery fails, and Service Provider returns error information according to the format defined by the PBX, which will be displayed in the error prompt. ◦ Message delivery fails, and Service Provider does not return error information or the returned response body is not in JSON format.
Authentication Failed	◦ Service Provider returns HTTP status code `401`.

Error Prompt	Trigger Condition
	◦ Service Provider returns error code `10004` or `10005`.
Recipient Platform Service Unavailable	◦ Service Provider returns HTTP status code `403`. ◦ Service Provider returns error code `10007`.
Invalid Phone Number	Service Provider returns error code `10001`.
Invalid Parameter	Service Provider returns error code `10002`.
This type of message is not supported due to the restriction of the recipient platform.	Service Provider returns error code `10003`.
Too frequent operations. Please try again later.	Service Provider returns error code `10006`.
The file size exceeds the limit of the recipient's platform.	Service Provider returns error code `10008`.

Receive messages from Service Provider

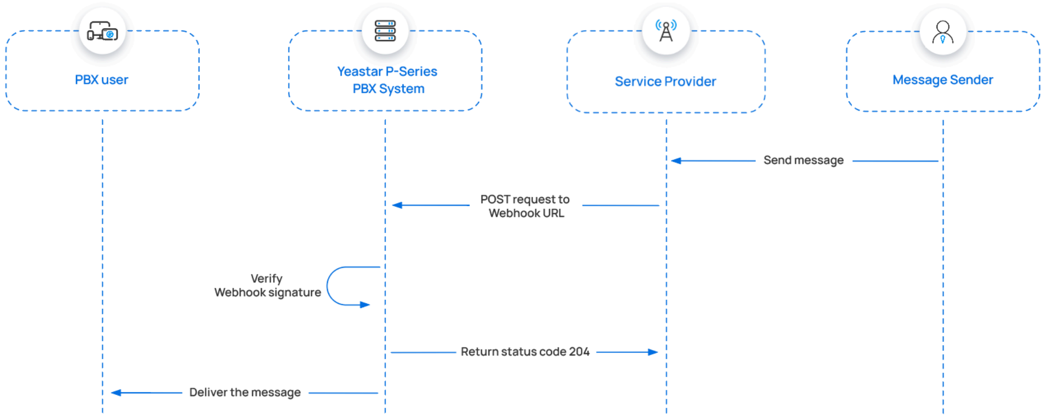
PBX can receive messages from external message sender via a phone number provided by the Service Provider. When an external message sender sends a message to the phone number, Service Provider can send a request to PBX's webhook URL, so as to deliver this message to PBX.

Interaction flow

The process of receiving a message from Service Provider is shown below:

Note:

Whether to perform signature verification depends on the Service Provider's requirement for signature verification. If not required, the signature-related operations can be skipped.



1. An external message sender sends a message.
2. The Service Provider should initiate a request to the PBX's webhook URL, with the inbound message attached in the request body and a SHA256 signature included in the request header.
3. Upon receiving the webhook request, PBX verifies the signature by using the secret provided by Service Provider to calculate a SHA256 signature based on the received webhook request body, then compares the result with the signature extracted from the request header.

   If the signatures match, it indicates that the webhook request is valid, and PBX will return a status code `204` to the Service Provider.
4. PBX delivers the message to the PBX user.

Webhook request sent by Service Provider

Below is the structure and explanation of the webhook request that Service Provider should send for message delivery.

Request method

POST

Request URL

```
{webhook_url_provided_by_pbx}
```

For example:

```
https://yeastardocs.ras.yeastar.com/
api/v1.0/webhook/general/429ced149ff9437695be795aff3
8407b
```

Headers

Parameter	Type	Description
Content-Type	String	Define the content type of the request payload. **Valid value**: application/json
X-Signature-256	String	Pass the signature for webhook authentication, where *{signature}* is the lowercase result generated by encrypting the body content with the **Secret** using the SHA256 algorithm. **Format**: sha256=*{signature}*

Request body

The Service Provider should pass the inbound messages in the request body.

> **Note:**
> Here only lists the mandatory parameters. Service Provider may extend this message with other data if needed.

Parameter	Required	Type	Description
data.event_type	Yes	String	Event type. **Valid value**: `message.received`.
data.payload.id	Yes	String	Message ID. **Note:** • The maximum character length is 255.

Parameter	Required	Type	Description
			• The ID MUST be different every time.
data.payload.from.phone_number	Yes	String	Phone number of the message sender. **Note:** This parameter should be in E.164 format. For example, `+8618012121222`.
data.payload.to.phone_number	Yes	String	Phone number of the message recipient. **Note:** This parameter should be in E.164 format. For example, `+8618012121222`.
data.payload.text	Yes	String	Textual content of the message. **Important:** Either `data.payload.text` or `data.payload.media` must be provided.
data.payload.media	Yes	Array <media>	The information and URL pointing to the media content of the message. **Important:** Either `data.payload.text` or `data.payload.media` must be provided.
data.payload.received_at	Yes	String	The time when the message was received (ISO 8601 format). **Format**: `YYYY-MM-DDTHH:MM:SS.mmm+/-HH:MM`. **Example**: 2019-12-09T20:16:07.588+08:00.

Parameter	Required	Type	Description
data.payload.record_type	Yes	String	Record type. **Valid value**: `message`.

media

Parameter	Required	Type	Description
content_type	No	String	The type of the media file. **Tip:** Refer to the Media Types for the corresponding value.
sha256	No	String	The SHA256 value of the media file.
size	No	Integer	File size.
url	Yes	String	The URL that points to the media file.

Request example

The following example shows a webhook request for Service Provider to send a message to the PBX.

```
POST /
api/v1.0/webhook/general/429ced149ff9437695be795aff3
8407b HTTP/1.1
Host: yeastardocs.ras.yeastar.com
Content-Type: application/json
X-Signature-256: sha256={signature}

{
    "data": {
        "event_type": "message.received",
        "id":
 "b301ed3f-1490-491f-995f-6e64e69674d4",
   //Event ID (Required, and MUST be different every
 time)
```

```
        "occurred_at":
 "2019-12-09T20:16:07.588+00:00",
        "payload": {
            "completed_at": null,
            "direction": "inbound",
            "encoding": "GSM-7",
            "errors": [],
            "from": {
              //Sender information
                "carrier": "T-Mobile USA",
                "line_type": "long_code",
                "phone_number": "+8618012121222",
                "status": "webhook_delivered"
            },
            "id":
 "84cca175-9755-4859-b67f-4730d7f58aa3",
  //Message ID
            "media": [{
              //Media content of the message
                    "content_type": null,
                    "sha256": null,
                    "url":
 "https://pbs.twimg.com/profile_images/1142168442042
118144/AW3F4fFD_400x400.png"
                }],
            "messaging_profile_id":
 "740572b6-099c-44a1-89b9-6c92163bc68d",
            "organization_id":
 "47a530f8-4362-4526-829b-bcee17fd9f7a",
            "parts": 1,
            "received_at":
 "2019-12-09T20:16:07.503+00:00",        //The time
 when the message is received
            "record_type": "message",
               //Record type
            "sent_at": null,
            "tags": [],
            "text": "Hello from PBX!",
               //Textual content of the message
            "to": [
               //Recipient information
                {
                    "carrier": "PBX",
                    "line_type": "Wireless",
```

```
                    "phone_number":
 "+8618012121223",
                    "status": "webhook_delivered"
                }
            ],
            "type": "SMS/MMS",
            "valid_until": null,
            "webhook_failover_url": null,
            "webhook_url":
 "http://webhook.site/04bbd2e3-09b5-4c9e-95de-a1debe
b9e675"
        },
        "record_type": "event"
    },
    "meta": {
        "attempt": 1,
        "delivered_to":
 "http://webhook.site/04bbd2e3-09b5-4c9e-95de-a1debe
b9e675"
    }
}
```


Webhook response returned by PBX

The PBX system will return an HTTP status code in the response.

Status Code	Description
204	Success.
400	Bad request, returned when the signature is incorrect.

Set up an SMS channel for Service Provider

After Service Provider implements the SMS service integration with Yeastar PBX, PBX administrator can set up an SMS channel on PBX web portal for the Service Provider.

Limitations

Item	Limitation
Supported message types	The supported message types are determined by the Service Provider. **Important:** When sending multimedia messages (such as images), the SMS service provider downloads the files from a link provided by the PBX. Therefore, if

Item	Limitation
	you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the SMS service provider is located, otherwise the file transmission would fail.
File size	Max. 100 MB
File retention period	72 hours

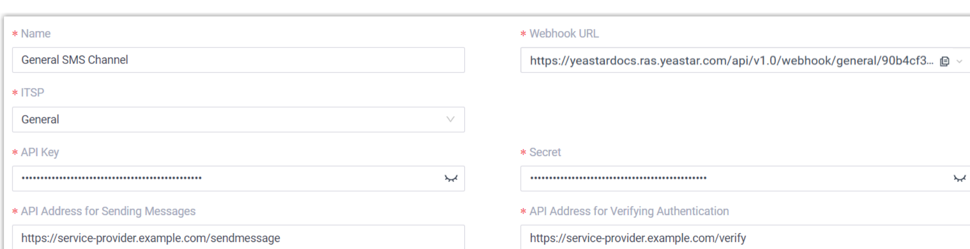
Prerequisites

- Obtain the following information from the Service Provider:
  - API address for sending messages
  - **(Optional)** API address for verifying authentication
  - Message sending rate limit
- Obtain the following information from the Service Provider's customer portal:
  - API key
  - **(Optional)** Secret
  - Phone number used for message sending and receiving

> **Note:**
> If business needs to communicate with US-based customers, make sure that the phone number has been completed with 10DLC registration to avoid disruption in message delivery.

Procedure

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **SMS**.
3. In the **Authentication** tab, complete the following settings.

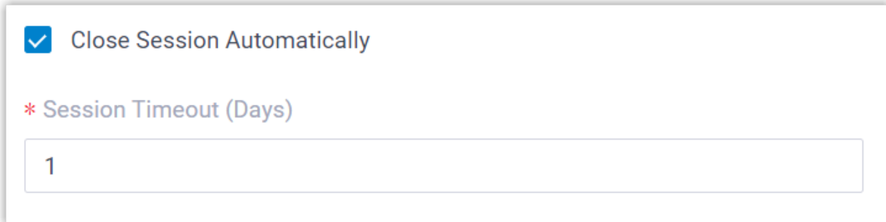


- **Name**: Enter a name to help you identify the channel.
- **ITSP**: Select **General**.
- **API Key**: Enter the API key obtained from the Service Provider's customer portal.
- **Secret**: Optional. If Service Provider provides a Secret for verification, enter it in this field.
- **API Address for Sending Messages**: Enter the corresponding API address provided by the Service Provider. For example, `https://service-provider.example.com/sendmessage`.
- **API Address for Verifying Authentication**: Optional. If Service Provider provides an API address for identity authentication, enter it in this field. For example, `https://service-provider.example.com/verify`.
- **Webhook URL**: Select a desired URL from the drop-down list, then copy the URL, and configure messaging webhook for the phone number using the URL in the Service Provider's customer portal.

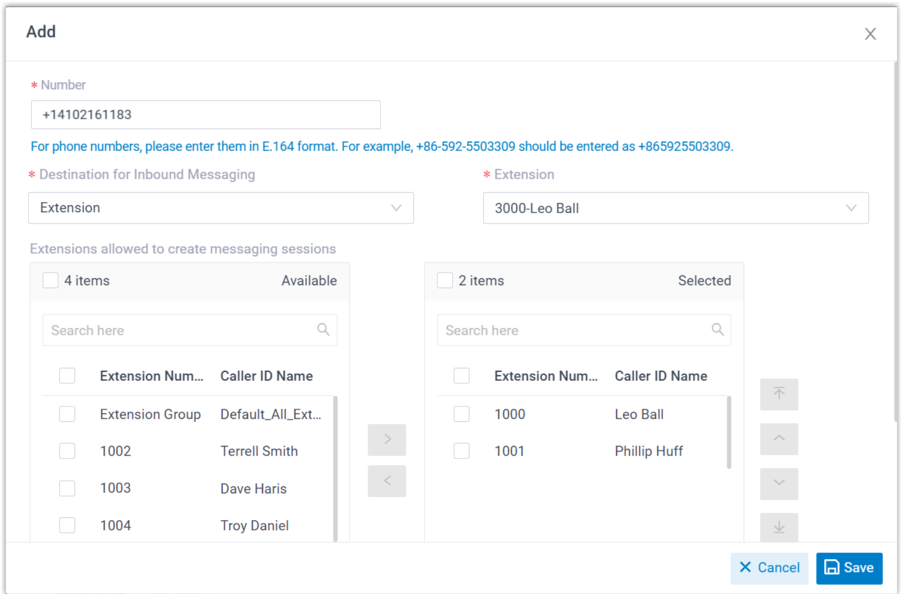
4. In the **Messaging Settings** tab, configure the channel.
    a. In the **Message Sending Rate** field, specify the number of messages that PBX can send per second.

    > **Note:**
    > - If the number of messages to send exceeds the set value, PBX will arrange the messages in queue and send them at the sending rate.
    > - If the sending rate set in PBX exceeds the limit set by the SMS service provider, it may result in message delivery failures. Contact your SMS service provider to confirm the sending rate limit of your account and increase the limit as needed.

    b. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.



c. In the **Number** section, click **Add** to add a message routing rule.



- **Number**: Enter the purchased number or specify an Alphanumeric Sender ID.

> **Note:**
> The phone number should be in E.164 format (`[+][country code][phone number]`). For example, `+14102161183`.

- **Destination for Inbound Messaging**: Specify the destination of inbound messages from the number.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.

Option	Description
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

- **Extensions allowed to create messaging sessions**: Select the extensions that are allowed to initiate a messaging session with customers.

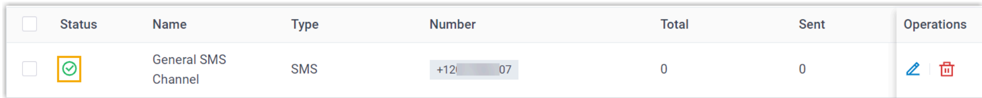
d. Click **Save**.

5. Click **Save**.

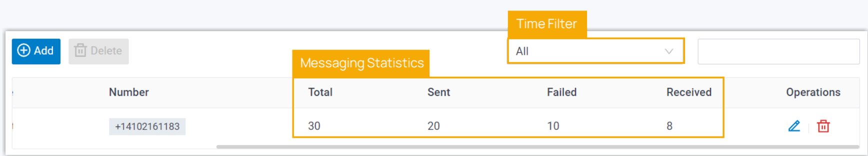
Result

- A messaging channel for the Service Provider is created successfully.

  The channel is displayed in the Messaging list with **Status** showing .



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column indicates the total number of sent messages, including both successfully sent messages and failed ones.

> **Note:**
> - For sent messages, PBX only tracks the number of the messages sent from agents' Linkus UC Clients. If you want to calculate the actual cost of sent messages, consult with the SMS service provider for the precise number of messages transmitted, as long text messages (longer than 160 characters) are automatically split into segments and then re-assembled when they are received, increasing the number of sent messages.
> - You can filter the statistics by a time period using the time filter.
>
> 
>

What to do next

Send text messages to the phone number added in the channel, and see if the specified PBX user can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs]

[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client]

[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client]

Facebook

Facebook Messenger Integration Guide

By integrating Facebook and Yeastar P-Series PBX System, agents in your business can receive and reply to Facebook Page messages directly on Linkus UC Clients, without having to log in to Facebook Messenger.

Requirements

<table>
<tr><th>Platform</th><th>Requirement</th></tr>
<tr><td>Yeastar PBX</td><td>

Firmware: Version 37.20.0.124 or later
Plan: Enterprise Plan (EP) or Ultimate Plan (UP)
Domain Name: PBX can be remotely accessed via a domain name.

Note:

Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.
If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages.

For more information about the domain configuration, see the following topics:

Configure Network for Remote Access by a Yeastar FQDN
Configure Network for Remote Access by a Yeastar Domain Name
Configure Network for Remote Access by a Domain Name

</td></tr>
<tr><td>Facebook</td><td>

Product: Messenger Platform
Account:

A Meta Developer account
Note:
You only need one Meta Developer account to create multiple Meta apps for the Facebook channel integration. There is no limit to the number of Facebook channels on PBX.
A Business Manager account (Business Portfolio)
Note:

</td></tr>
</table>

Platform	Requirement
	After you set up a Business Manager account, verify your business.

Limitations

Learn about the limitations of Facebook messaging channel.

Item	Description
Message type	Supports text messages and multimedia messages, where the multimedia message types are determined by Facebook. For more information, see Facebook supported media types. **Important:** When sending multimedia messages (such as images), Facebook downloads the file from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the Facebook server is located, otherwise the file transmission would fail.
Messaging mechanism	Supports to receive and reply to **Inbound** messages, but agents can NOT initiate a messaging session with a Facebook user.
Message sending rate	Supports to send up to **40** messages per second.
File size	Supports to send a file with a maximum size of **25 MB**.
File retention period	Files can be retained for **72 hours**.

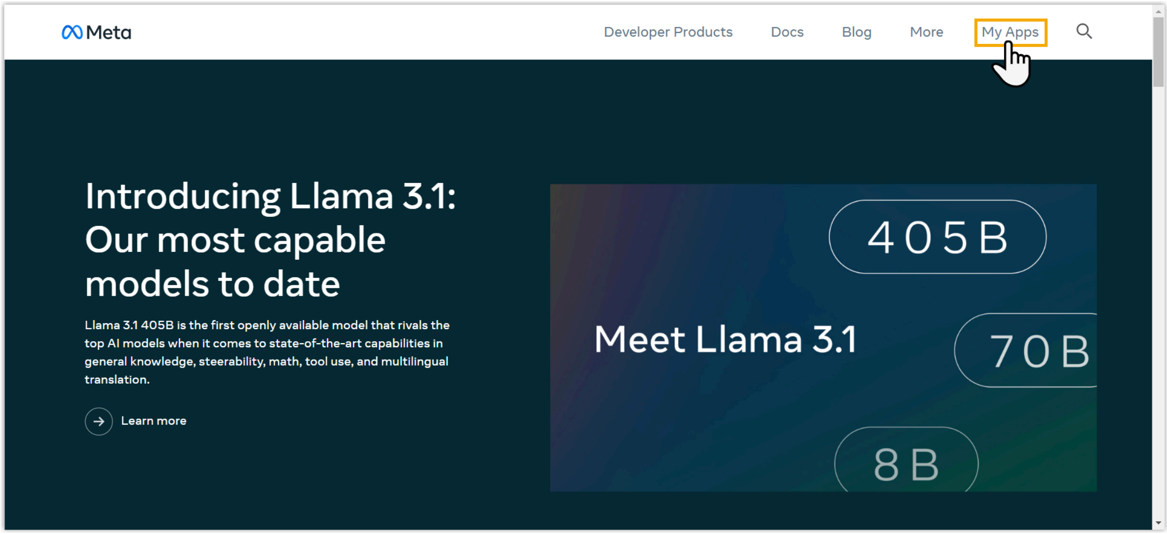
Set up a Facebook Channel

This topic describes how to set up a Facebook channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to your Facebook Page messages.

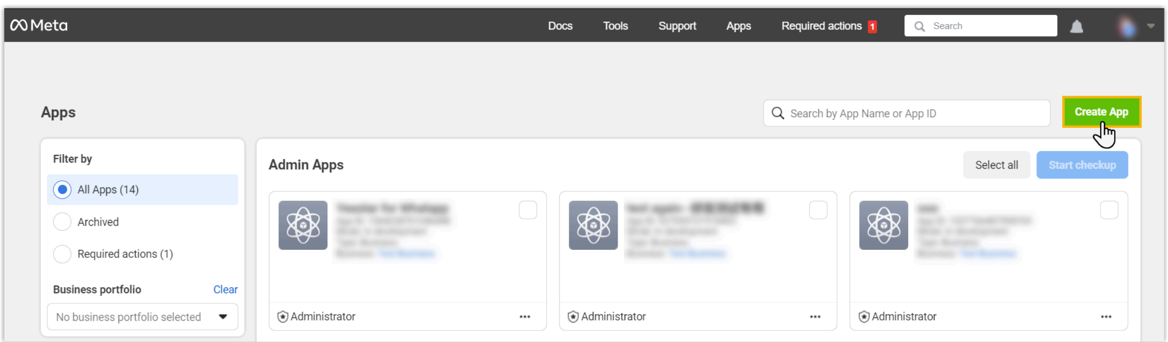
Step 1. Create a Meta app

On 'Meta for Developers' portal, create a Meta app for the integration.

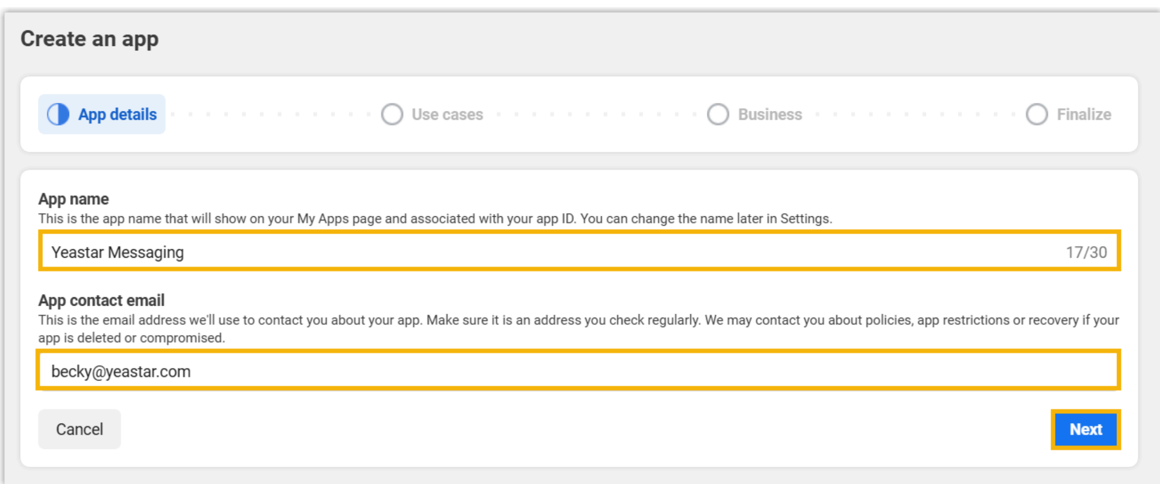
1. Log in to 'Meta for Developers' portal, then go to **My Apps** from the top menu.



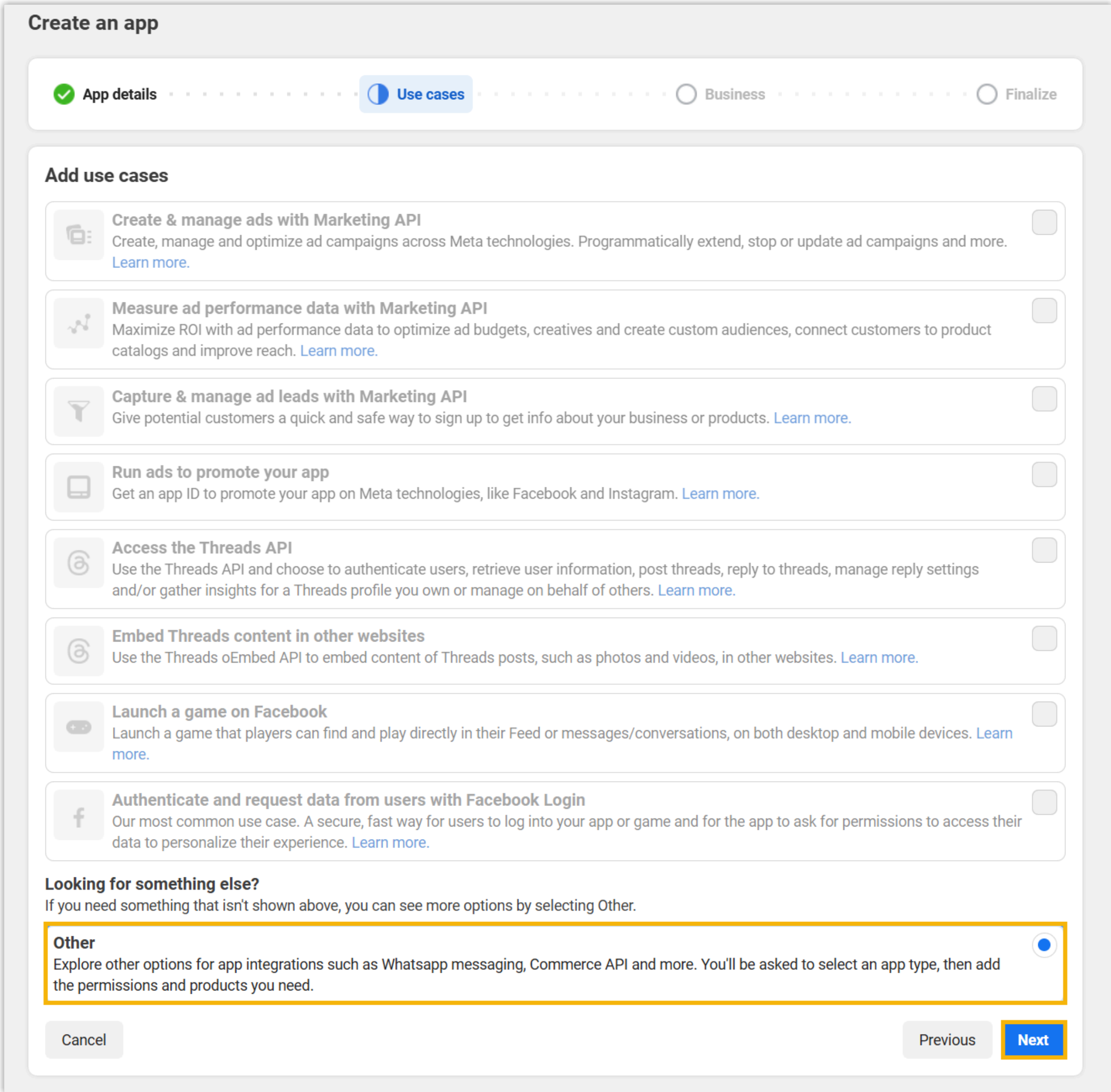
2. At the top-right corner, click **Create App**.



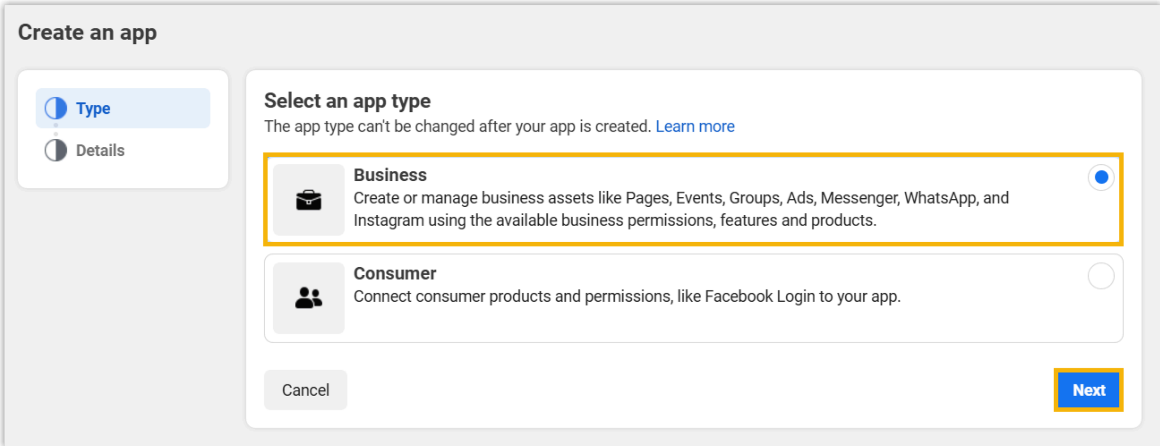
3. For **App details**, configure app name and contact email, then click **Next**.



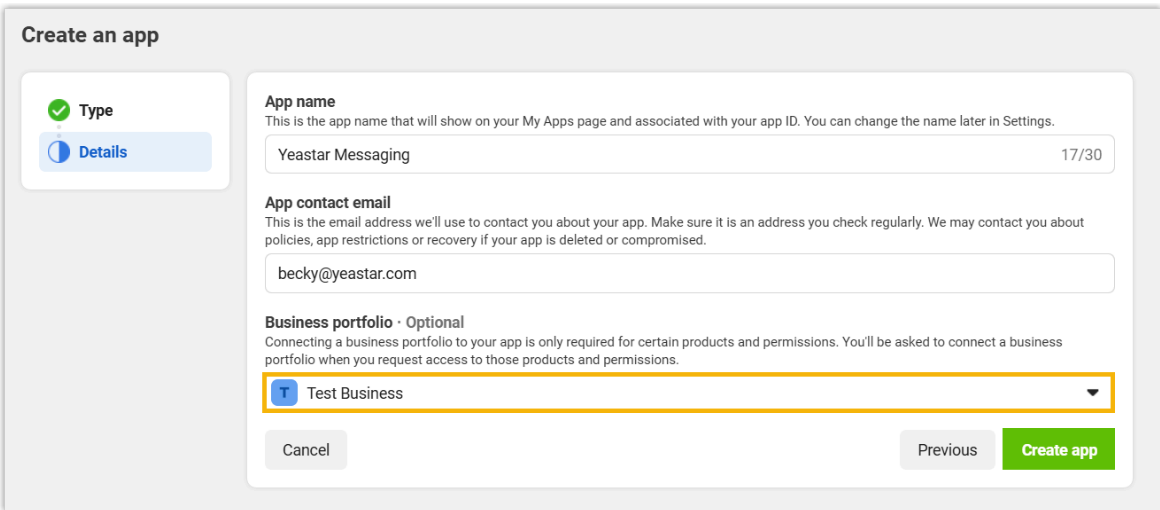
4. For **Use cases**, select **Other**, then click **Next**.



5. For **App type**, select **Business**, then click **Next**.



6. For **App details**, select your Meta business portfolio.



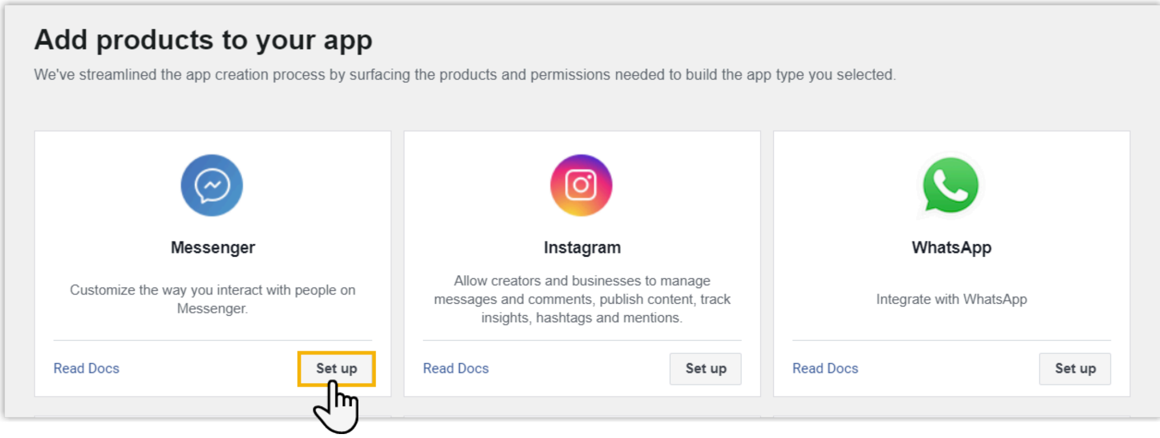
7. Click **Create app**.

   The Meta app is created; You are redirected to the **App Dashboard** page.

Step 2. Set up the Meta app

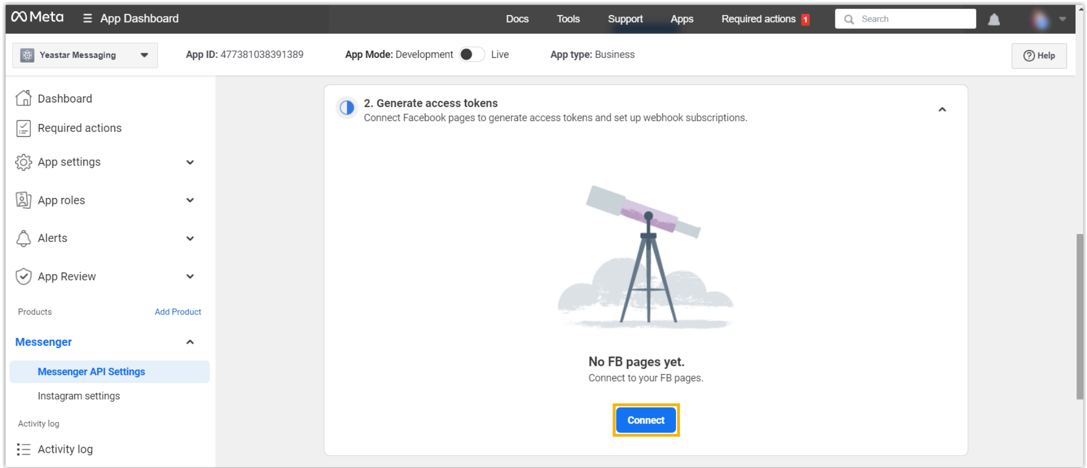
On 'Meta for Developers' portal, add Messenger Platform to your Meta app and set up the app to gather the required credentials for the integration.

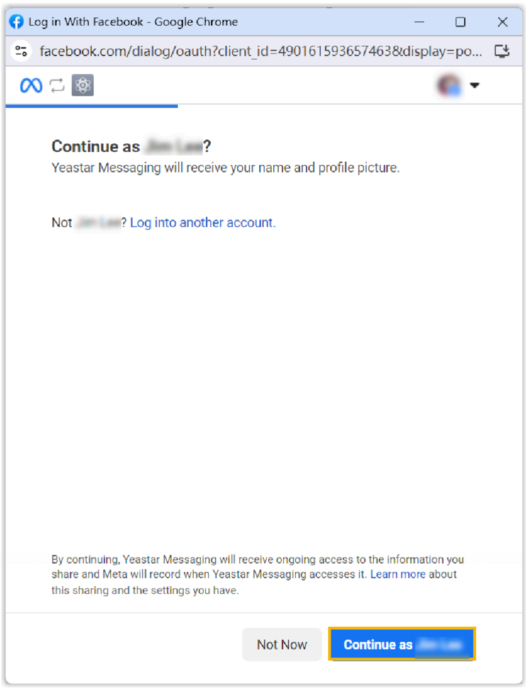
1. On the **Add products to your app** page, click **Set up** on **Messenger**.

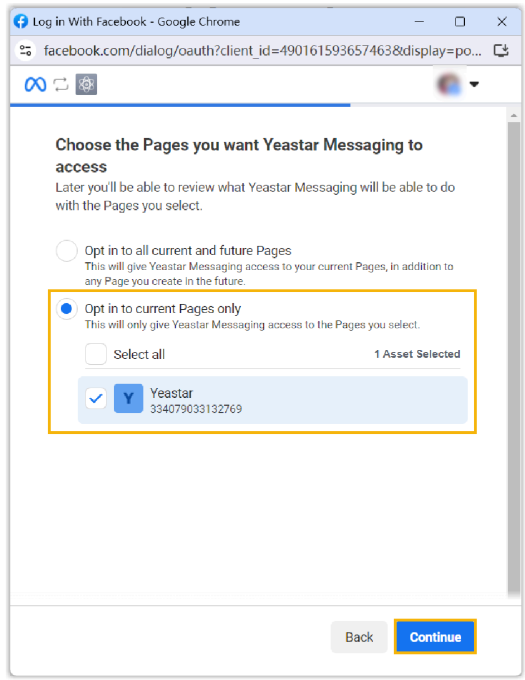


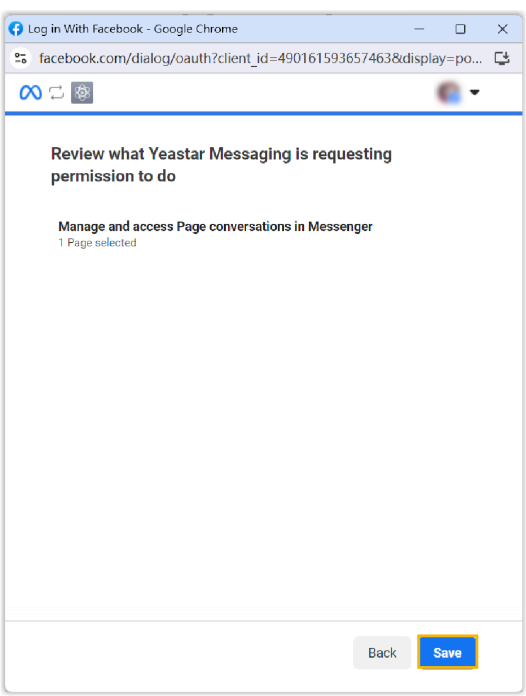
You are redirected to the Messenger API configuration page.

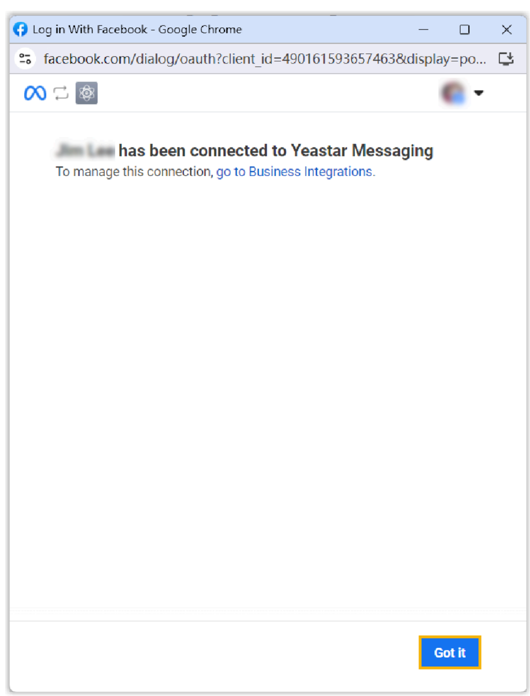
2. Connect the Meta app to your Facebook Page to generate an access token, and gather credentials of the Facebook Page.
    a. Scroll down to the **2. Generate access tokens** section, click **Connect** to add your Facebook Page.


Meta
App Dashboard
Docs
Tools
Support
Apps
Required actions
Search
Yeastar Messaging
App ID: 477381038391389
App Mode: Development
Live
App type: Business
Help
Dashboard
Required actions
App settings
App roles
Alerts
App Review
Products
Add Product
Messenger
Messenger API Settings
Instagram settings
Activity log
Activity log
2. Generate access tokens
Connect Facebook pages to generate access tokens and set up webhook subscriptions.
No FB pages yet.
Connect to your FB pages.
Connect

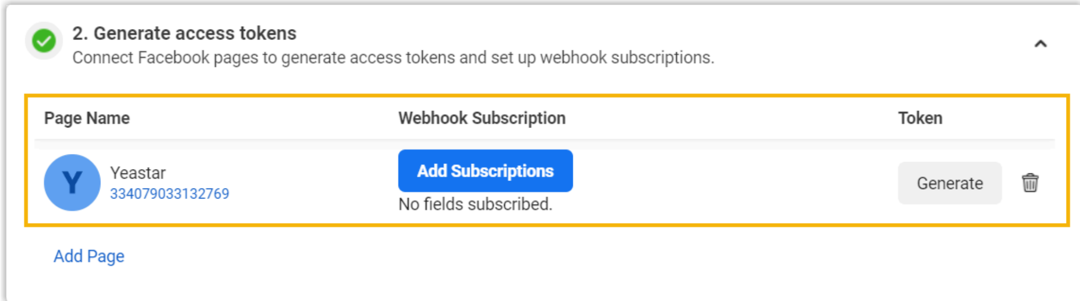

Log in With Facebook - Google Chrome
facebook.com/dialog/oauth?client_id=490161593657463&display=po...
Continue as ?
Yeastar Messaging will receive your name and profile picture.
Not ? Log into another account.
By continuing, Yeastar Messaging will receive ongoing access to the information you share and Meta will record when Yeastar Messaging accesses it. Learn more about this sharing and the settings you have.
Not Now
Continue as


Log in With Facebook - Google Chrome
facebook.com/dialog/oauth?client_id=490161593657463&display=po...
Choose the Pages you want Yeastar Messaging to access
Later you'll be able to review what Yeastar Messaging will be able to do with the Pages you select.
Opt in to all current and future Pages
This will give Yeastar Messaging access to your current Pages, in addition to any Page you create in the future.
Opt in to current Pages only
This will only give Yeastar Messaging access to the Pages you select.
Select all
1 Asset Selected
Yeastar
334079033132769
Back
Continue


Log in With Facebook - Google Chrome
facebook.com/dialog/oauth?client_id=490161593657463&display=po...
Review what Yeastar Messaging is requesting permission to do
Manage and access Page conversations in Messenger
1 Page selected
Back
Save

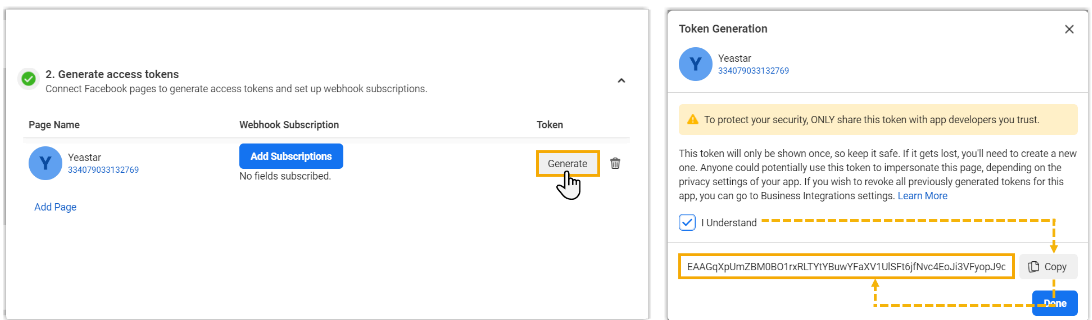

Log in With Facebook - Google Chrome
facebook.com/dialog/oauth?client_id=490161593657463&display=po...
has been connected to Yeastar Messaging
To manage this connection, go to Business Integrations.
Got it

Refresh the webpage and you will see that the Facebook Page is added.

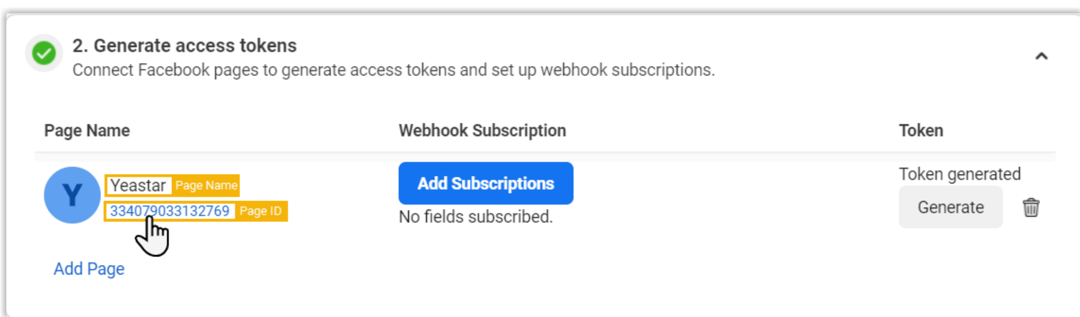


b. Generate an access token to authenticate the Meta app and allow it to perform actions on behalf of the Facebook Page.

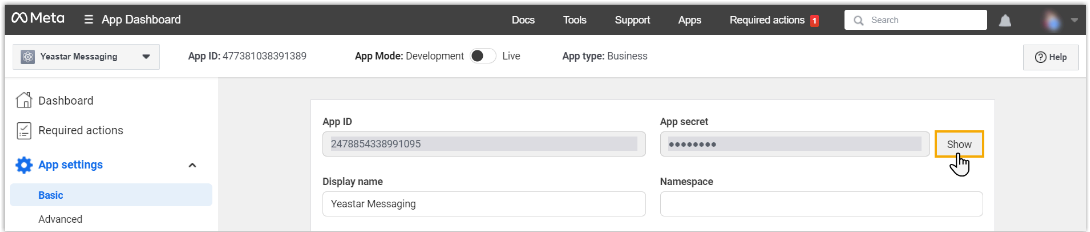
> **Note:**
> Copy and note down the access token, as you will need to add it on the PBX later.



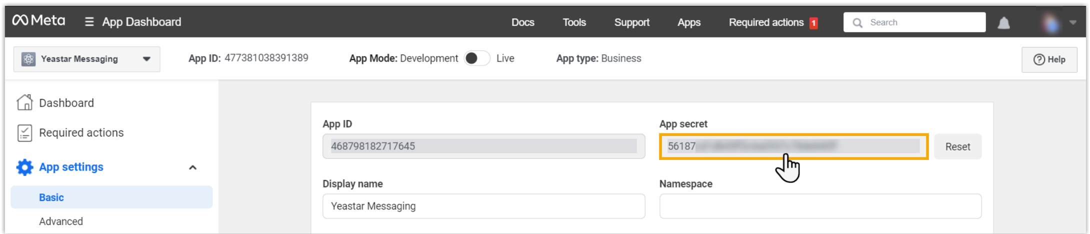
c. Copy and note down the name and ID of your Facebook Page, as you will need to add them on the PBX later.



3. Obtain secret key for the Meta app.
    a. On the left navigation bar, click **App settings > Basic**.
    b. On the right of the **App secret** field, click **Show** to show the secret key.



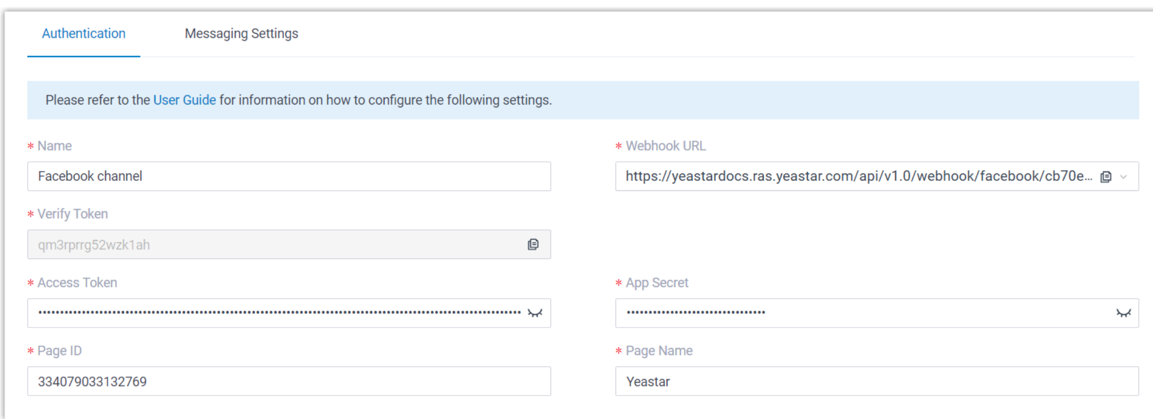
c. Copy and note down the secret key, as you will need to add it on the PBX later.



Step 3. Create a Facebook channel

On PBX web portal, create and configure a Facebook channel.

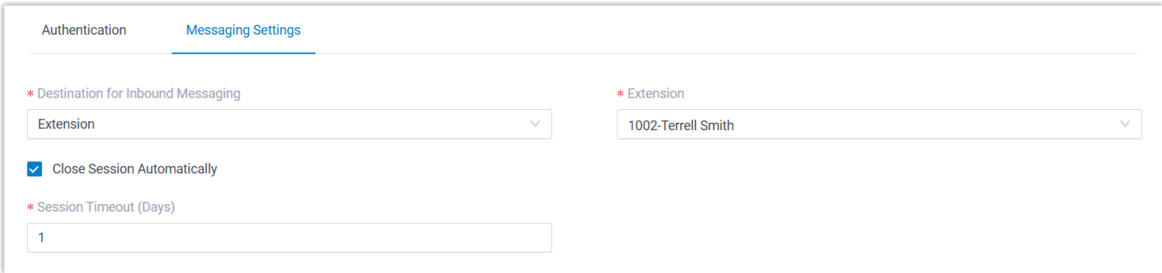
1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **Facebook Messenger**.
3. In the **Authentication** tab, enter the authentication information of Facebook.



- **Name**: Enter a name to help you identify the channel.
- **Webhook URL**: Select and note down the Webhook URL, as you will need it later on 'Meta for Developers' portal.
- **Verify Token**: Note down the verify token, as you will need it later on 'Meta for Developers' portal.
- **Access Token**: Paste the [Access Token obtained from 'Meta for Developers' portal](#).

- **App Secret**: Paste the App Secret obtained from 'Meta for Developers' portal.
- **Page ID**: Paste the Page ID obtained from 'Meta for Developers' portal.
- **Page Name**: Paste the Page Name obtained from 'Meta for Developers' portal.

4. In the **Messaging Settings** tab, configure the channel.



- **Destination for Inbound Messaging**: Specify the destination of inbound messages from Facebook Page.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the Facebook Page.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

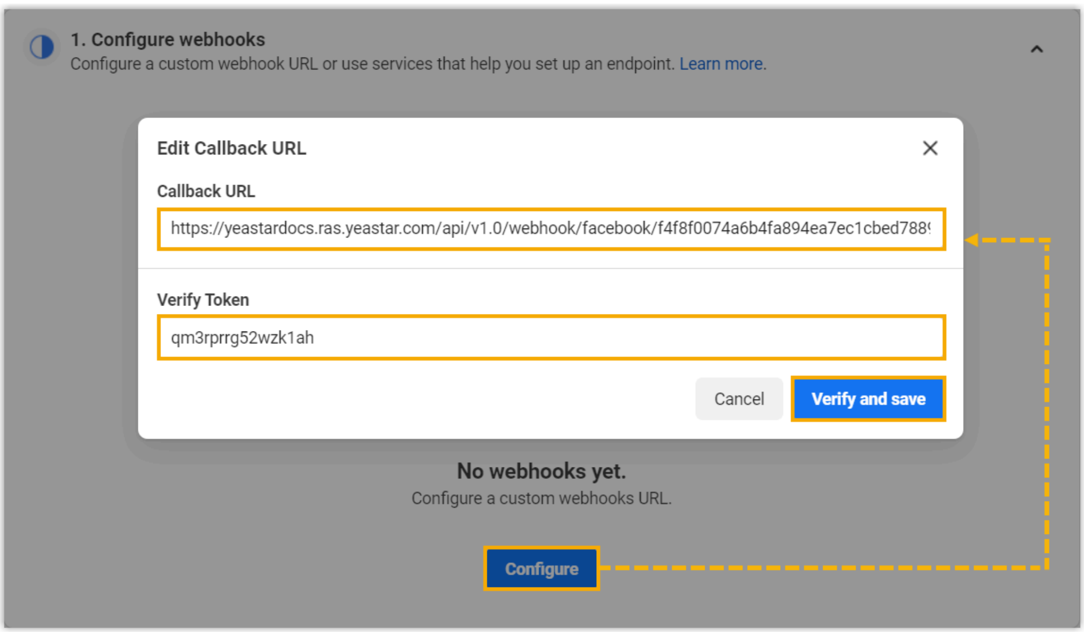
- **Close Session Automatically**: Optional. If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.

5. Click **Save**.

Step 4. Set up Meta webhook

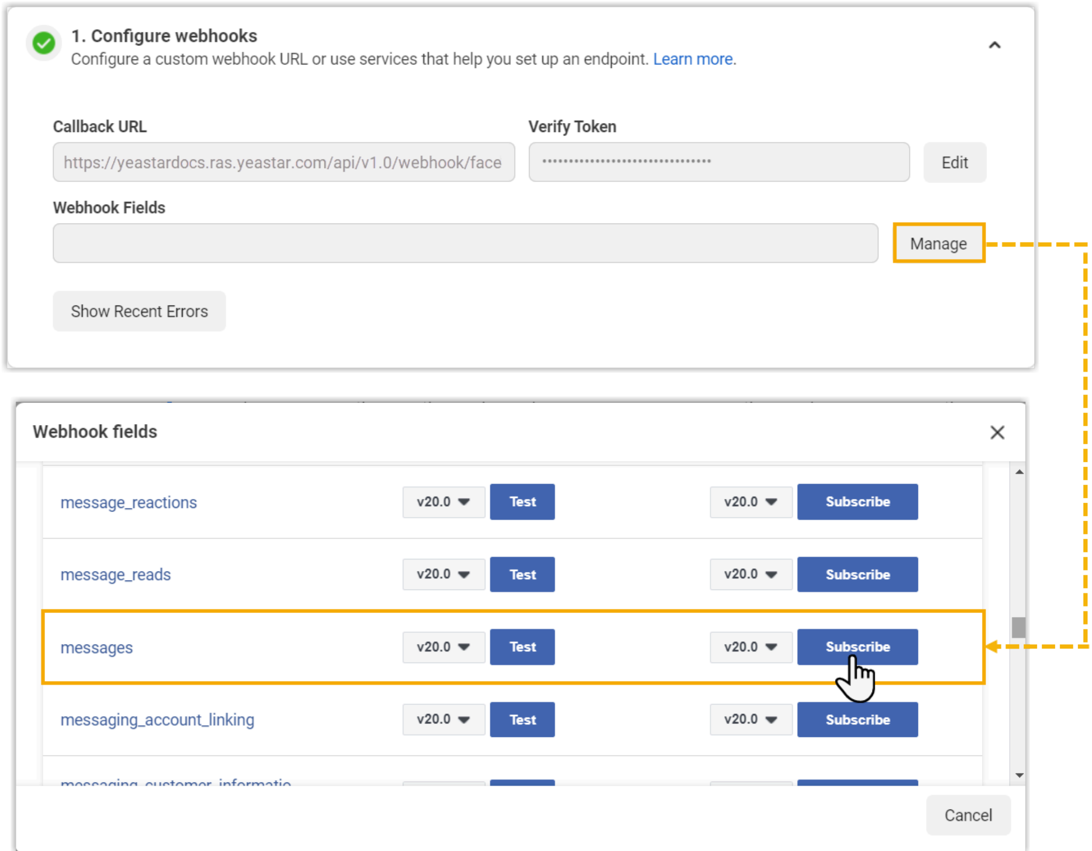
On 'Meta for Developers' portal, configure webhook for your Meta app and subscribe to the messages event, so that PBX can get notified upon receiving Facebook Page messages.

1. On 'Meta for Developers' portal, go to the Messenger API configuration page of your Meta app.
2. In the **1. Configure webhooks** section, configure a webhook and subscribe to **messages** field for your app.
    a. Click **Configure** to add and configure a webhook.

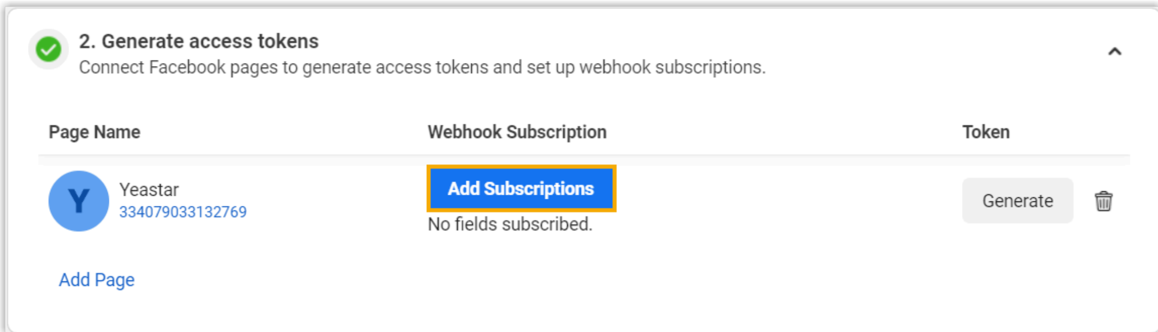


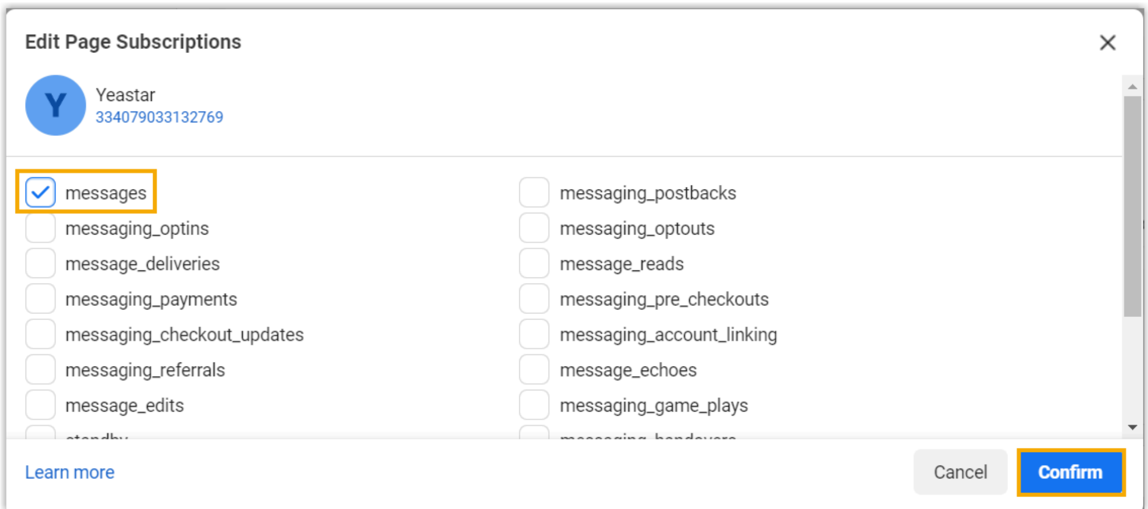
    - **Callback URL**: Paste the Webhook URL obtained from PBX.
    - **Verify Token**: Paste the verify token obtained from PBX.

    b. Click **Manage** to subscribe to **messages** field.



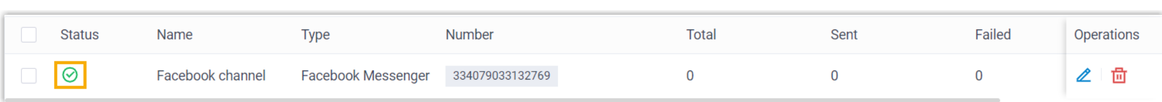
3. In the **2. Generate access tokens** section, click **Add Subscriptions** to subscribe to **messages** field for your Facebook Page.





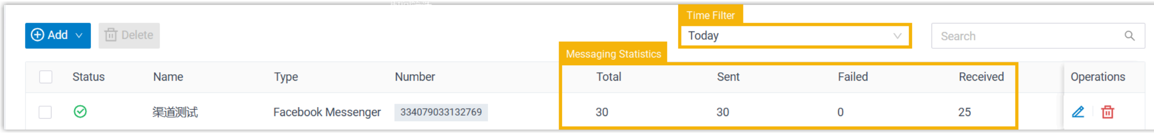
Result

- On PBX web portal, the **Status** of the Facebook channel shows , which indicates that you have successfully created a Facebook channel.



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column displays the total amount of the sent messages, including both successfully sent messages and failed ones.

> **Tip:**
> You can filter the statistics by a time period using the time filter.



What to do next

Submit App for Review.

(Optional) Add a Tester for Meta App

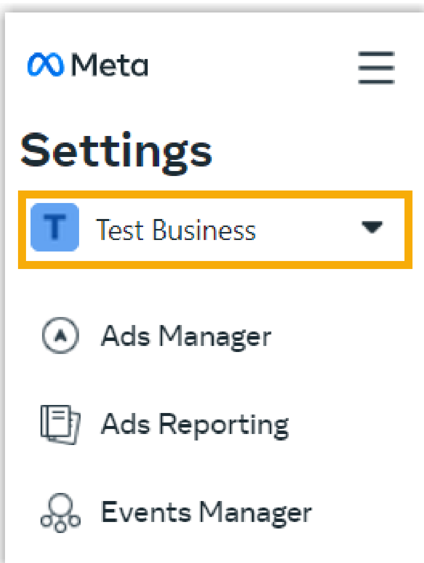
After a Meta app is created, only your Meta Developer account has permission to interact with the app. To keep your account safe, you can add a user as a Tester to aid with the testing process.

Requirements

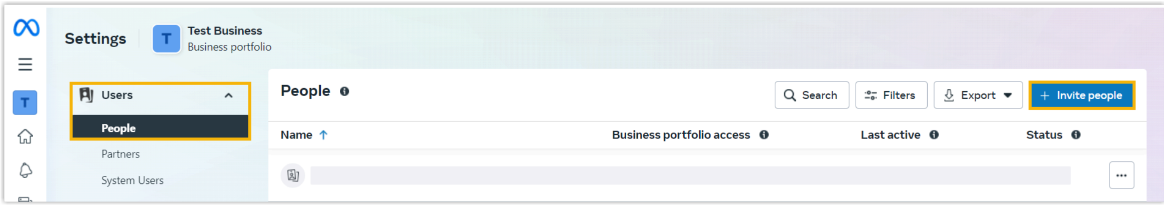
The user who you want to add as a Tester must have a Meta developer account.

Step 1. Add a user to business portfolio

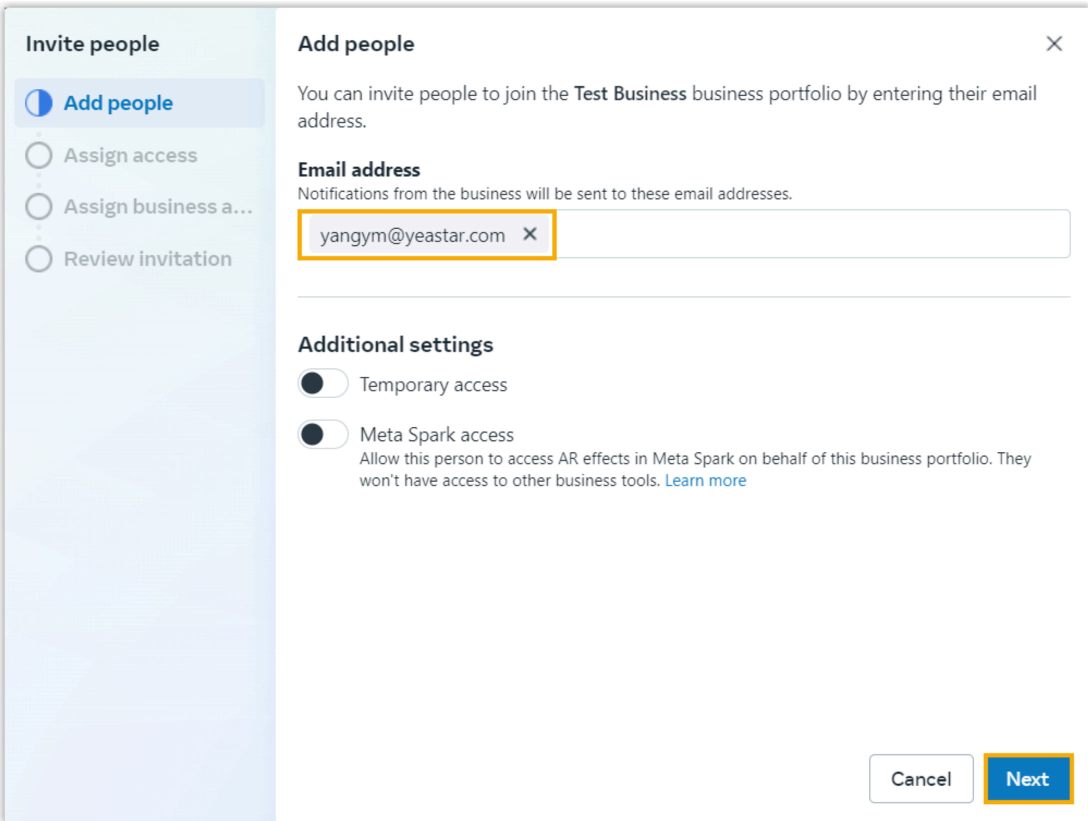
1. Go to Business settings in Meta Business Manager, then select the business portfolio that is connected with your Meta app.



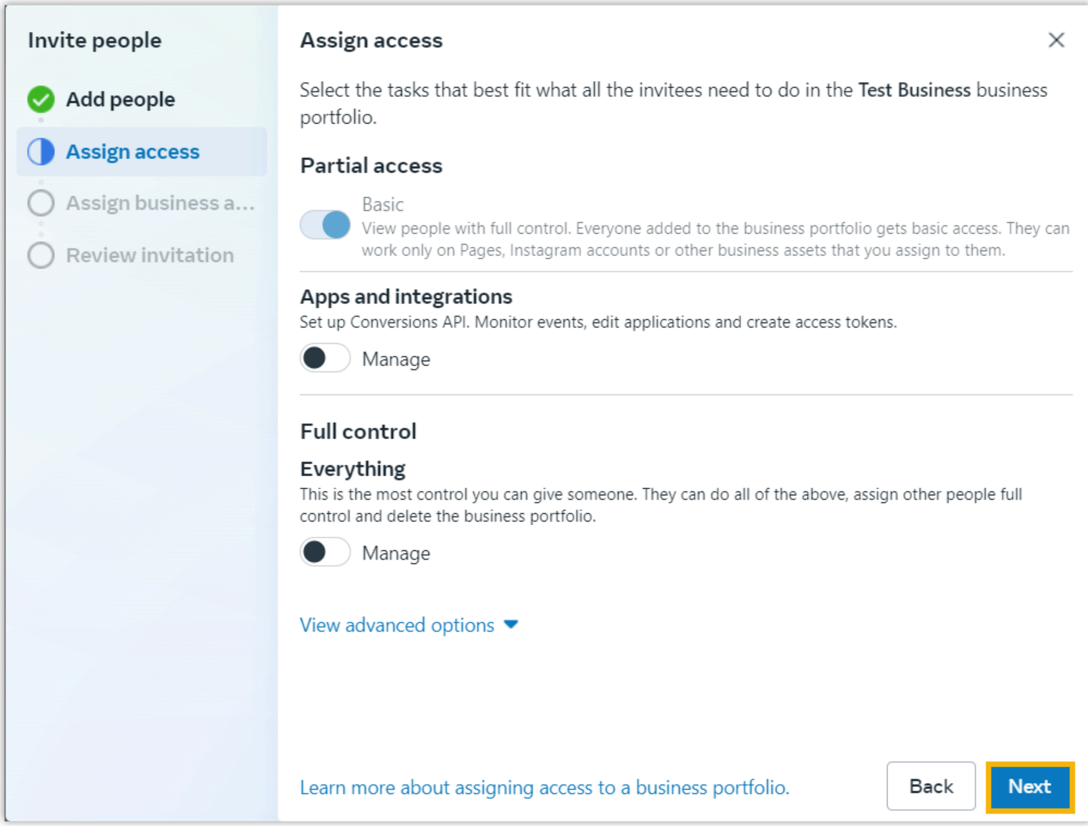
2. Go to **Users > People**, then click **Invite people**.



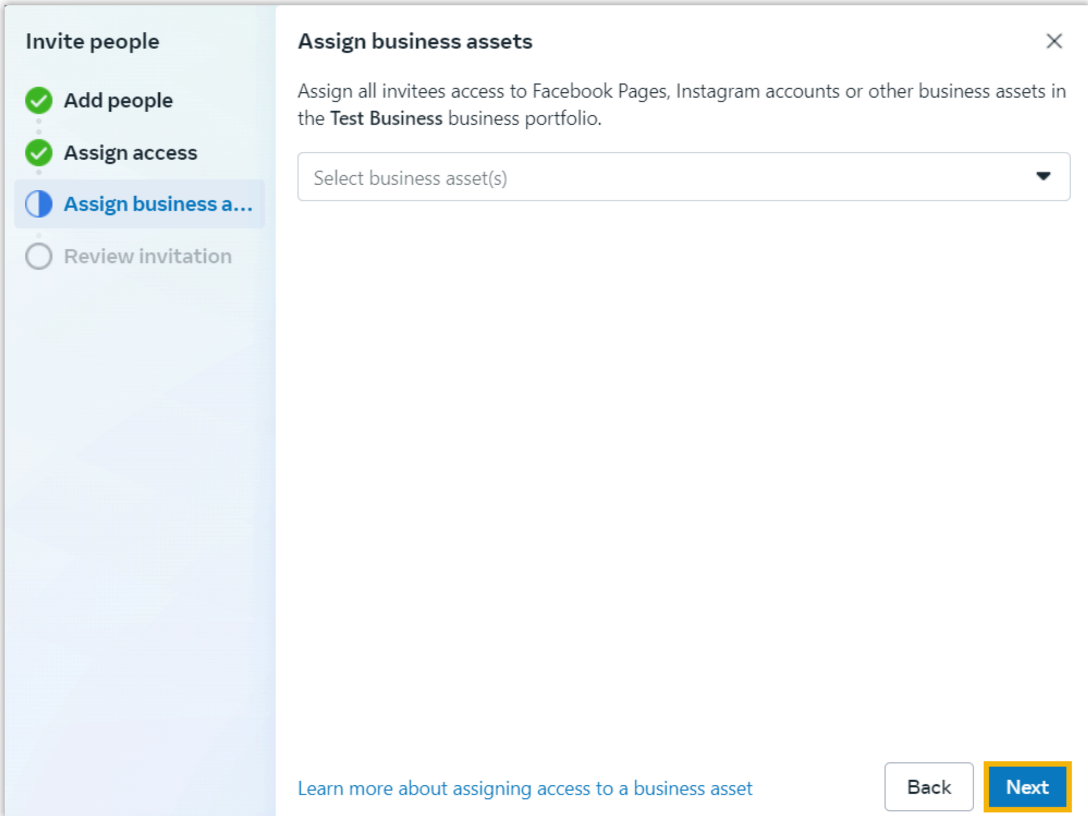
3. In the **Email address** field, enter the email address of the user who you want to add, then click **Next**.



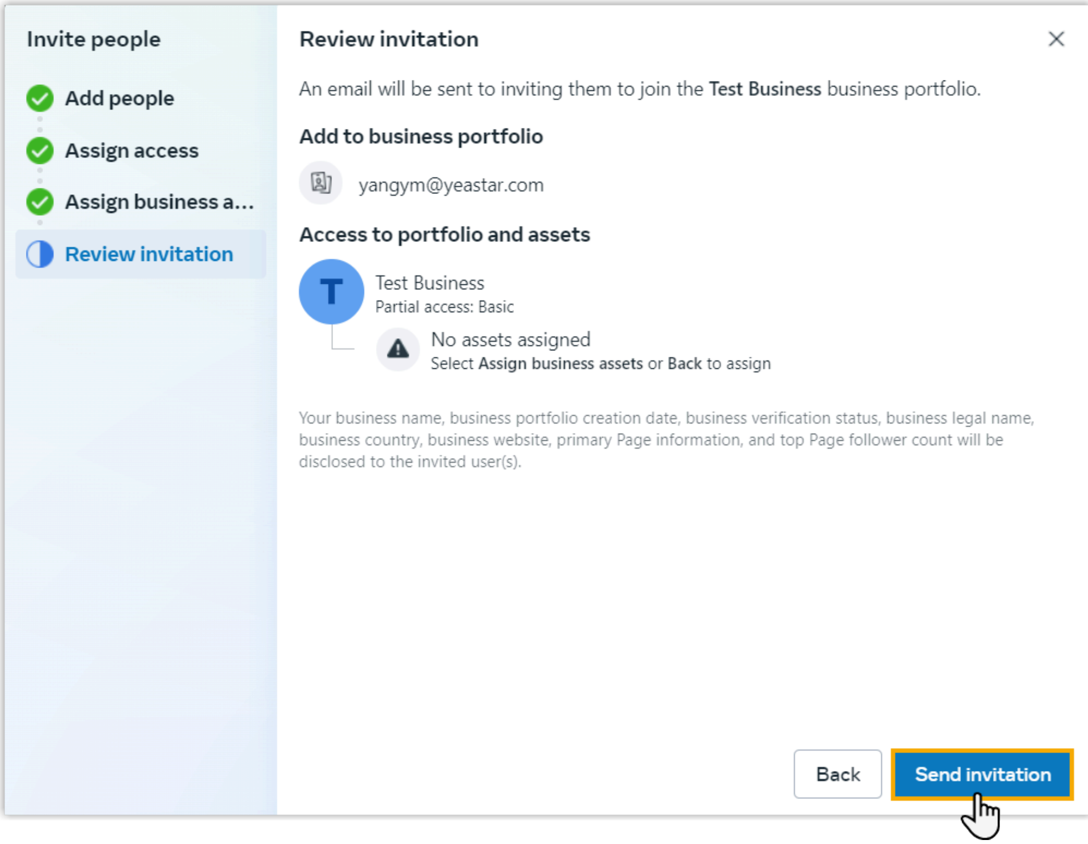
4. Set the type of access that you want to assign as needed, then click **Next**.



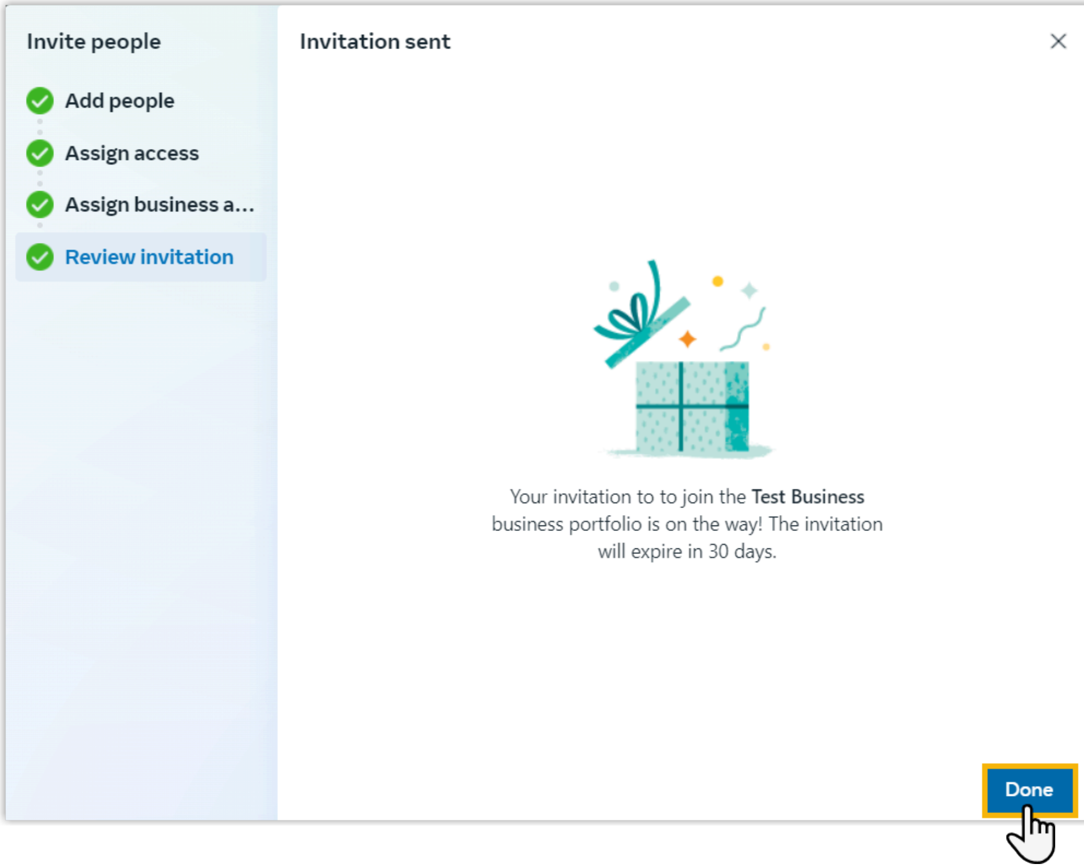
5. Leave business asset(s) blank, then click **Next**.



6. Click **Send invitation**.



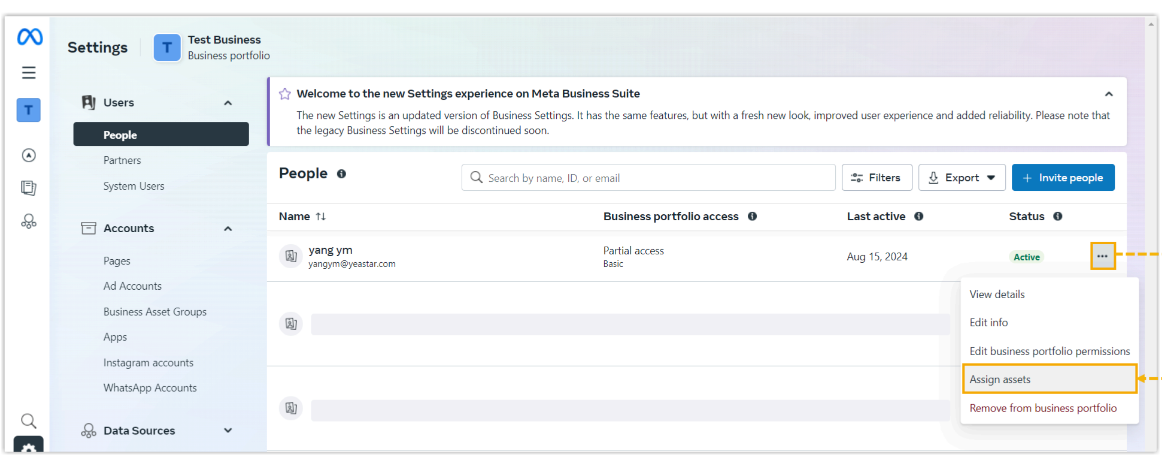
7. Click **Done** to close the window.



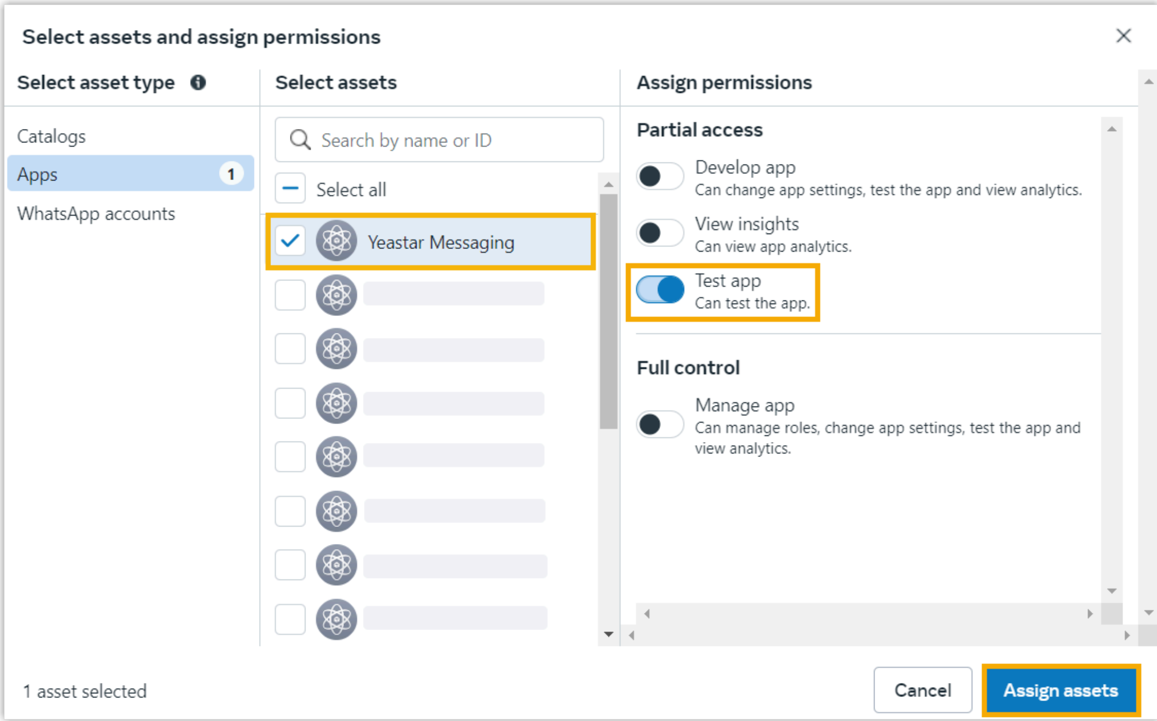
Meta will send an activation email to the user; The user needs to accept the invitation to join your business portfolio.

Step 2. Assign the Meta app to the user

1. On the right of the desired user, click ···, then select **Assign assets**.



2. Assign the Meta app and test access to the user, then click **Assign assets**.



3. Click **Done** to close the window.

Result

The user is added as a Tester and can interact with your Meta app.

What to do next

Submit App for Review.

Submit App for Review

After you set up a Facebook channel, you need to test message delivery between Facebook Page and Yeastar P-Series PBX System, then submit your app for review.

Before you submit

Test message delivery between Facebook Page and Yeastar P-Series PBX System.

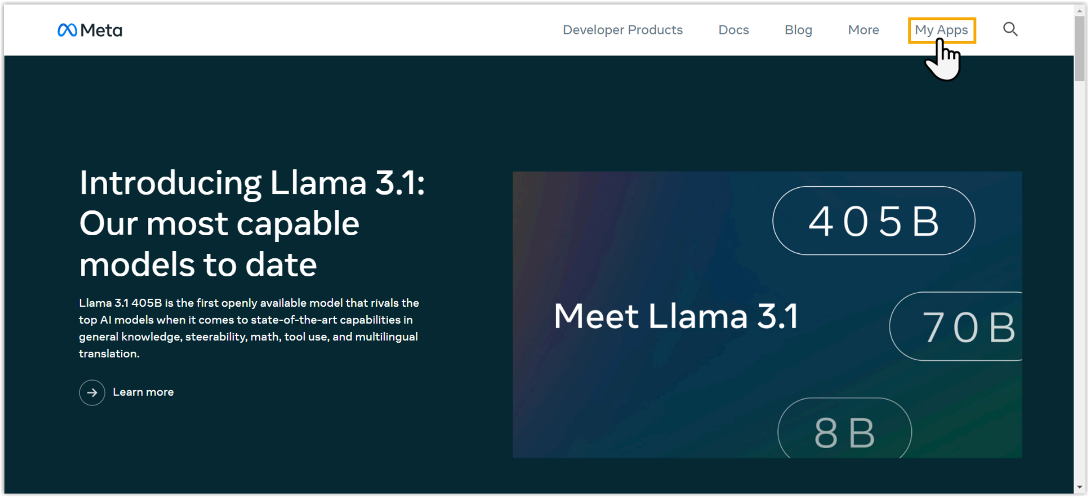
1. (Optional) Add a user as a Tester.

   By default, only your Meta Developer account has permission to interact with the app. You can directly use your Meta Developer account to test message delivery, but we recommend that you add a Tester account with limited access to aid with the testing process. This helps avoid exposing your Meta Developer account, as Meta requires a Facebook account to test your app.
2. Test message delivery and record two screencasts.
   - A screencast that demonstrates how you send a message to your Facebook Page and how the message is received and replied on Yeastar P-Series PBX System within 24 hours.
   - A screencast that demonstrates how your app uses a human agent tag to respond to customer messages outside the 24-hour window.

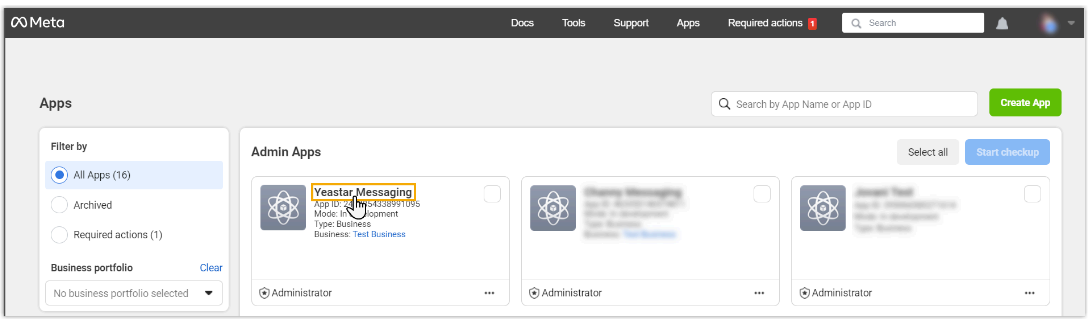
> **Tip:**
> App Review - Best Practices may help improve the quality of your submission and reduce the chances of it being rejected.

Step 1. Complete app settings

1. Go to the Basic settings page of your Meta app.
   a. Log in to 'Meta for Developers' portal, then go to **My Apps** from the top menu.

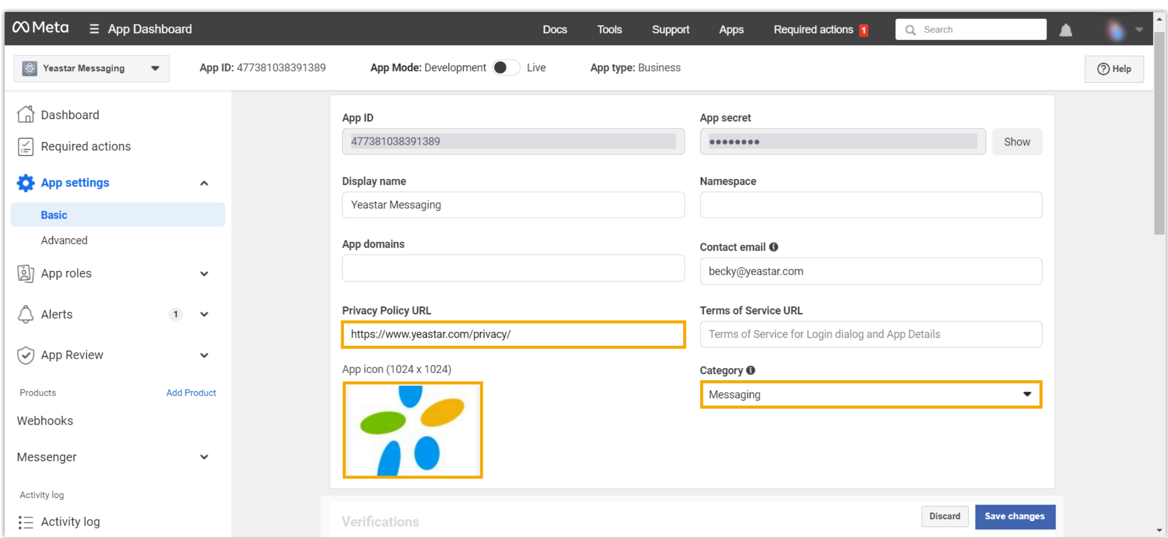


b. On the App list, click your Meta app.



c. On the left navigation bar, go to **App settings > Basic**.

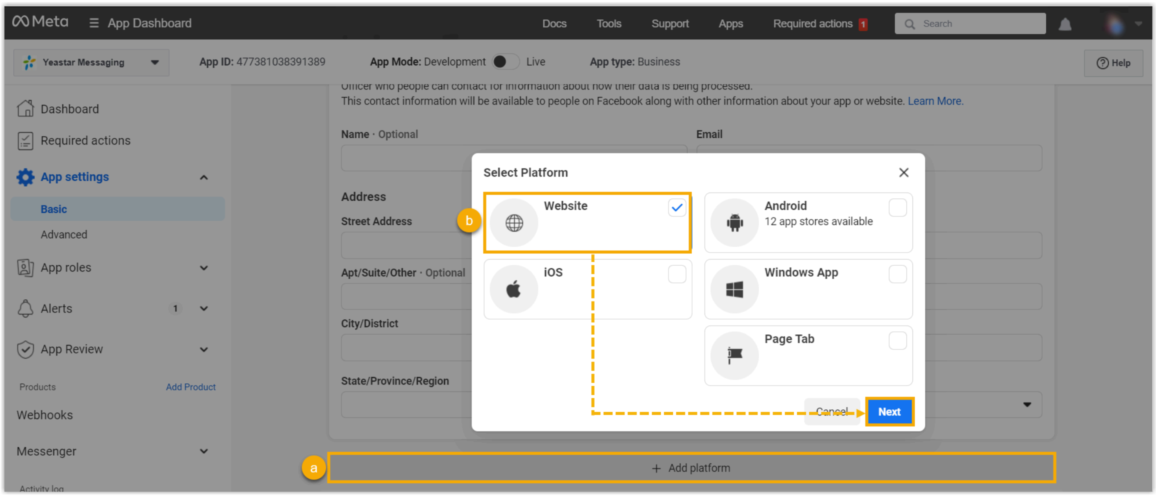
2. At the top of the page, complete the following settings.

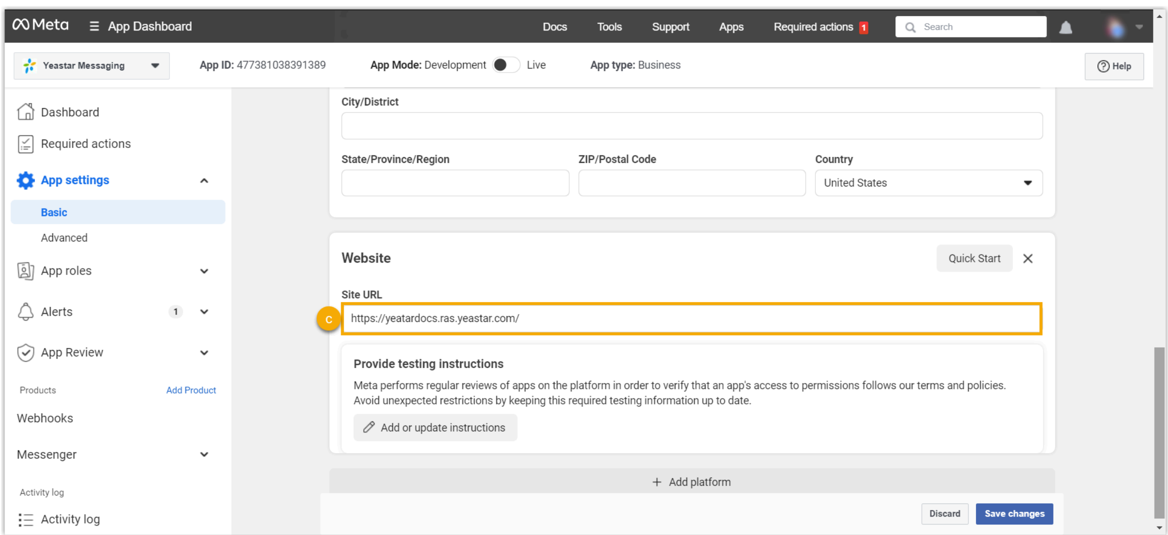


- **Privacy Policy URL**: Enter your organization's privacy policy URL.
- **App icon**: Upload your organization's icon.

- **Category**: Select **Messaging**.

3. Scroll down to the bottom of the page, add a website platform to share the PBX URL with Meta.





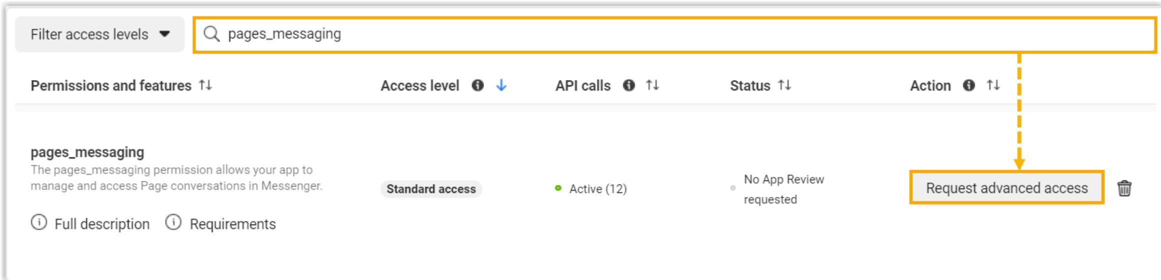
  a. Click **Add platform**.
  b. Select the checkbox of **Website**, then click **Next**.
  c. In the **Site URL** field, enter the FQDNof your PBX system.

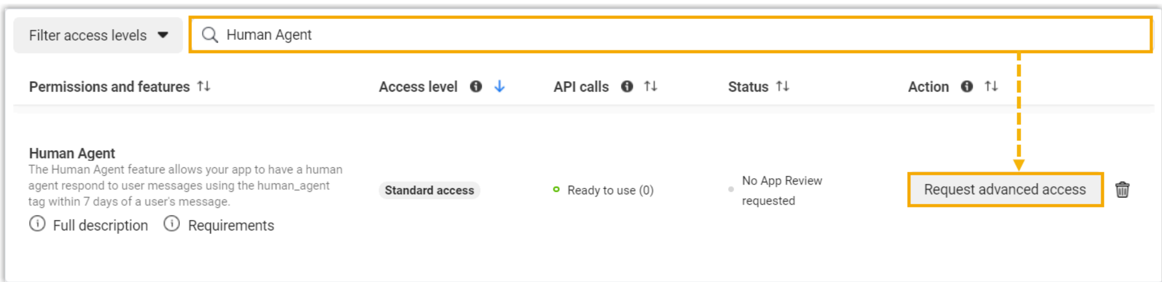
4. Click **Save changes**.

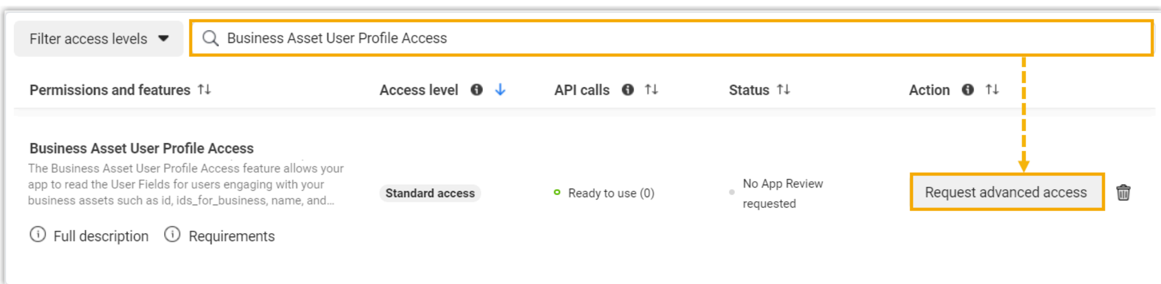
Step 2. Select permissions and features

1. On the left navigation bar, go to **App Review > Permissions and Features**.

2. Search for the required permissions (**pages_messaging**, **Human Agent**, and **Business Asset User Profile Access**) and click the corresponding **Request advanced access** button to add them to your submission.



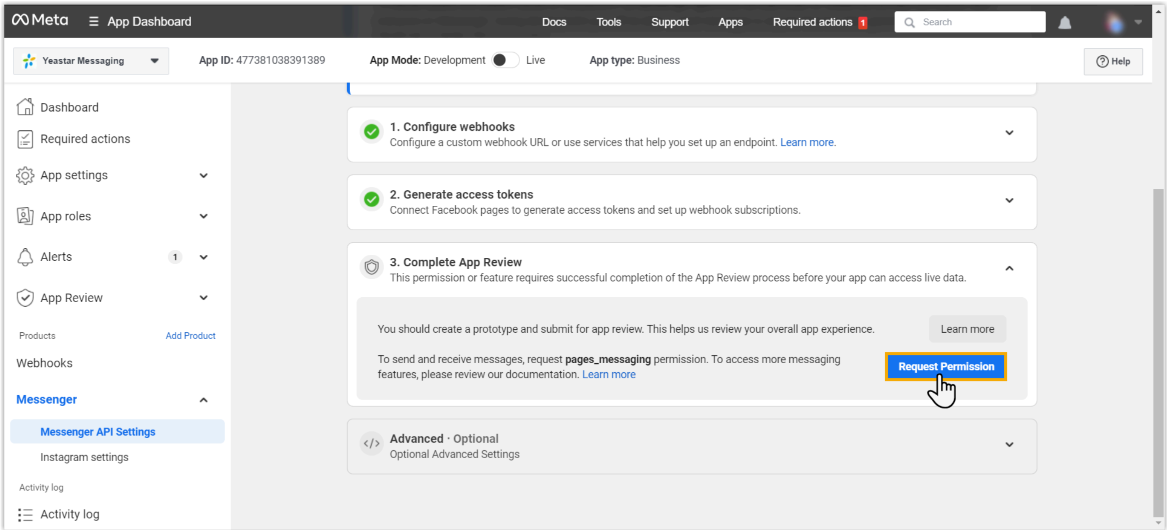




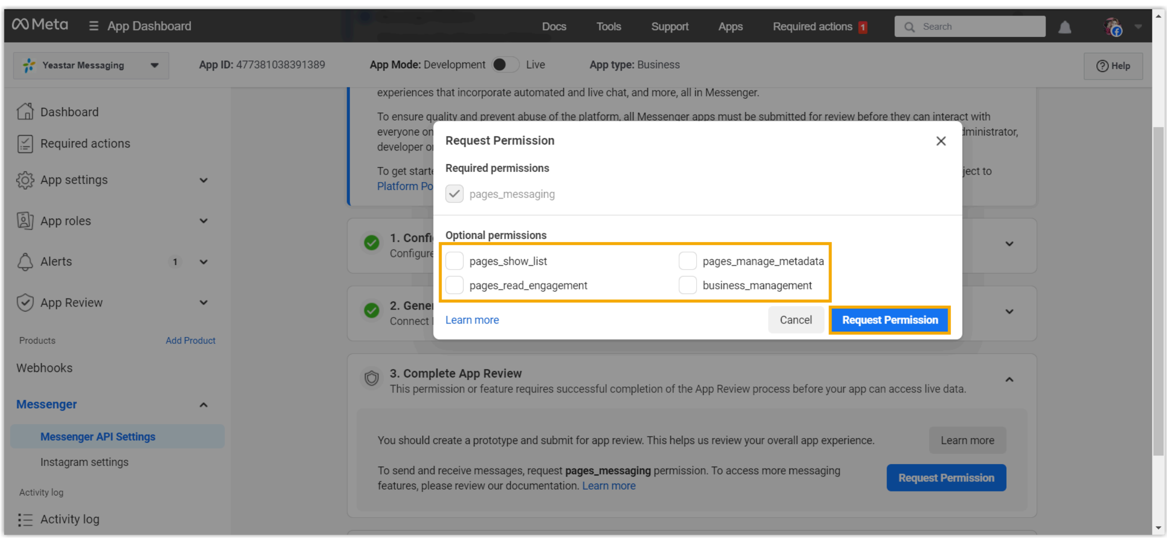
3. Click **Continue request**.

Step 3. Remove unnecessary permissions

1. On the left navigation bar, go to **Messenger > Messenger API Settings**.
2. In the **3. Complete App Review** section, click **Request Permission**.



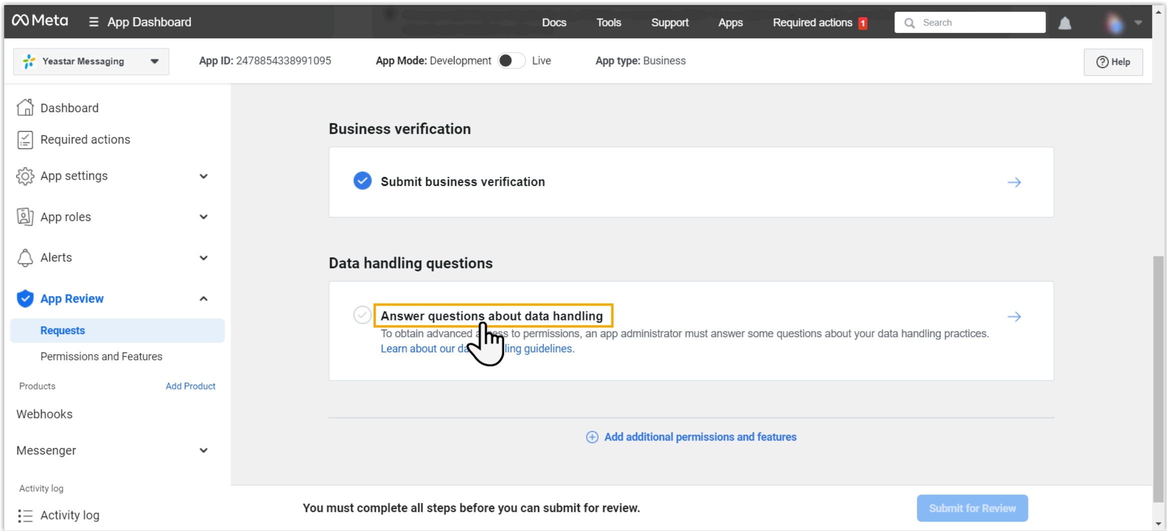
3. Unselect the checkboxes of the following permissions, then click **Request Permission**.



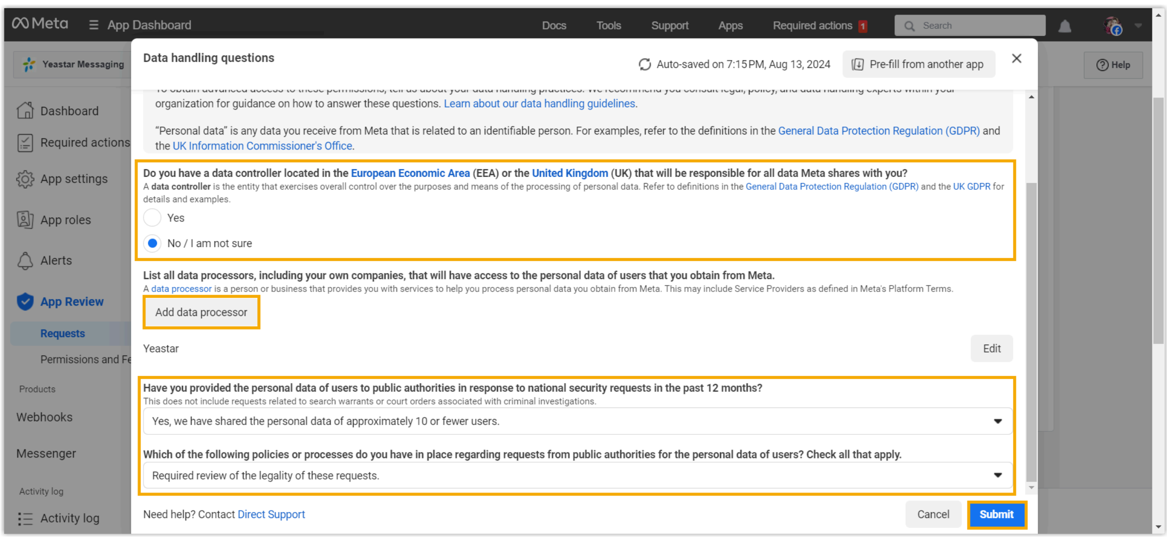
You will be redirected to **App Review > Requests**.

Step 4. Answer data handling questions

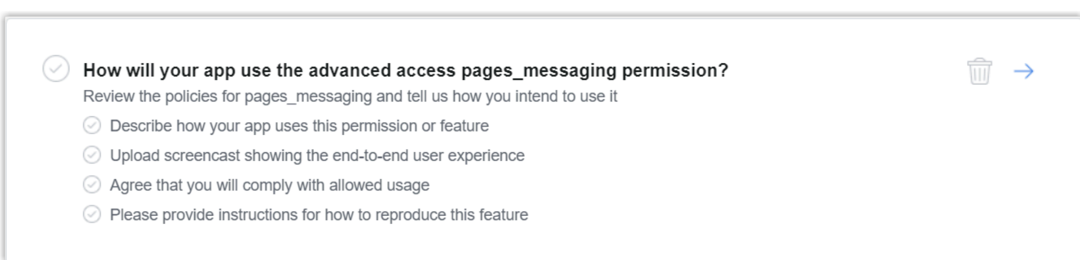
1. On the left navigation bar, go to **App Review > Requests**.
2. Scroll down to the **Data handling questions** section, then click **Answer questions about data handling**.



3. Fill in the following information based on your situation, then click **Submit**.

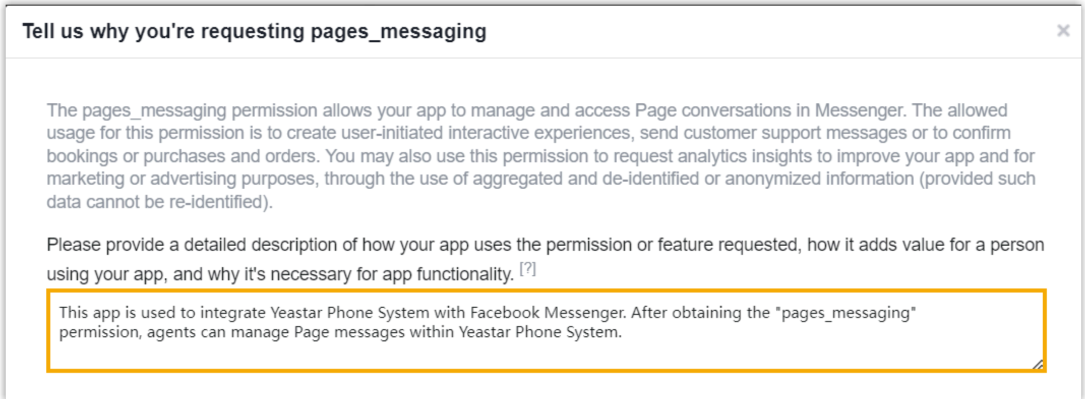


4. Complete the following tasks to demonstrate why the **pages_messaging** permission with advanced access is needed and how the app uses it.
    a. Click **How will your app use the advanced access pages_messaging permission?**.



    b. Copy and paste the following text in the detailed description box.

```
This app is used to integrate Yeastar Phone System with Facebook
 Messenger. After obtaining the "pages_messaging" permission,
 agents can manage Page messages within Yeastar Phone System.
```



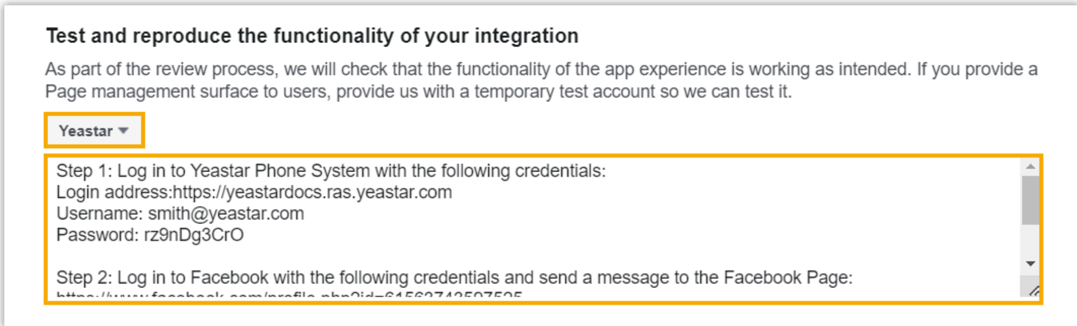
c. In the **Test and reproduce the functionality of your integration** section, select your Facebook Page, copy and edit the following text based on your situation, then paste in the text field.

```
Step 1: Log in to Yeastar Phone System with the following
 credentials:
Login address:{pbx_fqdn}
Username: {extension_number_or_email_address}
Password: {password}

Step 2: Log in to Facebook with the following credentials and
 send a message to the Facebook Page:{url_for_facebook_page}
Email or phone: {email_address_or_phone_number}
Password: {password}

Step 3: Receive and reply to the message on Yeastar Phone System.
```

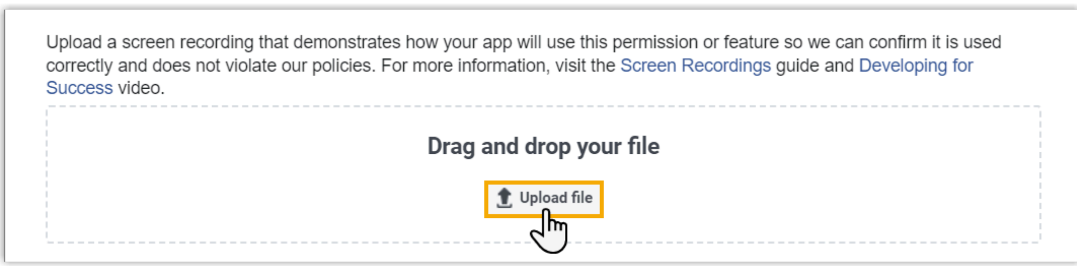
In this example, we paste the following text:

```
Step 1: Log in to Yeastar Phone System with the following
 credentials:
Login address:https://yeastardocs.ras.yeastar.com
Username: smith@yeastar.com
Password: rz9nDg3CrO

Step 2: Log in to Facebook with the following
 credentials and send a message to the Facebook Page:
 https://www.facebook.com/profile.php?id=61563743597525
Email or phone: yangym@yeastar.com
Password: YpeS345joi
```

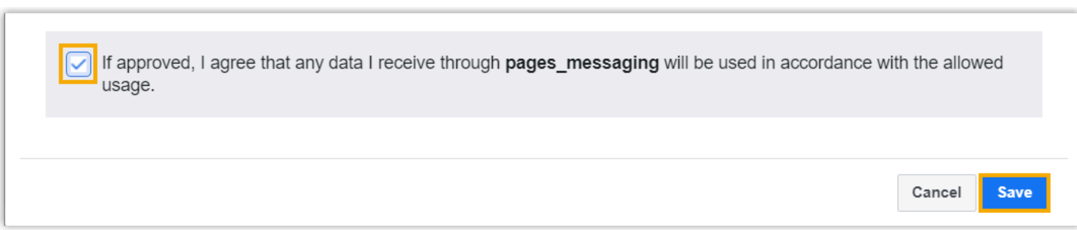
```
Step 3: Receive and reply to the message on Yeastar Phone System.
```



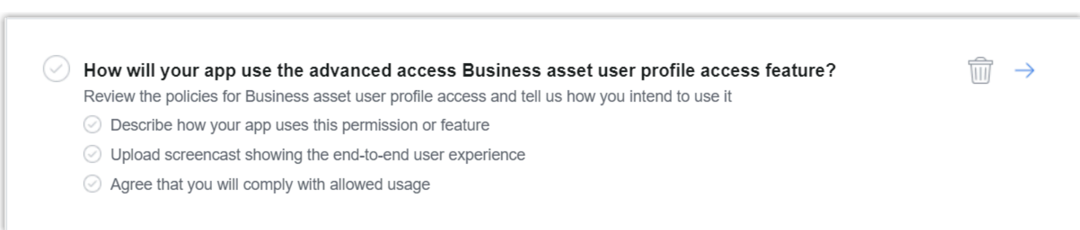
d. Click **Upload file** to upload [the screencast]() that demonstrates how you send a message to your Facebook Page and how the message is received and replied on Yeastar Phone System.



e. Select the checkbox to agree that you will comply with the allowed usage, then click **Save**.

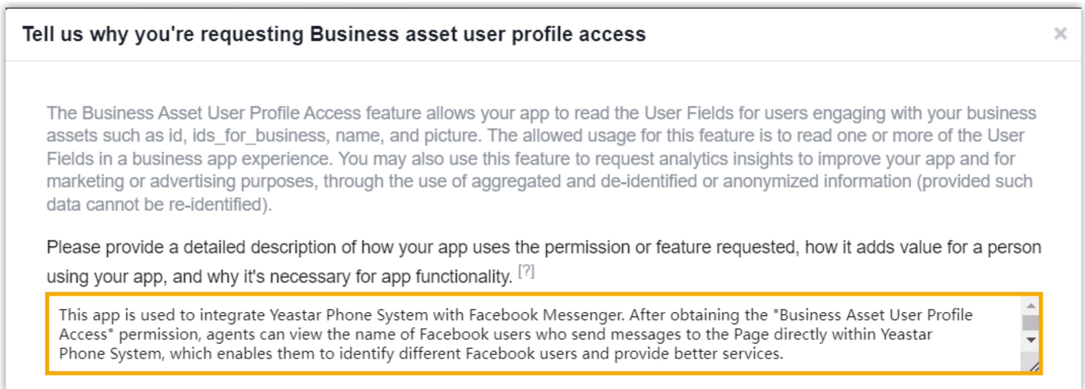


5. Complete the following tasks to demonstrate why the **Business Asset User Profile Access** permission with advanced access is needed and how the app uses it.
    a. Click **How will your app use the advanced access Business asset user profile access feature?**.

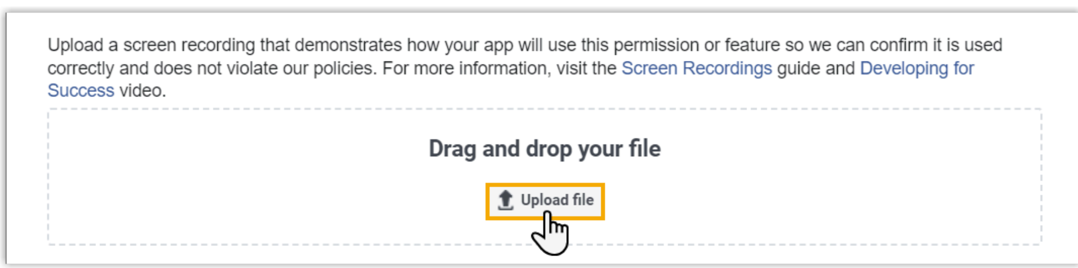


b. Copy and paste the following text in the detailed description box.

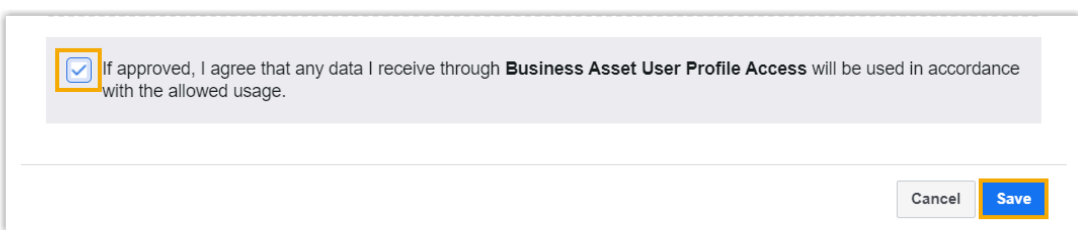
```
This app is used to integrate Yeastar Phone System with Facebook
 Messenger. After obtaining the "Business Asset User Profile
 Access" permission, agents can view the name of Facebook users
 who send messages to the Page directly within Yeastar Phone
 System, which enables them to identify different Facebook users
 and provide better services.
```



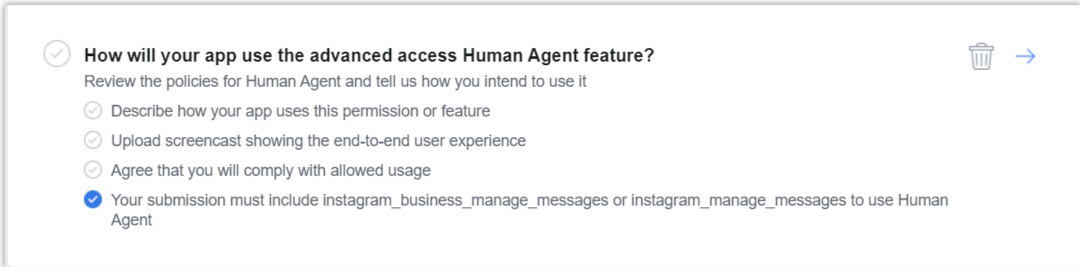
c. Click **Upload file** to upload [the screencast]() that you have uploaded for **pages_-messaging**.



d. Select the checkbox to agree that you will comply with the allowed usage, then click **Save**.

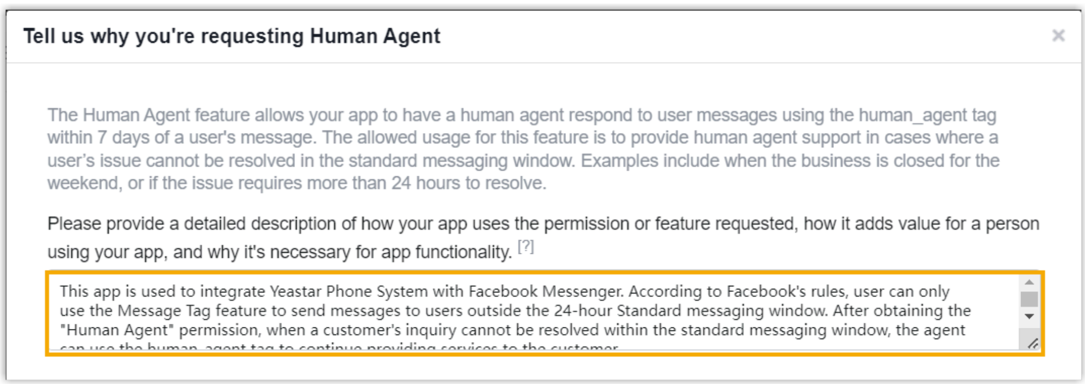


6. Complete the following tasks to demonstrate why the **Human Agent** permission with advanced access is needed and how the app uses it.
   a. Click **How will your app use the advanced access Human Agent feature?**.

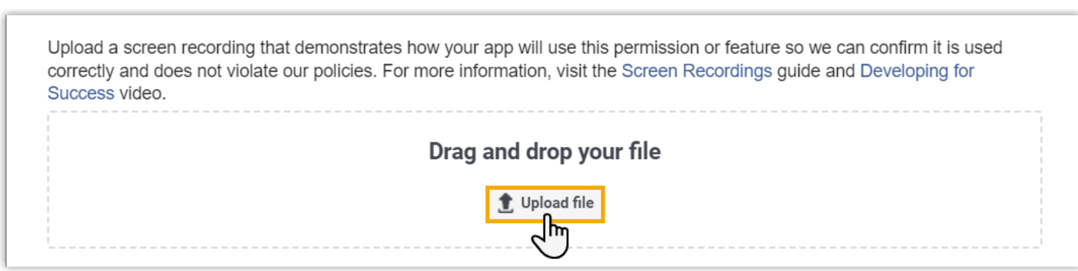


b. Copy and paste the following text in the detailed description box.

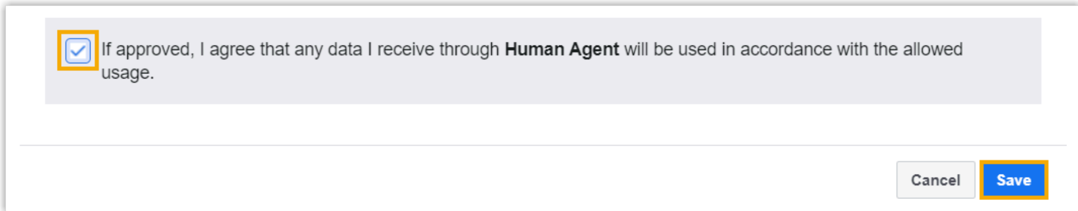
```
This app is used to integrate Yeastar Phone System with Facebook
 Messenger. According to Facebook's rules, user can only use
 the Message Tag feature to send messages to users outside the
 24-hour Standard messaging window.
After obtaining the "Human Agent" permission, when a customer's
 inquiry cannot be resolved within the standard messaging window,
 the agent can use the human_agent tag to continue providing
 services to the customer.
```



c. Click **Upload file** to upload [the screencast](#) that demonstrates how your app uses a human agent tag to respond to customer messages.



d. Select the checkbox to agree that you will comply with the allowed usage, then click **Save**.



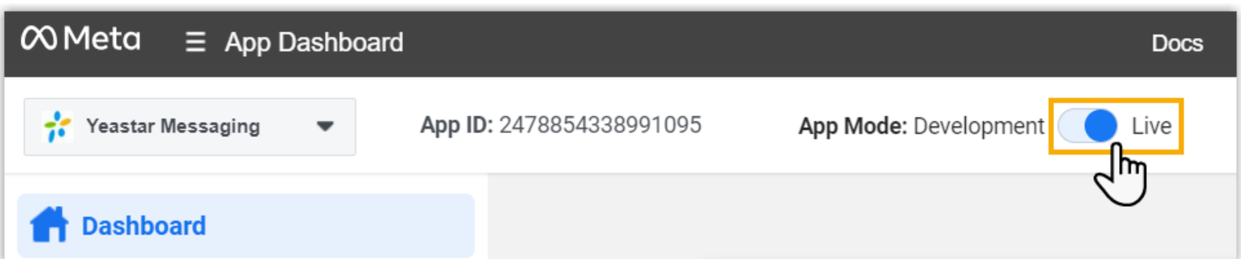
7. At the bottom of the page, click **Submit for Review** and enter password to confirm your operation.

Result

Your submission is queued and you will receive the review result in a few days.

What to do next

After you pass App Review, you need to switch your app to Live mode on 'Meta for Developers' portal, as shown below.



Live Chat

Live Chat Integration Guide

By adding Yeastar Live Chat to a website, your website visitors can call or chat with your agents in just one click, while agents in your business can centrally handle all customer conversations on Linkus UC Clients.

Highlights

Easy website integration

Embed a live chat widget on any website effortlessly, no coding skills required.

Free online consultation (chat & call)

Website visitors can initiate a chat or a call with agents in your business at no cost.

Secure resource control

Specify website domain and limit the number of concurrent calls to ensure that the live widget only works on the trusted website and prevent resource abuse.

Requirements

Make sure Yeastar P-Series PBX System meets the following requirements:

Item	Requirement
Firmware	Version 37.20.0.124 or later
Plan	Enterprise Plan (EP) or Ultimate Plan (UP)
Domain Name	PBX can be remotely accessed via a domain name. **Note:** • Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. • If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. For more information about the configuration, see the following topics: • Configure Network for Remote Access by a Yeastar FQDN • Configure Network for Remote Access by a Yeastar Domain Name • Configure Network for Remote Access by a Domain Name

Limitations

Learn about the limitations of Live Chat widget.

Item	Description
Message type	Supports text messages, emojis, and images. **Note:**

Item	Description
	For Image: The file format should be `.png`, `.jpg`, or `.jpeg` and the maximum file size is 10 MB.
Messaging mechanism	Supports to receive and reply to **Inbound** messages, but agents can NOT initiate a chat or a call with website visitors through the live chat widget.
File retention period	Files can be retained for **72 hours**.
Chat session	Supports **20** active sessions.

Set up a Live Chat Channel

To add Yeastar Live Chat to your website, you need to create and configure a live chat channel on Yeastar P-Series PBX System first.

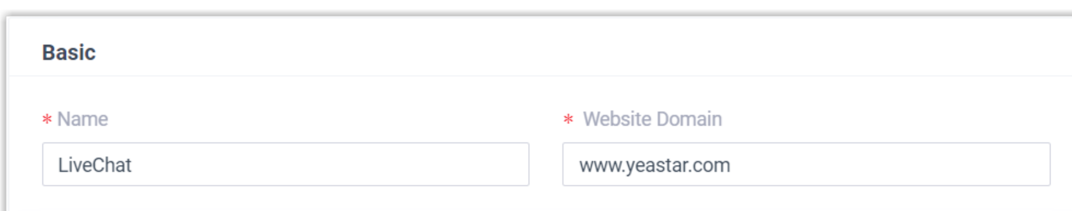
Before you begin

If you want to allow website visitors to call your agents directly, we recommend that you create a WebRTC trunk and set up a corresponding inbound route in advance, as they are required in the follow-up process.

For more information, see Set up WebRTC Click-to-Call.

Procedure

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **Live Chat**.
3. In the **General** tab, configure general settings for the channel.
    a. In the **Basic** section, enter the following basic information.

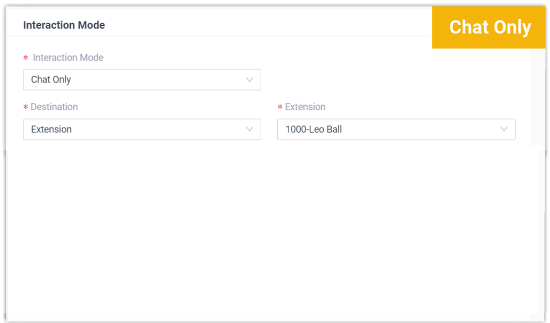


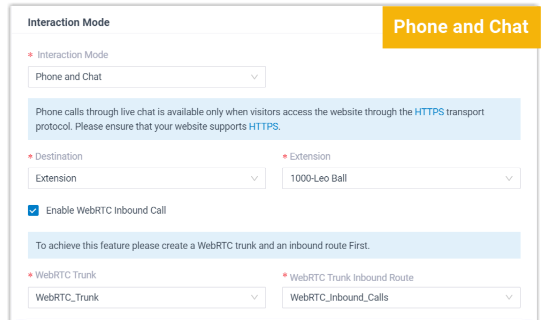
- **Name**: Enter a name to help you identify the channel.
- **Website Domain**: Enter the domain name of the website to which you want to add the live chat widget.

Note:

> For security reasons, the live chat widget will only load on the website domain.

b. In the **Interaction Mode** section, set how website visitors can interact with your agent(s) and where to route the visitors.





- **Interaction Mode**: Specify the interaction mode supported on the live chat widget.

Option	Description
Chat Only	If selected, website visitors can communicate with your agent(s) via chat message.
Phone and Chat	If selected, website visitors can communicate with your agent(s) via chat message or phone call. **Note:** Phone calls through live chat is available only when visitors access the website through HTTPS transport protocol. Therefore, make sure that your website supports HTTPS.

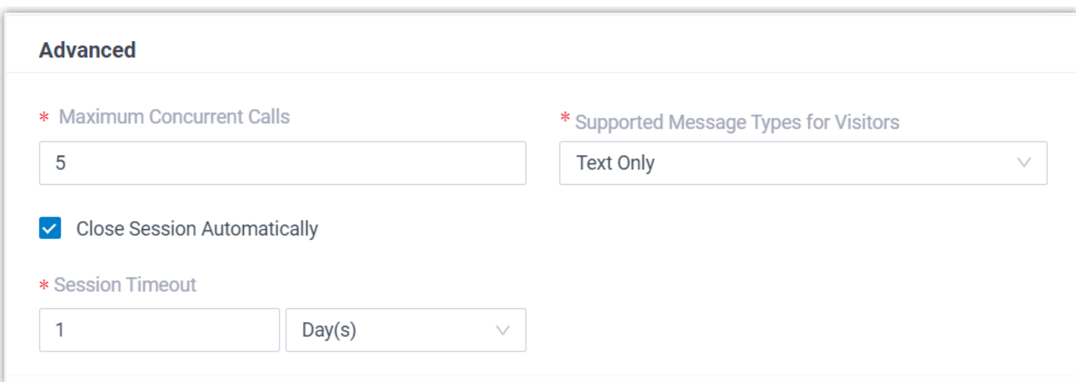
- **Destination**: Specify the destination of inbound messages from live chat.

Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from live chat.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be

Option	Description
	able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

- **Enable WebRTC Inbound Call**: If you allow phone calls through live chat, enable this option and select a WebRTC trunk and its corresponding inbound route.

c. In the **Advanced** section, complete the following settings.



- **Maximum Concurrent Calls**: Set the maximum number of concurrent calls supported on live chat.

  When the limit is reached, no more calls can be made through live chat.

  Note:

> - Phone calls made through live chat, whether by agents or website visitors, occupy the concurrent calls.
> - The default number is **5**, you can set up to **10** concurrent calls.

- **Supported Message Types for Visitors**: Specify the message type that website visitors can send.

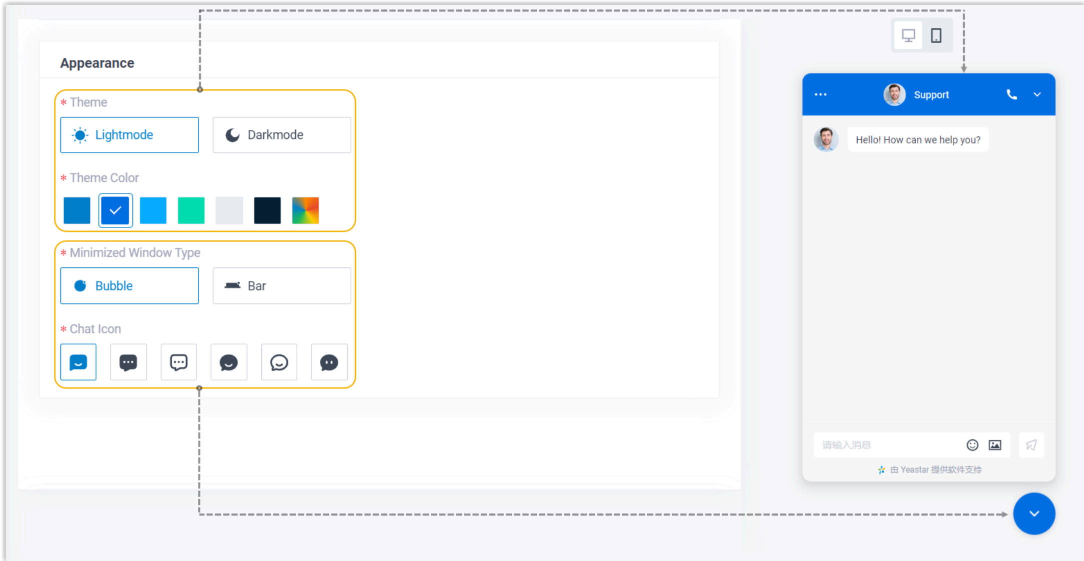
Option	Description
Text Only	Website visitors can send text and emojis.
Text and Image	Website visitors can send text, emojis, and images. **Note:** The maximum size for a single image uploaded in the chat widget is 10 MB.

- **Close Session Automatically**: If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the time-out in the **Session Timeout** field.

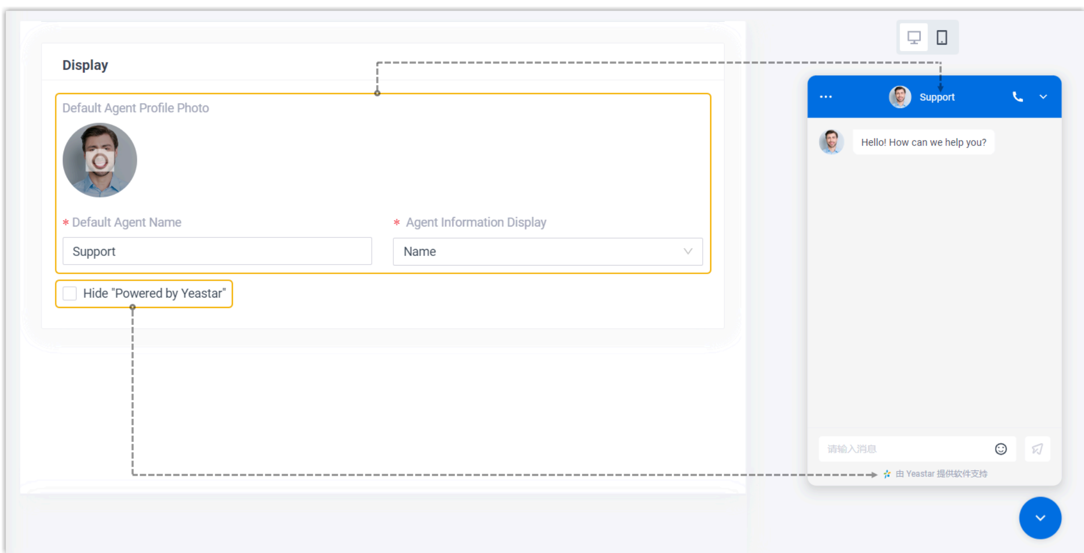
4. In the **Display & Appearance** tab, customize how the live chat widget on your website will look and what information it will offer.

> **Note:**
> When customizing your chat widget, you can preview the changes you made on the right panel.

a. In the **Appearance** section, customize the appearance of your chat widget.



b. In the **Display** section, customize the information that will be displayed when website visitors initiate a chat or a call.



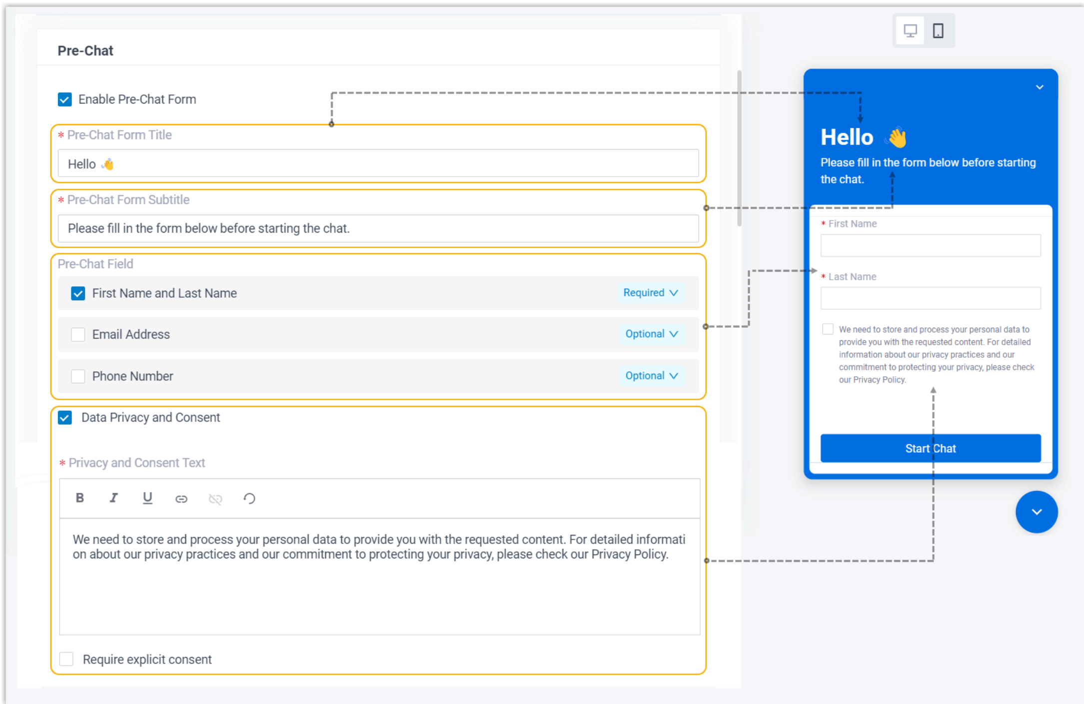
> **Note:**
> For **Agent Information Display**: If you choose **Name** or **Name and Profile Photo**, the real name and profile photo of the agent who deals with the chat message or phone call will be displayed when visitors initiate a chat or a call. Otherwise, the default agent name and agent profile photo will be displayed.

5. In the **Message** section, configure language preference and message settings for the chat widget.

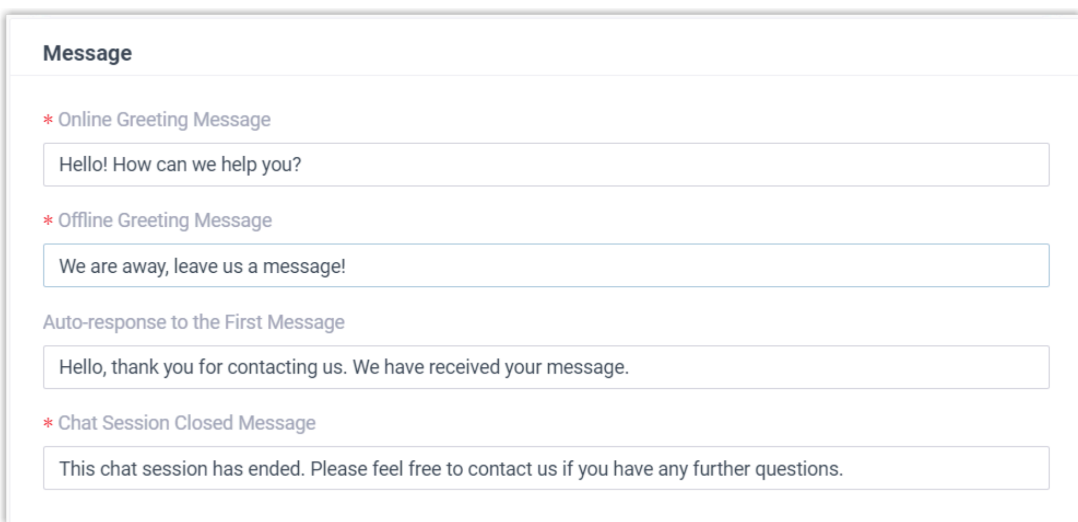
a. In the **Language** section, select an option from the drop-down list.

   This determines the display language of the chat widget.

b. If you want to use a pre-chat form to gather visitor information before a chat starts, complete the following settings in the **Pre-Chat** section.



c. **Optional:** In the **Message** section, edit the following auto-reply text messages as needed, which will be sent to website visitors based on specific scenarios.



Note:

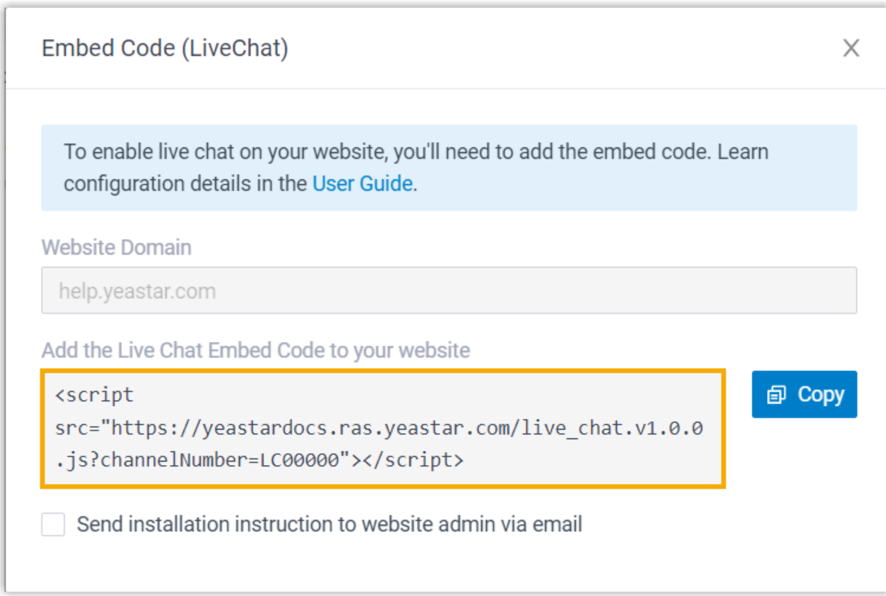
> The Online and Offline Greeting Messages are triggered based on office hours. Make sure that office hours in the PBX are properly configured. For more information, see Overview of Business Hours and Holidays.

- **Online Greeting Message**: Automatically send the text message to website visitors when they open the chat interface in the following situations:
  - PBX is within Business Hours, and the live chat destination is a message queue.
  - PBX is within Business Hours, and the live chat destination is an extension that is logged in to Linkus UC Clients with presence status set to Available.
- **Offline Greeting Message**: Automatically send the text message to website visitors when they open the chat interface in the following situations:
  - PBX is within Outside Business Hours or Holidays.
  - PBX is within Business Hours, and the live chat destination is an extension that logs out of Linkus UC Clients or that is logged in but has presence status set to Away / Business Trip / Do Not Disturb / Lunch Break / Off Work.
- **Auto-response to the First Message**: Automatically reply the text message to website visitors when they send their first message in the chat.
- **Chat Session Closed Message**: Automatically send the text message to website visitors when the chat session ends, either manually closed by agent / website visitor or automatically closed when session timeout is reached.

6. Click **Save**.

Result

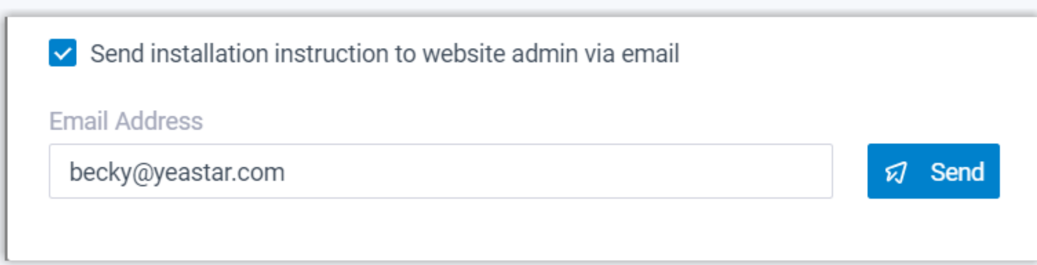
A code snippet for live chat is generated and displayed in the pop-up window.



What to do next

1. Click **Copy** to copy the code snippet.

   Note:
   You can also email the code snippet as well as the website domain to a specific user (e.g. website admin) to help with the process. The system will send an email with installation instructions using the default template (Path: **System > Email > Email Templates > Request to Add Live Chat to Website**) to the specified email address.

2. [Enable live chat on your website using the code snippet](#).

Enable Yeastar Live Chat on Your Website

After you obtain the code snippet for Yeastar Live Chat, you can paste the code snippet before the closing `</body>` tag in the HTML code for your desired website. When done, a live chat widget appears at the bottom-right corner of the website, enabling website visitors to have a real-time conversation with your agents.

Procedure

To enable Yeastar Live Chat on your website, paste the code snippet before the closing `</body>` tag in the HTML code for your desired website. After you successfully add the code snippet to your website, a live chat widget is added to the bottom-right corner of your website.

> **Note:**
>
> - Currently, the live chat widget is fixed to the bottom-right corner of a website and its position can not be changed.
> - The live chat widget has been proven to work when visitors access your website using **Google Chrome**, **Microsoft Edge**, or **Firefox**. For other web browsers, it may not work as expected.

Example

We take the following Content Management System (CMS) platforms as examples to show you how to enable Yeastar Live Chat on a website.

- Enable Yeastar Live Chat on WordPress Website
- Enable Yeastar Live Chat on Joomla Website
- Enable Yeastar Live Chat on Drupal Website
- Enable Yeastar Live Chat on Wix Website
- Enable Yeastar Live Chat on Squarespace Website

Enable Yeastar Live Chat on WordPress Website

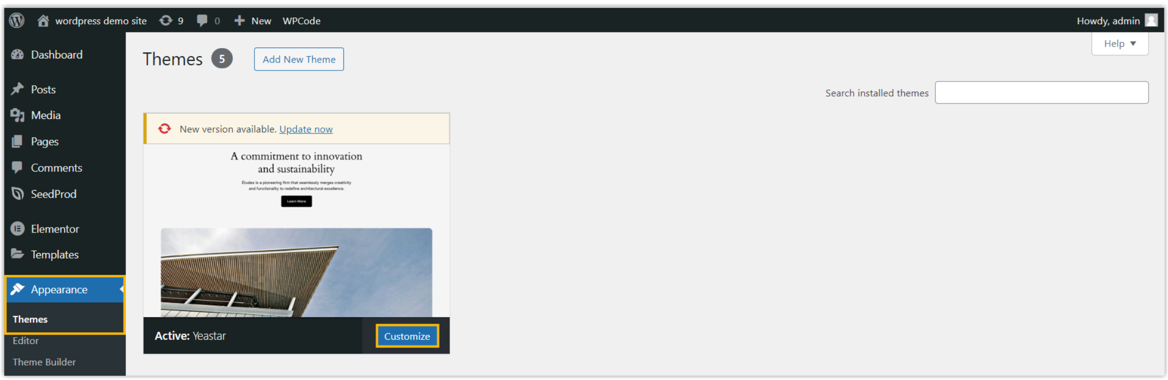
After you obtain the code snippet for Yeastar Live Chat, you can paste the code into the footer of your WordPress website. When done, a live chat widget appears at the bottom-right corner of the website, enabling website visitors to have a real-time conversation with your agents.

Prerequisites

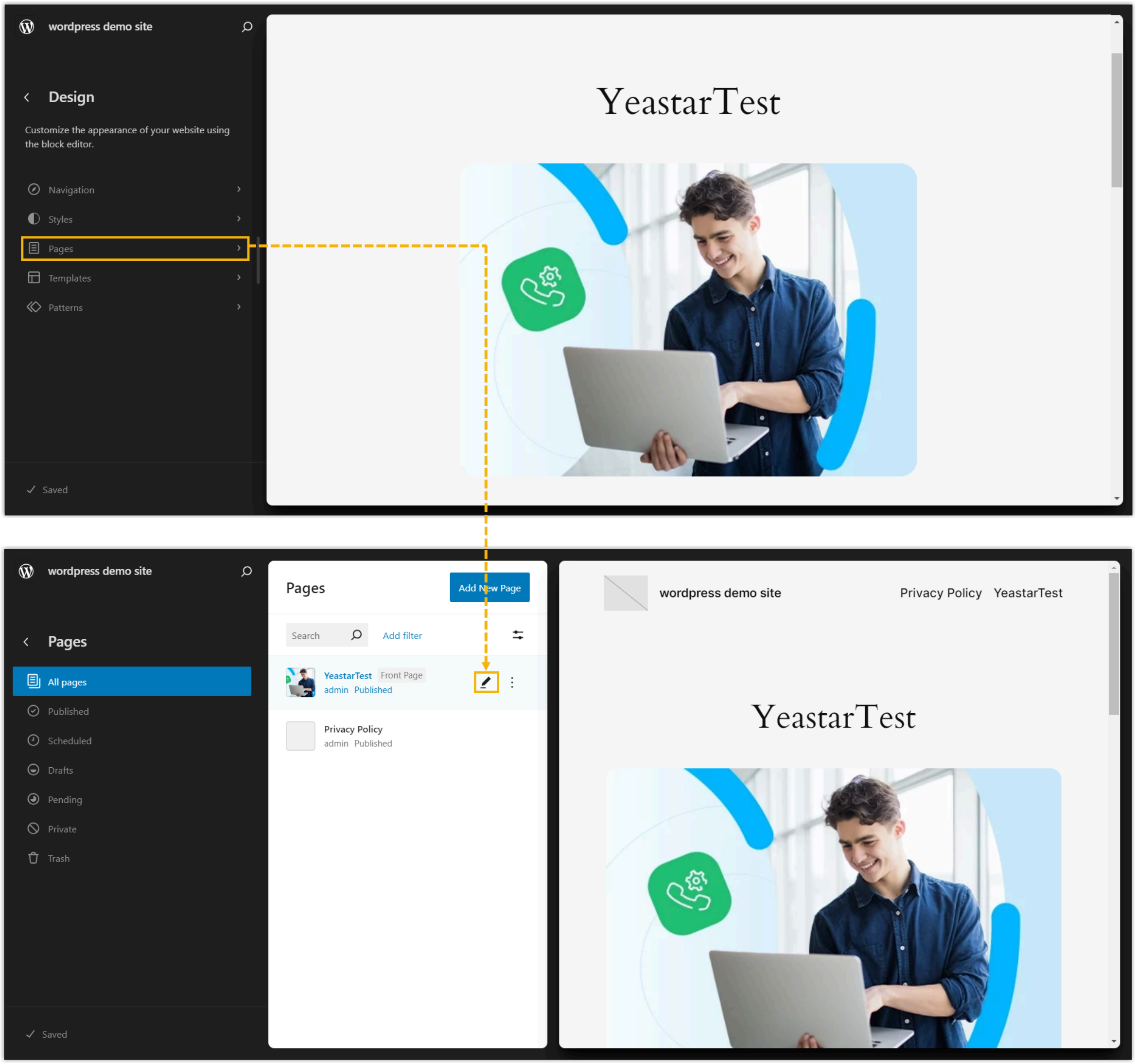
You have obtained the code snippet for Yeastar Live Chat.

Enable Yeastar Live Chat on WordPress website using theme editor

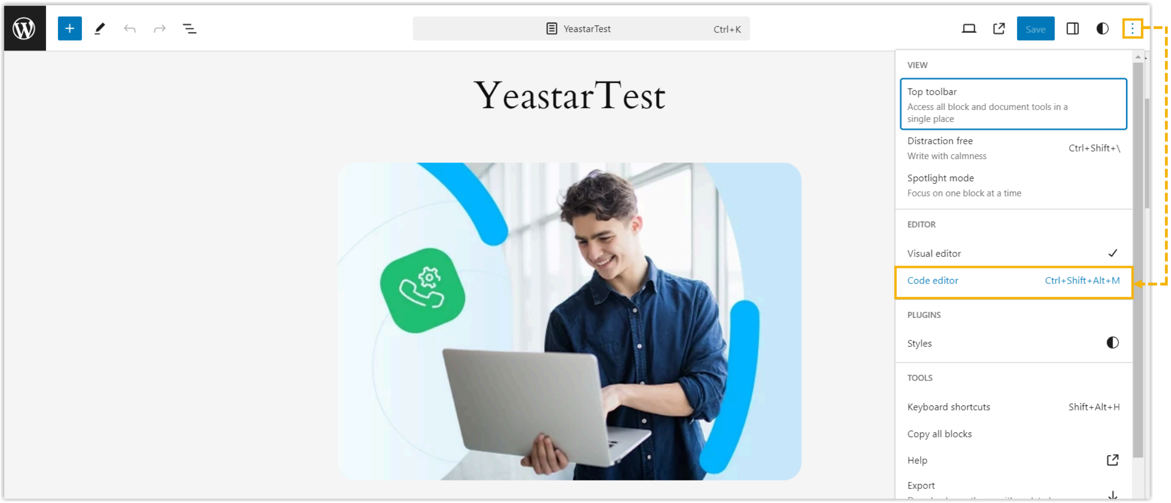
1. Log in to your WordPress admin panel.
2. On the left navigation bar, go to **Appearance > Themes**, then click **Customize** on the desired theme.



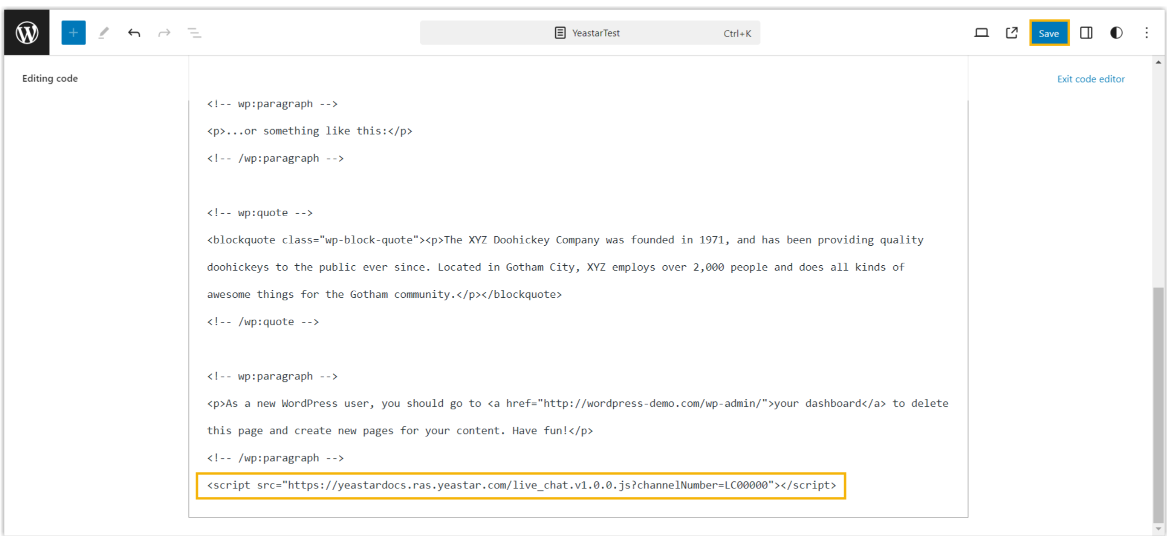
3. On the left navigation bar, click **Pages**, then edit your desired page.



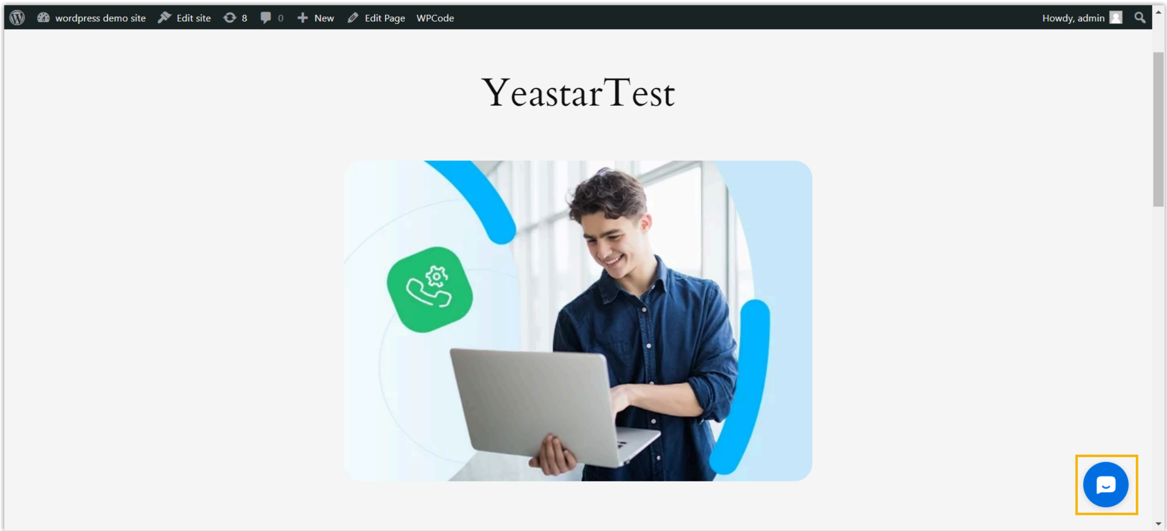
4. At the top-right corner, click ⋮ , then click **Code editor**.



5. Scroll down to the bottom, paste the code snippet, then click **Save**.

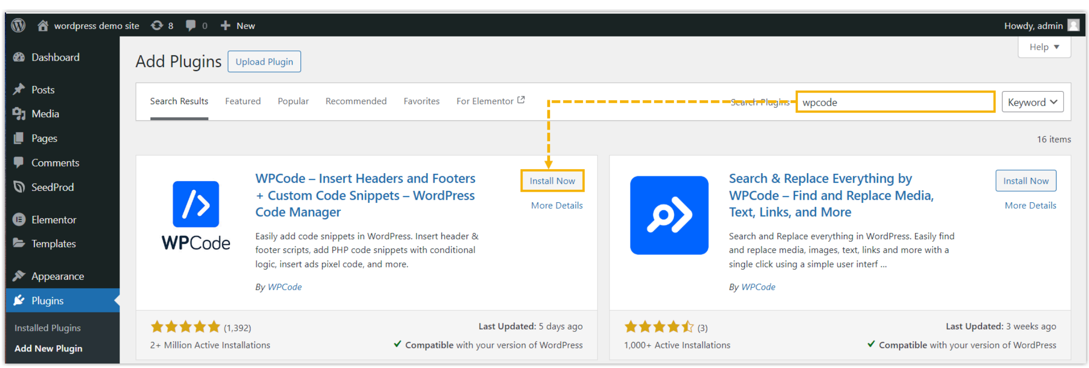


Access the page, then you will find the Live Chat widget is added to your website.

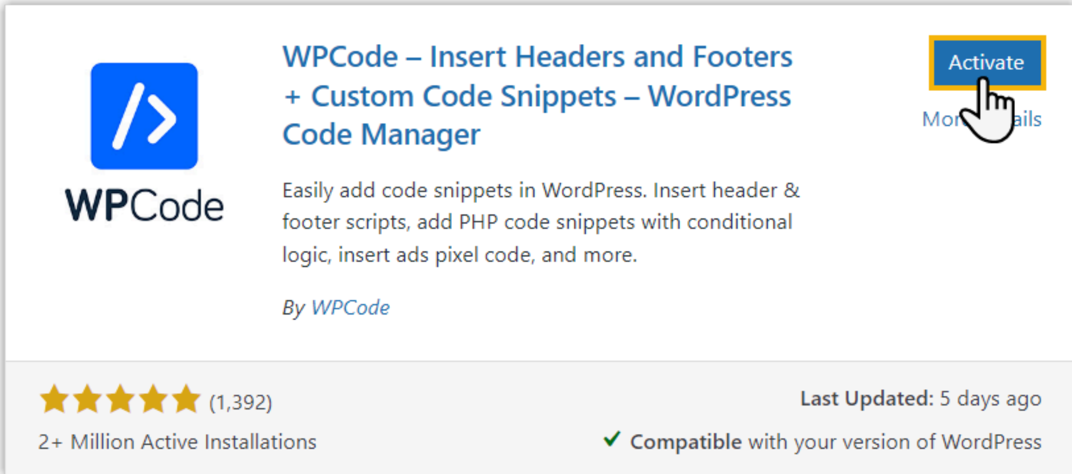


Enable Yeastar Live Chat on WordPress website using WPCode plugin

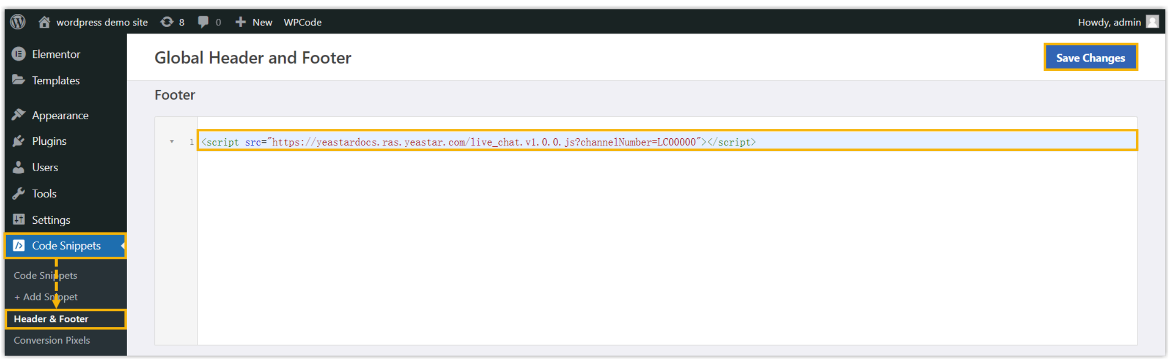
1. Log in to your WordPress admin panel.
2. On the left navigation bar, go to **Plugins > Add New Plugin**.
3. Add and activate WPCode plugin.
    a. At the top-right corner, search for WPCode plugin, then click **Install Now** to install the plugin.

    b. Click **Activate** to activate the plugin.

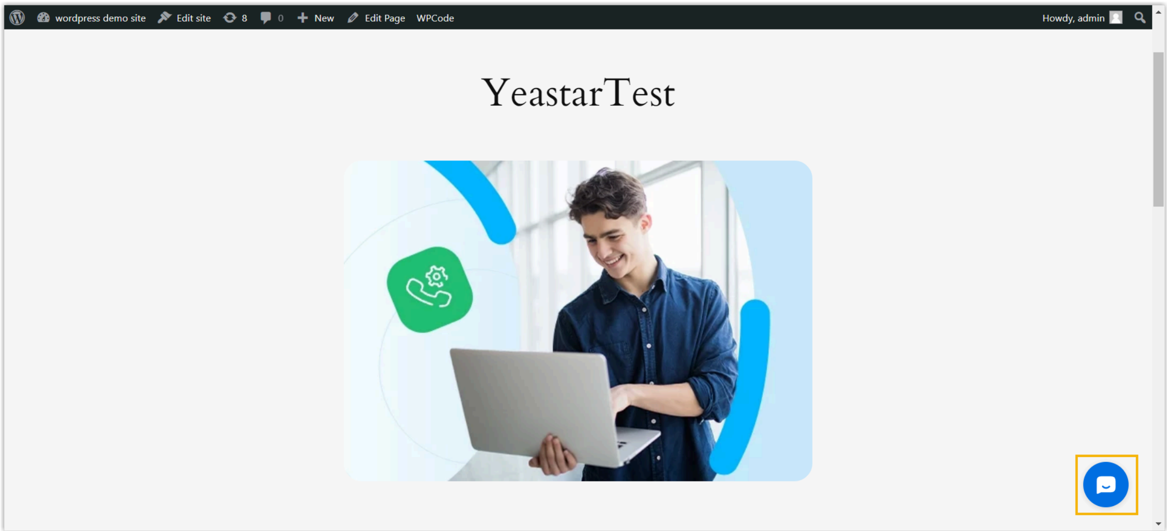


4. Add the code snippet to the footer.



a. On the left navigation bar, go to **Code Snippets > Header & Footer**.
b. In the **Footer section**, paste the code snippet.
c. At the top-right corner, click **Save Changes**.

Access the page, then you will find the Live Chat widget is added to your website.



Enable Yeastar Live Chat on Joomla Website

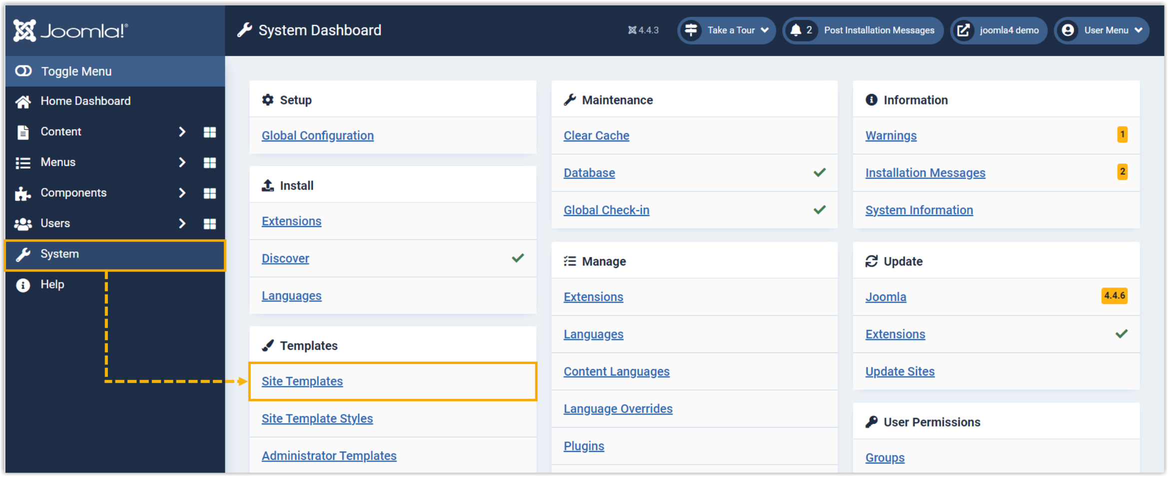
After you obtain the code snippet for Yeastar Live Chat, you can paste the code to your Jommla website's source code before the `/body` tag. When done, a live chat widget appears at the bottom-right corner of the website, enabling website visitors to have a real-time conversation with your agents.

Prerequisites

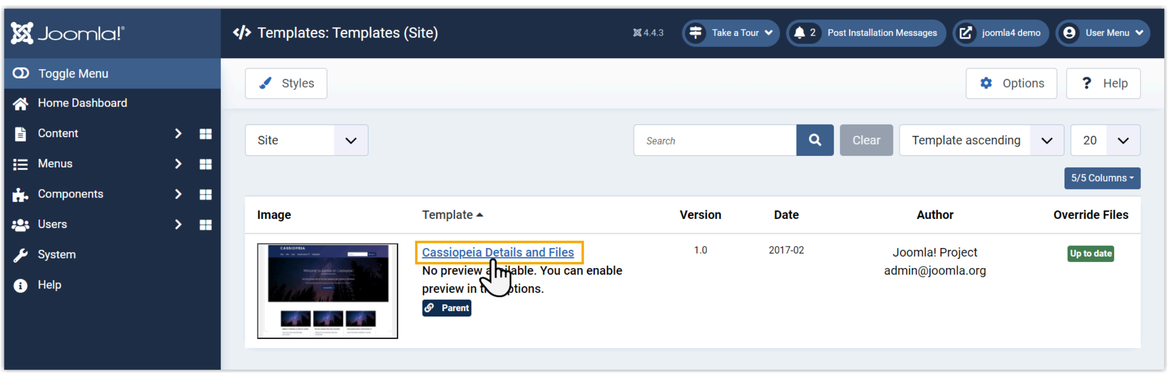
You have obtained the code snippet for Yeastar Live Chat.

Procedure

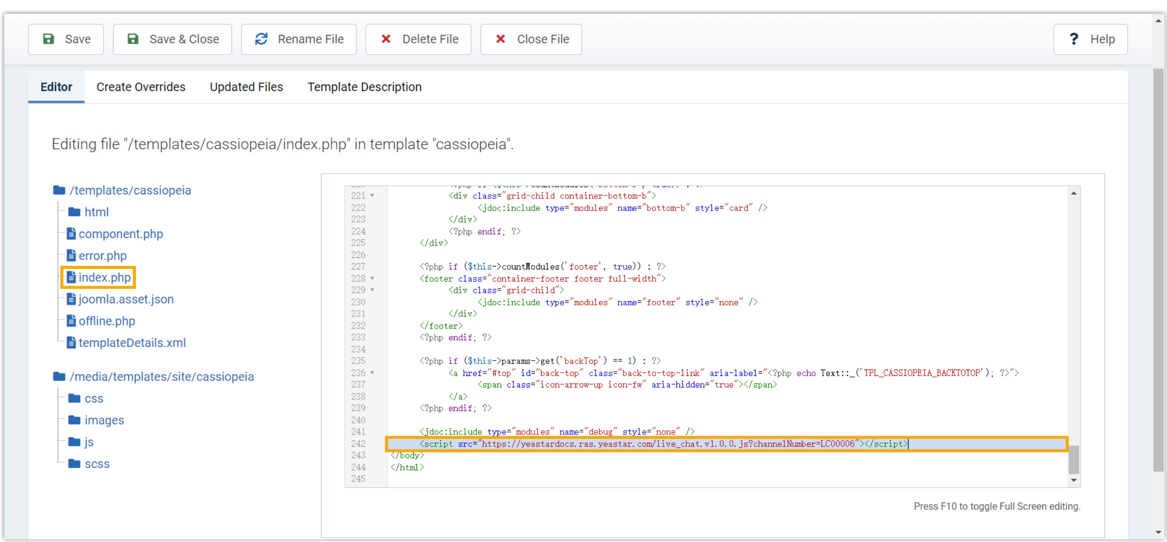
1. Log in to your Joomla's administrator panel.
2. On the left navigation bar, click **System**, then click **Site Templates**.



3. Click the template to which you want to add the code.



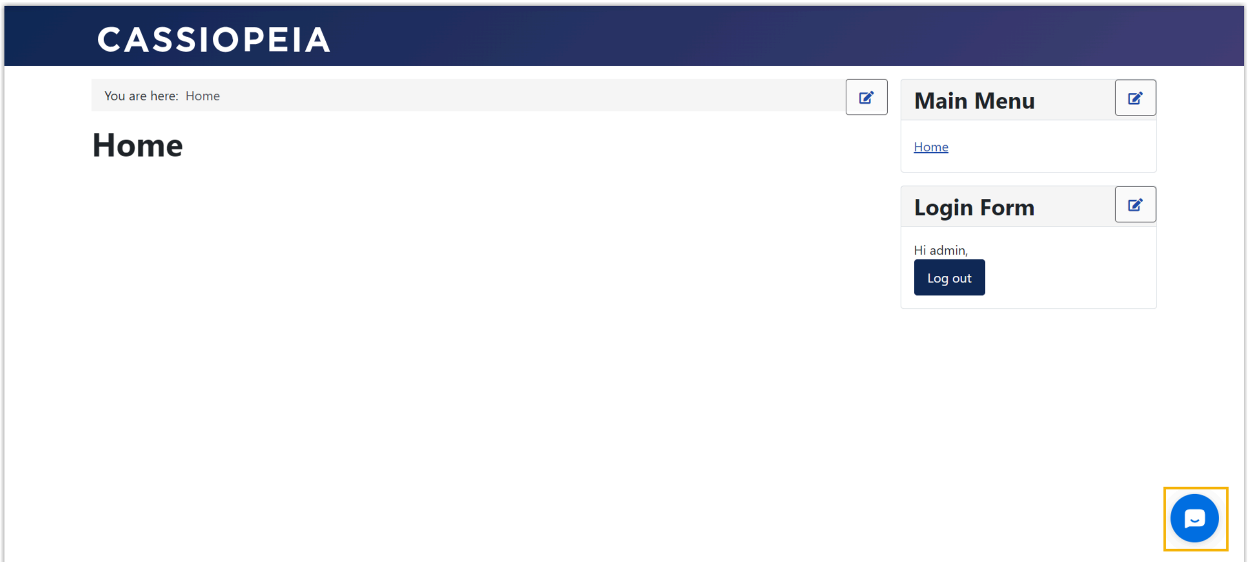
4. Click **index.php**, then paste the code snippet before `/body` tag.



5. At the top-left corner, click **Save**.

Result

Access your Joomla website, you will find the live chat widget is added to the bottom-right corner of your website.

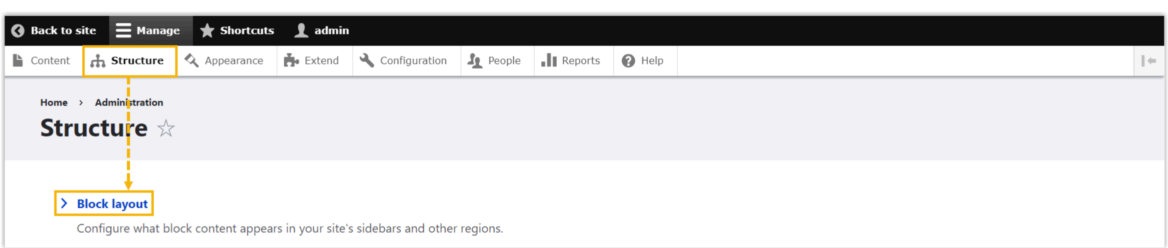


Enable Yeastar Live Chat on Drupal Website

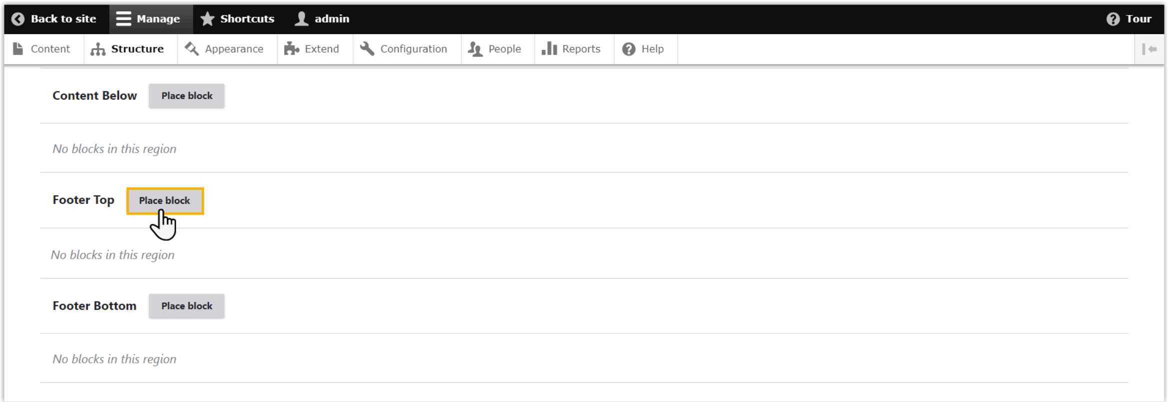
After you obtain the code snippet for Yeastar Live Chat, you can add the code to your Drupal website. When done, a live chat widget appears at the bottom-right corner of the website, enabling website visitors to have a real-time conversation with your agents.

Procedure

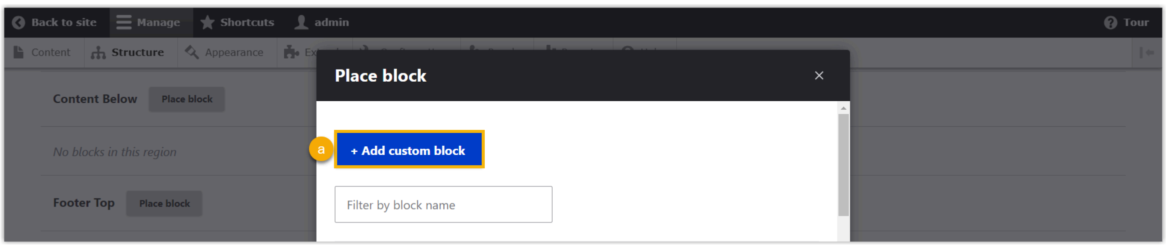
1. Log in to your Drupal admin panel.
2. On the top navigation bar, go to **Structure > Block layout**.

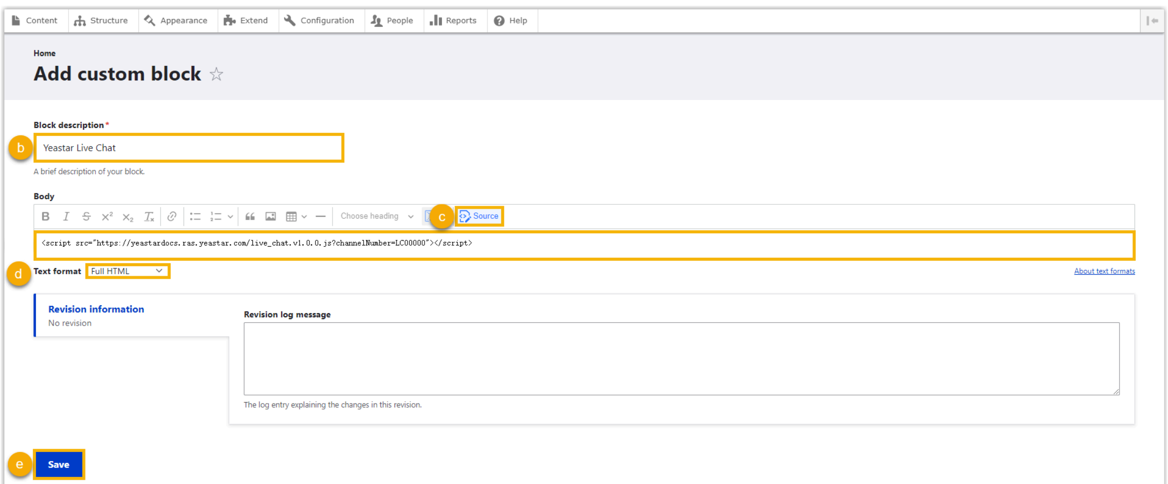


3. Scroll down to the bottom, click **Place block** beside **Footer Top**.



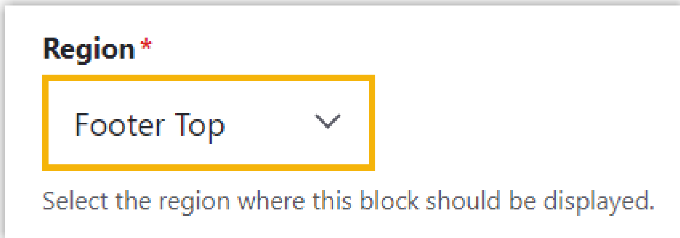
4. Add a custom block.





   a. Click **Add custom block**.
   b. In the **Block description** field, enter a short description of the block.
   c. In the **Body** field, click **Source**, then paste the code snippet.
   d. In the **Text format** drop-down list, select **Full HTML**.
   e. Click **Save**.

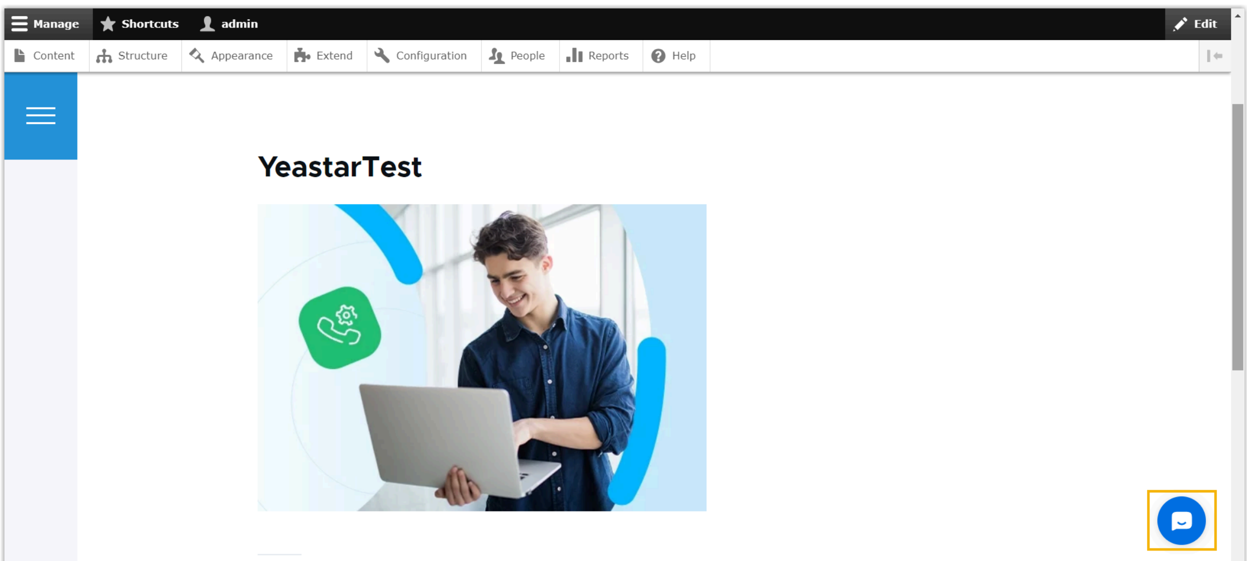
5. Scroll down to the bottom, then select **Footer Top** from the **Region** drop-down list.



6. Click **Save block**.

Result

Access your Drupal website, you will find the live chat widget is added to the bottom-right corner of your website.



Enable Yeastar Live Chat on Wix Website

After you obtain the code snippet for Yeastar Live Chat, you can paste the code to your Wix website's source code before the `/body` tag. When done, a live chat widget appears at the bottom-right corner of the website, enabling website visitors to have a real-time conversation with your agents.

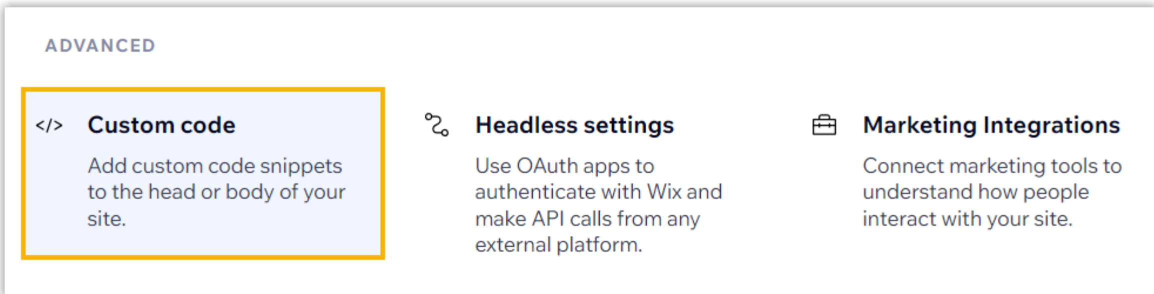
> **Note:**
> You can also add the chat widget using Wix Editor. For more information, see Wix Editor: Embedding a Site or a Widget.

Prerequisites

You have obtained the code snippet for Yeastar Live Chat.

Procedure

1. Log in to your Wix account, then go to **Settings**.
2. On Settings page, scroll down to the **ADVANCED** section, then click **Custom code**.



3. At the top-right corner, click **Add Custom Code**.
4. In the pop-up window, complete the following settings, then click **Apply**.
    - **Paste the code snippet here**: Paste the code snippet for the live chat widget.
    - **Name**: Enter a name to help you identify the code.
    - **Add Code to Pages**: Set the page(s) to which you want to add the code snippet.
    - **Place Code in**: Select **Body - end**.

Result

Access your Wix website, you will find the live chat widget is added to the bottom-right corner of your website.

Enable Yeastar Live Chat on Squarespace Website

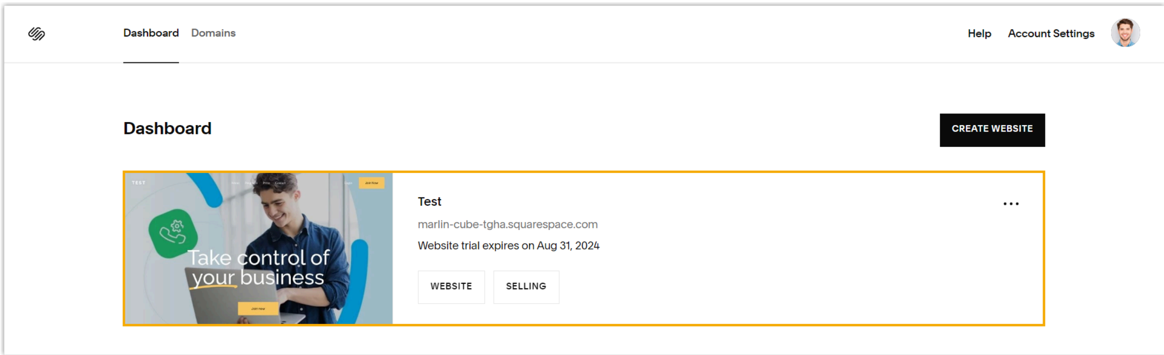
After you obtain the code snippet for Yeastar Live Chat, you can paste the code into the footer of your Squarespace website. When done, a live chat widget appears at the bottom-right corner of the website, enabling website visitors to have a real-time conversation with your agents.

Prerequisites

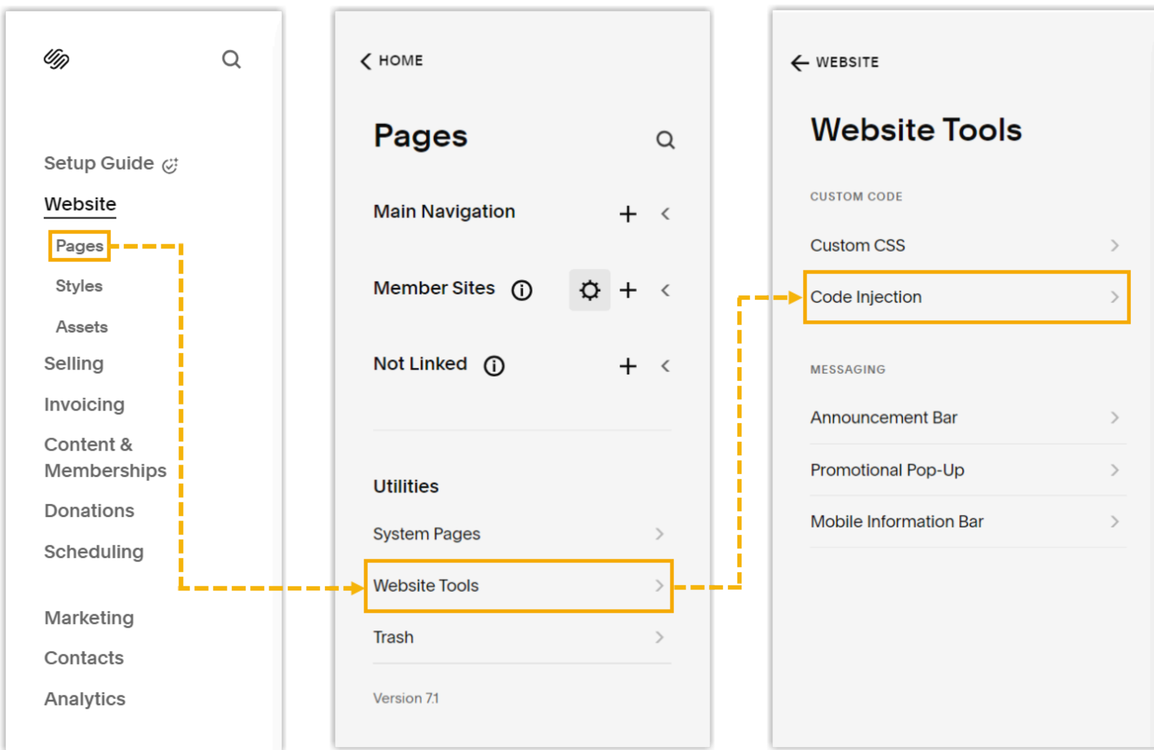
You have obtained the code snippet for Yeastar Live Chat.

Procedure

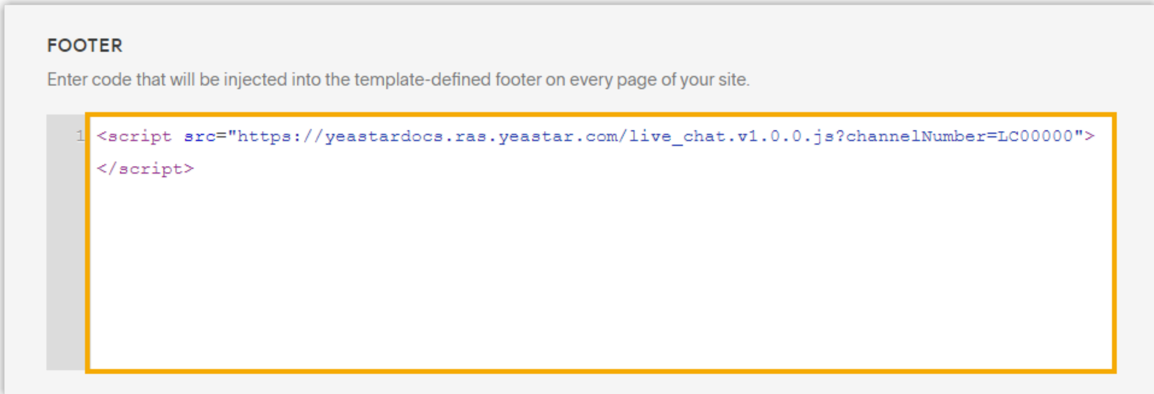
1. Log in to your Squarespace account.
2. On the Dashboard, click the website to which you want to add the live chat widget.



3. On the left navigation bar, go to **Pages > Website Tools > Code Injection**.



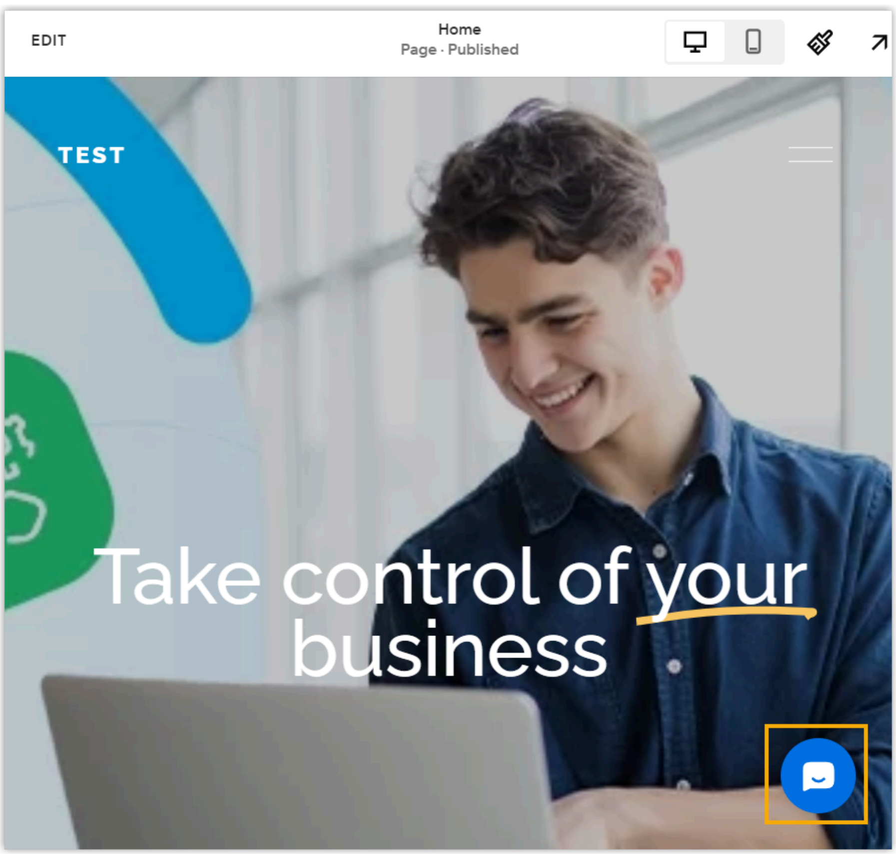
4. In the **Footer** section, paste the code snippet.



5. At the top-left corner, click **Save**.

Result

The live chat widget is added to the bottom-right corner of your website.



WhatsApp

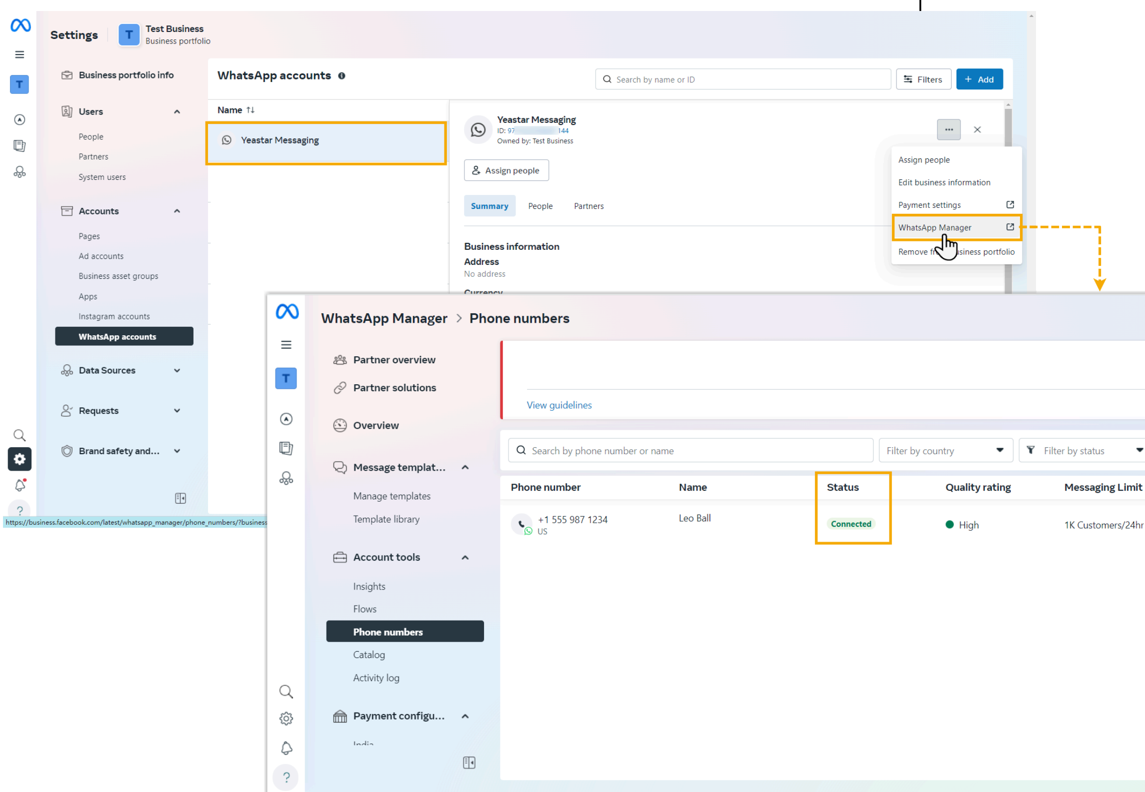
Set up a WhatsApp Channel

This topic describes how to set up a WhatsApp channel on Yeastar P-Series PBX System, so that agents in your business can receive and reply to WhatsApp messages from customers on their Linkus UC Clients.

Requirements

Make sure the following resources are ready.

Platform	Requirement
Yeastar PBX	• **Firmware**: Version 37.20.0.124 or later • **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP) • **Domain Name**: PBX can be remotely accessed via a domain name. **Note:** ◦ Due to the limitation of the third-party platform, the domain name must NOT contain underscore character(s), otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. ◦ If you use a self-managed domain name, make sure you have installed a valid domain certificate for the domain name, otherwise the messaging channel will encounter authentication failure, or will fail to receive messages. For more information about the domain configuration, see the following topics: ◦ Configure Network for Remote Access by a Yeastar FQDN ◦ Configure Network for Remote Access by a Yeastar Domain Name ◦ Configure Network for Remote Access by a Domain Name
WhatsApp	• **Product**: WhatsApp Business Platform • **Account**: ◦ A Meta Developer account **Note:** You only need ONE Meta Developer account to create MULTIPLE Meta apps for the WhatsApp channel integration. There is no limit to the number of WhatsApp channels on PBX. ◦ A Business Manager account (Business Portfolio) **Note:**

Platform	Requirement
	After you set up a Business Manager account, [verify your business](). • **Phone number**: Ensure that your phone number is valid and available for messaging. **Note:** You can check the status of your phone number on ['Meta Business Suite' portal]() (Path: **Account > WhatsApp accounts > WhatsApp Manager > Account tools > Phone numbers**).  **Troubleshooting:** [What should I do if my WhatsApp phone number status is "Pending"?]()

Limitations

Learn about the limitations of WhatsApp messaging channel.

Item	Description
Message type	Supports text messages and multimedia messages, where the multimedia message types are determined by WhatsApp. For more information, see WhatsApp supported media types. **Important:** When sending multimedia messages (such as images), WhatsApp downloads the file from a link provided by the PBX. Therefore, if you have set Allowed Country/Region IP Access Protection rule, make sure that you have allowed the IP access from the country where the WhatsApp server is located, otherwise the file transmission would fail.
Messaging mechanism	You can receive and reply to customers' inbound messages, or proactively initiate a messaging session using a WhatsApp message template.
Message sending rate	Supports to send up to **80** messages per second.
File size	Supports to send a file with a maximum size of **100 MB**.
File retention period	Files can be retained for **72 hours**.

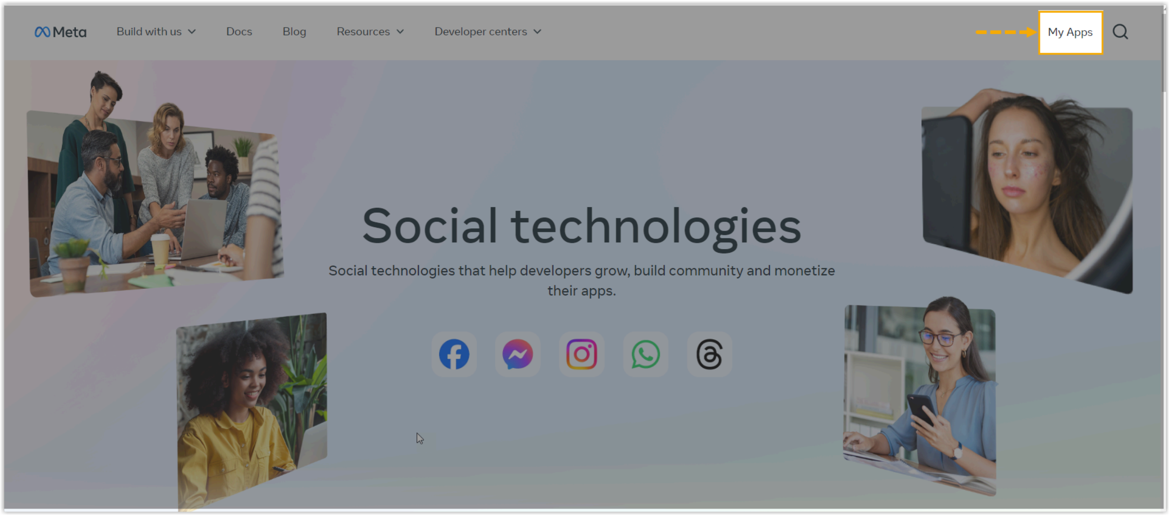
Procedure

- Step 1. Create a Meta app on 'Meta for Developers' portal
- Step 2. Obtain essential credentials on 'Meta Business Suite' portal
- Step 3. Create and configure a WhatsApp channel on PBX
- Step 4. Configure webhook in the Meta app

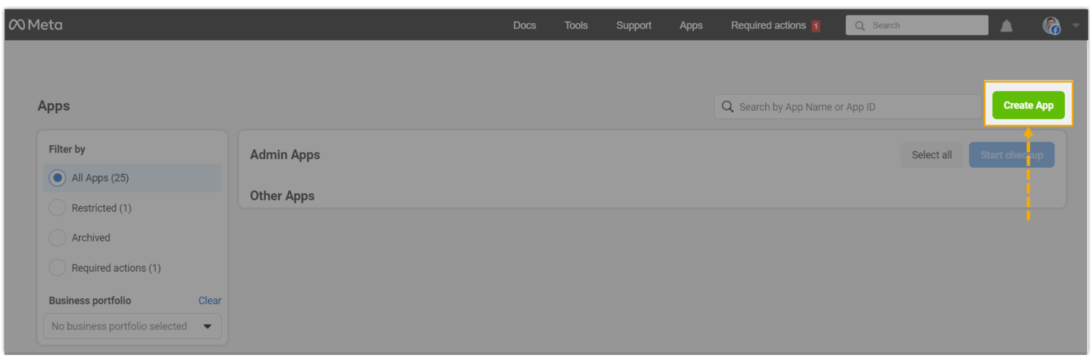
Step 1. Create a Meta app on 'Meta for Developers' portal

On 'Meta for Developers' portal, create a Meta app on the Meta for Developers portal, add phone number to the app, and obtain a **phone number ID** as well as the **app secret**, which is required later when configuring the WhatsApp channel on the PBX.

1. Log in to 'Meta for Developers' portal with your Meta Developer account, then go to **My Apps** from the top menu.

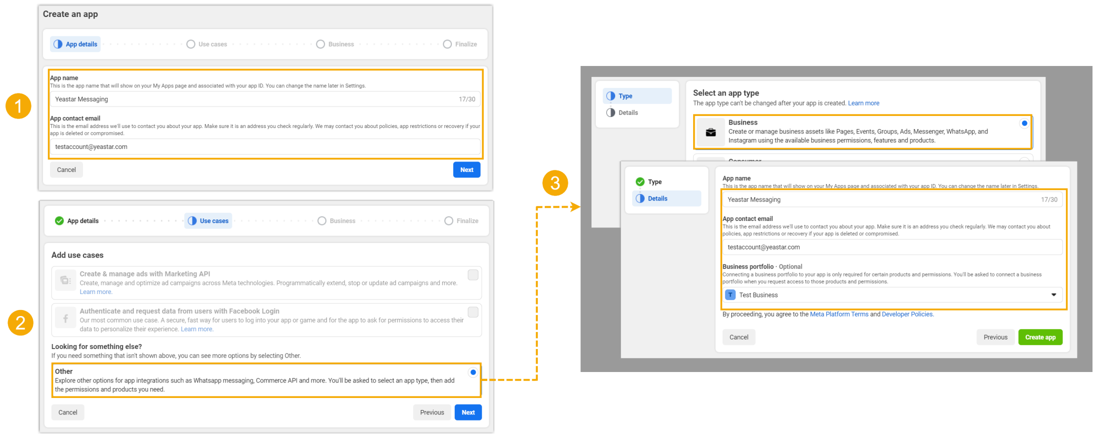


2. Create an app of the **Business** type.
   a. Click **Create App**.

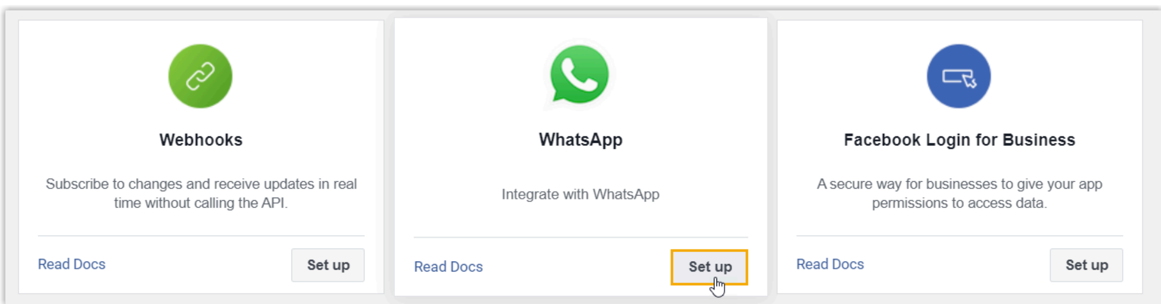


   b. Complete the app settings.

> **Note:**
> In the **Business Portfolio** field, select your Business Account to connect the app with your business, as apps that need [advanced access for permissions]() must be connected to a verified business entity.

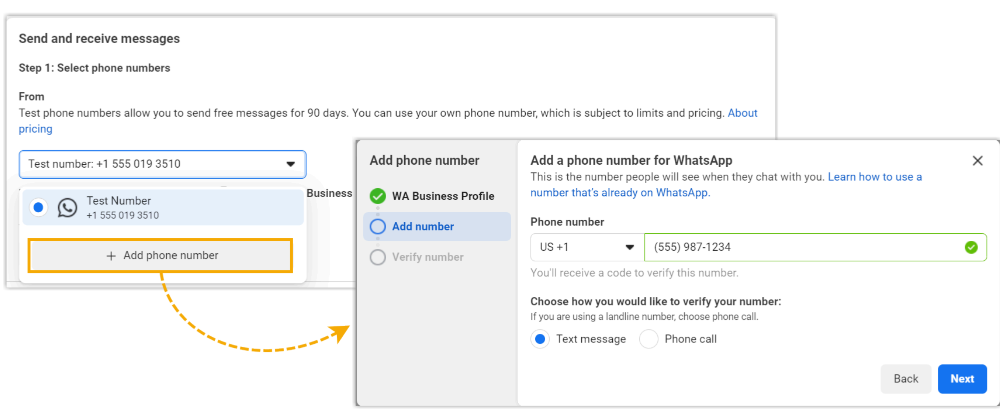


3. In the **Add products to your app** page, scroll down to find **WhatsApp** and click **Set up**.

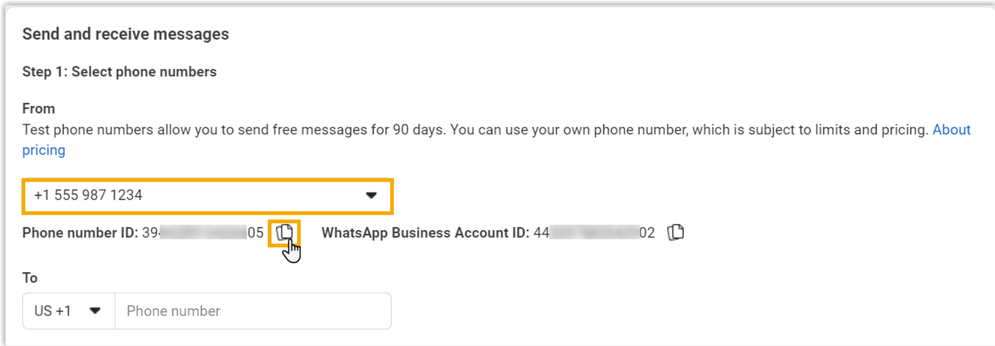


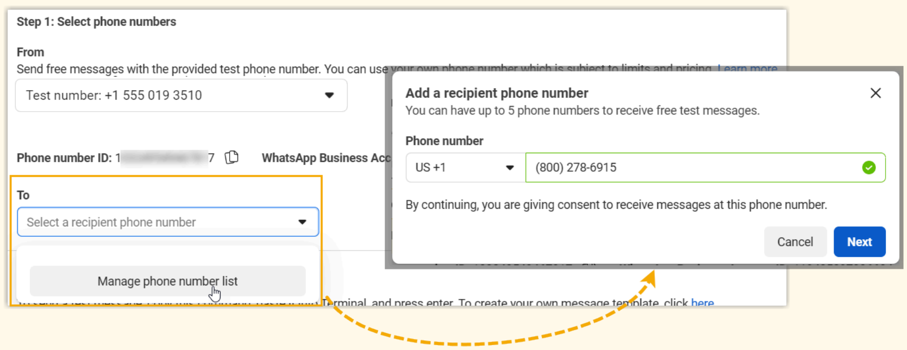
You are redirected to the **Quickstart** page of the WhatsApp product.

4. On the left navigation bar, go to **WhatsApp > API Setup > Send and receive messages**, and complete the followings:
    a. In the **From** drop-down list, click **Add phone number** to add your WhatsApp phone number for messaging.



    b. Select the added phone number from the list, then note down the corresponding **Phone number ID** as you will need to add them on the PBX later.



> **Important:**
> If you are using the test number provided by WhatsApp for demo or testing purposes, you need to specify the recipients' phone number in the **To** drop-down list, otherwise message sending may FAIL.
>
> 
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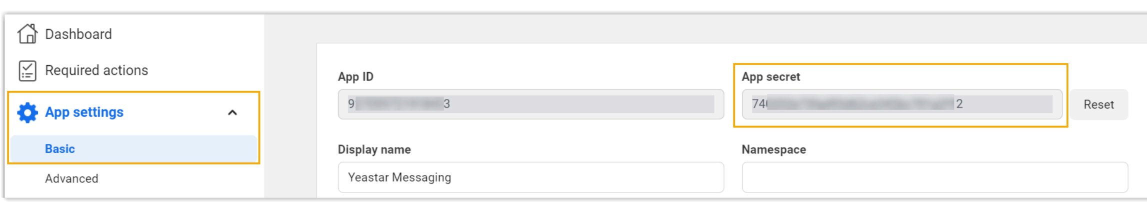
5. On the left navigation bar, go to **App settings > Basic**, note down the **App secret** of the app, as you will need it later on PBX.

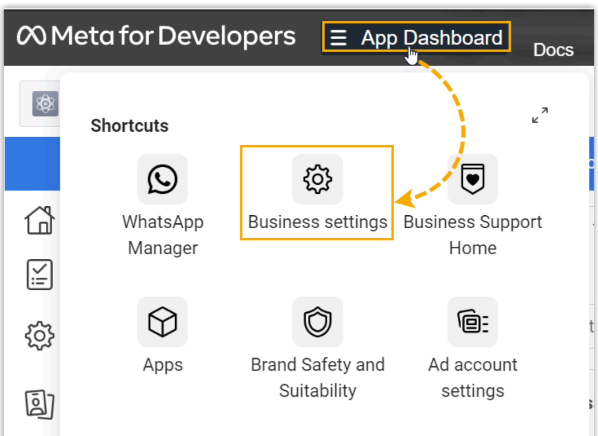


Step 2. Obtain essential credentials on 'Meta Business Suite' portal

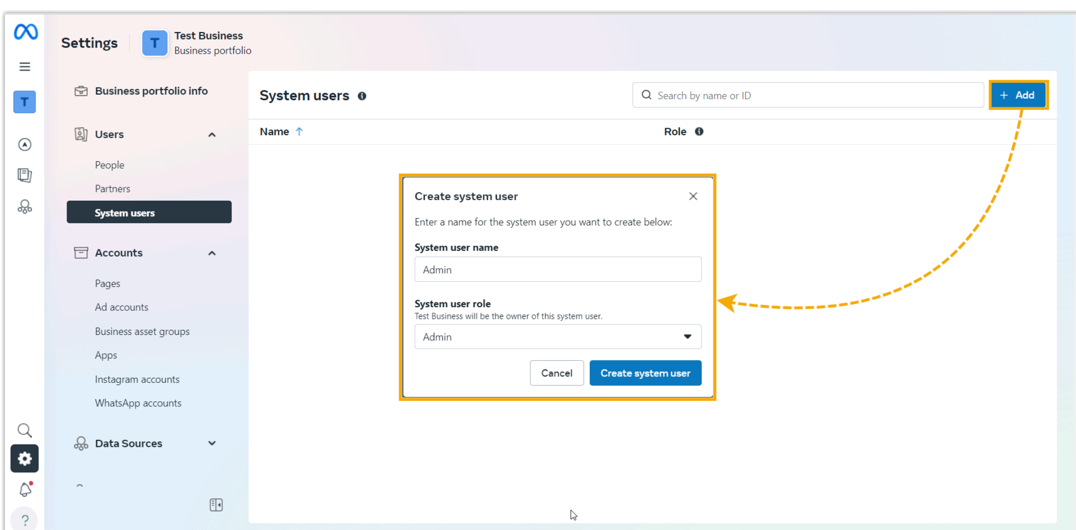
On 'Meta Business Suite' portal, create a system user and grant permissions to the user, then generate an **access token** for the user to grant access the Meta App you created in the previous step, which is required when configuring WhatsApp channel on the PBX. Additionally, obtain the WhatsApp Business Account ID, which is needed to retrieve message templates associated with the account.

Important:
It is recommended to use the access token from **Meta Business Suite** instead of the one from **Meta for Developer** portal, as the latter is a temporary token that may cause missed messages once it expires.

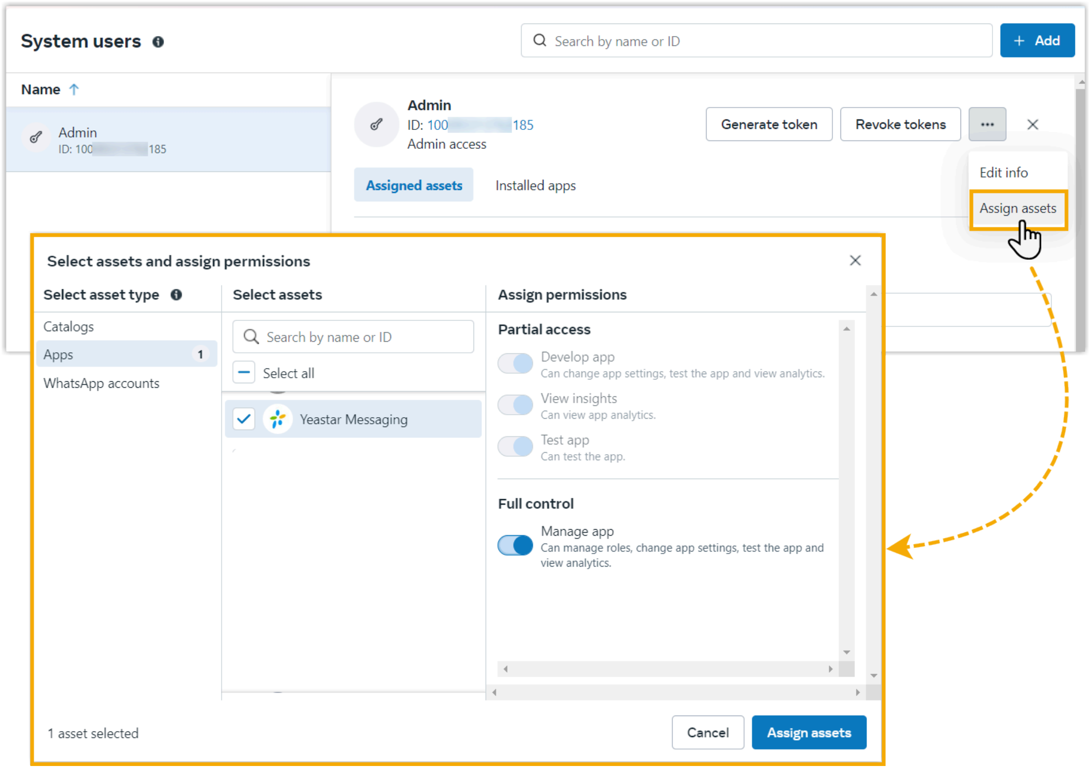
1. At the top-left corner of the ['Meta for Developers' portal](), go to **App Dashboard > Business settings**.



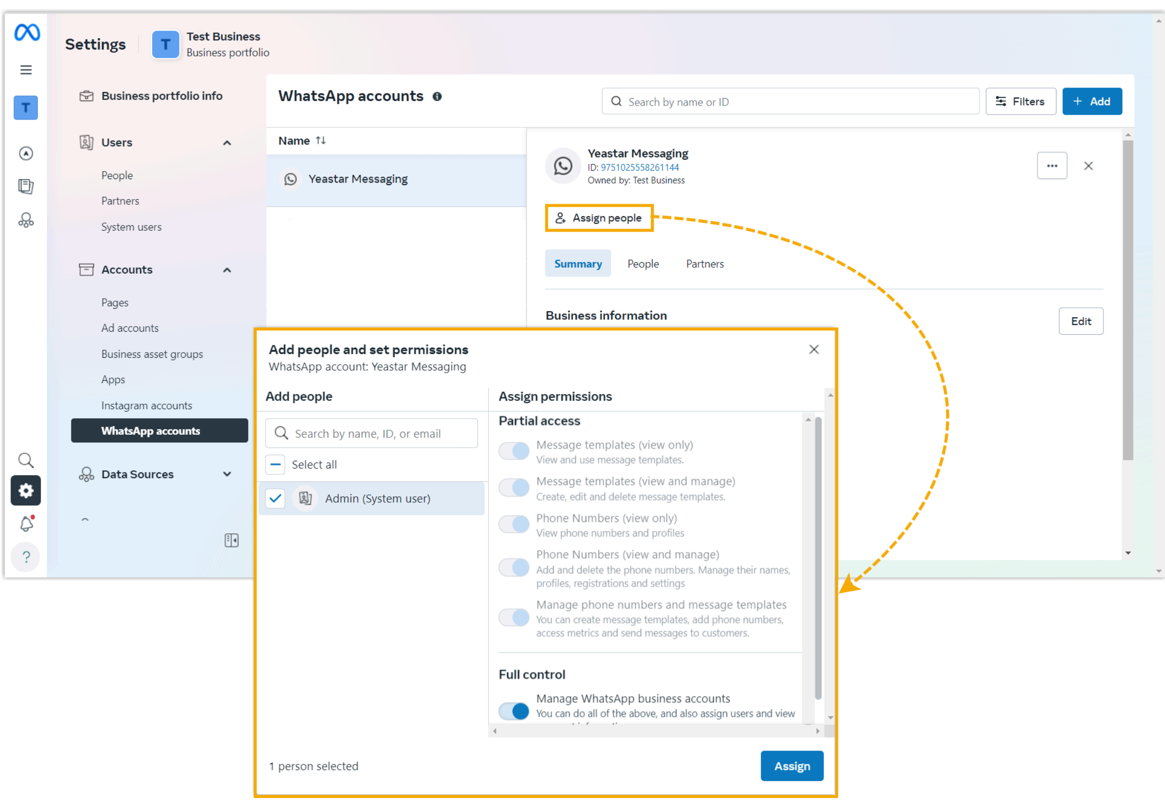
   You are redirected to the **Business settings** page of ['Meta Business Suite' portal]().
2. Go to **Users > System users**, create a system user and grant app permission to the user.
   a. Click **Add** to create a system user with **Admin** role.



   b. Select the created user, click **Add assets** and grant the full control permission of the app to the created user.

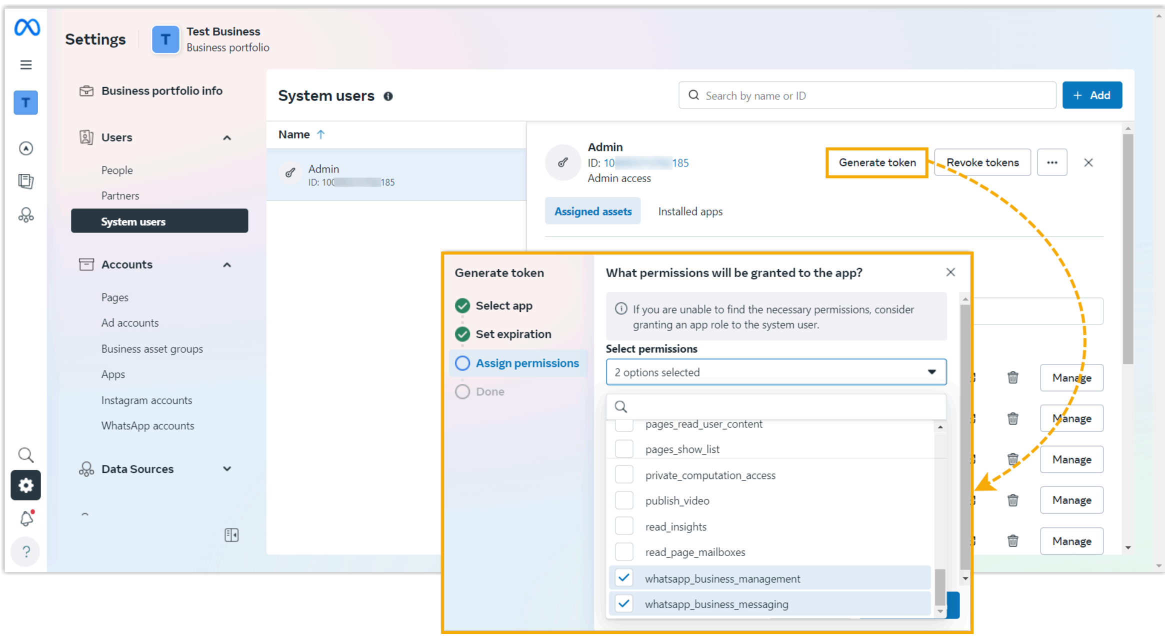


3. Go to **Accounts > WhatsApp Accounts**, add the created user to your WhatsApp Business account and grant the user full control permission.



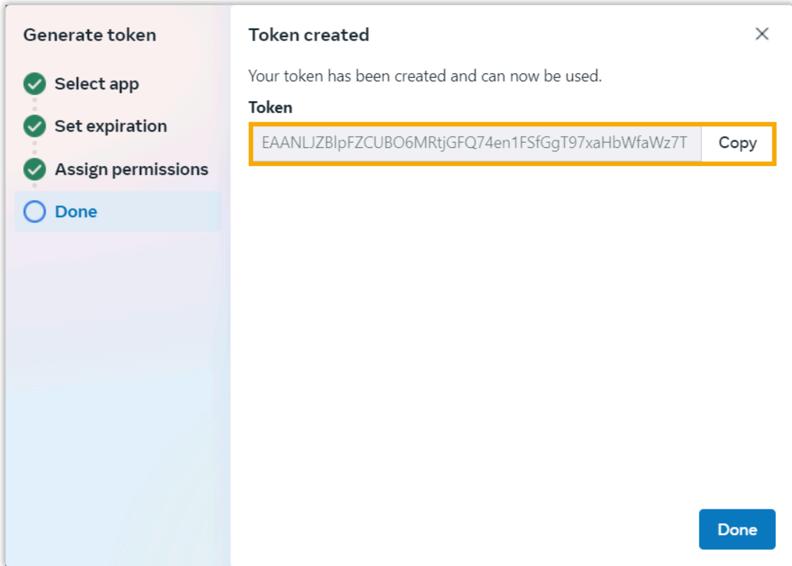
4. Go back to **Users > System users**, generate an access token with the `whatsapp_business_messaging` and `whatsapp_business_management` permissions enabled.

> **Note:**
> By default, the token expires after 60 days. You can set it to **Never** if you don't want the token to expire.

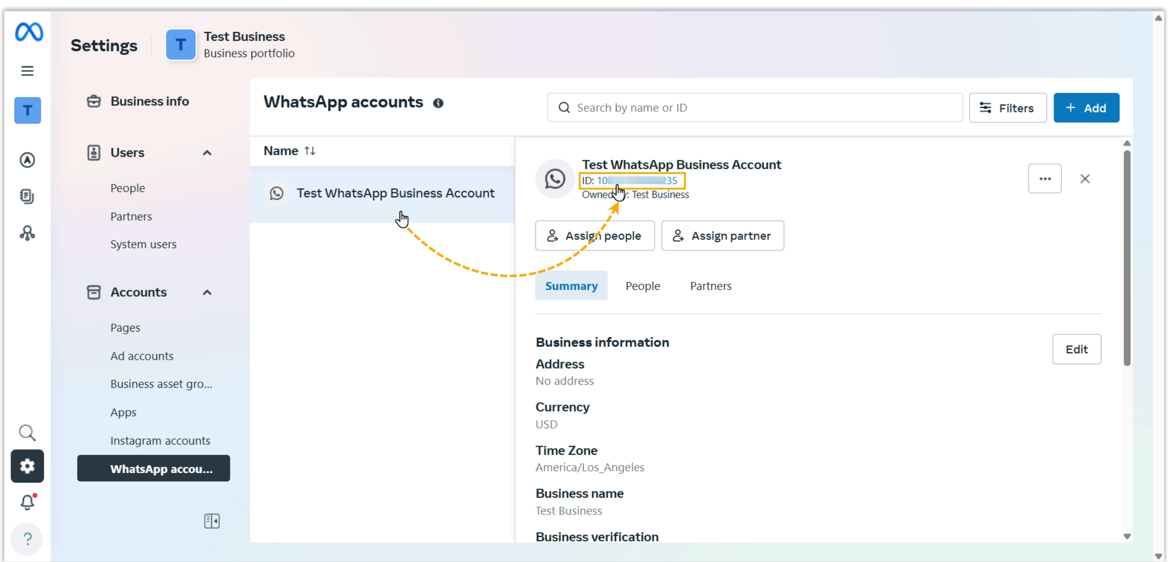


The pop-up window shows the generated access token.

> **Important:**
> Make sure that you have copied and properly saved the access token before closing the pop-up window, as it is only displayed ONCE.



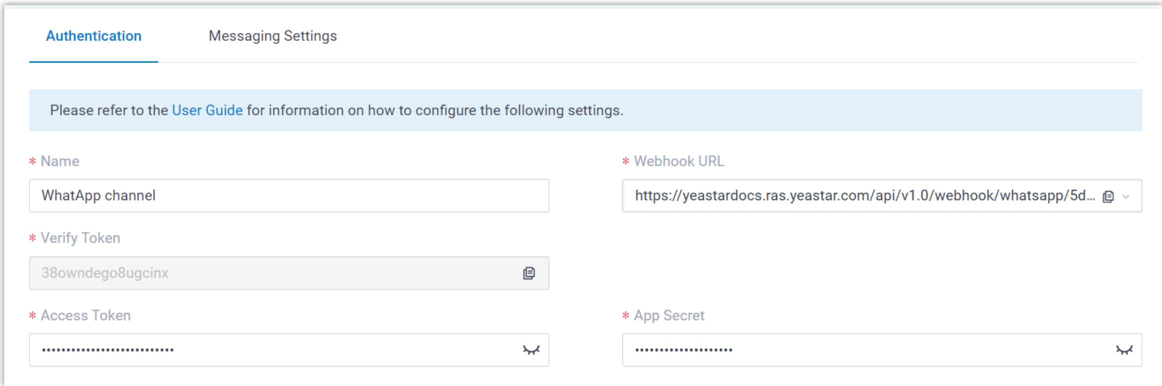
5. Go to **Accounts > WhatsApp accounts**, click your WhatsApp Business Account, then copy the account ID.



Step 3. Create and configure a WhatsApp channel on PBX

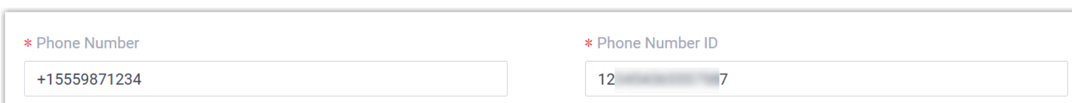
On the PBX, create a WhatsApp channel and configure it using the information obtained in the previous steps. This ensures that the PBX can connect to the WhatsApp for messaging.

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click **Add**, and select **WhatsApp**.
3. In the **Authentication** tab, enter the authentication information of WhatsApp.



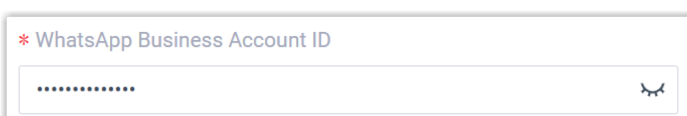
- **Name**: Enter a name to help you identify the channel.
- **Webhook URL**: Select and note down the Webhook URL, as you will need it later on WhatsApp.
- **Verify Token**: Note down the verify token, as you will need it later on WhatsApp.
- **Access Token**: Paste the Access Token obtained from 'Meta Business Suite' portal.
- **App Secret**: Paste the App Secret obtained from 'Meta for Developers' portal.

4. In the **Messaging Settings** tab, configure the channel.
    a. Enter WhatsApp phone number information.



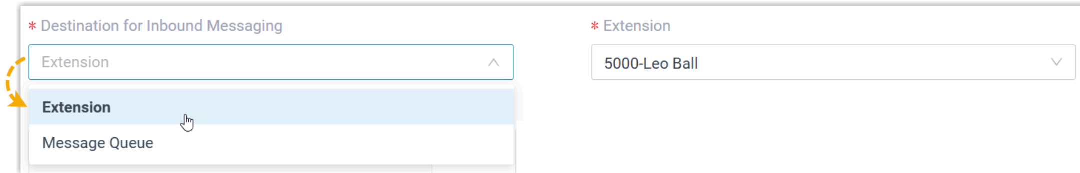
- **Phone Number**: Enter the WhatsApp phone number in E.164 format (`[+][country code][phone number]`). For example, `+15559871234`.
- **Phone Number ID**: Paste the phone number ID.

    b. In the **WhatsApp Business Account ID** field, paste the account ID obtained from 'Meta Business Suite' portal.



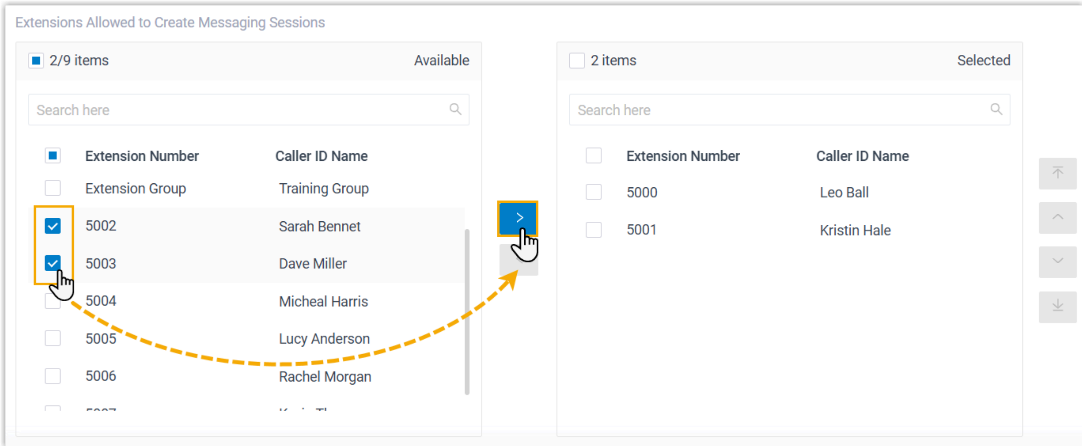
PBX will automatically synchronize the message templates associated with the WhatsApp account to the channel.

    c. In the **Destination for Inbound Messaging** drop-down list, specify the destination of inbound messages from the number.

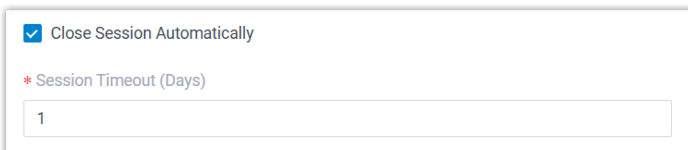


Option	Description
Extension	If selected, choose an extension from the **Extension** drop-down list. Only the extension user can receive inbound messages from the number.
Message Queue	If selected, choose a queue from the **Message Queue** drop-down list. All the agents in the selected message queue can receive inbound message(s) of new sessions in the queue. However, only the user who picks up a session will be able to receive and respond to the follow-up inbound messages in the session.
Third-Party Message Analytics Platform (Transmitted via API)	If selected, inbound messages will be automatically forwarded to a third-party message analytics platform via API for advanced processing. **Note:** To enable automatic forwarding of inbound messages to a third-party message analytics platform, ensure that your PBX server has been integrated with the third-party message analytics platform via API. Once this option is selected, the PBX system will automatically transmit inbound messages to the designated platform. You can get notified by monitoring the API event (30031) New Message Notification. Additionally, the PBX provides a comprehensive Message API suite for advanced message interaction with the integrated third-party message analytics platforms.

d. In the **Extensions Allowed to Create Messaging Sessions** section, select the extensions that are allowed to initiate a messaging session with customers.



e. **Optional:** If you want the system to automatically close the sessions that have been inactive for a specific period of time, select the checkbox of **Close Session Automatically**, then set the timeout in the **Session Timeout (Days)** field.

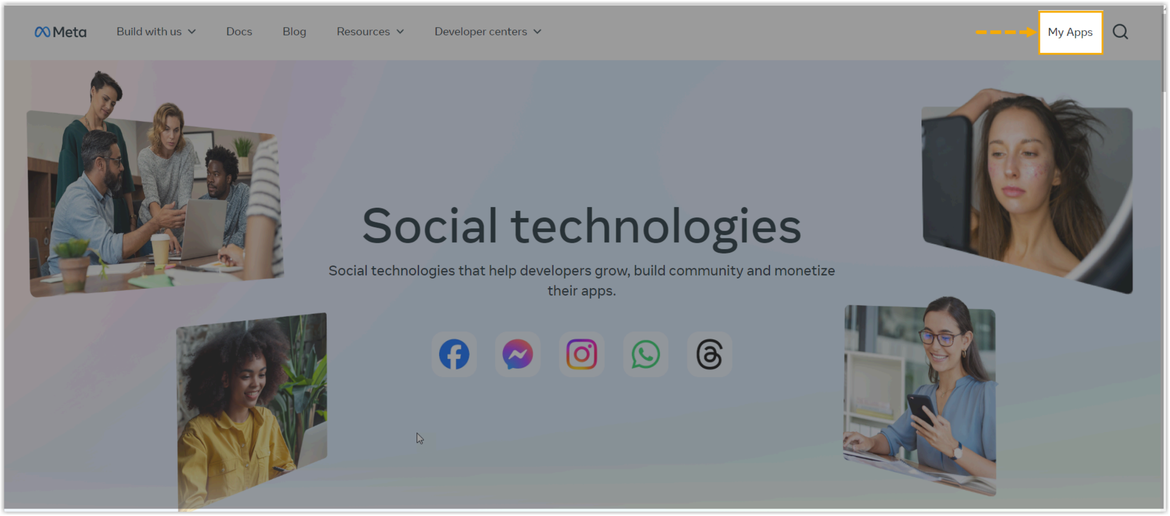


5. Click **Save**.

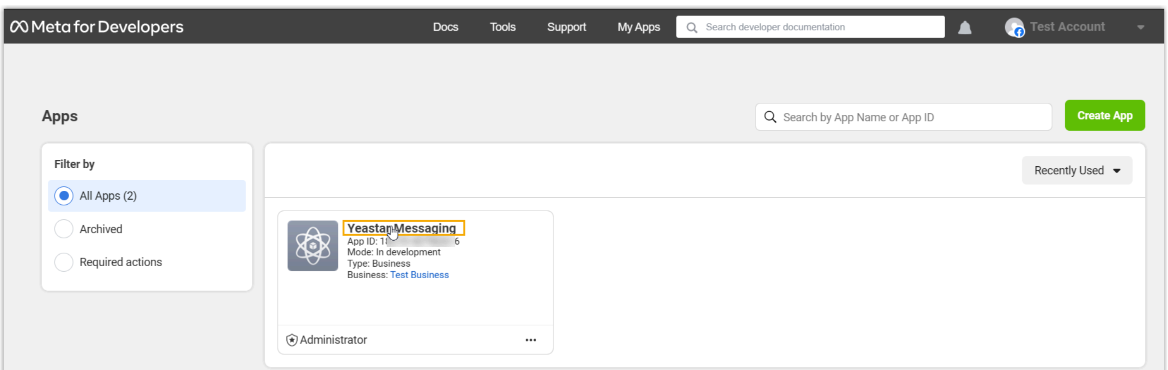
Step 4. Configure webhook in the Meta app

On the 'Meta for Developers' portal, set up a webhook for your Meta app to receive real-time message events. This allows the PBX to process incoming messages from WhatsApp.

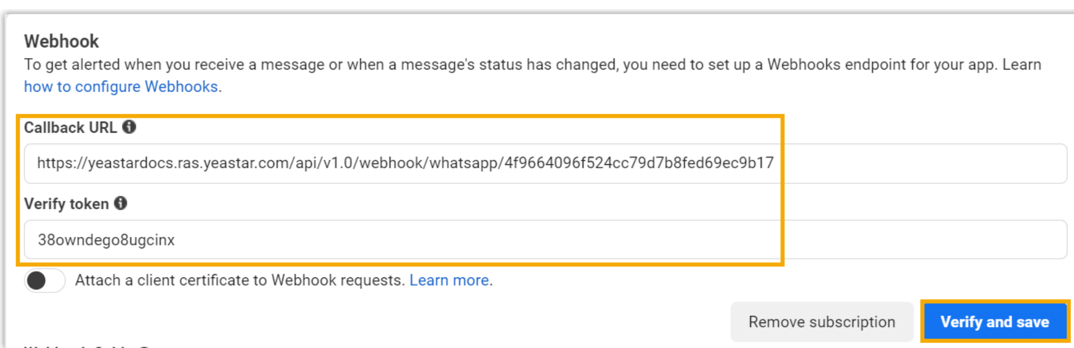
1. Log in to ['Meta for Developers' portal]() with your Meta Developer account, then go to **My Apps** from the top menu.



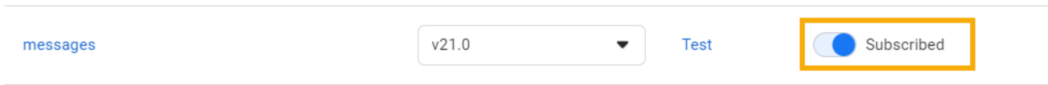
2. Click the created app to enter the details page.



3. Go to **WhatsApp > Configuration** to configure the messaging webhook and subscribe to webhook field, so that PBX can get notified upon receiving WhatsApp messages.
    a. Paste the [Webhook URL]() and [verify token]() obtained from the PBX.

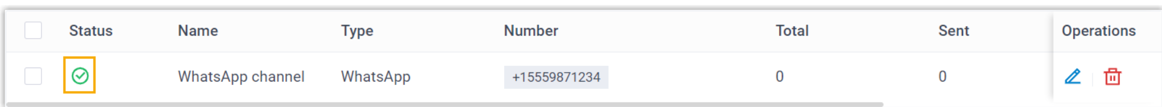


    b. In the **Webhook fields** section, subscribe to **messages** webhook field.



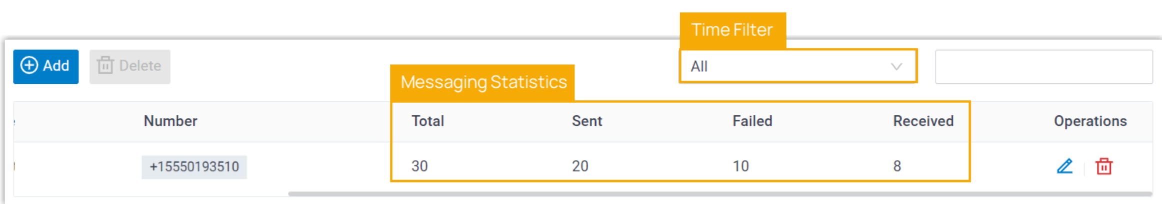
Result

- The **Status** of the WhatsApp channel shows , which indicates that you have successfully created a WhatsApp channel.



- PBX automatically tracks and records the number of messages sent and received on the channel, where the **Total** column displays the total amount of the sent messages, including both successfully sent messages and failed ones.

> **Tip:**
> You can filter the statistics by a time period using the time filter.



What to do next

Send text messages to the phone number and see if the specified agent can receive messages on his or her Linkus UC Client.

Related information

[Check and Manage External Chat Logs](#)
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client](#)
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client](#)

View WhatsApp Message Templates

Yeastar P-Series PBX System supports WhatsApp message templates, allowing extension users to send pre-approved, structured messages to their customers.

Introduction

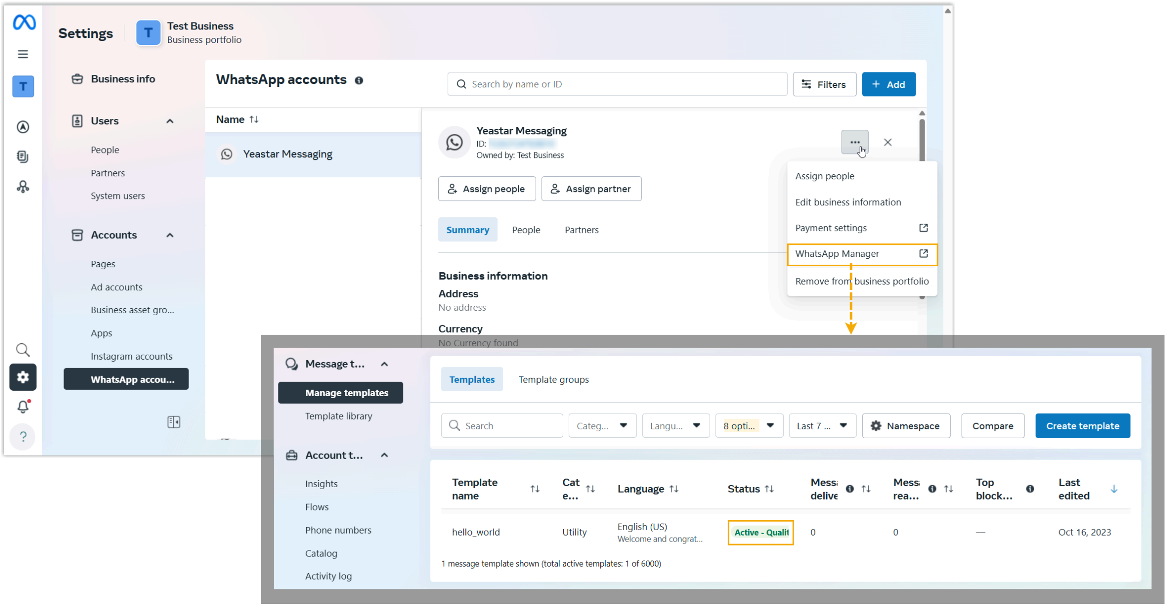
PBX automatically synchronizes approved message templates based on the WhatsApp Business Account ID associated with the WhatsApp channel. By default, extension users can reply to inbound messages within the WhatsApp channel during the WhatsApp 24-hour customer service window. To proactively send messages, such as initiating a new WhatsApp session or launching a WhatsApp campaign for bulk messaging, outside this 24-hour time window, users must use these synchronized template messages.

- For more information about how to view message templates for a WhatsApp channel in PBX, refer to the instructions below.
- For more information about how to use template messages in a WhatsApp campaign, see Create a WhatsApp Campaign.
- For more information about how users can use the message templates, see Agent Guide - Start a Message Session via a WhatsApp Channel.

Prerequisites

- Ensure that the firmware of PBX server is 37.20.0.21 or later.
- Message templates have been created and approved in your WhatsApp Business Account.

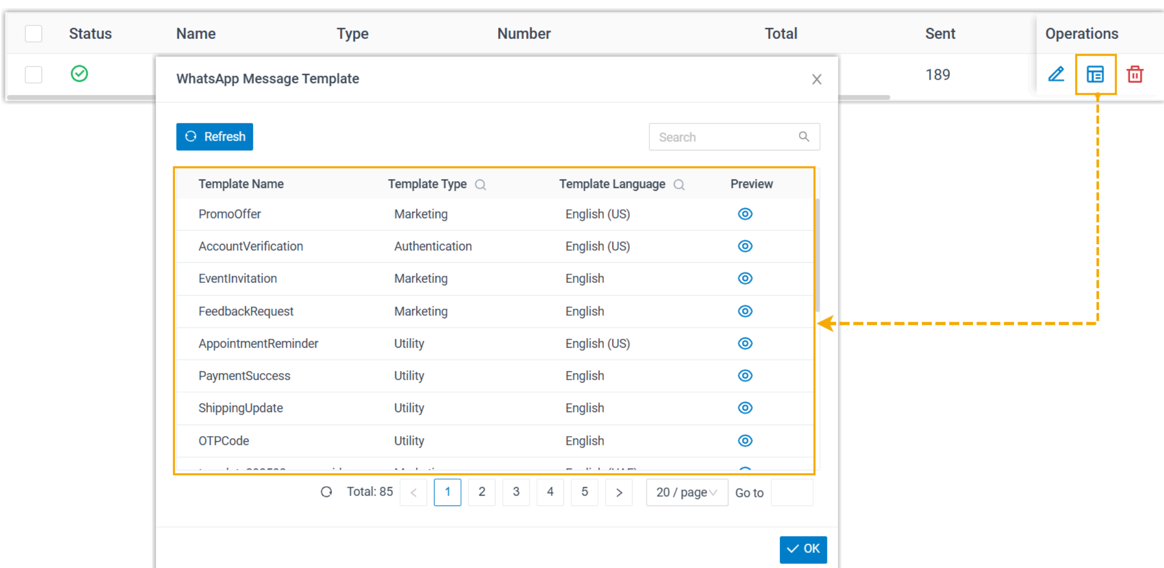
> **Note:**
> - Only templates with **Active** status will be synchronized to the PBX; marketing templates of the **Catalog** type will be excluded.
> - The PBX supports synchronizing up to 250 message templates for each WhatsApp channel.
> - Variable names in the template support only lowercase letters and numbers. Do not use underscores or special characters, as this may affect usage.



- [A WhatsApp channel has been set up](#) with your WhatsApp Business Account.

Procedure

1. Log in to PBX web portal, go to **Messaging > Message Channel**.
2. Click beside a WhatsApp channel.



A window pops up, displaying all synchronized message templates associated with your WhatsApp Business Account.

3. To preview a message template, click .

4. To update the list and content of message templates to the latest version, click **Refresh**.

> **Note:**
> The system automatically refreshes the templates once a day by default. If needed, you can also refresh the list manually.

Message Queue Setup

Create a Message Queue

Yeastar P-Series PBX System allows to route messages from different message channels to message queues, so as to share workload between agents and reduce customer service response time. This topic describes how to create a message queue.

Limitation

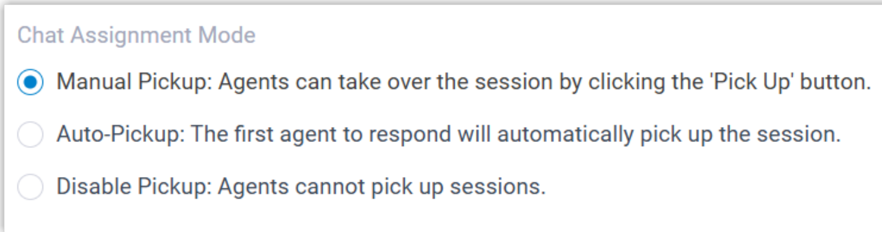
Product Model	P520	P550	P560	P570
Message Queue	16	16	32	64
Agents per Message Queue	20	25	60	120

Requirements

- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)
- **Firmware**: 37.20.0.21 or later

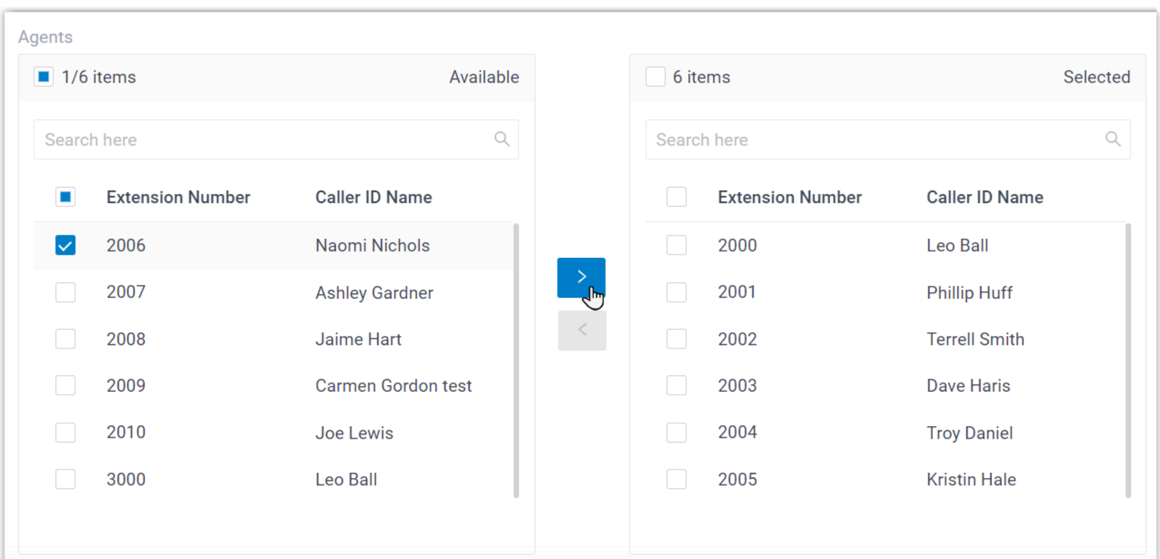
Procedure

1. Log in to PBX web portal, go to **Messaging > Message Queue**.
2. Click **Add**.
3. In the **Name** field, specify a name to help you identify it.
4. In the **Chat Assignment Mode** section, configure the assignment mode according to your needs.



Mode	Description
Manual Pickup	All agents can view and reply to messages until an agent manually click the **Pick Up** button to pick up the session.
Auto-Pickup	All agents can view the messages, and the first agent to reply automatically picks up the session. **Tip:** If you select this mode, make sure to inform all agents in the queue in advance to avoid incorrect operations.
Disable Pickup	All agents can view and reply to messages, and sessions cannot be picked up.

5. In the **Agents** section, select the desired extension users from the **Available** box to the **Selected** box.



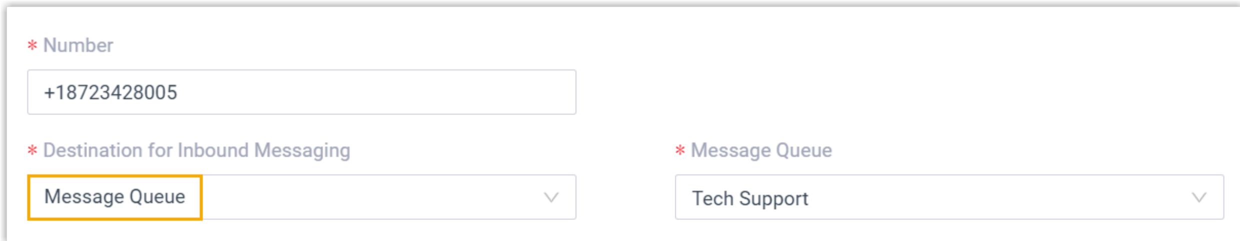
6. Click **Save**.

Result

All the selected extension users are assigned as agents of the message queue.

What to do next

Set the message queue as the inbound message destination of a channel number (Path: **Messaging > Message Channel >** **> Messaging Settings**).



Related information

[Manage Message Queues]
[User Guide - Manage customer queries from SMS channel on Linkus Web Client / Desktop Client]
[User Guide - Manage customer queries from SMS channel on Linkus Mobile Client]

Manage Message Queues

This topic describes how to edit a message queue, and delete message queue(s).

Edit a message queue

1. Log in to PBX web portal, go to **Messaging > Message Queue**.
2. Click beside the queue that you want to edit.
3. Change the settings according to your needs.
4. Click **Save**.

Delete message queues

> **Important:**
> Before you delete a message queue, make sure that the queue is not set as the inbound messaging destination of a message channel.

1. Log in to PBX web portal, go to **Messaging > Message Queue**.
2. To delete a queue, do as follows:
    a. Click beside the queue that you want to delete.
    b. In the pop-up window, click **OK**.
3. To delete queues in bulk, do as follows:
    a. Select the checkboxes of the queues that you want to delete.
    b. At the top of the list, click **Delete**.
    c. In the pop-up window, click **OK**.

Message Campaign

Message Campaign Overview

Yeastar P-Series PBX System supports a message campaign feature that allows you to send bulk messages to a group of contacts through specified messaging channel. This feature is commonly used for marketing promotions, notifications, reminders, and customer engagement.

Requirements

- **Firmware**: Version 37.20.0.21 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)

Limitations

- You can create up to **1,000** message campaigns.
- Each campaign can include up to **1,000** contacts.

Supported channels

You can create message campaigns for **SMS** and **WhatsApp** channels, allowing you to reach your contacts through their preferred communication method.

For more information about the campaign configuration, see the following topics:

- Create an SMS Campaign
- Create a WhatsApp Campaign

Campaign Status

The following table describes different statuses of the message campaign.

Status	Description
Draft	The campaign is saved as a draft. Messages will not be sent.
Scheduled	The campaign is scheduled to be sent at the specified time.
Pending	The campaign is waiting to send messages because another campaign is in progress.
Executing	The campaign is currently sending messages.
Completed	The campaign has completed sending all messages.
Stop	The campaign was unexpectedly stopped due to a system issue, such as system restart, subscription issue, etc.
Retrying	The campaign is retrying to send messages.

Create an SMS Campaign

SMS campaigns allow you to send targeted messages directly to your contacts' mobile phones, making it easy to reach customers quickly and efficiently. This topic describes how to create a message campaign for an SMS channel.

Requirements

- **Firmware**: Version 37.20.0.21 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)

Prerequisites

Before you begin, make sure that the following resources are ready for a message campaign:

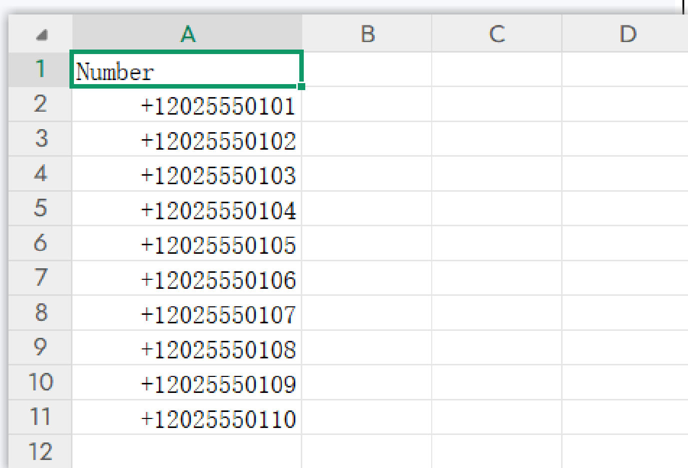
Item	Description
Message Channel	Set up and configure an SMS channel. **Note:** Ensure your account with the selected service provider has sufficient credits or quota to support your planned bulk messaging volume.
Contact List	Prepare a list of contacts with phone numbers for the campaign.

Item	Description

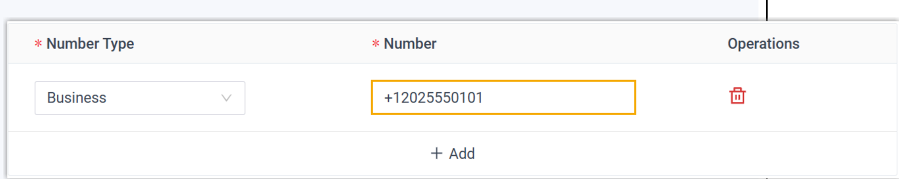
> **Note:**
> Each campaign supports up to 1,000 contacts.

You can associate a contact list with a campaign using one of the following methods:

- Manually add contact numbers.
- Import a CSV file containing contacts' phone numbers.

  > **Note:**
  > To use this method, ensure your file meets the following requirements:
  > - **Format**: UTF-8 `.csv`
  > - **Size**: Less than 50 MB
  > - **File name**: Less than 127 characters
  > - **Import parameters**: Use a `Number` field to provide phone numbers in E.164 format (e.g. `+1xxxxxxxxxx`), as shown in the figure below.
  >
  > 
  >

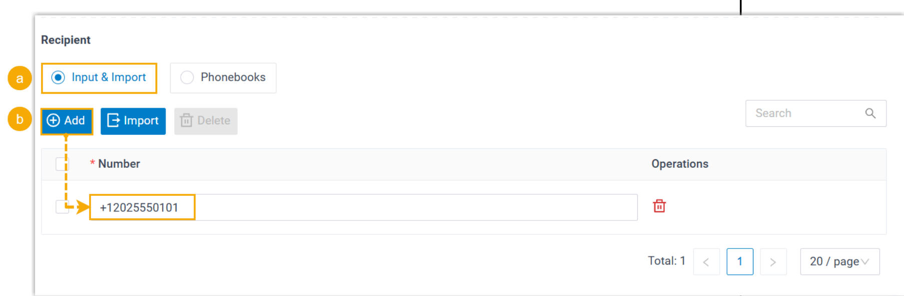
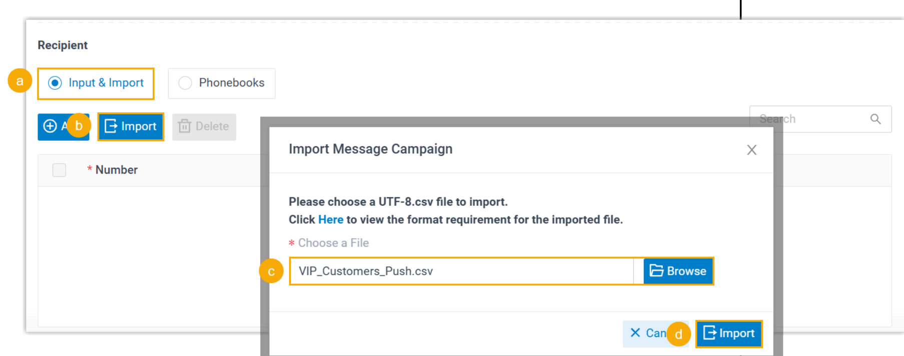
- Directly use the existing contacts stored in a [PBX phonebook]().

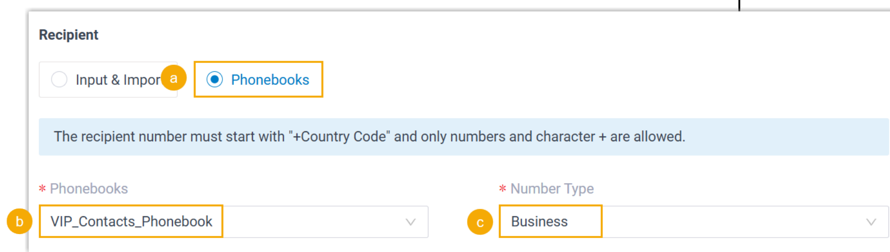
  > **Note:**
  > To use this method, ensure that the contact's phone number are stored in E.164 format, as shown in the figure below.
  >
  > 
  >

Item	Description
Message Routing Target	Optional. If you want the message campaign to automatically create sessions, configure the desired routing target (either an extension or a message queue) in advance.

Procedure

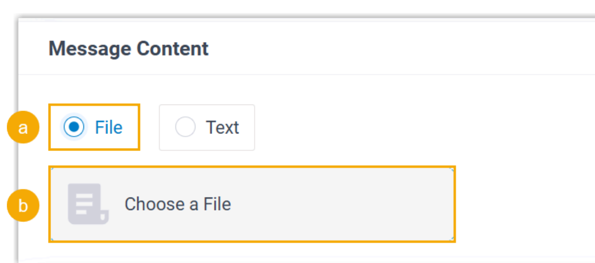
1. Log in to PBX web portal, go to **Messaging > Message Campaign**, then click **Add**.
2. In the **Basic** section, complete the basic settings.
    - **Name**: Enter a name for the campaign to help you identify it.
    - **Message Channel**: Select the desired SMS channel.
    - **Sender**: Select the number associated with the selected SMS channel for message sending.
    - **Recipient**: Specify recipients using one of the following methods.

Method	Instruction
Manual entry	Manually add contact numbers in E.164 format (e.g., `+1xxxxxxxxxx`).  a. Select **Input & Import**. b. Click **Add** to manually add phone numbers.
Import from CSV file	Import a CSV file containing the contacts' phone numbers.  a. Select **Input & Import**.

Method	Instruction
	b. Click **Import**. c. In the pop-up window, click **Browse** to select the desired file. d. Click **Import**.
Use existing PBX phonebook	Directly use existing contacts stored in your PBX phonebook.  a. Select **Phonebooks**. b. In the **Phonebooks** drop-down list, select the existing phonebook. c. In the **Number Type** drop-down list, select the number type. The system will retrieve phone numbers from the specified number types.

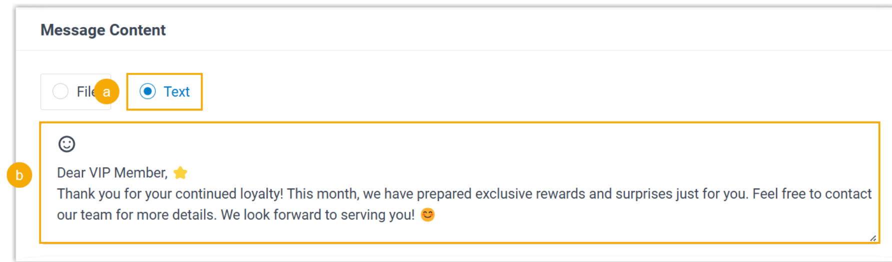
3. In the **Message Content** section, customize your message content.

   You can send either a text message (SMS) or a multimedia message (MMS) that includes a file.

Type	Instruction
File	To send an MMS message that include a file, do as follows: **Note:** • Supported file types are determined by the ITSP of the SMS channel. • The file size can NOT exceed 100 MB.  a. Select **File**.

<table>
<tr><th>Type</th><th>Instruction</th></tr>
<tr><td></td><td>b. Click Choose a File, then select a file to upload.</td></tr>
<tr><td>Text</td><td>To send an SMS message, do as follows:

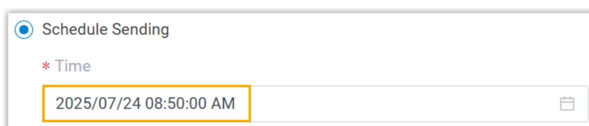
Note:
• The message length is up to 1600 characters.
• Emojis are supported.



a. Select Text.
b. In the text field, enter the message content and add emojis as needed.</td></tr>
</table>

4. In the **Sending Rules** section, configure the message send time and the mode.

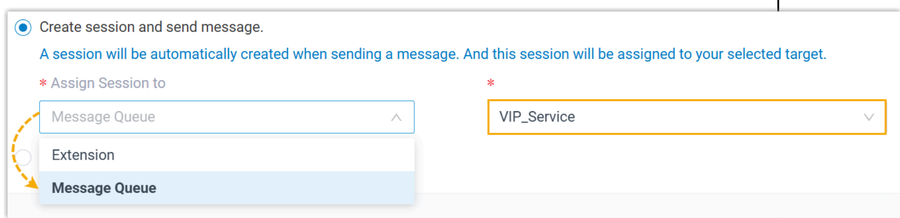
 a. In the **Send Time** section, specify when to send the message.

<table>
<tr><th>Option</th><th>Description</th></tr>
<tr><td>Send Now</td><td>The campaign will be sent immediately after saving.</td></tr>
<tr><td>Schedule Sending</td><td>The campaign will be sent at a specified date and time.

</td></tr>
<tr><td>Do NOT Send, Save as Draft</td><td>The campaign will be saved as a draft. You can edit or send it later.</td></tr>
</table>

 b. In the **Send Mode** section, set whether to create sessions accordingly.

<table>
<tr><th>Option</th><th>Description</th></tr>
<tr><td>Create session and send message</td><td>The system automatically create a session for each contact number when sending the campaign messages, and the sessions will be assigned to a selected target (either an extension or a message queue).

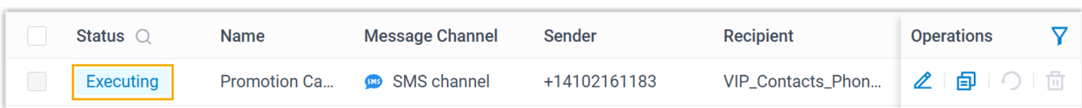
Note:
If an active session already exists for a contact number, the campaign message will be sent to the existing</td></tr>
</table>

Option	Description
	session instead of creating and assigning a new session to the specified target. 
Send messages directly without creating session	No session will be created when sending a message. And the message will not be displayed in **External Chat Logs**.

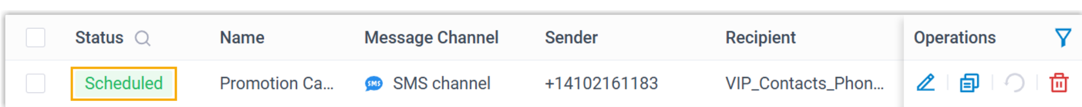
5. Click **Save**.

Result

- A campaign is created successfully and displayed in the campaign list.
  - If you choose to send messages immediately, the campaign status will display as **Executing**, and messages will be sent to the specified phone numbers right away.



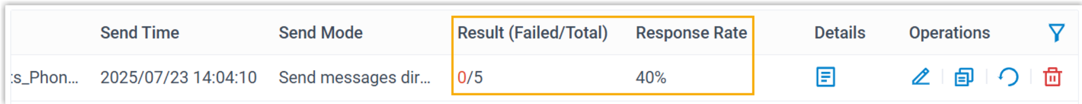
  - If you scheduled the campaign, the campaign status will display as **Scheduled**, and messages will be sent automatically at the specified time.



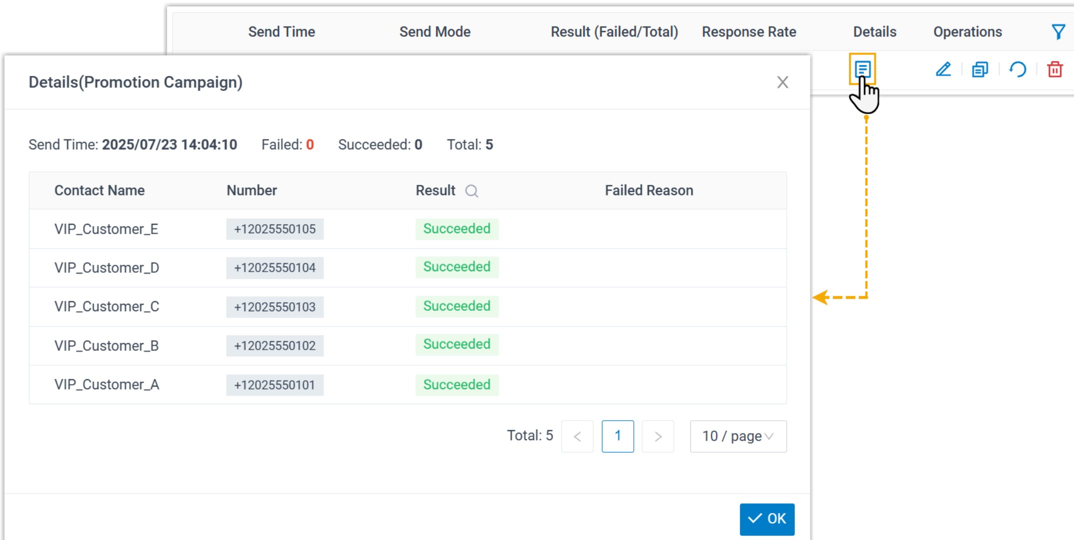
- When a campaign is marked as **Completed**, you can check its results from the campaign list.

> **Note:**
>
> - If there are any failed messages, you can click to retry sending.
> - To create a similar campaign, click to duplicate the campaign.

  - For a quick overview, check the **Result** and **Response Rate** columns.



- To see detailed sending information, click .



Create a WhatsApp Campaign

WhatsApp campaigns allows you to send marketing, utility, and authentication messages directly to your contacts' mobile devices via WhatsApp using message templates, making it easy to reach customers quickly and effectively. This topic describes how to create a message campaign for a WhatsApp channel.

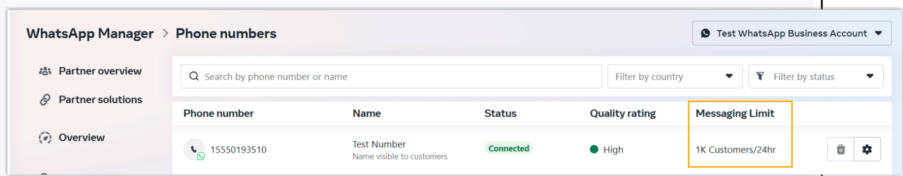
Requirements

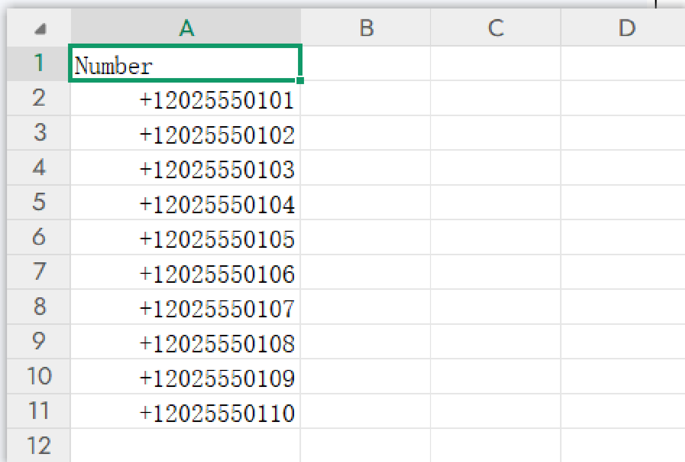
- **Firmware**: Version 37.20.0.21 or later
- **Plan**: Enterprise Plan (EP) or Ultimate Plan (UP)

Prerequisites

Before you begin, make sure that the following resources are ready for a message campaign:

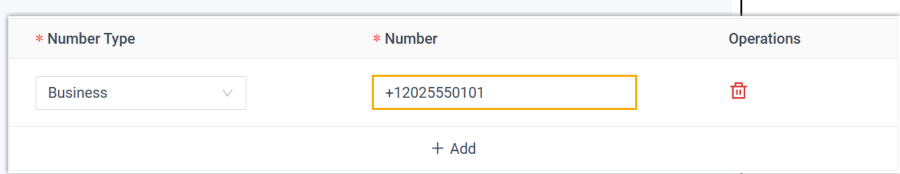
Item	Description
Message Channel	Set up a WhatsApp Channel with your WhatsApp Business Account. **Note:**

Item	Description
	Ensure your account's messaging limit can support your planned bulk messaging volume. 
Message Template	• Create message templates for your WhatsApp Business Account in advance, as message templates must be approved by WhatsApp before use. **Note:** Variable names in the template support only lowercase letters and numbers. Do not use underscores or special characters, as this may affect usage. • Refresh the template list in PBX to ensure all approved templates from your WhatsApp account are synchronized to PBX and available for your campaign. For more information, see View WhatsApp Message Templates.
Contact List	Prepare a list of contacts with phone numbers for the campaign. **Note:** Each campaign supports up to 1,000 contacts. You can associate a contact list with a campaign using one of the following methods: • Manually add contact numbers. • Import a CSV file containing contacts' phone numbers. **Note:** To use this method, ensure your file meets the following requirements: ◦ **Format**: UTF-8 `.csv` ◦ **Size**: Less than 50 MB ◦ **File name**: Less than 127 characters ◦ **Import parameters**: Use a `Number` field to provide phone numbers in E.164 format (e.g. `+1xxxxxxxxxx`), as shown in the figure below.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td></td><td>


• Directly use the existing contacts stored in a PBX phonebook.

Note:
To use this method, ensure that the contact's phone number are stored in E.164 format, as shown in the figure below.

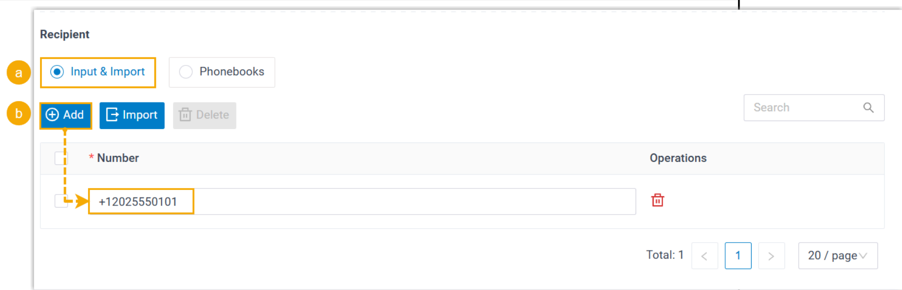
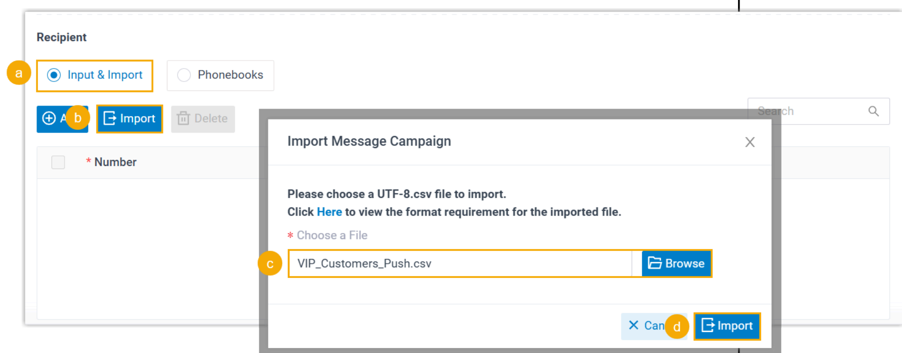
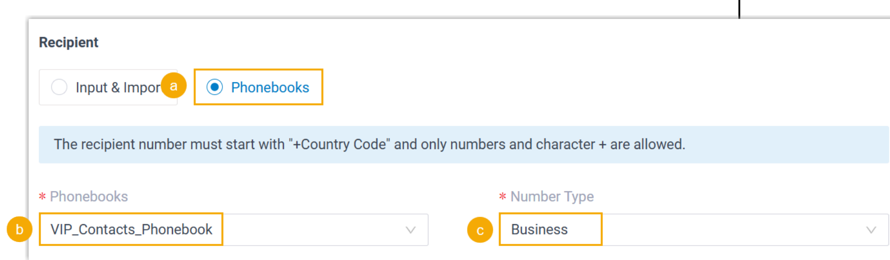


</td></tr>
<tr><td>Message Routing Target</td><td>Optional. If you want the message campaign to automatically create sessions, configure the desired routing target (either an extension or a message queue) in advance.</td></tr>
</table>

Procedure

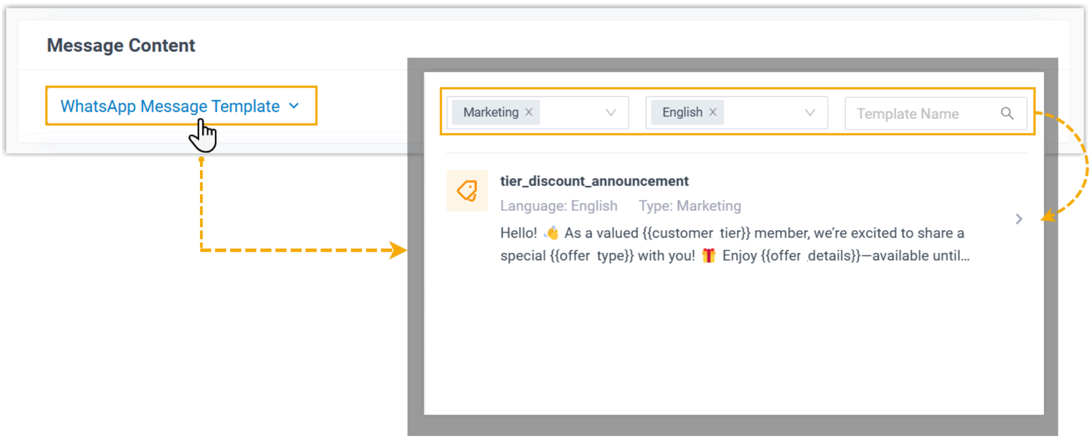
1. Log in to PBX web portal, go to **Messaging > Message Campaign**, then click **Add**.
2. In the **Basic** section, complete the following settings.
    - **Name**: Enter a name for the campaign to help you identify it.
    - **Message Channel**: Select the desired WhatsApp channel.
    - **Sender**: Select the associated WhatsApp phone number for message sending.
    - **Recipient**: Specify recipients using one of the following methods.

Method	Instruction
Manual entry	Manually add contact numbers in E.164 format (e.g., `+1xxxxxxxxxx`).

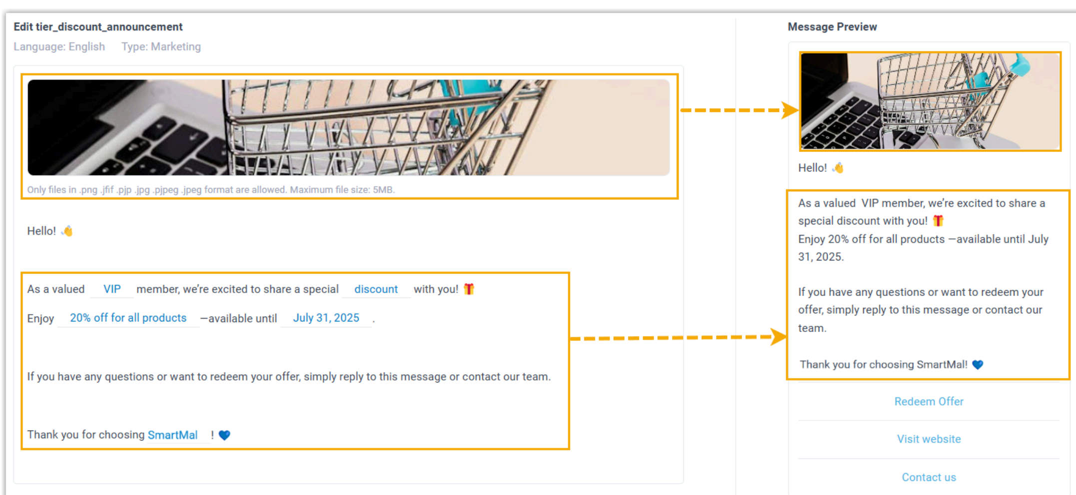
Method	Instruction
	 a. Select **Input & Import**. b. Click **Add** to manually add phone numbers.
Import from CSV file	Import a CSV file containing the contacts’ phone numbers.  a. Select **Input & Import**. b. Click **Import**. c. In the pop-up window, click **Browse** to select the desired file. d. Click **Import**.
Use existing PBX phonebook	Directly use existing contacts stored in your PBX phonebook.  a. Select **Phonebooks**. b. In the **Phonebooks** drop-down list, select the existing phonebook. c. In the **Number Type** drop-down list, select the number type.

Method	Instruction
	The system will retrieve phone numbers from the specified number types.

3. In the **Message Content** section, configure the message template to be sent.
    a. Click **WhatsApp Message Template**, then search and select the desired message template.

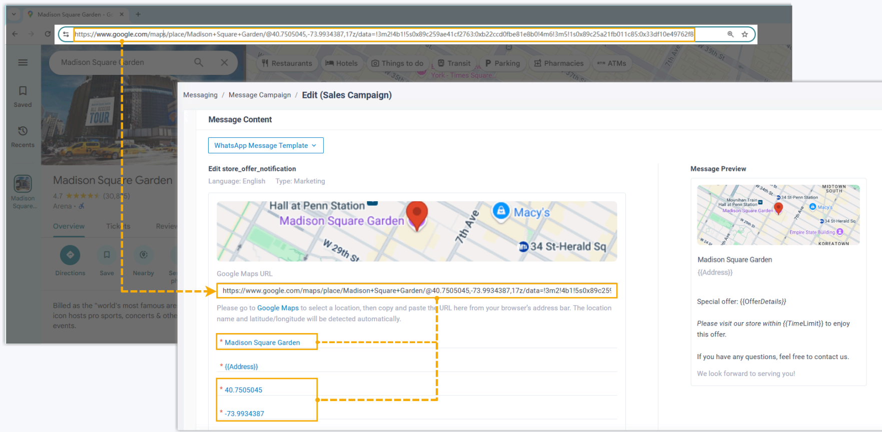


    b. If the template includes media or variable placeholders, upload the required media files and fill in specific values for all variables.

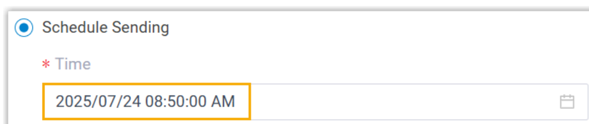


Note:

- You can preview the final message contents on the right panel.
- For location information, you can simply paste the Google Maps URL, the system will auto-fill the name and coordinates based on the URL. However, you need to manually enter the detailed address for the `{{Address}}` variable.

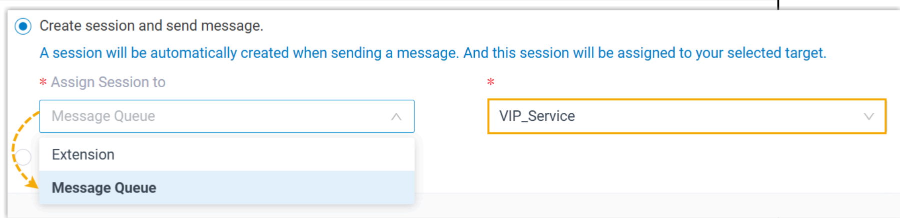


4. In the **Sending Rules** section, configure the message send time and the mode.
    a. In the **Send Time** section, specify when to send the message.

Option	Description
Send Now	The campaign will be sent immediately after saving.
Schedule Sending	The campaign will be sent at a specified date and time. 
Do NOT Send, Save as Draft	The campaign will be saved as a draft. You can edit or send it later.

    b. In the **Send Mode** section, set whether to create sessions accordingly.

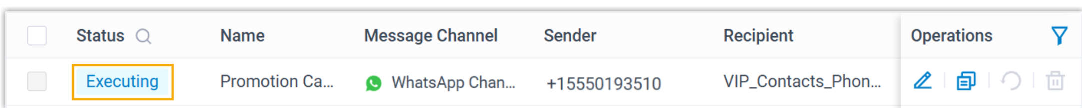
Option	Description
Create session and send message	The system automatically create a session for each contact number when sending the campaign messages, and the sessions will be assigned to a selected target (either an extension or a message queue). **Note:** If an active session already exists for a contact number, the campaign message will be sent to the existing session instead of creating and assigning a new session to the specified target.

Option	Description
	
Send messages directly without creating session	No session will be created when sending a message. And the message will not be displayed in **External Chat Logs**.

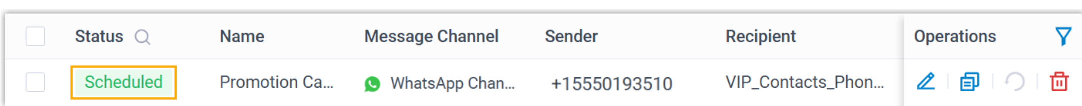
5. Click **Save**.

Result

- A campaign is created successfully and displayed in the campaign list.
    - If you choose to send messages immediately, the campaign status will display as **Executing**, and messages will be sent to the specified phone numbers right away.



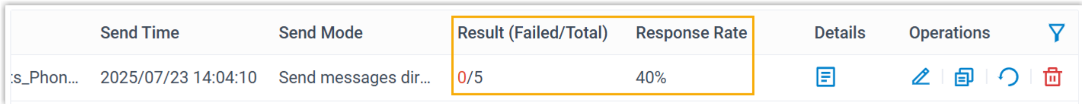
    - If you scheduled the campaign, the campaign status will display as **Scheduled**, and messages will be sent automatically at the specified time.



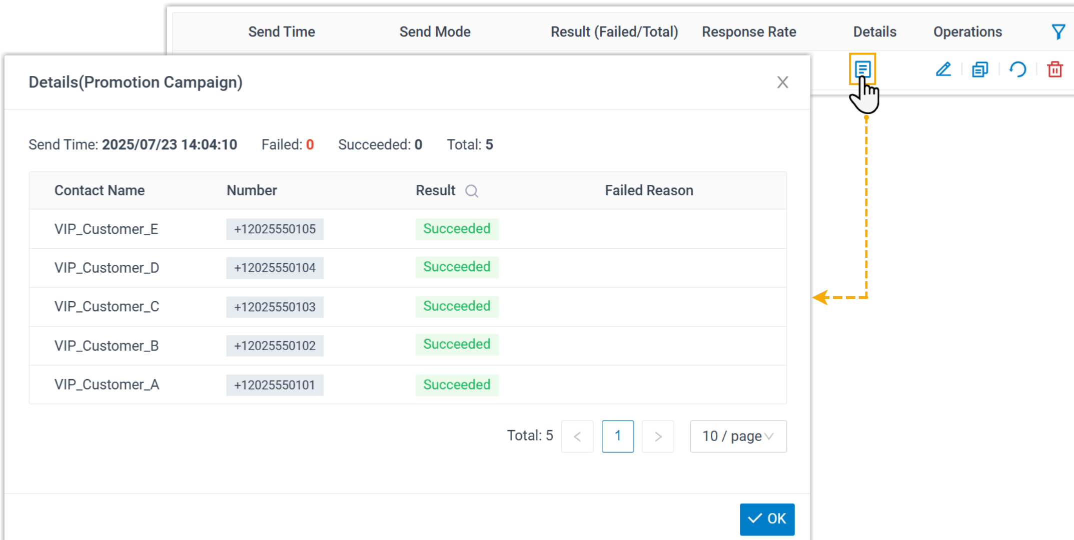
- When a campaign is marked as **Completed**, you can check its results from the campaign list.

> **Note:**
>
> - If there are any failed messages, you can click to retry sending.
> - To create a similar campaign, click to duplicate the campaign.

    - For a quick overview, check the **Result** and **Response Rate** columns.



- To see detailed sending information, click .



External Chat Log Management

Check and Manage External Chat Logs

External chat logs are comprehensive records of sessions and messages coming from various messaging channels. This topic describes how to check the external chat logs (including session information, session operation records, and detailed chat histories) and how to delete the session or chat histories on Yeastar P-Series PBX System.

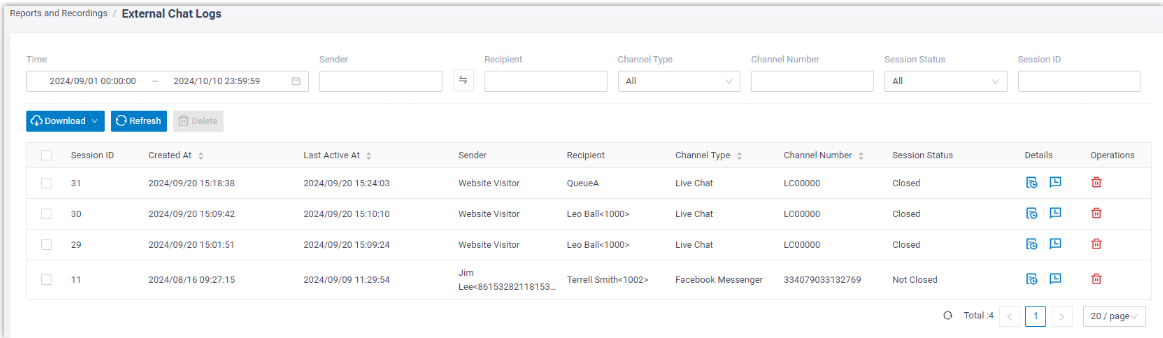
Requirements

The firmware version of Yeastar P-Series PBX System is 37.13.0.25 or later.

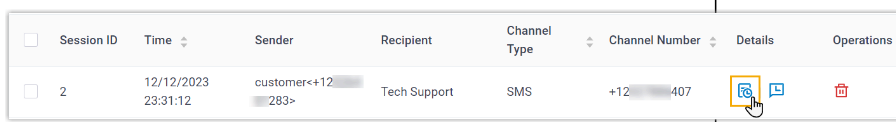
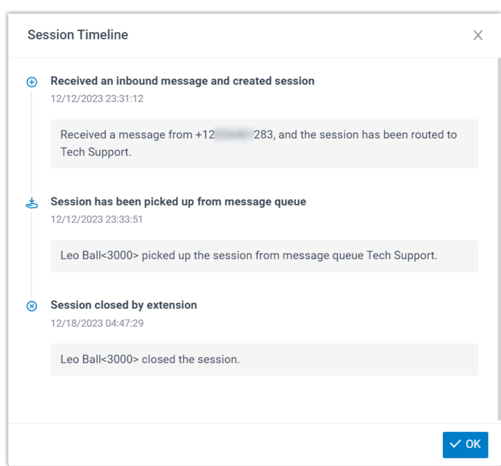
Procedure

1. Log in to PBX web portal, go to **Reports and Recordings > External Chat Logs**.
2. **Optional:** Set criteria (time, channel type, or other objects) to filter the desired records.

   The relevant records of external chat sessions are displayed on the page.

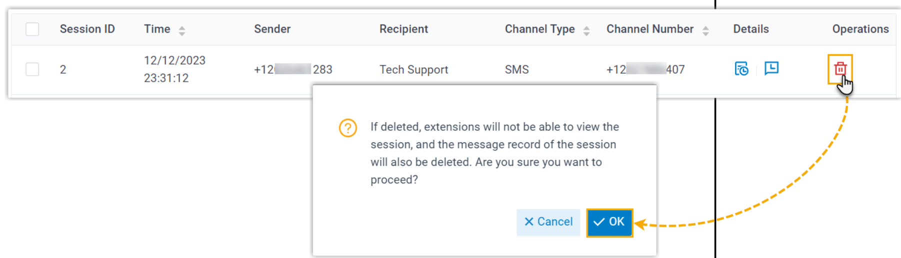


3. Check and manage the records according to your need.

Operation	Instruction
External Chat Session	
Check operation records of an external chat session	a. Click beside the desired session.  A window pops up, displaying the operation records of the session in a timeline view. **Note:** Only the following operations will be recorded: • Create a session • Transfer a session • Pick up a session from a message queue • Close a session 

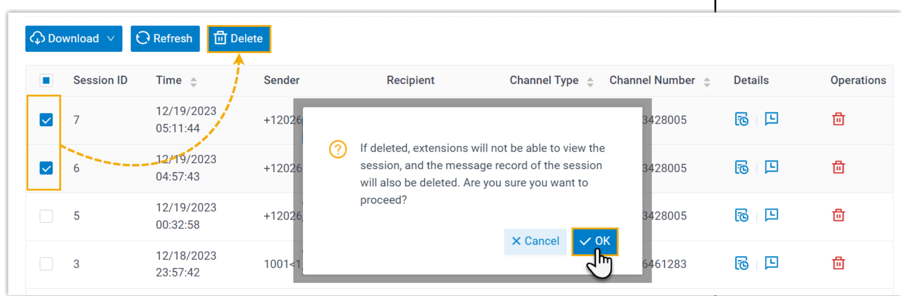
<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td>Delete external chat session(s)</td><td>

- To delete a session, do as follows:



a. Click beside the session that you want to delete.
b. In the pop-up window, click **OK**.

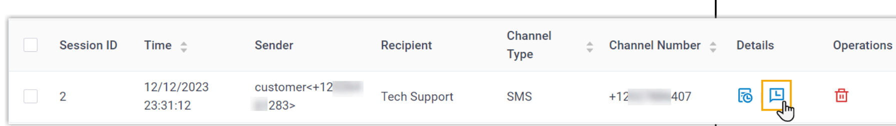
- To delete multiple sessions, do as follows:



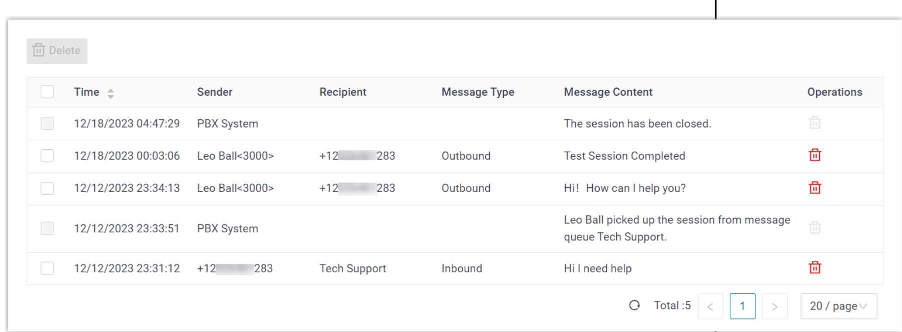
a. Select the desired sessions, then click **Delete**.
b. In the pop-up window, click **OK**.
</td></tr>
<tr><td colspan="2">

External Chat History
</td></tr>
<tr><td>Check the detailed chat histories of a session</td><td>

a. Click beside the desired session.



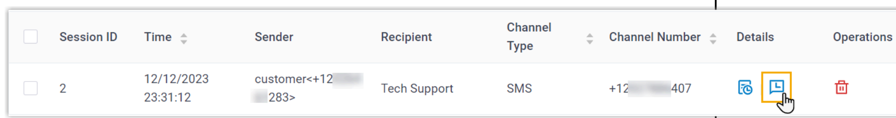
The detailed messages in the session are displayed.

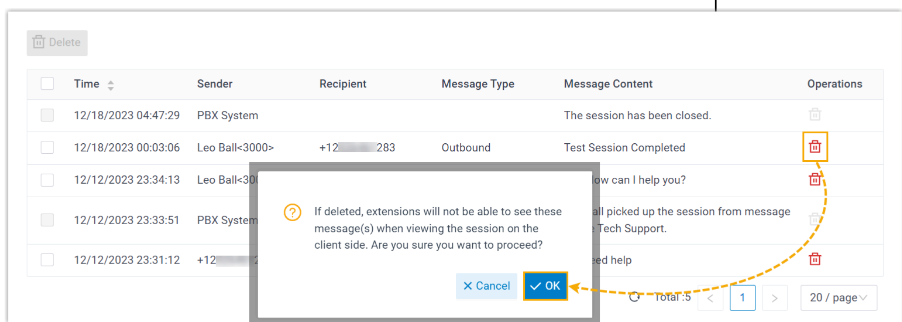


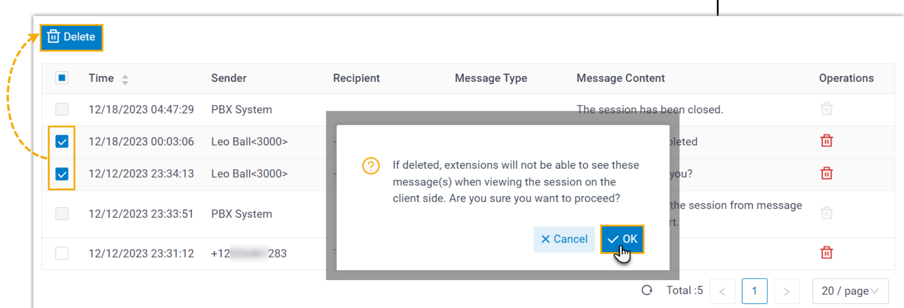
</td></tr>
<tr><td>Delete chat histories of a session</td><td>

Note:
</td></tr>
</table>

<table>
<tr><th>Operation</th><th>Instruction</th></tr>
<tr><td></td><td>
Messages sent by the PBX system can NOT be deleted.

a. Click beside the desired session.


The detailed messages in the session are displayed.
b. To delete a single message, do as follows:


i. Click beside the desired message.
ii. In the pop-up window, click OK.
c. To delete multiple messages, do as follows:


i. Select the desired messages, then click Delete.
ii. In the pop-up window, click OK.
</td></tr>
</table>

Download External Chat Logs

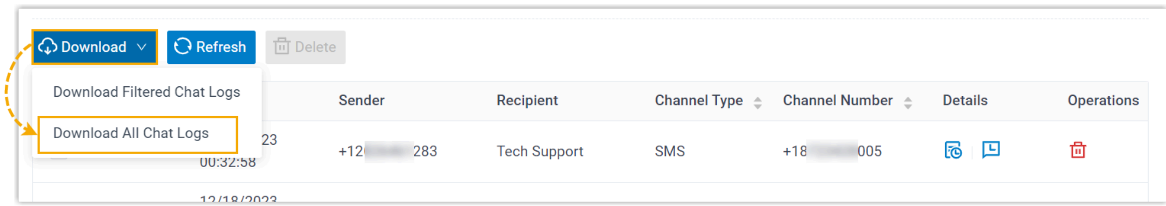
This topic describes how to download external chat logs for legal compliance, dispute resolution, training, or other purposes.

Requirements

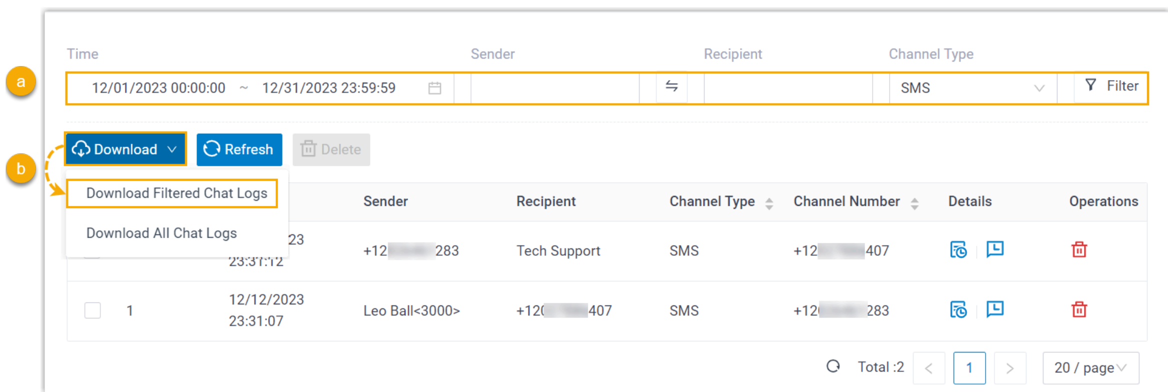
The firmware version of Yeastar P-Series PBX System is 37.13.0.25 or later.

Procedure

1. Log in to PBX web portal, go to **Reports and Recordings > External Chat Logs**.
2. To download all chat logs, click **Download** at the top of the list, then click **Download All Chat Logs**.



3. To download specific chat logs, do as follows:



   a. Set criteria to filter the desired records.

      The relevant records of external chat sessions are displayed on the page.

   b. At the top of the list, click **Download**, then click **Download Filtered Chat Logs**.

Result

The external chat logs are downloaded to your computer, and each downloaded chat log has two CSV files:

- **Session_Record**: This file includes basic information about all the chat sessions in the download list.
- **Chat_Data_Record**: This file contains detailed chat histories of the entire chat session.

Agent Guide

Omnichannel Messaging Agent Guide

This guide provides guidance on how to manage incoming customer inquiries on a unified agent portal available on web, desktop, and mobile devices.

Audience

This guide is intended for customer service representatives (agents) who handles chat interaction with customers through multiple digital messaging channels.

Agent portal

To enhance communication mobility and improve agent productivity, Yeastar provides a unified agent portal integrated into the Linkus UC Clients that is available on mobile, desktop, and web-based platforms. Agents can efficiently handle message-based interactions come from multiple digital channels through the supported clients.

Supported Client	Description
Linkus Web Client / Desktop Client	The Linkus Web Client and Desktop Cleint allows agents to manage customers' chat interactions directly from a web browser or a Desktop application. • For instructions on handling message-based interactions with customers on Linkus Web Client and Desktop Client, see Agent operations on Web Client / Desktop Client. • For more information about utilizing Linkus Web Client and Desktop Client, see Linkus Web Client User Guide and Linkus Desktop Client User Guide.
Linkus Mobile Client	The Linkus Mobile Client is suitable for agents who need the flexibility to handle customers' chat interactions on the go. • For instructions on handling message-based interactions with customers on Linkus Mobile Client, see Agent operations on Mobile Client. • For more information about utilizing Linkus Mobile Client, see Linkus Mobile Client User Guide.

Agent Operations on Web Client / Desktop Client

Start a Messaging Session with a Customer on Web Client / Desktop Client

If you need to send customers messages for notifications, marketing campaigns or other purposes, you can proactively start a messaging session.

> **Note:**
> You can proactively start a messaging session via **SMS** or **WhatsApp** messaging channel.

Requirements

PBX Server

Contact system administrator to make sure that PBX server meets the following requirements:

- **PBX Version**: 37.20.0.21 or later.
- **Plan**: **Enterprise Plan** or **Ultimate Plan**
- **Messaging**:
  - At least one SMS or WhatsApp messaging channel is set up on PBX.
  - You have been granted with the permission to create message sessions in the channel.
  - To initiate a session via the WhatsApp channel, only WhatsApp-approved message templates can be used. Ensure that the desired templates have been synchronized to the PBX.

Linkus Desktop Client

Make sure that the version of your Linkus Desktop Client meets the following requirement:

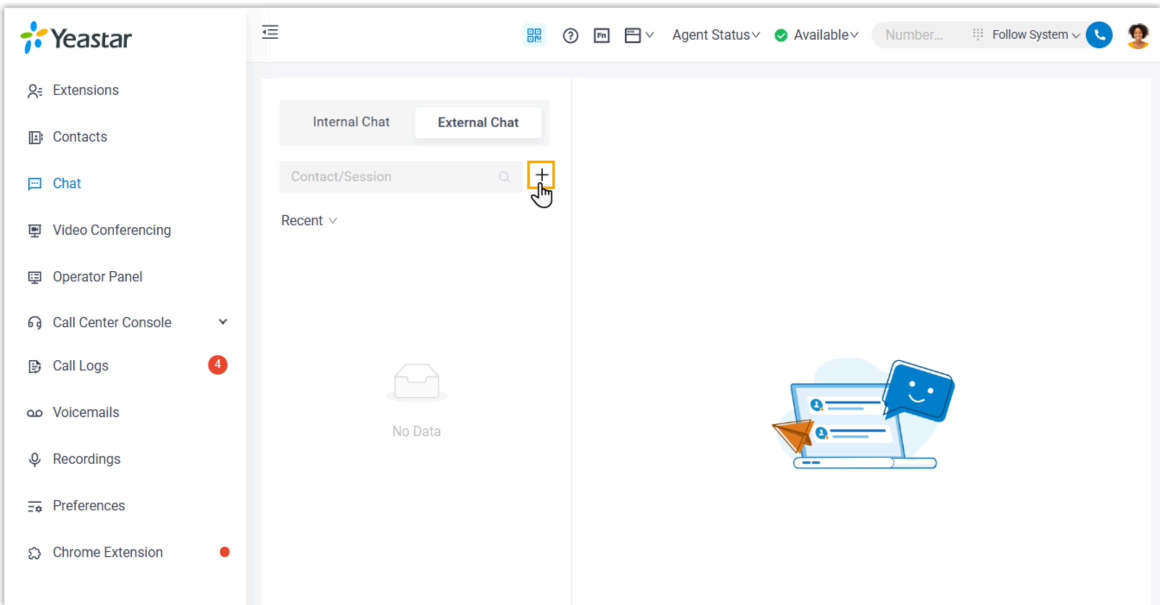
- **Windows Desktop**: 1.7.3 or later
- **macOS Desktop**: 1.7.3 or later

Supported methods

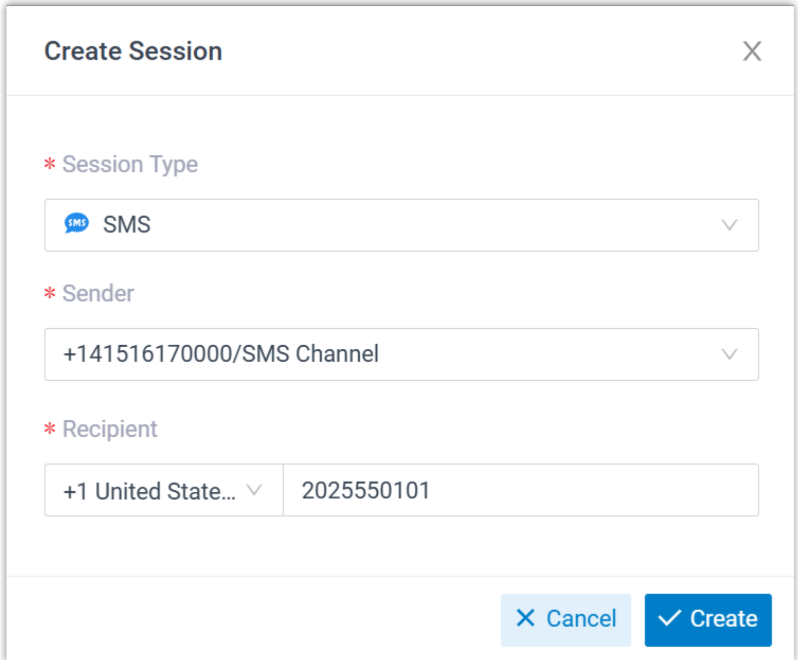
- [Start a session via an SMS channel]
- [Start a session via a WhatsApp channel]

Start a session via an SMS channel

1. On Linkus Web Client or Desktop Client, go to **Chat > External Chat**.
2. Click + to add a session.



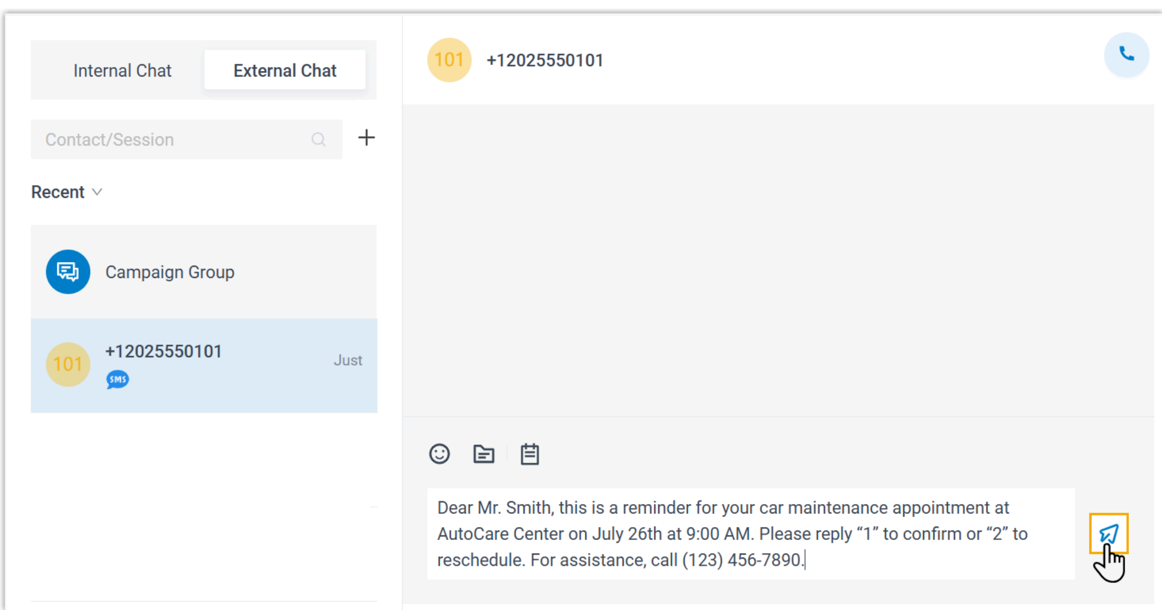
3. In the pop-up window, complete the following settings.



- **Session Type**: Select **SMS**.
- **Sender**: Select the desired channel number for sending messages.
- **Recipient**: Select a country/region code, then enter the recipient number.

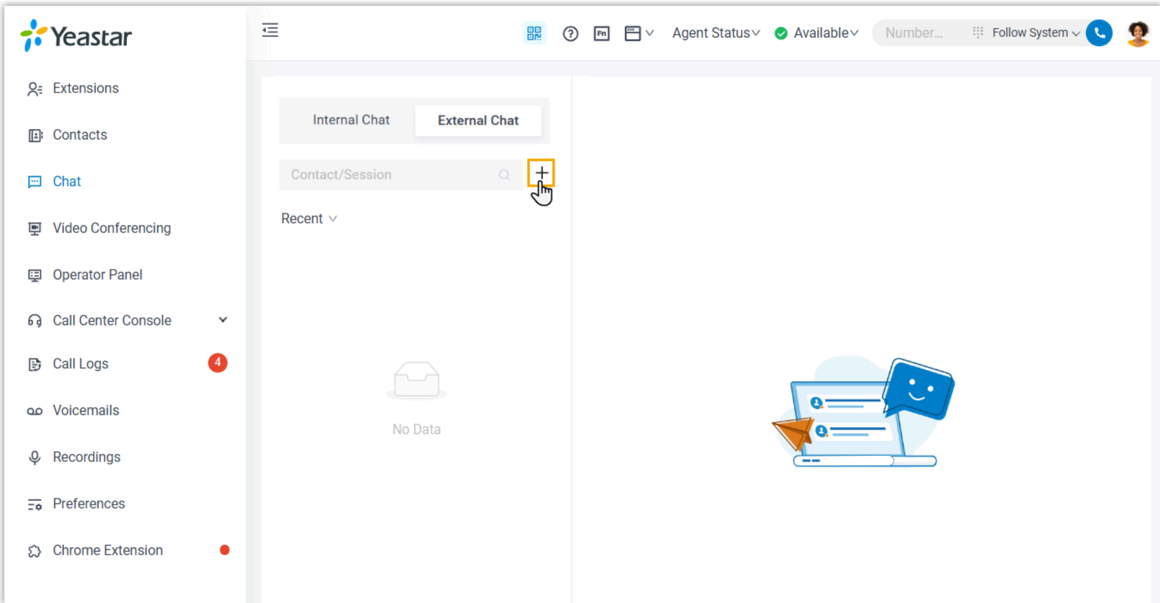
4. Click **Create**.

   The SMS messaging session is created, you can send massages and chat with your customer.

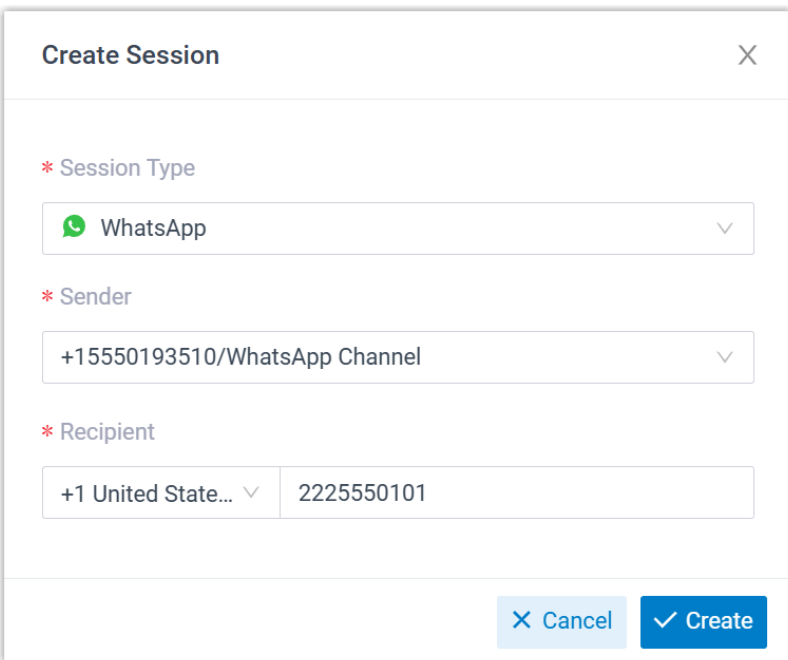


Start a session via a WhatsApp channel

1. On Linkus Web Client or Desktop Client, go to **Chat > External Chat**.
2. Click + to add a session.



3. In the pop-up window, do as follows:

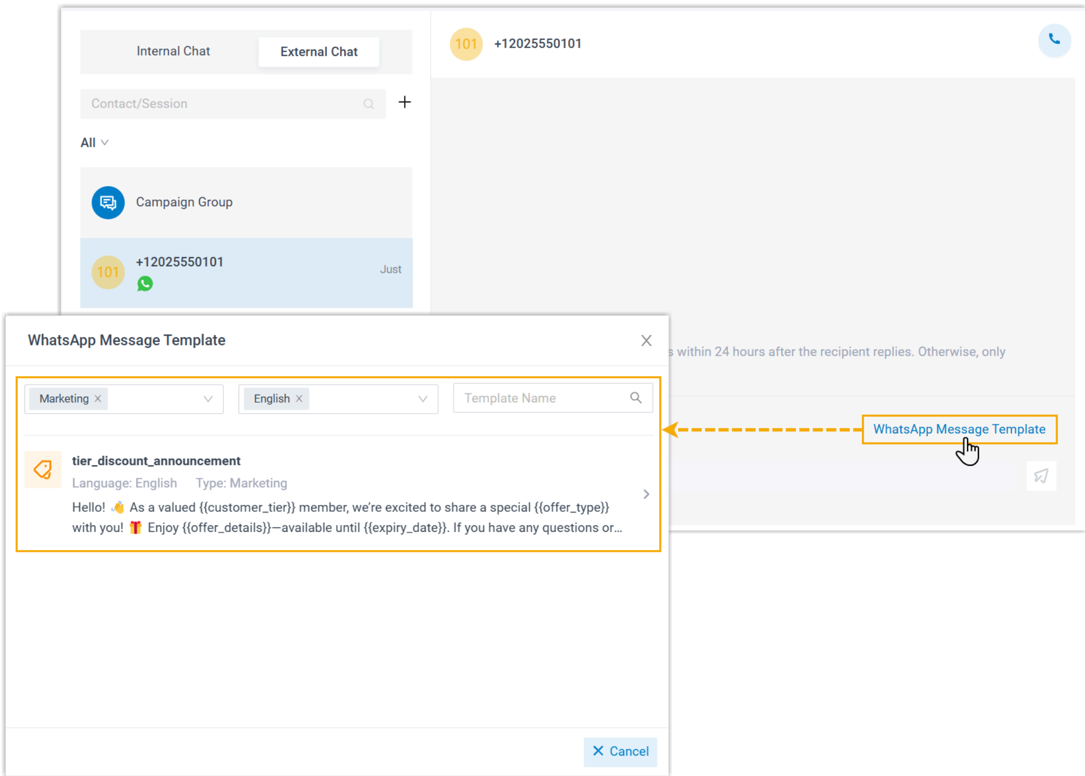


- **Session Type**: Select **WhatsApp**.
- **Sender**: Select the associated phone number for sending messages.

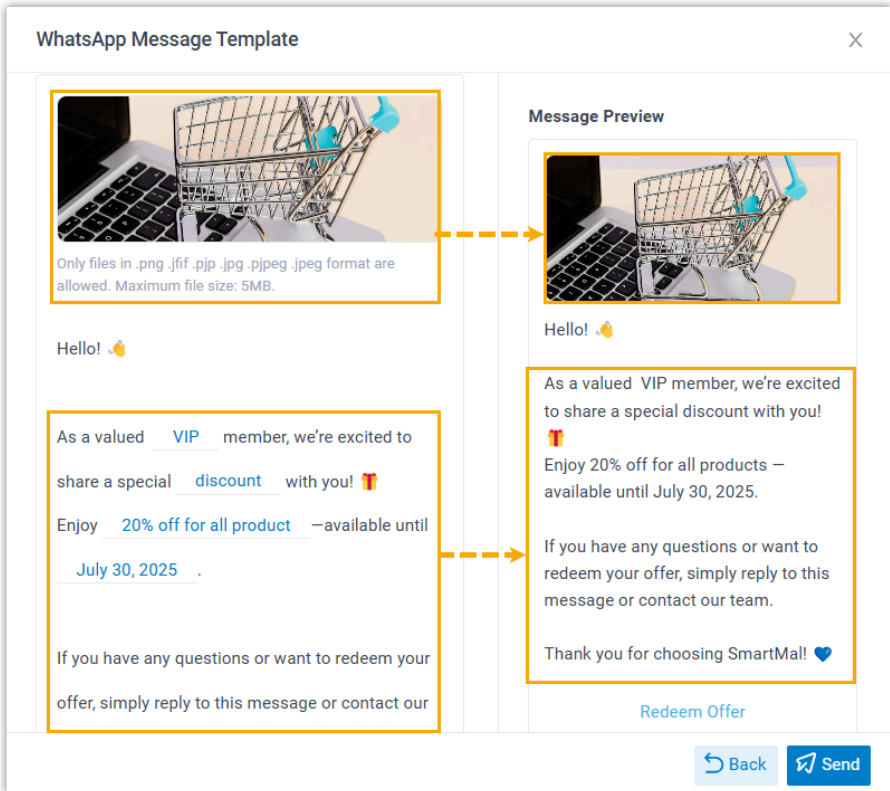
- **Recipient**: Select a country/region code, then enter the recipient number.

4. Click **Create**.

   The WhatsApp messaging session is created.
5. In the session, send the desired message template to your customer.
   a. Click **WhatsApp Message Template**, then search and select the desired template.

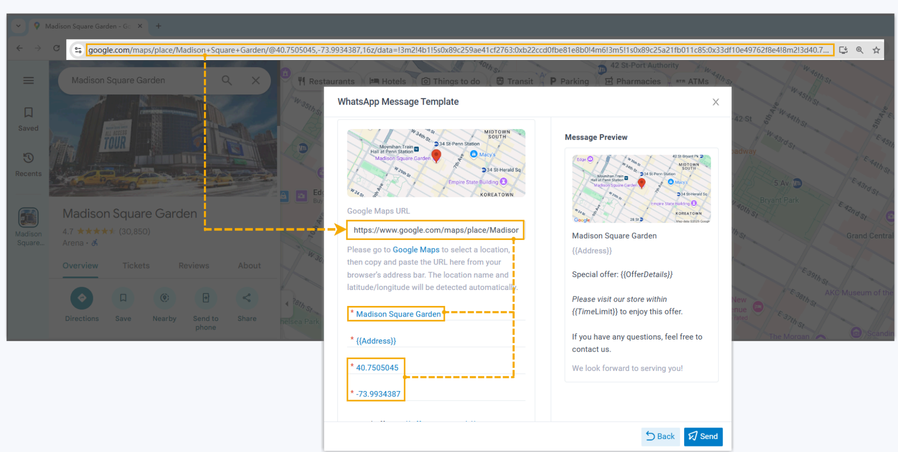


   b. If the template includes media or variable placeholders, upload the required media files and fill in specific values for all variables.



Note:

- You can preview the final message contents on the right panel.
- For location information, you can simply paste the Google Maps URL, the system will auto-fill the name and coordinates based on the URL. However, you need to manually enter the detailed address for the `{{Address}}` variable.



c. Click **Send**.

Related information

Manage Customer Queries from External Messaging Channels on Web Client / Desktop Client

Manage Customer Queries from External Messaging Channels on Web Client / Desktop Client

This topic describes how to manage the messaging sessions of customer queries on Linkus Web Client and Desktop Client.

Requirements

PBX Server

Contact system administrator to make sure that PBX server meets the following requirements:

- **PBX Version**: 37.20.0.128 or later.
- **Plan**: **Enterprise Plan** or **Ultimate Plan**
- **Messaging**: At least one messaging channel is set up on PBX.

Linkus Desktop Client

Make sure that the version of your Linkus Desktop Client meets the following requirement:

- **Windows Desktop**: 1.2.14 or later
- **macOS Desktop**: 1.2.14 or later

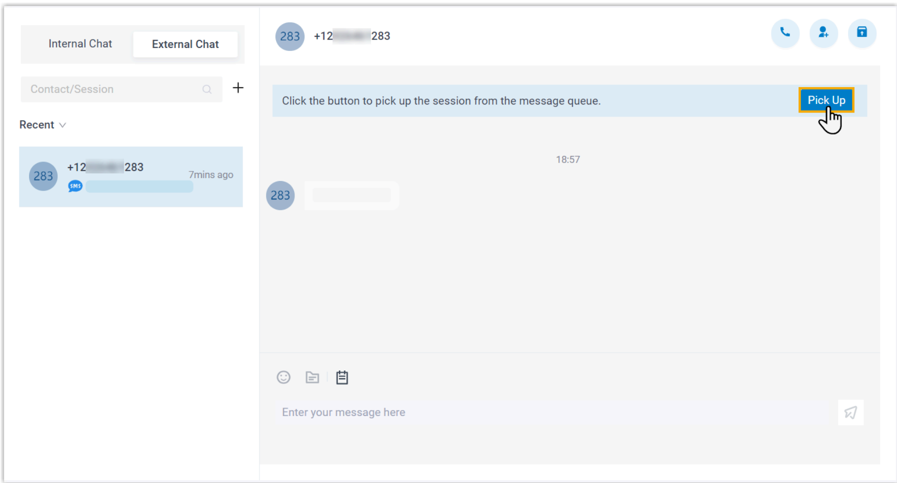
Pick up a messaging session

If you are an agent of a message queue, when the queue receives inbound message(s) in a new session, you can see the message(s) and pick up the session from the queue.

Note:
The pickup operation is only available when the chat assignment mode of your message queue is set to **Manual Pickup** or **Auto-Pickup**.

- If the mode set to **Manual Pickup**, you need to manually pick up the session.

> - If the mode is set to **Auto-Pickup**, the session will be automatically assigned to you if you are the first agent to reply. You can also manually pick up the session in this mode if needed.



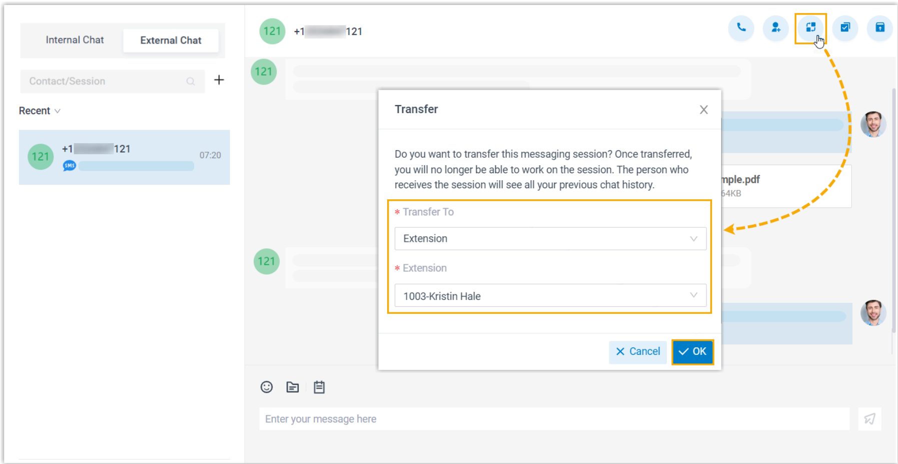
1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. To manually pick up a session, click **Pick Up** at the top of the messaging session.

   There is a prompt indicating that you have picked up the session from the message queue; Only you can see the session and respond to messages in the session.

Transfer a messaging session

During a session, you can transfer a customer's conversation to another colleague or a message queue for further handling. Alternatively, if advanced message processing or automation is required, you can transfer the session to a third-party message analytics platform.

> **Note:**
> The option to transfer sessions to a third-party message analytics platform will only appear if the system administrator has integrated the PBX server with a third-party platform via API.



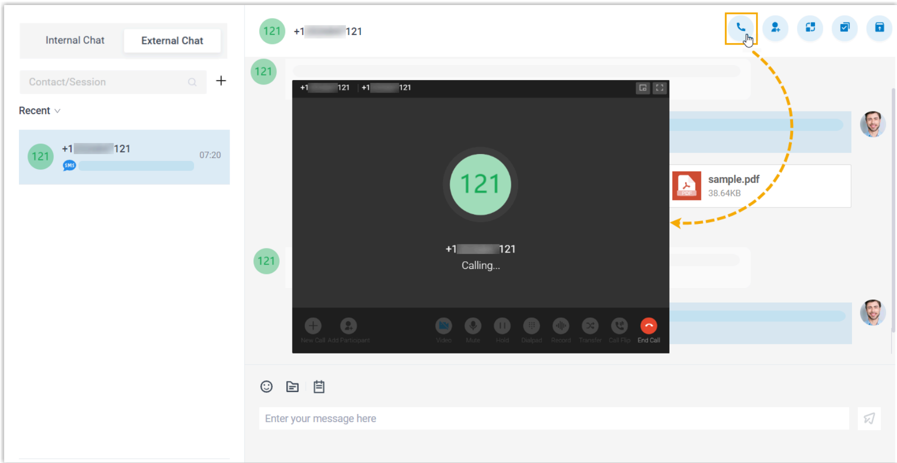
1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. At the top-right corner of the messaging session, click .
3. In the pop-up window, select the desired destination and click **OK**.

   The messaging session is removed from your external chat list, and transferred to the colleague / message queue / Third-party message analytics platform with whole chat history.

Initiate a voice call from a messaging session

You can initiate a voice call right from the messaging session to resolve a customer's issue if necessary.

> **Note:**
> This operation requires the permission to make outbound calls. Contact the system administrator to check if you have the permission.

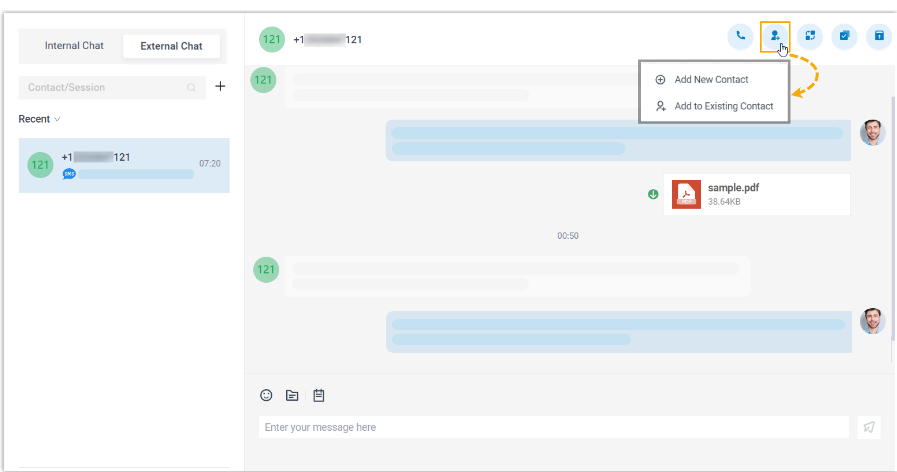


1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. At the top-right corner of the messaging session, click .

   Linkus Web Client quickly dials out the customer's number, and the call is sent through the PBX.

Add a customer to Contacts

You can add a customer to Contacts right from the messaging session.

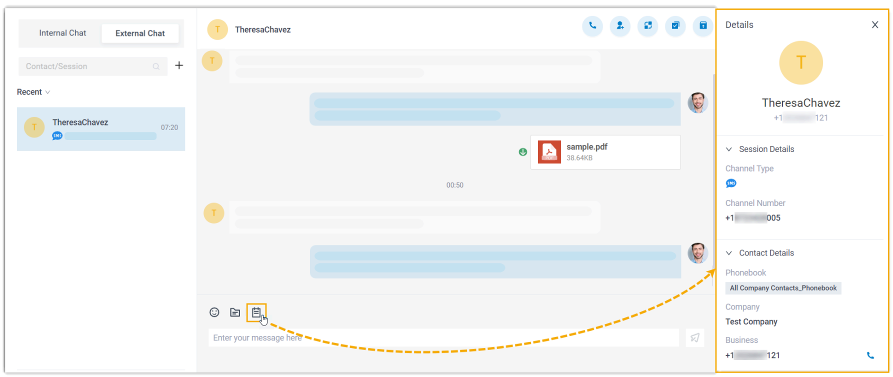


1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. At the top-right corner of the messaging session, click .
3. Add the customer to Contacts according to your needs.
   - To add the customer as a new contact, click **Add New Contact** and enter the customer's information.

- To add the customer to an existing contact, click **Add to Existing Contact** and edit the contact's information as needed.

View messaging session details

You can check the detailed information of a messaging session, including the message source channel, channel number, etc.

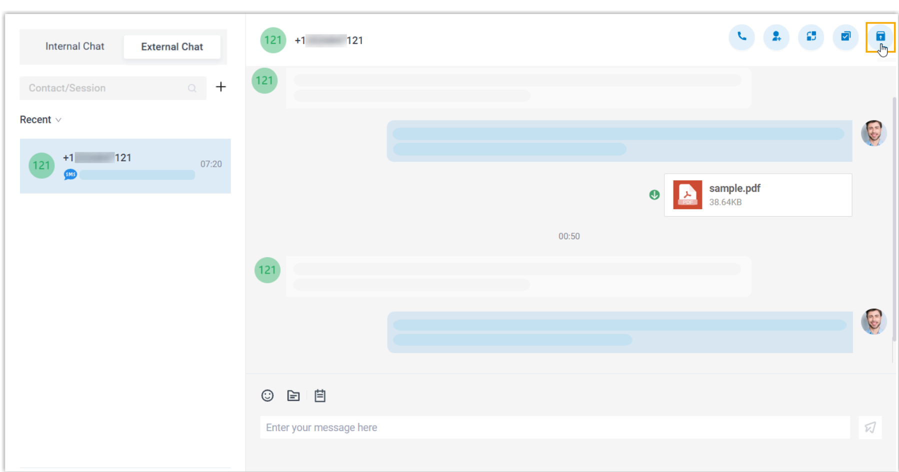


1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. At the bottom of the messaging session, click .

   The details of the messaging session is display at the right panel.

Archive a messaging session

You can archive a messaging session if there is no response from the customer or you wish to refer back to the session later.



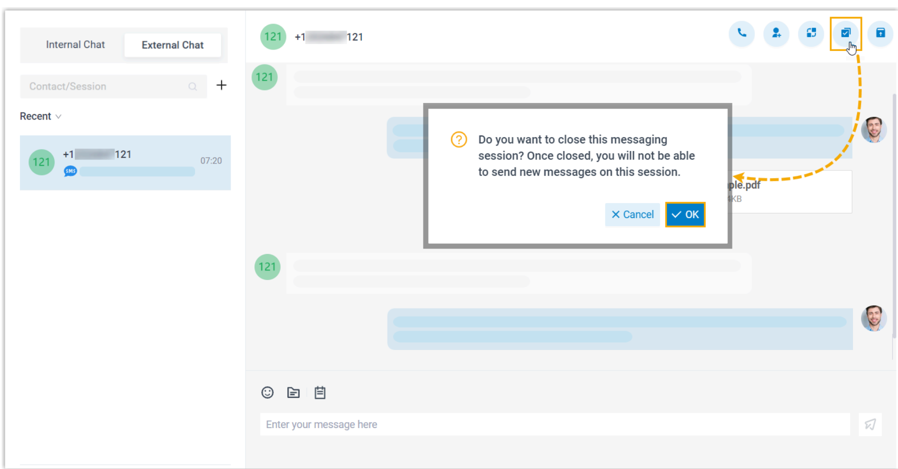
1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.

2. At the top-right corner of the messaging session, click .
   The messaging session is moved from **Recent** list to the **Archived** list.

> **Note:**
> To start the conversation again, you can directly send a message in the archived messaging session, or click at the top-right corner to unarchive the messaging session. The unarchived session will be moved back to the **Recent** list.

End a messaging session

When you're done helping a customer, you can end the messaging session.

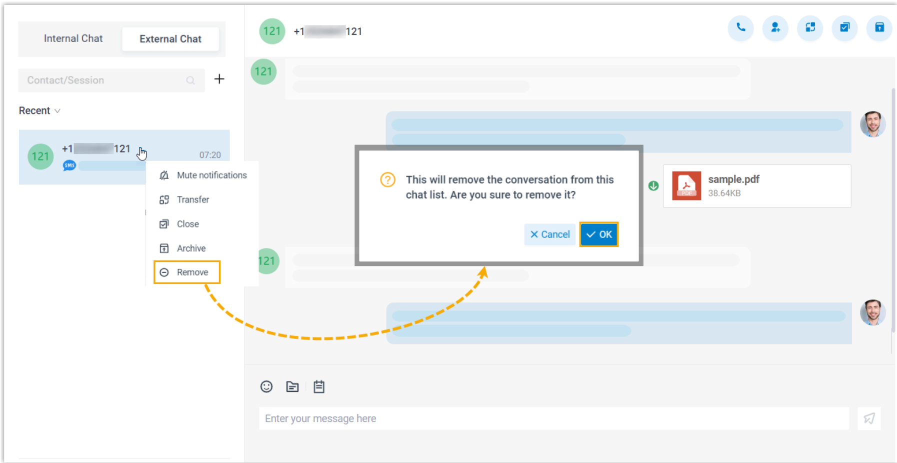


1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. At the top-right corner of a messaging session, click .
3. In the pop-up window, click **OK**.

   The messaging session is closed and moved to the **Archived** list; You can NOT send messages on this session any more. Next time the customer sends messages, a new messaging session will be created.

Remove a messaging session

To remove a messaging session, do as follows:

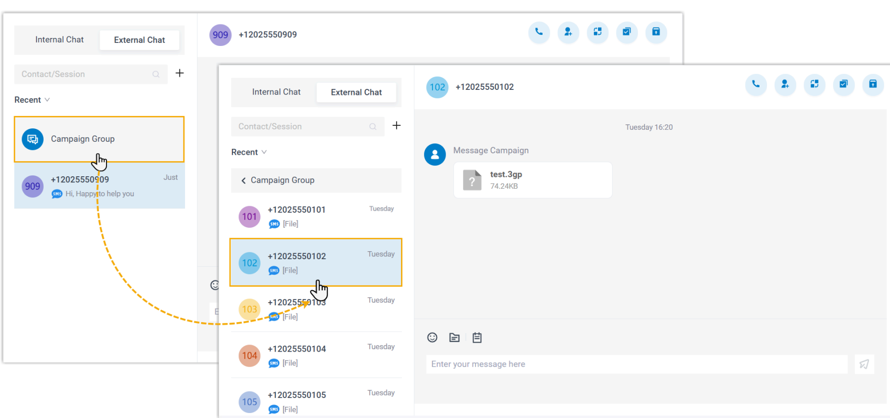


1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. In the external chat list, right click the messaging session that you want to remove.
3. Click **Remove**.
4. In the pop-up window, click **OK**.

   The messaging session is removed from all your Linkus clients.

Handle campaign sessions

If system administrator sets message campaigns to send messages in bulk, and assigns the campaign sessions to your extension or the message queue you belong to, you can view and manage these campaign sessions.



1. On Linkus Web Client or Desktop Client, click **Chat**, then click the **External Chat** tab.
2. In the external chat list, click **Campaign Group**.

   All sessions created by message campaigns will be listed.
3. Click a session to view and respond to customer replies as needed.

Agent Operations on Mobile Client

Start a Messaging Session with a Customer on Mobile Client

If you need to send customers messages for notifications, marketing campaigns or other purposes, you can proactively start a messaging session.

> **Note:**
> You can only proactively start a messaging session via SMS messaging channel.

Requirements

PBX Server

Contact system administrator to make sure that PBX server meets the following requirements:

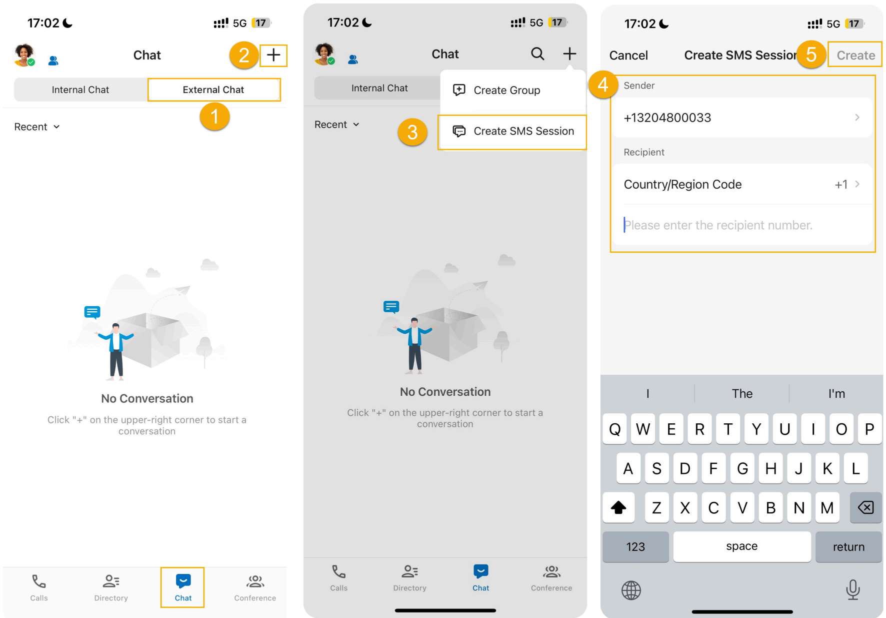
- **Version**: 37.12.0.57 or later.
- **Plan**: **Enterprise Plan** or **Ultimate Plan**
- **Messaging**: At least one messaging channel is set up on PBX.

Linkus Mobile Client

Make sure that the version of your Linkus Mobile Client meets the following requirements:

- **Linkus iOS Client**: Version 5.7.3 or later
- **Linkus Android Client**: Version 5.7.4 or later

Procedure



1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. At the top-right corner, tap +.
3. In the drop-down menu, select **Create SMS Session**.
4. Select sender and recipient.
    a. In the **Sender** drop-down list, select the channel number for sending messages.
    b. In the **Recipient** drop-down list, select a country/region code, then enter the recipient number.
5. At the top-right corner, tap **Create**.

Result

The messaging session will appear in the external chat list after you send a message.

Related information

Manage Customer Queries from External Messaging Channels on Mobile Client

Manage Customer Queries from External Messaging Channels on Mobile Client

This topic describes how to manage the messaging sessions of customer queries on Linkus Mobile Client.

Requirements

PBX Server

Contact system administrator to make sure that PBX server meets the following requirements:

- **Version**: 37.20.0.128 or later.
- **Plan**: **Enterprise Plan** or **Ultimate Plan**
- **Messaging**: At least one messaging channel is set up on PBX.

Linkus Mobile Client

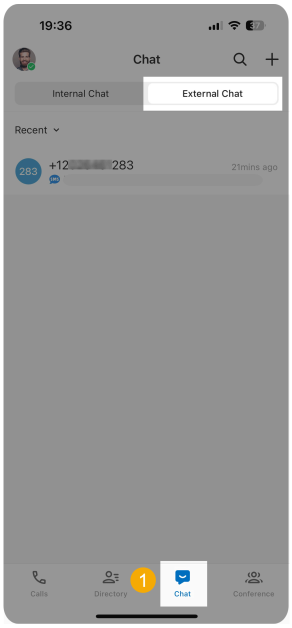
Make sure that the version of your Linkus Mobile Client is 5.19.7 or later.

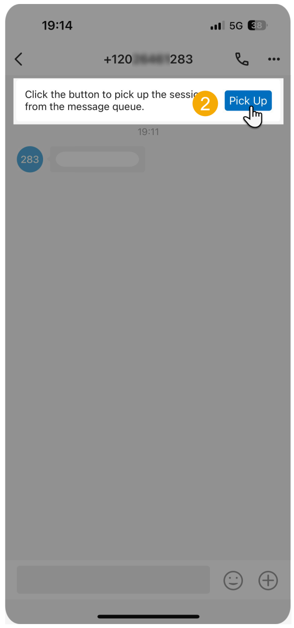
Pick up a messaging session

If you are an agent of a message queue, when the queue receives inbound message(s) in a new session, you can see the message(s) and pick up the session from the queue.

Note:
The pickup operation is only available when the chat assignment mode of your message queue is set to **Manual Pickup** or **Auto-Pickup**.

- If the mode set to **Manual Pickup**, you need to manually pick up the session.
- If the mode is set to **Auto-Pickup**, the session will be automatically assigned to you if you are the first agent to reply. You can also manually pick up the session in this mode if needed.





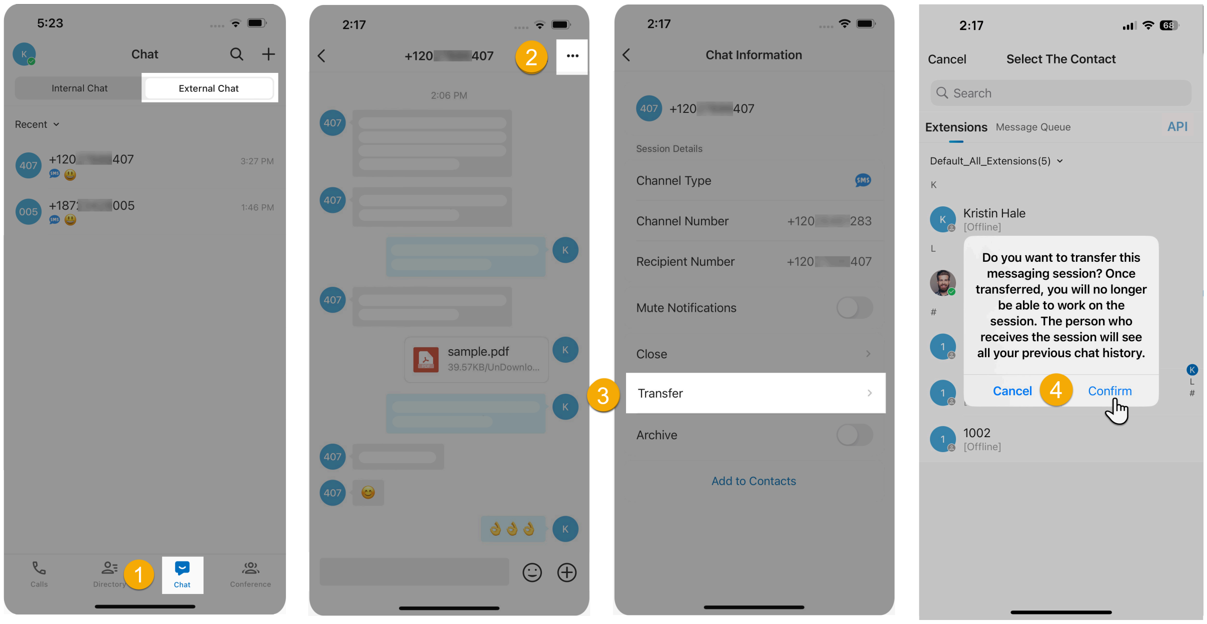
1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. To manually pick up a message session, tap **Pick Up** at the top of the session.

   There is a prompt indicating that you have picked up the session from the message queue; Only you can see the session and respond to messages in the session.

Transfer a messaging session

During a session, you can transfer a customer's conversation to another colleague or a message queue for further handling. Alternatively, if advanced message processing or automation is required, you can transfer the session to a third-party message analytics platform (API).

> **Note:**
> The option to transfer sessions to a third-party message analytics platform will only appear if the system administrator has integrated the PBX server with a third-party platform via API.



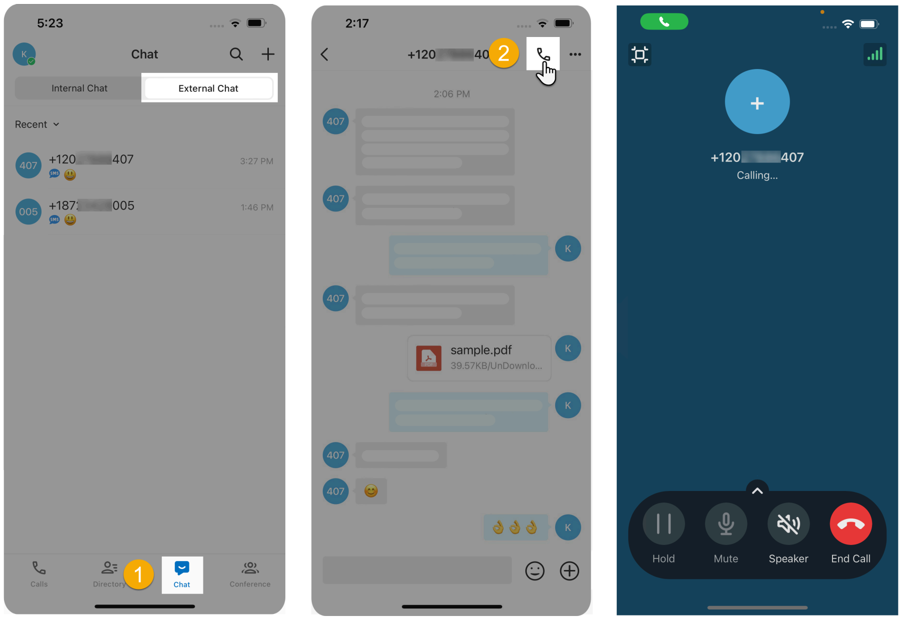
1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In an active messaging session, tap ••• at the top-right corner.
3. On the **Chat Information** page, tap **Transfer**.
4. Search and select the colleague, then tap **Confirm** in the pop-up window.

   The messaging session is removed from your external chat list, and transferred to the colleague / message queue / Third-party message analytics platform with whole chat history.

Initiate a voice call from a messaging session

You can initiate a voice call right from the messaging session to resolve a customer's issue if necessary.

> **Note:**
> This operation requires the permission to make outbound calls. Contact the system administrator to check if you have the permission.

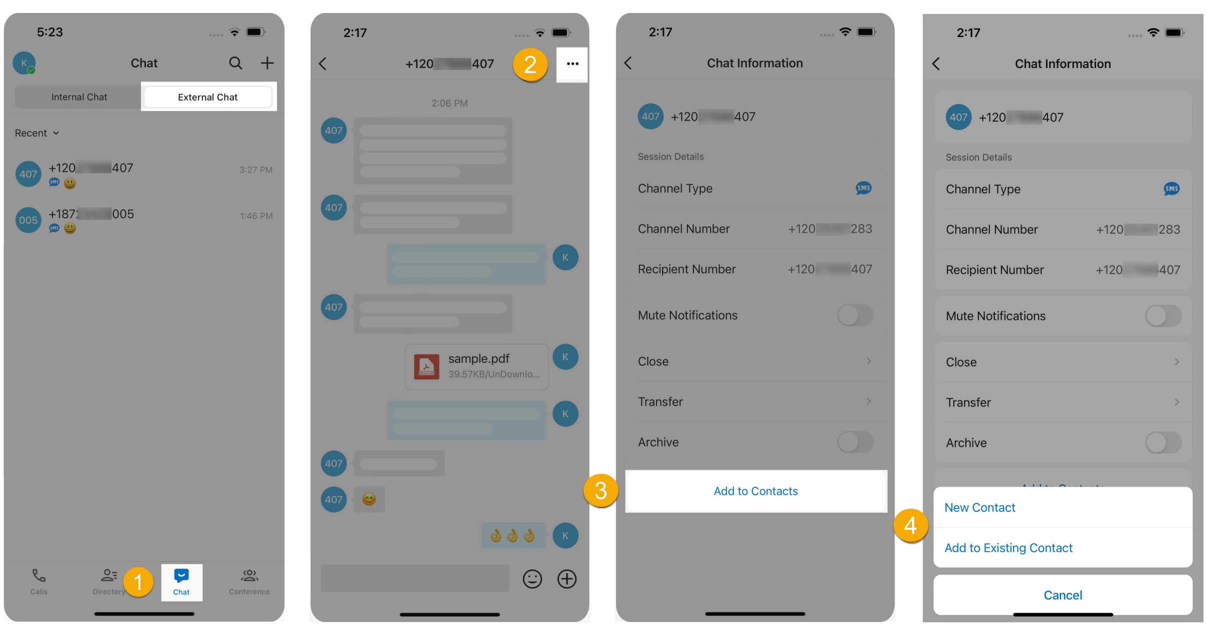


1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In a messaging session, tap 📞 at the top-right corner.

   Linkus Mobile Client quickly dials out the customer's number, and the call is sent through the PBX.

Add a customer to Contacts

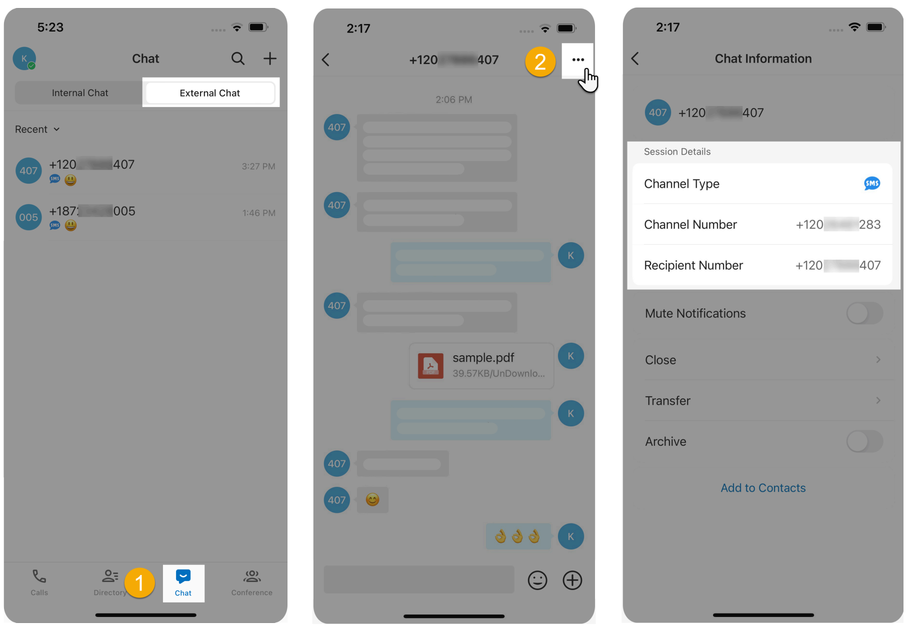
You can add a customer to Contacts right from the messaging session.



1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In a messaging session, tap ••• at the top-right corner.
3. At the bottom of the **Chat Information** page, tap **Add to Contacts**.
4. Add the customer to Contacts according to your needs.
    - To add the customer as a new contact, click **New Contact** in the pop-up window, and enter the customer's information.
    - To add the customer to an existing contact, click **Add to Existing Contact** in the pop-up window, select the contact and edit the information as needed.

View messaging session details

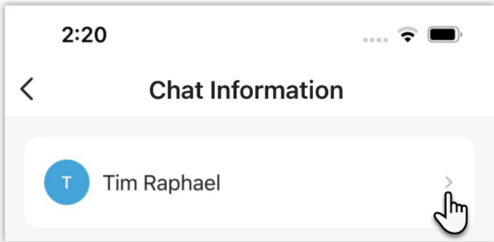
You can check the detailed information of a messaging session, including the message source channel, channel number, etc.



1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In a messaging session, tap ••• at the top-right corner.

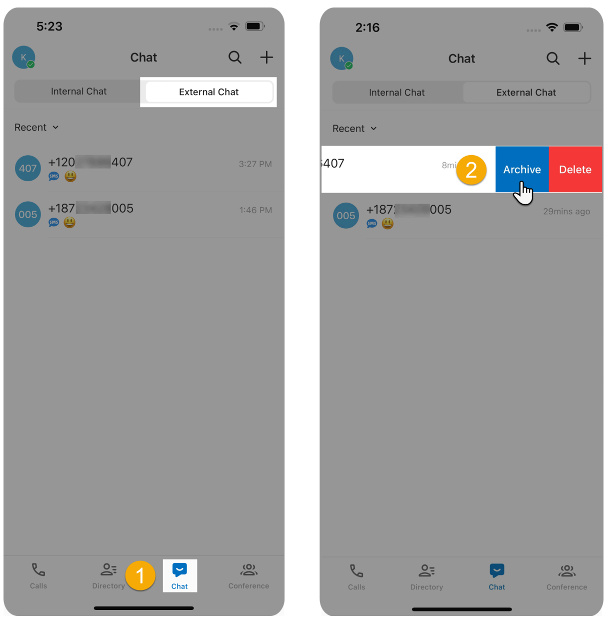
    The details of the messaging session is displayed in the **Session Details** section.

> **Note:**
> If the customer is an existing contact, you can also tap the customer to quickly access the contact's information.



Archive a messaging session

You can archive a messaging session if there is no response from the customer or you wish to refer back to the session later.



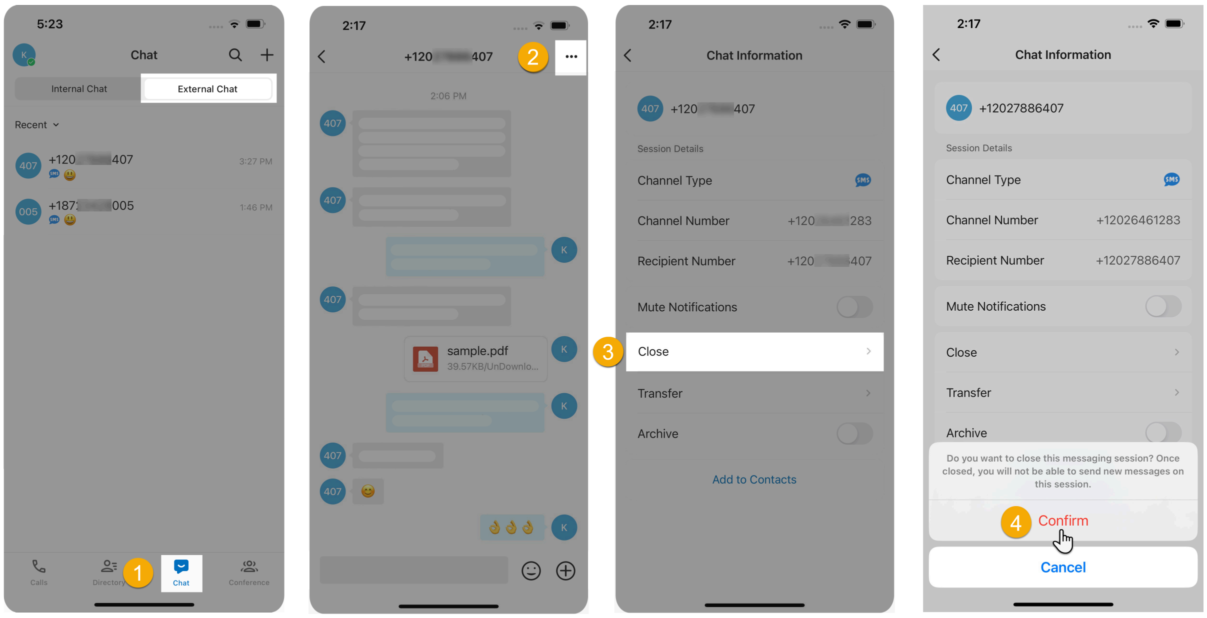
1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In the external chat list, touch and hold an active messaging session, then tap **Archive**.

   The messaging session is moved from **Recent** list to the **Archived** list.

   > **Note:**
   > To start the conversation again, you can directly send a message in the archived messaging session, the messaging session will be automatically unarchived and moved back to the **Recent** list.

End a messaging session

When you're done helping a customer, you can end the messaging session.

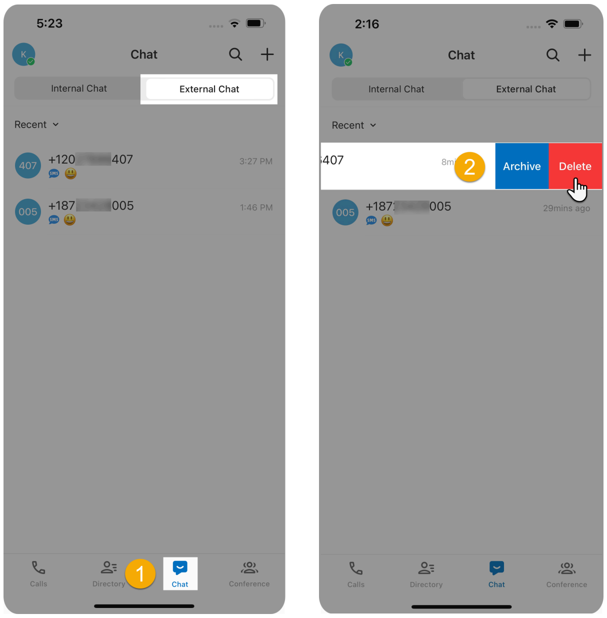


1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In an active messaging session, tap ••• at the top-right corner.
3. On the **Chat Information** page, tap **Close**.
4. In the pop-up window, click **Confirm**.

   The messaging session is closed and moved to the **Archived** list; You can NOT send messages on this session any more. Next time the customer sends messages, a new messaging session will be created.

Remove a messaging session

To remove a messaging session from the chat list, do as follows:

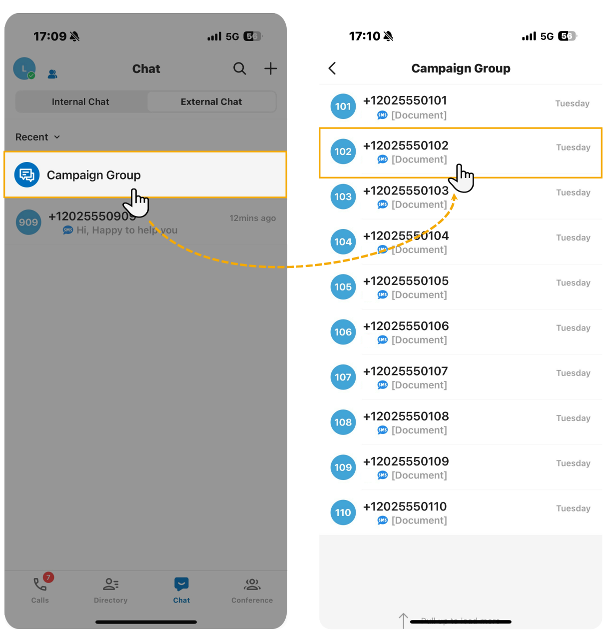


1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In the external chat list, touch and hold a messaging session, then tap **Delete**.

   The messaging session is removed from the chat list on all your Linkus clients.

Handle campaign sessions

If system administrator sets message campaigns to send messages in bulk, and assigns the campaign sessions to your extension or the message queue you belong to, you can view and manage these campaign sessions.



1. On Linkus Mobile Client, go to **Chat > External Chat**.
2. In the external chat list, tap **Campaign Group**.

   All sessions created by message campaigns will be listed.
3. Tap a session to view and respond to customer replies as needed.