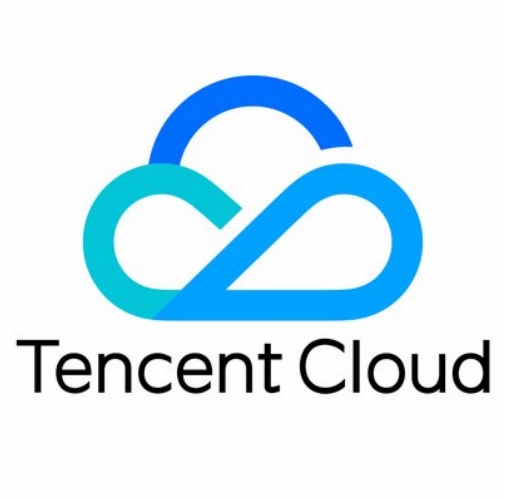
Chat

Product Introduction

Product Documentation



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Product Introduction

Overview

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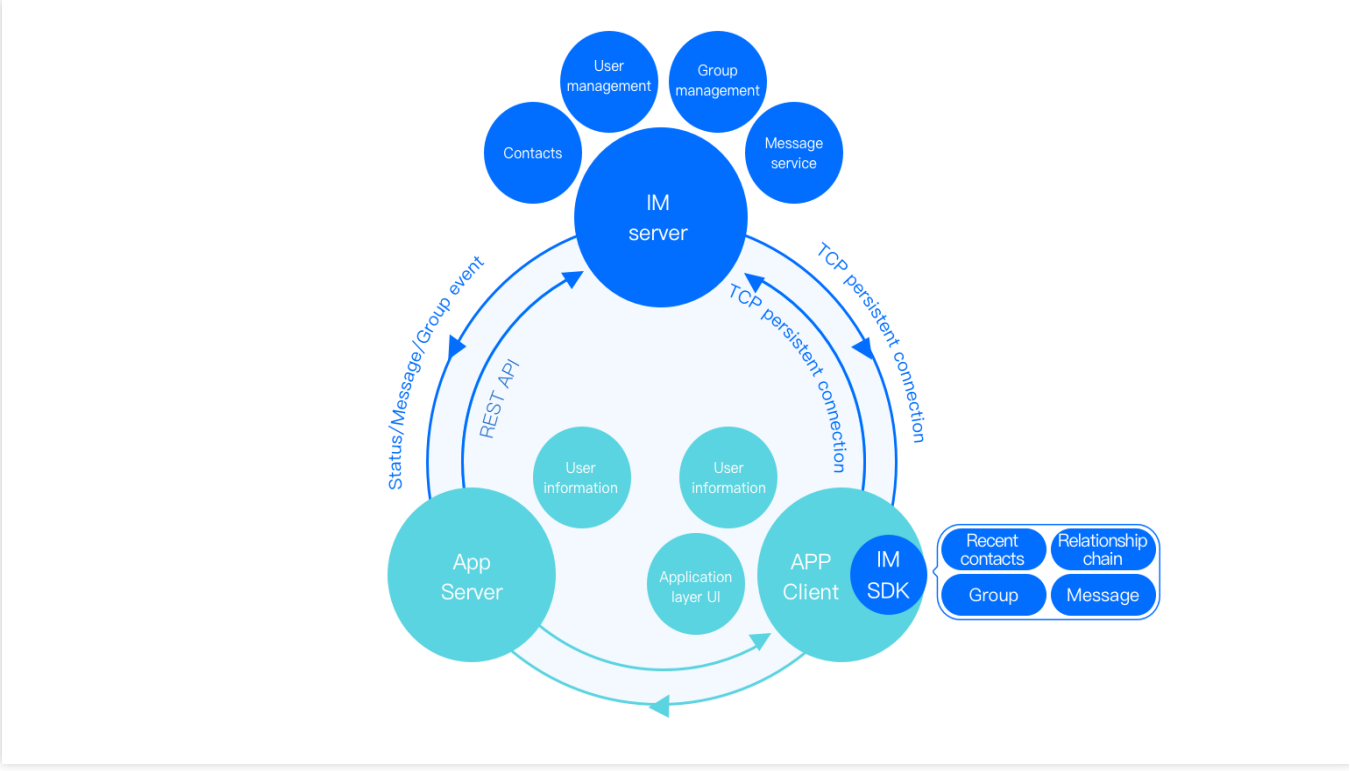
Overview

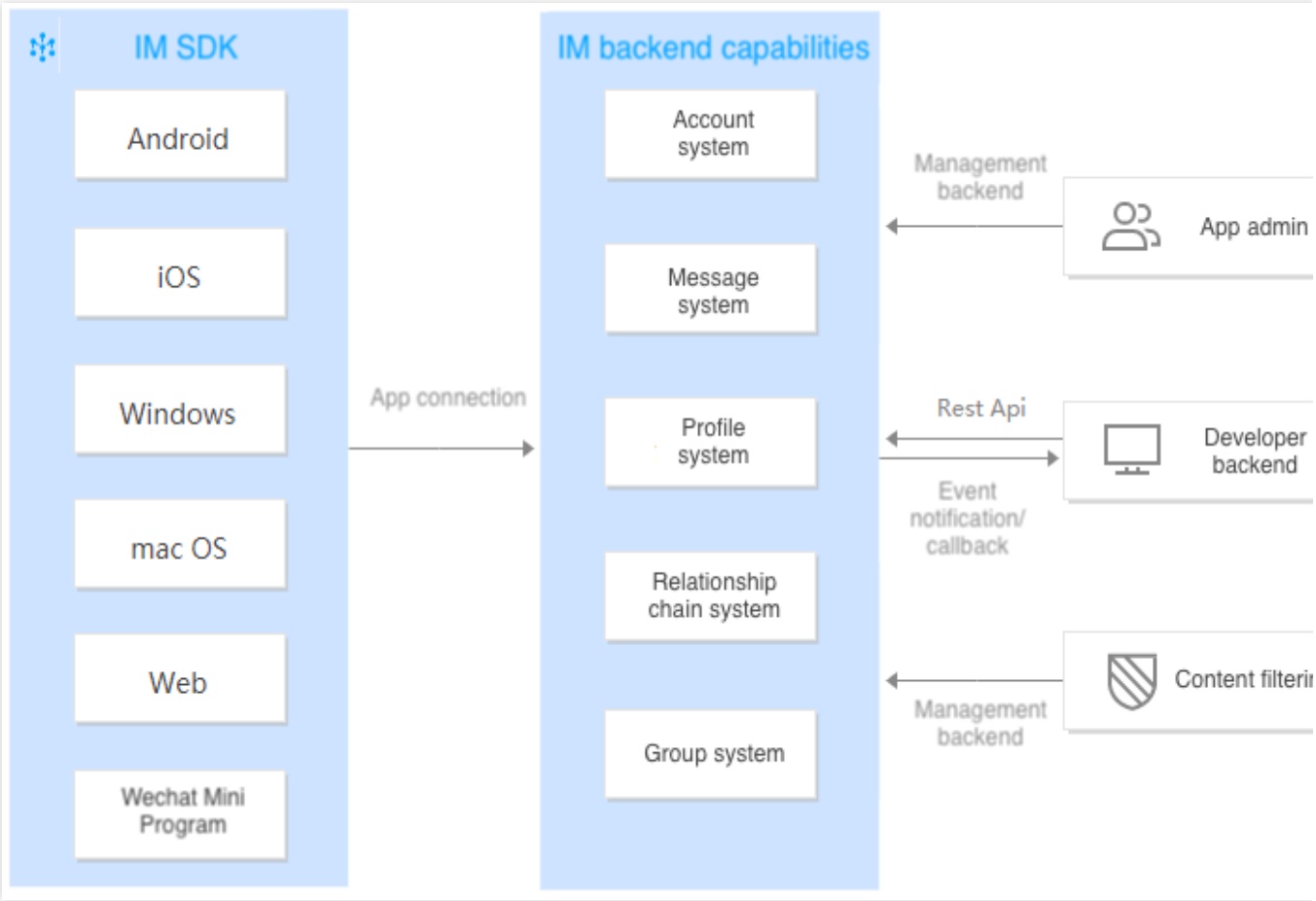
Tencent is the earliest and biggest instant messaging developer in China. QQ and WeChat, both developed by Tencent, have become indispensable apps for every Internet user. In conformity with the trend of industrial digital transformation, Tencent now shares its high-concurrency and highly reliable instant messaging capabilities as SDKs and RESTful APIs and launches the Tencent Cloud Chat. You can integrate the Chat SDKs provided by Tencent Cloud into your apps in a simple way. By calling RESTful APIs on the server side, you can easily have the same powerful instant communication capabilities as those of Weixin and QQ. The following figure shows the interaction between the Chat service and your apps.



For developer requirements and scenarios in different phases, the Tencent Cloud Chat team provides a series of solutions, including the Android, iOS, Windows, and web SDK components, as well as capabilities for integrating RESTful APIs and Webhooks on the server. With these components and capabilities, developers can construct reliable and stable instant messaging products for free and global communication.

Architecture

Tencent Cloud Chat features a comprehensive suite of solutions including global access, one-to-one chat, group chat, message push, profile and contacts hosting, and account authentication. It also provides complete app access and backend management APIs.



Services

Access service

The access service provides Chat with highly interconnected, reliable, and secure global network connection channels and proprietary multi-level optimal addressing algorithms to implement scheduling across private and public networks. Technologies including intelligent compatibility for passing through gateway policies, persistent connection multiplexing, transport-layer protocol optimization, and channel encryption allow businesses to establish simple and reliable communication with business backends without concerns about network details.
When terminals log in, the Chat SDK connects to the nearest access nodes. Chat access nodes include the following:
China: South China, North China, East China, Hong Kong, and Taiwan.

Other regions:
Asia: Singapore, Indonesia, UAE, Thailand, Malaysia, Japan, Vietnam, South Korea, and Philippines.
Europe: United Kingdom, Netherlands, France, Germany, Italy, Norway, France and Spain.
South America: Brazil.
North America: United States, Canada, and Mexico.
Oceania: Australia.
Africa: South Africa and Nigeria.

Data storage sites

Chat provides Southeast Asia (Singapore), Northeast Asia (Seoul, South Korea), Europe (Frankfurt, Germany), and North America (Silicon Valley, USA) Data Centers for selection. Your business stores data in the Data Center selected when you Create Application, and each Data Center supports global access.

One-to-one chat

One-to-one chat supports various message types including text, emojis, locations, images, audio, short video, and custom message. It provides special features such as red packets, chatbots, read receipt, and message recall as well as services such as offline messages and roaming messages. For more information, see One-to-One Messages.

Group chat

A group chat involves multiple participants. Chat supports the following five group types based on group joining and organization management methods to meet the requirements of different group chat scenarios.
A **work group (Work)** is like an ordinary Weixin group. After a work group is created, a user can only join the group by being invited by a friend who is a member of the group. The invitation does not need to be accepted by the invitee or approved by the group owner.
A **public group (Public)** is like a QQ group. After a public group is created, the group owner can designate group admins. To join the group, a user needs to search for the group ID and send a request, and the request needs to be approved by the group owner or an admin before the user can join the group.
Meeting group (Meeting): Allows users to join and leave freely and view historical messages sent before they join the group. Meeting groups are ideal for scenarios that integrate Tencent Real-Time Communication (TRTC), such as audio/video conferencing and online education.
Audio-video group (AVChatRoom): Allows users to join and exit freely, supports an unlimited number of members, and does not store message history. Audio-video groups can be used with Cloud Streaming Services (CSS) to support on-screen comment chat scenarios.
Community group (Community): Allows users to join and exit freely and is ideal for ultra-large community group chat scenarios, such as knowledge sharing and game communication.
Note
Community is supported only in native SDK 5.8.1668 enhanced edition or later and web SDK 2.17.0 or later. You need to purchase the Pro edition 、 Pro Plus edition or Enterprise edition and activate it in Console > Feature

Configuration > Group configuration > Group feature configuration > Community.
Groups are highly customizable, supporting custom group types, group fields, group member fields, group IDs, and webhook events. You can fully customize your group based on the needs of your app. For more information, see Group System.

Caution

Although audio-video groups (AVChatRoom) support unlimited group members, if a spike in group members is expected within a short time (in scenarios such as large online events where the number of members in a single group reaches 50,000 or above), contact us or sales representatives in advance and report service resource usage by providing the SDKAppID and the scheduled event time.

Profile and contacts hosting

Chat provides a holistic solution for profile and contacts management, storing user profiles (for example, nicknames, profile photos, and custom profile fields), contacts, blocklists, and other information. Chat's profile and contacts hosting service provides a backup service with up to 12 copies and multi-data center remote deployment to improve service quality and disaster recovery performance. For more information, see Profile Management and Relationship Chain Management.

Account authentication

Data security is ensured with asymmetric encryption ECDSA-SHA256 and hash encryption HMAC-SHA256 (HMAC-SHA256 is recommended). Developers can directly use the app's own account to quickly integrate Chat services, freeing themselves from tedious account mapping work. With simple SDK integration and convenient API calls, it is easy to authenticate user accounts (UserID) and passwords (UserSig). For more information, see Login Authentication.

Management and Monitoring

In addition to basic instant messaging features, Chat provides a convenient and easy-to-use console, which allows you to create apps, download Chat SDKs, query app configurations, perform joint app testing, and integrate instant messaging capabilities. Chat console also supports various features such as backend message delivery, group management, and statistics. For more information, see Console Guide.

Advanced Features

RESTful APIs

RESTful APIs are HTTP management APIs that provide the app backend with a management entry at the backend. For the list of RESTful APIs currently supported by Chat, see RESTful API Overview.

In addition to RESTful APIs, Chat Console also provides simple features such as data management and one-to-one and one-to-many messaging. Developers can manage, view, and test data in Chat Console. In contrast, RESTful APIs are less user-friendly, but they can provide more powerful management capabilities.

Webhooks

When Chat initiates a webhook, it sends requests to the app backend before or after an event. Then, the app backend synchronizes data accordingly or intervenes in the subsequent processing of the event.
Chat provides a diverse set of webhook events, which are free of charge. For more information, see the Webhook Command List.

Private Deployment

Private deployment allows an enterprise to deploy systems directly to its own servers and save data locally. Chat provides the private deployment feature to assist enterprises in the deployment, implementation, and OPS of the private version. If needed, please apply for the Chat private service.
Note
To apply for the Chat private service, you need to log in with your root account of Tencent Cloud.

Security and Compliance

Compliance is the foundation for the free trial of Tencent Cloud Chat, which meets the compliance requirements of different countries and industries. In addition to ensuring the **security, compliance, availability, confidentiality, and privacy** of the services it provides, Chat also provides relevant support for its customers to **meet their and their customers' compliance requirements, reduce repeated investment in audit work, and improve auditing and management efficiency**.
Tencent Cloud Chat has passed SOC 1, SOC 2, and SOC 3 audits, meets the requirements of China's Cybersecurity Classified Protection 2.0 (Level 3), and is certified to ISO 9001, ISO 20000, ISO 27001, ISO 27017, ISO 27018, ISO 27701, ISO 29151, CSA STAR, NIST CSF, BS 10012, and K-ISMS.

Scenarios

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Social communication

Tencent Cloud Chat empowers apps with social communication capabilities and helps effectively improve user stickiness and engagement. By using Chat service, you can provide your users with various chatting modes including one-to-one chat, group chat, and on-screen comments. Chat supports text, image, audio, and short-video messages, with real-time message push to meet your message delivery rate requirements. It also supports real-time audio and video calls.

Examples: in-app chatting

Recommended features: message management, group management

Interactive live streaming

Chat allows you to deploy live chat rooms that can support an unlimited number of participants and hundreds of millions of concurrent messages. Chat makes chat room management easy and supports various message types, such as on-screen comments, gifts, and likes, helping you deliver positive chatting experience to live chat room users.

Examples: live streaming

Recommended features: audio-video group

Smart customer service

Chat can meet the needs of multi-scenario communication between merchants and users and provides customers with exclusive customer service to improve service efficiency. Together with smart robots, Chat can effectively reduce labor costs and deliver additional value to customers.

Examples: online mall customer service

Recommended features: online customer service

Internet of things

Chat provides people-to-thing and thing-to-thing collaborative communication, confidently leading way into the 5G communication era.

Examples: communication between smart devices and apps

Recommended features: audio, image, video messages

Enterprise communication

Chat provides communication solutions to enterprise customers, enabling seamless switching between desktops and mobile devices to deliver efficient internal communication and collaboration to enterprises.

Examples: intra-enterprise communication

Recommended features: instant messaging

System message push

Chat provides the online push and offline push services, ensuring the accurate delivery of system messages.

Examples: app system notifications

Recommended features: message push

In-game communication

For gaming clients, Chat supports various chat room types, including lobby, team, and all-server. It also supports text, audio, emoji, and short-video messages, allowing you to easily implement scenarios such as in-game item gifting and transactions. Additionally, with dedicated servers deployed in more than 10 countries and regions, Chat can empower your business with global communication capabilities.

Examples: lobby chat room

Recommended features: multiple group types, global access

Online education

Chat provides solid technical support for online classes with features such as whiteboard brush stroke storage, chat room, real-time audio and video for small class teaching, and on-screen comments of live class of 10,000 people or above. It also helps realize features such as class reminder, online sign-in, class management, teacher-student interaction, whiteboard teaching, questioning, and homework assignment.

Examples: online class, live class

Recommended features: global access, audio-video group, custom message, group management

Features

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Supported platforms

The following platforms can communicate with each other and provide services across devices and platforms.

Platform	SDK and Compatibility	Demo	Source Code	UI Component
Android	Compatible with JDK 1.6 and Android SDK version 14 and later	Supported	-	Supported
iOS	Compatible with iOS 8.0 and later	Supported	-	Supported
Mac	Compatible with OS X 10.10 and later	Supported	-	-
Windows	C and C++ are included. Compatible with Windows 7, Windows 8 and 8.1, Windows 10, and Windows 11. Both 32-bit and 64-bit programs can be connected.	-	-	-
Web	Supports Internet Explorer 11+, Chrome 7+, Firefox 3.6+, Opera 12+ and Safari 6+	Supported	-	Supported
H5	Supported	Supported	-	Supported
uni-app	Supported	Supported	-	Supported
Unity	Supports 2020.2.7f1c1 or later	Supported	-	-
Flutter	Flutter 2 and Dart 2.12 or later support Android/iOS/web/macOS/Windows	Supported	Open-source	Supported
Electron	Supported	Supported	-	-
Unreal Engine	Supported	Supported	-	-
React Native	Supported	Supported	-	-

Global access

Feature Type	Description

Global access overview	Chat provides highly reliable and secure network connections with global coverage. With its proprietary multi-level optimal addressing algorithm, Chat can perform scheduling across the entire network. When terminals log in from outside the Chinese mainland, Chat SDK connects to the nearest access nodes or cache nodes.
China	South China, North China, East China, Hong Kong, and Taiwan
Global	Asia: Japan, South Korea, Singapore, Thailand, Malaysia, Vietnam, Philippines, UAE, Indonesia Europe: Germany, United Kingdom, France, Italy, Norway, Spain, Netherlands North America: United States, Canada, Mexico South America: Brazil Oceania: Australia Africa: South Africa, Nigeria, etc.

Account features

Feature Type	Description
Importing accounts	Imports accounts in batches.
Deactivating accounts	Invalidates UserSigs.
Deleting accounts	Deletes accounts in batches.
User online status	Manage the online and offline statuses after users log in
Query accounts	Batch check whether accounts are imported

Multi-device login

Feature Type	Description
Single-platform	A user can be online on only one of the following platforms: Android, iPhone, iPad, Windows, Mac, and web.
Dual-platform (default)	A user can be concurrently online on the web platform and one of the following platforms: Android, iPhone, iPad, Windows, and Mac.
Triple-platform	A user can be concurrently online on three platforms: web + Android/iPhone/iPad + Windows/Mac.
Multi-platform	A user can be concurrently online on all platforms: Android, iPhone, iPad, Windows, Mac, and web.

Note：

You can configure multi-device login by logging in to the Chat console and clicking **App Configuration** for the target app to open the **Feature Configuration** page.

Message types

Feature Type	Description
Text	The message content is plain text.
Image	The message content includes the URL, dimensions, and size of the image.
Emoji	Emoji messages are customized by developers.
Audio	Audio data must include the duration in seconds.
Location	The message content contains the caption, longitude, and latitude of the location.
File	The message content includes the URL, size, and format of the file. There are no file format restrictions, and the maximum supported file size is 100 MB.
Short video	The message content includes the URL, duration, size, and format of the video file. The maximum supported file size is 100 MB.
Custom	Message types that are customized by developers, such as red packet and rock-paper-scissor.
System notification	This type of message is divided into built-in system notification messages and system notification messages customized by developers.
Group tips	System messages pushed when a member joins or leaves a group, group description is modified, group member profile changes, etc.
Combined messages	Up to 300 messages can be combined.

Message features

Feature Type	Description
Message download	The app admin can obtain all one-to-one or group messages for a specified hour of a specified day in the past 7 days through this API.
Offline messages	Chat supports offline push when a user logs in, the app switches to work in the background, and other users send messages.
Roaming messages	When a user logs in on a new device, the historical message storage recorded (on the cloud) by the server is synchronized to the new device. Roaming messages are

	stored for 7 days by default. You can pay to increase the roaming message storage period.
Multi-device synchronization	Messages can be synced across multiple devices so that they can be received at the same time.
Historical messages	Both local and cloud historical messages are supported.
Recall messages	Recall a message that has been delivered successfully. By default, messages that were delivered more than 2 minutes ago cannot be recalled. Only one-to-one and group chat messages can be recalled. Messages sent in audio-video chat rooms (AVChatRooms) cannot be recalled.
Read receipts	Users can check if messages have been read in a one-to-one chat.
Message forwarding	Users can forward messages to other users or groups.
@ feature	There is no essential difference between an in-group @ message and an ordinary message, although the user specified by @ will see a special UI effect.
Typing status indicator	This feature can be implemented in online messaging scenarios.
Offline push	Apple APNs, Xiaomi push, Huawei push, Meizu push, OPPO push, vivo push, and Google FCM push are supported.
Delete messages	Use the remove method for messages to delete messages locally.
Red packets	Red packet messages are similar to @ messages and can be implemented through TIMCustomElem.
Push to all users	A set of RESTful APIs based on the Chat communication architecture to enable push to all users, push by tag, and push by attribute in an app. You can integrate the client with the SDK for capabilities such as online push, offline push (Android background notification and APNs), and message receiving.
Local message search	Support searching for friends, searching for groups/group members, and searching for messages and grouping them by conversation.
Cloud search	Supports cloud-based global search, specified conversation search, specified user search, "OR" / "AND" relationship search, etc. Subsequent updates will support searching for accounts, groups, and other capabilities.

Profile features

Feature Type	Description
Set user profiles	Users can set information including the nickname, verification method, profile photo,

	gender, age, status, and location.
Obtain user profiles	Users can view their own profiles and the profiles of friends and strangers.
Obtain user information by fields	This feature can obtain user information based on specific fields.
Custom user information	Up to 20 custom user profile fields are supported.

Relationship chain features

Feature Type	Description
Search for friends	Search for a friend by account ID.
Friend requests	Specify whether a request reason is required. The default is no.
Add friends	Send friend requests.
Import friends	Support importing one-way friends in batches.
Update friends	Support updating the relationship chain data of multiple friends of a user at a time.
Delete friends	Friends can be deleted after they are added to the contact list.
Obtain all friends	This feature can obtain all friends. Only basic information of friends is pulled by default.
Accept/Reject friend requests	Accept or reject a friend request after receiving a friend request system notification.
Add to the blocklist	Blocklist any user. If you blocklist friends, you also unfriend them.
Remove from the blocklist	Remove a user from the blocklist.
Obtain the blocklist	Pull the blocklist of users.
Friend remarks	Add remarks for a friend.
Set custom friend profile fields	Up to 20 custom fields are allowed.
Create a friend list	When creating a list, you can choose who goes to the list. A user can be added to multiple lists.
Delete a friend list	Delete a friend list.

Verify friends	Support verifying multiple friends at a time.
Verify users on a blocklist	Support verifying multiple users at a time.
Add a friend to a list	Add a friend to a list.
Delete a friend from a friend list	Remove a friend from a friend list.
Rename a friend list	Rename a friend list.
Obtain friend list information	Obtain a specific friend list.
Obtain all friend lists	Obtain the information of all friend lists. This can also be achieved by obtaining all friends.
Relationship chain storage	The SDK can store relationship chain information.
System notifications on friend profile changes	When a friend's profile changes, you will receive a system notification.
System notification on relationship chain changes	When a relationship chain change occurs, you will receive a system notification.

Group features

Based on common use cases, Chat has set the following default group types:
A work group (Work) allows users to join the group by being invited by a friend who is a member of the group. The invitation does not need to be accepted by the invitee or approved by the group owner.
A public group (Public) allows the group owner to designate group admins. To join the group, a user needs to search for the group ID and send a request, and the request needs to be approved by the group owner or an admin before the user can join the group.
A meeting group (Meeting) allows users to join and exit freely and supports viewing message history from before the user joined the group. Meeting groups are ideal for scenarios that integrate Tencent Real-Time Communication (TRTC), such as audio and video conferences and online education.
An audio-video group (AVChatRoom) allows users to join and exit freely, supports an unlimited number of members, and does not store message history. Livestreaming groups can be used with Live Video Broadcasting (LVB) to support on-screen comment chat scenarios.
A community group (Community) allows users to join and exit freely, supports up to 100,000 members, and stores message history. To join the group, a user needs to search for the group ID and send an application, and the

application does not need to be approved by an admin before the user can join the group.

Note

Community is a new powerful tool for entertainment collaboration. Within the same community, a high number of members can be divided into different groups and topics to separate messages for hierarchical communication, yet they can also share the same set of friend relationships. This helps you develop a unique path of social expansion. The community feature is suitable for diverse use cases, such as finding like-minded people, game-based social networking, fan marketing, and organization management.

Community: The community feature is supported by a client with the SDK enhanced edition v5.8.1668 or later and the web SDK v2.17.0 or later. To use it, you need to purchase the Pro、Pro Plus、Enterprise, and then enable it via console > **Feature Configuration** > **Group configuration** > **Group feature configuration** > **Community**.

The following table compares the default features of each group type:

Feature	Work	Public	Meeting	AVChatRoom	Community
Maximum number of members	Free Trial: 20 per group Standard edition: 200 per group by default; can be increased to 2,000 per group Pro: 2,000 per group by default; Pro Plus：5,000 per group by default; Enterprise：6,000 per group by default;（can customize）	Free Trial: 20 per group Standard edition: 200 per group by default; can be increased to 2,000 per group Pro: 2,000 per group by default; Pro Plus：5,000 per group by default; Enterprise：6,000 per group by default;（can customize）	Free Trial: 20 per group Standard edition: 200 per group by default; can be increased to 2,000 per group Pro: 2,000 per group by default; Pro Plus：5,000 per group by default; Enterprise：6,000 per group by default;（can customize）	Unlimited	Free Trial and Standard edition: not supported. Pro: 100,000 per group by default
Permission to modify a group profile	Group members Group owner App admins	Group admins Group owner App admins	Group owner App admins	Group owner App admins	Group admins Group owner App admins
Member lists	Show all	Show all	Show all	Not show	Show all

Permission to disband a group	App admins	Group owner App admins	Group owner App admins	Group owner App admins	Group owner App admins
Request to join a group	Not supported	Supported	Supported	Supported	Supported
Membership request approval	Not supported	Required	Not required	Not required	Not required
Inviting others to a group	Confirmation from the invitee is not required.	Not supported	Not supported	Not supported	Confirmation from the invitee is not required.
Group owner leaving the group	Supported	Not supported	Not supported	Not supported	Not supported
Setting admins	Not supported	Supported	Supported	Not supported	Supported
Removing members from a group	Group owner App admins	Group admins Group owner App admins	Group admins Group owner App admins	Not supported	Group admins Group owner App admins
Historical message storage	Supported	Supported	Supported	Not supported	Supported
Viewing roaming messages from before the user joined the group	Disabled by default. This feature can be configured in the console.	Disabled by default. This feature can be configured in the console.	Enabled by default. This feature can be configured in the console.	Not supported	Enabled by default. This feature can be configured in the console.
Group member change notifications	A notification will be pushed and stored on the roaming server by default when a user is invited to a group,	A notification will be pushed and stored on the roaming server by default when a user is invited to a group,	A notification is **disabled by default** when a user is invited to a group, asks other users to join a group, is	A notification will be pushed but not stored on the roaming server when a user is invited to a group, asks other	A notification will be pushed and stored on the roaming server by default when a user is invited to a group,

	asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.	asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.	kicked out of a group, or leaves a group. This feature can be configured in the console.	users to join a group, is kicked out of a group, or leaves a group.	asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.
Group profile change notifications	A notification will be pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting or the group joining application method is changed. This feature can be configured in the console.	A notification will be pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting or the group joining application method is changed. This feature can be configured in the console.	A notification will be pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting or the group joining application method is changed. This feature can be configured in the console.	A notification will be pushed but **not stored** on the roaming server when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled when group muting or the group joining application method is changed.	A notification will be pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting is changed. This feature can be configured in the console .For a community group, the group joining application method cannot be modified, and therefore no related

					notification is involved.
Group member profile change notifications	A notification will be pushed and stored on the roaming server by default when the group muting or group admin is changed. This feature can be configured in the console.	A notification will be pushed and stored on the roaming server by default when the group muting or group admin is changed. This feature can be configured in the console.	A notification is **disabled by default** when the group muting or group admin is changed. This feature can be configured in the console.	A notification is **disabled by default** when the group muting or group admin is changed. This feature can be configured in the console.	A notification will be pushed and stored on the roaming server by default when the group muting or group admin is changed. This feature can be configured in the console.
Group activation	Activate via messages.	Not required	Not required	Not required	Not required
Muting members	Not supported	Supported	Supported	Supported	Supported
Unread message count	Supported	Supported	Not supported	Not supported	Supported
Default message receiving option	Receive online and offline pushed messages.	Receive online and offline pushed messages.	Receive only online pushed messages.	Receive only online pushed messages.	Receive online and offline pushed messages.
Importing groups	Supported	Supported	Supported	Not supported	Supported

Chat console

You can log in to Tencent Cloud Chat console to configure the app based on your needs.

Feature Type	Description
App creation	Create an app.
App upgrade	Upgrade the plan.

SDK download	Download the client SDK.
App configuration	Configure the app.
Statistical analysis	View operations data.
Callback configuration	Third-party callback.
Feature configuration	Add custom fields and online instances.
Group management	Add, modify, and delete groups; manage group members; send messages.
Developer tool	Generate UserSig on the webpage.

Statistics

The statistics and analytics feature in the Chat console allows you to view operations data in various dimensions.

Statistic Type	Description
Active users	View the number of users (deduplicated) that have connected to and interacted with the server.
New registered users	View the number of newly registered users.
Total registered users	View the total number of registered users.
Upstream messages	Specify a time period and view the number of upstream messages.
Message senders	Specify a time period and view the number of message senders.
Peak concurrent online users	Specify a time period and view the number of concurrent online users.
One-to-one upstream messages	Specify a time period and view the number of one-to-one upstream messages.
One-to-one message senders	Specify a time period and view the number of one-to-one message senders.
Group upstream messages	Specify a time period and view the number of group upstream messages.
Group message senders	Specify a time period and view the number of group message senders.
Message sending groups	Specify a time period and view the number of groups that send messages.
New groups	Specify a time period and view the number of new groups.

Total groups	Specify a time period and view the total number of groups.
Data export	Specify a time period and export data.

Real-time monitoring

The statistics and analytics feature in the Chat console allows you to view operations data in various dimensions.

Statistic Type	Description
Current online users	Number of online users in real time
One-to-one messages today	Total number of one-to-one messages of the current day
Ordinary group messages today	Number of non-audio-video group messages of the current day
Audio-video group messages today	Number of audio-video group messages of the current day

Private deployment

Private deployment allows an enterprise to deploy systems directly to its own servers and save data locally. Chat provides the private deployment feature to assist enterprises in the deployment, implementation, and OPS of the private version.

Note：

To apply for the Chat private service, you need to log in with your root account of Tencent Cloud.

Audio/Video Call

Last updated：2025-04-03 11:41:56

Call is a UI-inclusive call component that can quickly integrate 1v1 calls, group calls, multi-endpoint calls, and other features into your application. It is a comprehensive and complete component with UI, so it can significantly reduce your development workload and help you integrate call functionality within 30 minutes.

Features and Pricing of Call

Call takes effect for an individual (`SDKAppID`). It is necessary to obtain the Call edition before using it. Different edition descriptions are presented in the table below.

Item		Trial	1-to-1 Call	Group Call
Price		7-day free trial	199 USD/month Buy Now	597 USD/month Buy Now
Free resources	Free minutes	10,000 minutes/month	10,000 minutes/month	10,000 minutes/month
	Package bonus minutes	-	100,000 minutes/month	300,000 minutes/month
	Quota of free monthly active users (MAU)	100/month	5,000/month	10,000/month
	Pay-as-you-go upon exhaustion (within the validity of the package)	Services become unavailable after exhaustion.	✓	✓
Call features	Audio/Video calls	✓	✓	✓
	Complete UI	✓	✓	✓
	Call status display	✓	✓	✓
	Call notifications and offline push (If the application is not in the foreground, push notifications will be sent.)	✓	✓	✓

Floating window (The call page can be displayed as a floating window.)	✓	✓	✓
Custom ringtones	✓	✓	✓
Make/Answer/Decline/Hang up a call	✓	✓	✓
Video call switch to Audio call	✓	✓	✓
1-to-1 call	✓	✓	✓
Group call	✓	-	✓
Invite to/Join ongoing calls	✓	-	✓
Call History API (Support obtaining call history data through Callback and REST API methods.)	✓	-	✓
Multi-platform call (A successful connection will automatically terminate requests from other platforms.)	✓	-	✓
Multi-device call (A user can be logged in to multiple devices of the same platform, such as several iOS devices. When a call is answered, the device that connects will automatically prevent other devices from accessing the call.)	✓ (Utilize in conjunction with the Chat Pro、Pro Plus、Enterprise Edition)	-	✓
AI noise suppression (Removes background noises with the help of AI.)	✓	-	✓
Less stutter under poor	✓	-	✓

	network conditions (Reduces stutter rate and loading time under poor network conditions.)			
Supported platforms		iOS、Android、Web、Flutter	iOS、Android、Web、Flutter	iOS、Android、Web、Flutter

Note

:

1. Free resources: The free resources can be used to deduct call durations and quota of free monthly active users (MAU). If you use the trial version, services will become unavailable for your application after you use up the package. If you use TRTC 1-to-1 Call or TRTC Group Call, after you use up the package, your additional usage will be charged at pay-as-you-go rates.
2. Free minutes: Each Tencent Cloud account will get 10,000 free minutes per usage cycle (a usage cycle is one month) after buying a TRTC Call package. The free minutes can be used to deduct call durations of TRTC Call features and on-cloud recording and mixtranscoding durations of TRTC basic features. To learn more, see Free Minutes.
3. Package bonus minutes: The bonus minutes can be used to deduct call durations of TRTC Call features. The bonus minutes are valid for one month and will expire at the end of each usage cycle.
4. Quota of free monthly active users (MAU): The number of unique users that log in to the Chat app in a given month, regardless of their number of repeat visits.
5. TRTC basic features: In addition to TRTC Call features, you can also use TRTC's basic features, which will incur additional fees. For the billing details, see Billing of On-Cloud Recording and Billing of MixTranscoding and Relay to CDN.

Billing Rules

The fees for Call may include: Call edition fees and overage fees.

Call edition fees: **A Call monthly package is necessary in order to use Call.**

Pay-as-you-go costs: Pay-as-you-go costs will be incurred if you exceed your Call monthly package's duration. After your monthly package is exhausted, pay-as-you-go costs may be incurred for quota of free monthly active users (MAU) services and TRTC audio/video durations. In addition, if you use a basic feature of TRTC, such as on-cloud recording and stream mixing and relay, fees for the corresponding features will also be incurred. If you use the trial version, services will become unavailable for your application after you use up the package. If you use 1-to-1 Call or Group Call, your exceeding usage will be charged at pay-as-you-go rates.

The validity period of a Call package is from the day of purchase to the same day of the following month. For example, if a package was bought on March 1, 2023, its validity period would be from March 1, 2023, to April 1, 2023.
Call is offered at the level of the application (`SDKAppID`), in other words, every call edition can only be used to activate one application (`SDKAppID`). If you have multiple applications that need to use Call features, you need to buy multiple Call packages. In addition, the Call edition takes effect immediately after purchase and does not support changing the `SDKAppID` . Please be sure to confirm the `SDKAppID` when purchasing.
One application can only be subscribed to one Call edition at a time. For example, if your application is already subscribed to **1-to-1 Call**, before the package expires, you cannot upgrade to **Group Call**. If you do need to upgrade your package, please submit a ticket.

Activate and purchase guide

You can choose the Call according to the Features and Pricing of Call, and refer to the following guidelines to activate and purchase Call.

Free trial

In order for you to better experience the Call features, we offer a 7-day free trial version for each SDKAppID, with 10,000 free minutes included. Each application (`SDKAppID`) can apply TRTC Call twice, and the total number of trial opportunities for all SDKAppID under one account (UIN) is 10.
You can activate the Call free trial edition in the Chat console, with the specific operation steps as follows:
1. Log into the Chat console, and click on the target application card to enter the application's basic configuration page.
2. Locate the **Call** card, and click on **Try now.**

3. After confirming the content in the popup window, click on **Activate now**. Once activated, you can proceed with integration according to integration guide.

4. If your current SDKAppID has not yet expired, you can click on **Learn more** in the **Call** card, and click **Renew** in the View Details pop-up window to use the second trial opportunity directly. At this time, the validity period of the trial version will be extended by 7 days.

Note:

Extending the validity period of the trial version via **Renew** will consume one free trial opportunity.

Purchase the official editions of Call

Call is one of the value-added capabilities of Chat. **The official edition of Call can only be purchased when the Chat application is the Standard/Premium edition** . The steps to purchase the official edition are as follows:

1. Log in to the Chat Purchase page.
2. Select the **Data Center** based on your actual business needs, and select the **SDKAppID** to purchase audio/video calls. You can select an existing application or create a new one. Please confirm that you select the correct SDKAppID. It cannot be changed after purchase.
3. If your current Chat application is already in the Standard/Premium edition, you can skip this step; otherwise, you need to select the Chat Plan you need first. For the differences between Chat plans, see Basic Service Details.

4. Select **Audio/Video Call** , and select the required **Call version** in the capability items. Select the **Validity period** . It is recommended that you select auto-renewal. After the package expires, it will be automatically renewed for you on a monthly basis without any operation.
5. Confirm that you understand and agree to the relevant Service Level Agreement. Check the **Service terms** and click **Purchase Now**.

Note:
If you purchase both Chat and Call capabilities on the Chat purchase page, the selected validity period will **be used as** the validity period for both Chat and Call capabilities.

6. After the purchase is completed, you can return to the Chat console and click the desired application card to enter the basic configuration page of the application. Check the current version in the **Call** card. After the activation is completed, you can refer to theIntegration Guide for integration.

Renew the official editions of Call

Call is one of the value-added capabilities of Chat, **it can be renewed only in Standard or Premium editions.** The steps to renew the official edition are as follows:

1. Log in to the Chat console, and click the target application card to enter the basic configuration page of application.
2. Click **Renew** on the **Call** card.

3. In the pop-up checkout window, select the **Validity period**. Confirm that you understand and agree to the relevant Service Level Agreement. Check the **Service terms** and click **Confirm to renew**.

4. After the purchase is completed, you can return to the Chat console and click the desired application card to enter the basic configuration page of the application. Check the current version in the **Call** card. After the activation is completed, you can refer to Integration Guide for integration.

Account System
Login Authentication

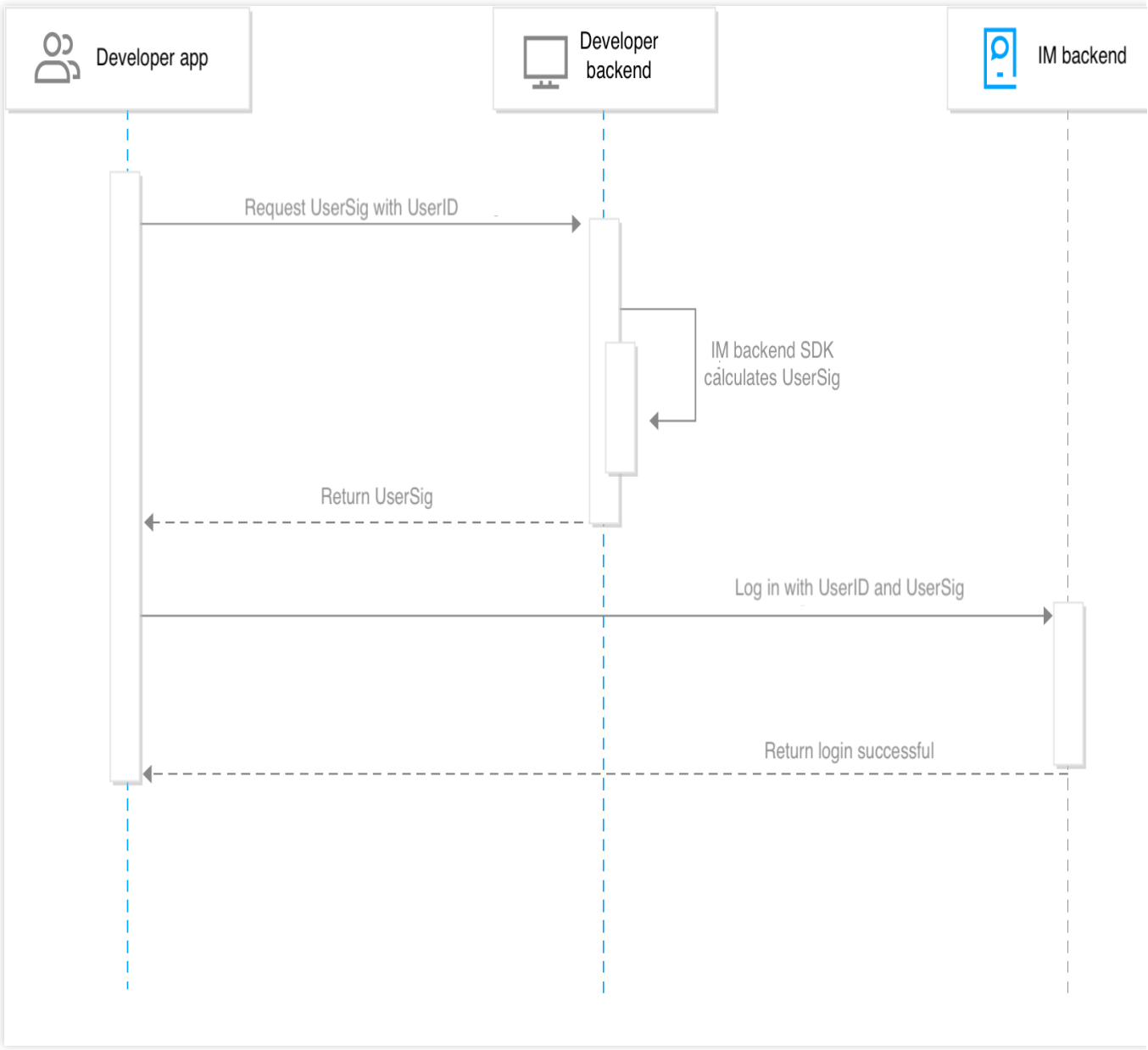
Last updated：2025-03-03 11:13:55

Login Authentication Overview

Instant Messaging (Chat) evolved from the QQ instant messaging system. We extracted QQ's common modules and integrated them to build the integration-friendly Chat SDK and backend service.
The Chat SDK can be viewed as QQ without the user interface. Integrating the Chat SDK into your app is similar to integrating the QQ kernel.
You must log in to QQ before you can use it for messaging. While you log in to QQ with your QQ ID and password, you must log in to the Chat SDK with the specified username (`UserID`) and password (`UserSig`).
UserID: Formerly known as Identifier. This is the username for users to log in to Chat. It is actually the user ID in your app.
For example, if a user in your app has the ID of 27149, you can use 27149 as the UserID to log in to Chat.
UserSig: This is the password with which the user logs in to Chat. It is the data generated after App Server uses the key to encrypt info such as UserID. For more information, see Generating UserSig.

App Login Process

We recommend that apps log in to Chat as follows:



Caution

The Chat backend completely trusts UserSig. To avoid affecting your data and business, you must ensure the security of the private key.

UserSigs generated by the default API of the Chat backend SDK are valid for 180 days. Developers can use the API with the validity parameter to customize the validity period. Developers must obtain a new UserSig from the developer backend before the original UserSig expires.

For more information on the Chat backend SDK that is used to generate UserSig, see Generating UserSig.

App Admin

Some Chat services require admin permissions, for example, calling RESTful APIs, disbanding a group, and pushing to all group members. Compared with ordinary accounts, the role of app admin has the highest level of privileges:
It has higher read permissions. For example, it can obtain all groups within the app and any information about any group.
It has higher operation permissions. For example, it can send messages to any user and add or delete members in any group.
You can only set app admins in the console. For more information on the procedure, see Configuring Account Admins.

Online Status Management

Last updated：2025-01-14 11:14:15

Concepts

There are three user statuses:
Running in the foreground (Online)
Running in the background (PushOnline)
Not logged in (Offline)

Caution

The PushOnline status exists only on mobile clients (Android, iOS, iPad) and does not exist on PC, macOS, Linux, or web clients.

Running in the foreground (Online)

The Online status means that a smooth TCP connection is maintained between the client and the Chat server. In this condition, the client can send messages to the Chat server and receive messages from it.

When a user opens an app, the status is Online.

When an app starts, a TCP persistent connection is established between the client and the Chat server. The Chat server saves the online information of clients, such as network links, platforms, and versions. When the app is running, the Chat SDK regularly sends heartbeats to confirm the online status of the user.

Note

Heartbeat: every two minutes, the Chat SDK sends a heartbeat packet to the server to confirm the online status of the user.

Running in the background (PushOnline)

When a client is in the PushOnline status, the TCP persistent connection between the client and the Chat server is disconnected. In this case, messages pushed offline can be received.
In the following scenarios, the user's status is PushOnline:
After using an app, the user switches the app to the background, and then the app process is killed by the mobile phone operating system (OS) or the user directly kills the app process.
If the app is in the keep-alive allowlist of the mobile phone OS, the OS will not kill the app process after the user switches the app to the background. In this case, the status is still Online. One criterion for distinguishing between Online and PushOnline is whether the app process is killed, that is, whether the TCP persistent connection between the client and Chat server is disconnected.
The user disconnects the client from the network (for example, by enabling the airplane mode on the mobile phone) or the client's network is completely unavailable (for example, when the user enters a tunnel).

In such circumstances, the client cannot even send TCP FIN or RST packets, and it will take 400 seconds before the heartbeat packet times out. After that, the user's status will change to PushOnline.

Caution

The PushOnline state exists only on mobile clients (Android, iOS, iPad) and does not exist on PC, macOS, Linux, mini program, and web clients.

Not logged in (Offline)

Offline refers to the status before a user enters the username and password for login. In this case, the user cannot receive online and offline message pushes.

In the following scenarios, the user's status is Offline:

The user logs out or has not logged in to the app since downloading it.

The user does not log in again within 7 days after the user's status changes to PushOnline. In this case, the status changes to Offline.

Querying the Online Status of Users

The app backend can query the online status of multiple users via the v4/openim/querystate RESTful API.

Currently, the Chat SDK cannot get the online status of users.

User Online Status Change Notifications

Chat can notify the app backend of user login and logout events. For more information, see Status Change Callback.

Real-Time Status Change Detection

Android/iOS/iPad/PC/macOS/Linux

In most cases, the changes of user status can be perceived in real time. For example:

When a user logs in, the user's status changes to Online.

When a user logs out, the user's status changes to Offline.

When a user kills the client process or when a user switches the app to the background and the client process is killed by the mobile phone OS, the user's status changes to PushOnline.

In the following special case, it will take 400 seconds before the heartbeat times out. After that, the Chat CVM instance can detect the status change:

When the network is completely unavailable and the client cannot even send TCP FIN or RST packets, it will take 400 seconds before the heartbeat times out. After that, the Chat CVM instance can perceive that the user's status changes

to PushOnline. This commonly occurs when the user disconnects the client from the network (for example, by enabling the airplane mode on the mobile phone) or the user enters a tunnel with no network signal.

Web

When a user logs in on the web client, the Chat CVM can detect in real time that the user's status changes to Online.
The timeliness of status change in various exit/disconnection scenarios is as follows:
Page closing can be perceived in real time, and the user's status will change to Offline.
It will take 60s before a network disconnection is perceived if the page is not closed, and the user's status will change to Offline.
Actively calling the `destroy` API can be perceived in real time, and the status will change to Offline.

Mini Program

When a user logs in on the mini program client, the Chat CVM can detect in real time that the user's status changes to Online.
The timeliness of status change in various exit/disconnection scenarios is as follows:
When the user clicks in the upper-right corner to exit, the status change to Offline can be perceived in 5s.
When the user disconnects the client from the internet (for example, by enabling airplane mode on the phone), it will take 60s before the status change to Offline is perceived.
Actively calling the `destroy` API can be perceived in real time, and the status will change to Offline.

Multi-Device Login

Force offline

By default, the Chat SDK does not allow multi-device login (for example, simultaneous login on a PC and an Android device). Instead, it forces the previous online device to go offline and allows only the last logged-in device to stay online. For more information on the force offline logic, see:
Multi-Client Login and Kickout

Multi-device online

Chat allows you to modify the multi-client login policy in the console. Currently, the following multi-client login policies are supported:
Single-Platform login: a user can be online only on the Android, iPhone, iPad, Windows, macOS, or web platform.
Dual-Platform login: a user can be concurrently online on the Android, iPhone, iPad, Windows, or macOS platform and the web platform.
Triple-Platform login: a user can be concurrently online on the Android, iPhone, or iPad platform, the Windows or macOS platform, and the web platform.

Multi-Platform login: a user can be concurrently online on the Android, iPhone, iPad, Windows, macOS, and web platforms.
By default, a user can be online on only one device for each platform (for example, one Android client will force another Android client to go offline). For users on Pro、Pro Plus、Enterprise edition, you can configure the maximum number of instances that they can log in to on the Android, iPhone, iPad, Windows, or macOS platform. In addition, you can configure the maximum number of instances that all users can log in to on the web platform.
Concurrent login is a key tool to improve the user experience. You can configure the maximum number of concurrent logins for a specific platform, so that forced logout won't occur when a user logs in to multiple devices on the same platform.

Note

The "concurrent logins on multiple devices on the same platform" feature is only available on the Chat Pro、Pro Plus、Enterprise edition. To use it, purchase the Pro、Pro Plus、Enterprise edition. For more information, see Pricing.

User Profile and Relationship Chain
Profile Management

Last updated：2025-03-10 10:16:52

Profile System Overview

Instant Messaging (Chat) provides a complete set of profile solutions through its user profile hosting capacity. Chat's profile hosting service enables your users to easily set and pull profiles.
Chat can store profile information, ensuring that your data has remote disaster recovery, cross-region deployment, and auto scaling capabilities. In this way, you are completely free from complex processing flows, such as server downtime, multi-copy primary-secondary replication, and capacity scaling.
Chat provides the business processing flows commonly used in the industry, with which you do not have to worry about user profile business logic.
Chat provides professional operation processes and teams, ensuring 99.99% service quality annually and helping you offer services known for their stability.
Chat provides easy-to-use service APIs and easy-to-access guidelines, with premium services throughout the whole process.
By using Chat's profile hosting service, you will be able to:
Store, read, and write standard profile fields.
Store, read, and write custom profile fields.

Profile Fields

A profile is a set of data that describes user properties. Chat's profile system supports standard and custom profile fields. Profile fields have the following characteristics:
Profile fields are expressed in key-value format.
Key is in string format, and its name can only contain uppercase and lowercase letters, numbers, and underscores.
Value has the following types:
a. An integer of uint32_t type (not supported for custom fields)
b. An integer of uint64_t type (not supported for custom fields)
c. A string of string type (the length of the string cannot exceed 500 bytes.)

Standard Profile Fields

Currently, Chat supports the following standard profile fields:

Field Name	Type	Description	Push Notification upon Update	Notes
Tag_Profile_IM_Nick	string	Nickname	Yes	The maximum length is 500 bytes.
Tag_Profile_IM_Gender	string	Gender	Yes	Gender_Type_Unknown: the gender is not set Gender_Type_Female: female Gender_Type_Male: male
Tag_Profile_IM_BirthDay	uint32	Date of birth	Yes	Recommended format: 20190419
Tag_Profile_IM_Location	string	Location	Yes	The maximum length is 16 bytes. Recommended usage: The app locally defines a set of number-location mappings. The backend stores four uint32_t numbers. The first uint32_t denotes the country or region. The second uint32_t denotes the state or province. The third uint32_t denotes the city. The fourth uint32_t denotes the district or county.
Tag_Profile_IM_SelfSignature	string	Personal signature	Yes	The maximum length is 500 bytes.
Tag_Profile_IM_AllowType	string	Approval method for new friend requests	Yes	AllowType_Type_NeedConfirm: manually accept new friend requests. AllowType_Type_AllowAny: automatically accept all new friend requests. AllowType_Type_DenyAny: reject all new friend requests.
Tag_Profile_IM_Language	uint32	Language	Yes	The application locally defines the number-language mapping

				and needs to locally convert the number corresponding to the language into text.
Tag_Profile_IM_Image	string	URL of the profile photo	Yes	The maximum length is 500 bytes.
Tag_Profile_IM_AdminForbidType	string	Admin forbids tagging new friend requests	Yes	AdminForbid_Type_None: the default value, and sending new friend requests is allowed. AdminForbid_Type_SendOut: sending new friend requests is forbidden.
Tag_Profile_IM_Level	uint32	Level	Yes	Generally, a piece of UINT-8 data stores the information of one level.You can divide the level to store the level information of multiple roles.
Tag_Profile_IM_Language	uint32	Role	Yes	Generally, a piece of UINT-8 data stores the information of one role.You can divide the role to store the information of multiple roles.

Custom Profile Fields

Custom profile fields are the user data set by each app according to its own business needs. By using custom profile fields, an app can add additional data to user profiles and perform read and write operations through existing APIs.

Applying for custom profile fields

To apply for custom profile fields, log in to the Chat console and select **Application Configuration** > **Feature Configuration**. After your application is submitted, the custom profile fields will take effect in five minutes.
When applying for custom profile fields, you need to submit the following information for each field:
The name of the custom profile field (Key). For more information, see Naming Rules for Custom Profile Fields.
The type of the custom profile field (Value). For more information, see Profile Fields.

Naming rules for custom profile fields

The rules for naming custom profile fields are as follows:
The name of the custom profile field contains the prefix and keyword parts.

The prefix of the custom profile field is Tag_Profile_Custom.

Keyword: the keyword must be a string of letters with a length no more than 8 bytes. We recommend you use an English word or its abbreviation as the keyword.

Example: if the custom field to be applied for by an app has the keyword **Test**, then the name of the custom profile field is: Tag_Profile_Custom_Test.

Relationship Chain Management

Last updated：2025-03-03 11:20:02

Contacts System Overview

Chat can host user contacts and offers a complete set of contacts solutions. If you do not want to develop or maintain friend relationship features for your app users but need features like adding and deleting friends, then you should use Chat's contacts hosting service.
Chat can store contacts, ensuring that your data has disaster recovery, multi-region deployment, and auto-scaling capabilities. This frees you from complex processing flows, such as server downtime, multi-copy primary-secondary replication, and scaling.
Chat provides business processing flows that are commonly used in the industry, with which you do not have to worry about contacts logic.
Chat provides professional operations processes and teams, ensuring 99.99% annual service quality stability and helping you offer stable services.
Chat provides easy-to-use service APIs and easy-to-access guidelines, with premium services throughout the whole process.
Contacts are a set of data used to describe the relationships between one user and other users. The contacts supported by Chat include friend lists and blocklists.

Relationship Chain Fields

The Chat contacts system supports standard and custom contacts fields. Contacts fields have the following characteristics:
Contacts fields are displayed in key-value format.
Key is in string format, and its name can only contain uppercase and lowercase letters, numbers, and underscores.
Value has the following types:
a. An integer of uint64_t type (not supported for custom contacts fields)
b. A string of string type (string length cannot exceed 500 bytes)
c. A buffer of bytes type (buffer length cannot exceed 500 bytes)
d. A string array of string type (the length of each string cannot exceed 500 bytes, and this type is used only for the `Tag_SNS_IM_Group` field of a friend list)

Contacts

Users can add up to 3,000 friends to their contacts in Chat.
Contacts support standard friend fields and custom friend fields.

Standard friend fields

Currently, Chat supports the following standard friend fields:

Field	Type	Description
Tag_SNS_IM_Group	Array	Friend list:1. A maximum of 32 lists are supported.2. The list name cannot be empty.3. The length of a list name cannot exceed 30 bytes.4. One friend can be added to multiple lists.
Tag_SNS_IM_Remark	String	Remark: The length of a remark cannot exceed 96 bytes.
Tag_SNS_IM_AddSource	String	Source from which a friend is added:1. The source field contains a prefix and keyword.2. The prefix of the source field is `AddSource_Type_` .3. Keyword: It must be a combination of letters with no more than 8 bytes. We recommend that you use an English word or its abbreviation.4. Example: If the source keyword is Android, the source field is `AddSource_Type_Android`
Tag_SNS_IM_AddWording	String	Request content: The length of a request cannot exceed 256 bytes.
Tag_SNS_IM_AddTime	Integer	Timestamp of adding friends.

Custom friend fields

Custom friend fields are the friend data set by each app based on its own business needs. By using custom friend fields, an app can add additional data to friends and perform read and write operations through existing APIs.
To apply for custom friend fields, the app admin can log in to the Chat console and select **App Configuration** > **Feature Configuration**. After the application is submitted, custom friend fields will take effect in 5 minutes.
The naming requirements for custom friend fields are as follows:
The name of a custom friend field has two parts: prefix and keyword.
The prefix of a custom friend field is `Tag_SNS_Custom` .
Keyword: The keyword must be a string of letters with a length no more than 8 bytes. We recommend that you use an English word or its abbreviation as the keyword.
Example: If the custom friend field to be applied for by an app has the keyword `Test` , the name of the custom friend field is `Tag_SNS_Custom_Test` .
When applying for custom friend fields, you need to submit the following information for each custom friend field:
The name of the custom friend field (Key).
The type of the custom friend field (Value). For more information, see Relationship Chain Fields.

Adding friends

Chat supports the following modes for adding friends: adding friends in batches, no approval required, and approval required. For more information, see Adding Friends.

Two-way friends: user A is a friend of user B, and user B is a friend of user A.

One-way friend: user A is a friend of user B, but user B is not a friend of user A.

Verification method for adding friends: Each user can choose the way with which he/she is added as a friend by another user. For more information, see the verification method field for adding friends in Standard Profile Fields.

No approval required: If the approval method for friend requests set by account A is `AllowType_Type_AllowAny`, then anyone who wants to add account A as a friend can directly add account A. In this scenario, there is one step in the friend request and acceptance process.

Approval required: If the approval method for friend requests set by account A is `AllowType_Type_NeedConfirm`, then for anyone who wants to add account A as a friend, account A will receive a message asking whether to approve the new friend request. Then, account A accepts or rejects the request to complete the process. In this scenario, there are two steps in the friend request and acceptance process.

Deleting friends

Chat supports two modes for deleting friends: one-way deletion and two-way deletion.

Deletion Mode	DeleteType	Description
One-way deletion	Delete_Type_Single	`To_Account` is deleted from the contacts of `From_Account`, but `From_Account` is not deleted from the contacts of `To_Account`.
Two-way deletion	Delete_Type_Both	`To_Account` is deleted from the contacts of `From_Account`, and `From_Account` is deleted from the contacts of `To_Account`.

Chat also supports deleting friends in batches. For more information, see Deleting Friends.

Verifying friends

Chat supports two friend verification modes: one-way friend verification and two-way friend verification.

Verification Mode	CheckType	Description
One-way friend verification	CheckResult_Type_Single	This is used to check whether `To_Account` is in the contact of `From_Account`, but does not check whether `From_Account` is in the contact of `To_Account`.
Two-way friend verification	CheckResult_Type_Both	This is used to check whether `To_Account` is in the contact of `From_Account` and also whether

		`From_Account` is in the contact of `To_Account` .

Possible results of one-way friend verification are:

Relation	Description
CheckResult_Type_NoRelation	`To_Account` is not in the contact of `From_Account` , but it cannot determine whether `From_Account` is in the contact of `To_Account` .
CheckResult_Type_AWithB	`To_Account` is in the contact of `From_Account` , but it cannot determine whether `From_Account` is in the contact of `To_Account` .

Possible results of two-way friend verification are:

Relation	Description
CheckResult_Type_BothWay	`To_Account` is in the contact of `From_Account` , and `From_Account` is in the contact of `To_Account` .
CheckResult_Type_AWithB	`To_Account` is in the contact of `From_Account` , but `From_Account` is not in the contact of `To_Account` .
CheckResult_Type_BWithA	`To_Account` is not in the contact of `From_Account` , but `From_Account` is in the contact of `To_Account` .
CheckResult_Type_NoRelation	`To_Account` is not in the contact of `From_Account` , and `From_Account` is not in the contact of `To_Account` .

For more information on friend verification, see Verifying Friends .

Blocklists

Each user has a blocklist, which is used to store the accounts blocked by this user.
After user A adds user B to the blocklist, user A will unfriend user B (if they are friends), and users A and B cannot send friend requests to each other in the future.
Each user can add up to 1,000 accounts to their Chat blocklist.

Adding users to a blocklist

Chat allows you to add multiple users to a blocklist at a time. For more information, see Blocklisting Users .

Removing users from a blocklist

Chat allows you to remove multiple users from a blocklist at a time. For more information, see Unblocklisting Users .

Pulling a blocklist

Chat supports pulling a full blocklist by page. For more information, see Pulling a Blocklist .

Verifying a blocklist

Chat supports two blocklist verification modes: one-way verification and two-way verification.

Verification Mode	CheckType	Description
One-way verification	BlackCheckResult_Type_Single	This is used to check whether `To_Account` is in the blocklist of `From_Account` , but not check whether `From_Account` is in the blocklist of `To_Account` .
Two-way verification	BlackCheckResult_Type_Both	This is used not only to check whether `To_Account` is in the blocklist of `From_Account` , but also to check whether `From_Account` is in the blocklist of `To_Account` .

Possible results of one-way blocklist relationship verification are:

Relation	Description
BlackCheckResult_Type_AWithB	`To_Account` is in the blocklist of `From_Account` , but it cannot determine whether `From_Account` is in the blocklist of `To_Account` .
BlackCheckResult_Type_NO	`To_Account` is not in the blocklist of `From_Account` , but it cannot determine whether `From_Account` is in the blocklist of `To_Account` .

Possible results of two-way blocklist relationship verification are:

Relation	Description
BlackCheckResult_Type_BothWay	`To_Account` is in the blocklist of `From_Account` , and `From_Account` is also in the blocklist of `To_Account` .
BlackCheckResult_Type_AWithB	`To_Account` is in the blocklist of `From_Account` , but `From_Account` is not in the blocklist of `To_Account` .
BlackCheckResult_Type_BWithA	`To_Account` is not in the blocklist of `From_Account` , but `From_Account` is in the blocklist of `To_Account` .

BlackCheckResult_Type_NO	`To_Account` is not in the blocklist of `From_Account` , and `From_Account` is not in the blocklist of `To_Account` .

For more information on blocklist verification, see Verifying Blocklist .

Message Management
One-to-One Message

Last updated：2025-03-10 11:19:37

Use Cases

One-to-one chat on the app

One-to-one messages are applicable to one-to-one chats on the app, which are similar to the QQ and WeChat chats between two friends.

App administrator sends messages

One-to-one messages can be sent by the app administrator from the backend, or by the app administrator simulating other users.

App administrator sends system messages

The app administrator can send system messages from the backend. These system messages are notifications delivered to users, and custom messages from the app administrator received by the app will be specially handled.

Instant Messaging (Chat) provides comprehensive one-to-one messaging capabilities. At the same time, the permission control and extension capabilities of one-to-one messaging provide features such as getting message history, multi-device synchronization, offline message push, and carrying sender profiles in messages.

One-to-One Message Types

Message Type	Description
Text	The message content is plain text.
Emoji	Emoji messages are customized by developers.
Location	The message content includes the caption, longitude, and latitude of the location.
Image	The message content includes the URL, dimensions, and size of the image. The maximum supported image file size is 28 MB.
Audio	The message content includes the URL, size, and duration of the audio. The maximum supported audio file size is 28 MB.
File	The message content includes the URL, size, and format of the file. All file formats are allowed, and the maximum supported file size is 100 MB.

Short video	The message content includes the URL, duration, size, and format of the short video. The maximum supported short-video file size is 100 MB.
Custom	Message types that are customized by developers, such as red packet and rock-paper-scissor.
System notification	This type of messages is divided into built-in system notification messages and system notification messages customized by developers.

One-to-One Messaging Capabilities

One-to-One Messaging Capability	Description	Use Cases
Send one-to-one messages	One-to-one messages can be sent through the SDK or RESTful API.	One-to-one chat on the app. App administrator sends messages. App administrator sends system messages.
Receive one-to-one messages	One-to-one messages can be received through the SDK.	Receive online messages. Receive offline messages. Query historical messages.

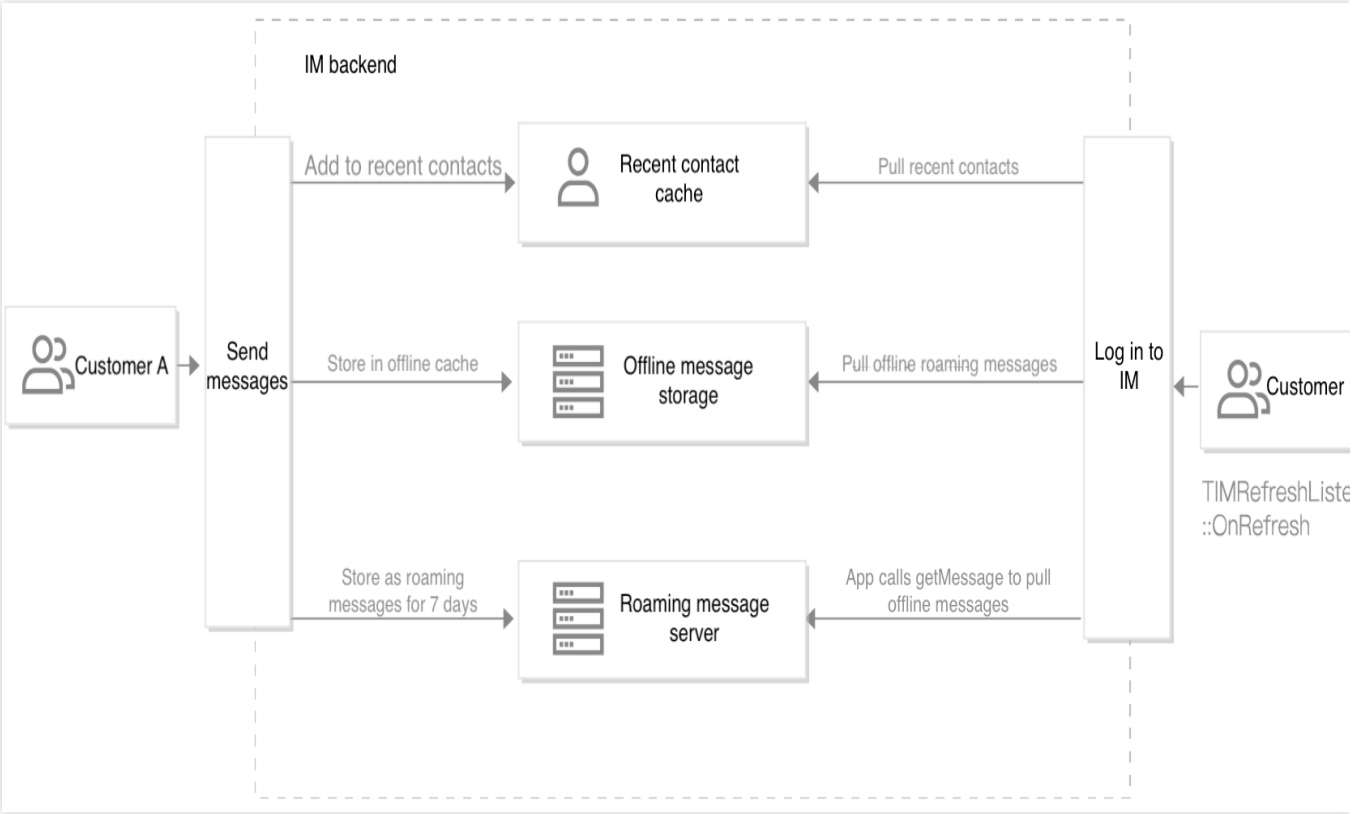
One-to-One Messaging Permission Control

One-to-One Messaging Permission Control	Description	Use Cases
Two app users can send one-to-one messages.	Any two strangers can send messages to each other.	Strangers send messages to each other.
App administrator sends one-to-one messages.	App administrator can send one-to-one messages to any user.	App administrator simulates other users to send messages. App administrator sends system messages.
Only friends are allowed to send messages to each other.	Only friends can send messages to each other.	Friends send messages to each other.
Block messages from someone.	You can add a certain user to blocklist to block their messages.	Unfriend someone. Block messages from someone.

One-to-One Messaging Extension Capabilities

One-to-One Messaging Extension Capability	Description	Use Cases
Obtain chat history	Historical messages can be obtained through the SDK or RESTful API.	Obtain real-time chat history. Download message history on a regular basis.
Multi-device synchronization	One-to-one messages can be synchronized across devices.	Users synchronize messages across devices.
Offline push of one-to-one messages	Support offline message push on Apple, Huawei, Xiaomi, OPPO, vivo, and Meizu mobile phones.	Push messages offline.
One-to-one messages carry sender profiles	Sender profiles can be carried by messages.	Display sender information such as the nickname and profile photo.

Processing of Offline One-to-One Messages



Offline cache and roaming of one-to-one messages:

1. User A calls `sendMessage` to send messages to user B who is offline.

User A is added to user B's recent contacts, with up to 100 messages cached.

Messages are stored in the offline cache for 7 days.

Messages are stored on the roaming server for 7 days.

2. User B calls the `login` API to log in to Chat.

3. The SDK automatically pulls messages from the offline cache and throws them through the `OnNewMessage` API.

4. The SDK automatically pulls recent contacts and throws them through the `OnNewMessage` API.

5. The user is notified through the `OnRefresh` API when message synchronization is completed.

6. The user calls `getMessage` . If local messages are incomplete, the SDK automatically pulls them from the roaming server.

Message Storage

Last updated：2025-03-10 11:19:37

Roaming Message Storage

Chat supports message roaming, which means that, when users log in on different devices, they still have access to chat history.
By default, roaming one-to-one chat messages and group chat messages are stored for 7 days, and they will be deleted then. For the billing details, see Pricing.
Different SDK versions allow you to extend the storage time of historical messages for different message types.

SDK Version	Text	Custom Message	Image	File	Short Audio	Short Video	Rich Media Message
Android 5.X	✓	✓	✓	✓	✓	✓	✓
Android 4.X	✓	✓	✓	✓	✓	✓	✓
Android 3.X	✓	✓	×	×	×	×	×
Android 2.X	✓	✓	×	×	×	×	×
iOS 5.X	✓	✓	✓	✓	✓	✓	✓
iOS 4.X	✓	✓	✓	✓	✓	✓	✓
iOS 3.X	✓	✓	×	×	×	×	×
iOS 2.X	✓	✓	×	×	×	×	×
PC SDK 2.X	✓	✓	×	×	×	×	×
Web and mini program SDK 2.X	✓	✓	✓	✓	✓	✓	✓
Web and mini program SDK 1.X	✓	✓	×	×	×	×	×

Note

We recommend you upgrade to the latest SDK version for improved user experience.

Unread Message Storage

Chat supports the storage of unread messages; that is, messages sent to users when they are offline will be pulled upon next login.
For one-to-one chat, unread messages in up to 100 conversations are saved for each user for 7 days by default, with up to 250 unread messages in each conversation. Excessive messages will not be counted as unread messages, but they will still be saved in message roaming. For group chat, there are no such limits.

Recent Contacts

Similar to the list of recent contacts on QQ, recent contacts display the users who have recently contacted the current user as well as their last messages.
By default, the client will pull the recent contacts through the SDK upon login to display the conversation list, and the recent 100 contacts are stored by default for the same period as the last messages; for example, if no messages have been sent to or received from a contact for 7 days, this contact cannot be obtained in the recent contacts after the last message expires.

App Local Storage

Users do not need to store messages because the SDK stores the received messages by default. Users can call the API to obtain local messages (no network required). Additionally, local messages can be obtained through the `getMessage` API. When gaps exist in local message history, roaming messages are used to fill in the gaps.
By default, the SDK does not delete user messages, but you are provided with the option to delete local messages.

Offline Push

Last updated：2025-03-26 19:36:59

Overview

In cases where the app is sent to the background or the process is killed, the offline push function can be used when there are new messages that need to alert the user. Instant Messaging Chat provides you TIMPush to implement the offline push function. For supported features, please refer to the table below, and click on Service Overview for more product details.

Features		TIMPush
Price		299 USD/month It can be used only by purchasing additional services on top of the Chat paid package
Supported Platforms	Android & iOS	✓
	uni-app	✓
	Flutter	✓
	React Native	✓
Access Integration	Manufacturer SDK Integration	One-click integration
	SDK Local Deployment	One-click configuration
	Push registration, token reporting	✓
	Access test tool	✓
	Access cycle	1 hour
Push Type	Ordinary Message Push	✓
	All/Tag Users Push	✓
	UserID-Targeted	✓

	Push	
Statistics	Ordinary Message Push Record Query	✓
	All/Tag Users Push Record Query	✓
	Ordinary Message Push Data Statistics （Actual delivery rate, reach rate, click rate, etc.）	✓
	All/Tag Users Push Data Statistics （Actual delivery rate, reach rate, click rate, etc.）	✓
Link Tracking	Push Channel Query	✓
	Push Device Status Query	✓
	Push Full Link Status Query (including Chat server > manufacturer server > terminal device > the entire link clicked by the user)	✓
Offline Push Reach		Active users within 30 days

Contact us

If you encounter problems during use, you can solve them by checking the FAQ, or you can enter the communication group for consultation: Telegram communication group: click to join.
WhatsApp communication group: click to join.

Group Message

Last updated：2023-09-15 17:08:08

Use Cases

Sending and receiving messages within a group

Group members send and receive messages within the group.

App admin sends messages

The app admin can send messages from the backend, or simulate users to send messages. In the latter case, even if the app admin or sender is not a group member, the messages will still be delivered.

App admin simulates system messages

The app admin can simulate system messages by sending messages from the backend. These messages are delivered as system messages to specified online group members, and the app admin's custom messages that are received on the app can be handled in special ways.

SEQ Mechanism of Group Messages

Tencent Cloud Chat maintains a message SEQ for each group, which starts from an initial value of 1. Every time an ordinary message is sent in the group chat, the Chat backend uses the current SEQ value as the SEQ of the message and then increases the SEQ by 1.
Group ID and SEQ together constitute the unique identifier of a message.

Caution

Chat generates incremental SEQs only for messages that are subject to roaming storage.

Group message types

Message Type	Description
Text	The message content is plain text.
Image	The message content includes the URL, dimensions, and size of the image.
Emoji	Emoji messages are customized by developers.
Audio	Audio data must include the duration in seconds.

Location	The message content contains the caption, longitude, and latitude of the location.
File	The message content includes the URL, size, and format of the file. There are no file format restrictions, and the maximum supported file size is 100 MB.
Short video	The message content includes the URL, duration, size, and format of the short video file. The maximum file size supported is 100 MB.
Custom	Message types that are customized by developers, such as red packet and rock-paper-scissor.
System notification	This type of message is divided into built-in system notification messages and system notification messages customized by developers.

Group messaging capabilities

Type	Feature Description	Application Scenario
Send ordinary group messages	Group members can send messages through the Chat SDK APIs. By calling RESTful APIs, app admins can send messages in any group without joining the group.	Group members send messages in the group, and app admins can send messages in any group.
Send group system messages	By calling RESTful APIs, app admins can send system messages in any group without joining the group. These system messages are only received by online group members and do not possess roaming capabilities.	App admins push time-sensitive notifications to all or a subset of online group members.
Offline push of group messages	Supported by Apple, Huawei, Xiaomi, OPPO, vivo, and Meizu mobile phones	Offline push of group chat messages
Receive online group messages	Group members can receive online group messages through the Chat SDK.	Online group members receive group messages in real time.
Group members receive offline messages or historical messages	Group members can query message historical messages through the Chat SDK.	Group members receive offline messages when they go back online, and group members can view group chat history.
App backend obtains group messages	App admins can download all messages generated during a certain time period through RESTful APIs. App admins can also obtain the chat history of any group through RESTful APIs. The app backend can obtain group messages through callback after messages are sent in the group.	Apps back up message history regularly. Apps need to quickly obtain the message history of specific groups. Apps need to obtain group messages in real time.

Delete messages	Historical messages can be deleted through RESTful APIs to ensure that they will not be further propagated.	Delete malicious information in a group.
Group messages carry sender profiles	Group messages can contain the sender nickname, profile photo, group name card, user-level custom fields, and member-level custom fields.	Display sender information such as the nickname and profile photo.
Group message sending control	You can control group message sending by muting and webhook event before group messages are sent.	Prevent a group member from sending messages, prevent all group members from sending messages, and filter or modify messages at the app backend.
Group message receiving control	You can set different message receiving options for individual groups: receive and notify, receive without notifying, and block messages. When **receive without notifying** is selected, iOS devices will disable APNs.	A user blocks messages from a group.
Group message frequency control	Control the sending frequency of ordinary group messages. The default value is 40 messages per second. Group system messages sent by the app admin through RESTful APIs are not subject to frequency control. For more information, see the message priority and frequency control described below.	Prevent spam messages.

Caution

If the sender nickname and profile photo need to be included, import the information in these two fields to user profiles in Chat.

If custom fields need to be included, configure custom fields in the console and submit a ticket to add the corresponding fields to messages.

Group Message Sending Control

The sending of group messages can be controlled through the following methods:

Control Method	Description
Mute group members	Prevent a group member from sending messages for a certain period of time. This feature is effective within a single group. If the muted user leaves the group and joins

	again, the user remains muted until the mute time expires.
Webhook before group messages are sent	Before a message is delivered to group members, Chat checks with the app backend for permission. If not allowed, the message will not be delivered. After receiving a webhook, the app backend can modify the message content and return it to Chat, which will deliver the modified message. For more information, see Before Group Message Is Sent.After invoking a webhook, Chat will deliver the message directly if it does not receive a response in two seconds, without retrying.

Message Priority and Frequency Control

Group message priority

Group messages are divided into three levels by priority. If a group exceeds the message frequency cap, the backend delivers high-priority messages first. Therefore, select appropriate priorities according to the importance of messages. The following lists the priorities from high to low:

Priority	Recommended Message Type
High	Red packet and prize message
Normal	Plain text message
Low	Like message

Group message frequency control

Number-based frequency control

Note

Number-based frequency control limits the maximum number of messages sent by all client APIs per second in a single group. The default value is 40 messages per second. When the number of sent messages exceeds the limit, the backend will first deliver higher-priority messages, with messages with the same priority delivered randomly.
A message that has been restricted by frequency control is not delivered or stored in the message history, but a success response will be returned to the sender. Before Group Message Is Sent webhook is triggered, but After Group Message Is Sent is not triggered.

Priority-based frequency control

Priority-based frequency control limits the maximum number of messages with a certain priority sent per second in a single group. A message sending request must first pass the number-based frequency control check before it enters the priority-based frequency control processing.

All messages are subject to the frequency limit of 40 messages per second. You can set three levels of priority. Messages with High priority are the top-priority messages, which are not likely to be restricted. However, if the number of high-priority messages sent in a second exceeds 40, high-priority messages will also be discarded.

Processing of Offline Group Messages

Offline group messages are processed as follows:

1. User A calls `sendMessage` to send messages to group C when user B is offline.
1.1 Group C is added to the recent contacts of user B, with up to 100 messages cached.
1.2 A user updates the message information of the group, including the latest group message seq.
1.3 Messages are stored on the roaming server for 7 days.
2. User B calls the `login` API to log in to Chat.
3. The SDK automatically pulls the seq information of all group messages, including the latest message seq and unread message count.

4. The SDK automatically pulls recent contacts and outputs through the `OnNewMessage` API.
5. Users are notified through the `OnRefresh` API when group message synchronization is completed.
6. Users call `getMessage`, and the SDK automatically pulls the messages from the roaming server.

Message Formats

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MsgBody

Message content is entered in the fields of MsgBody. Tencent Cloud Chat supports multiple message elements in one message, for example, a message can contain both text and emojis. Therefore, MsgBody is defined as an array that can include as many message elements as needed. The name for a message element is TIMMsgElement. For examples of the TIMMsgElements that constitute the MsgBody, see MsgBody Message Content Examples.
The format of TIMMsgElement is defined as follows:

```
{
    "MsgType": "",
    "MsgContent": {}
}
```

Field	Type	Description
MsgType	String	The type of the message element. Currently, these message objects are supported: TIMTextElem (text message), TIMLocationElem (location message), TIMFaceElem (emoji message), TIMCustomElem (custom message), TIMSoundElem (audio message), TIMImageElem (image message), TIMFileElem (file message), and TIMVideoFileElem (video message).
MsgContent	Object	The content of the message element. Each MsgType has its own MsgContent format. For more information, see below.

The following table lists the message types (MsgType) that are currently supported:

Value of MsgType	Type
TIMTextElem	Text
TIMLocationElem	Geographic location
TIMFaceElem	Emoji
TIMCustomElem	Custom. When the receiver is an iOS device and the app is working in the background, this type of message provides fields other than text to APNs. A combined message can contain only one TIMCustomElem custom message element.
TIMSoundElem	Voice

TIMImageElem	Image
TIMFileElem	File
TIMVideoFileElem	Video

Caution

Messages of the above types can be sent by server-side integrated RESTful APIs.

TIMMsgElement

Text message element

```
{
    "MsgType": "TIMTextElem",
    "MsgContent": {
        "Text": "hello world"
    }
}
```

Field	Type	Description
Text	String	Content of the message. When the receiver is an iOS or Android device and the app is working in the background, messages of this type are displayed as offline push text.

When the receiver is an iOS or Android device and the app is working in the background, the `Text` field in the JSON request packet is displayed as offline push text.

Location message element

```
{
    "MsgType": "TIMLocationElem",
    "MsgContent": {
        "Desc": "someinfo",
        "Latitude": 29.340656774469956,
        "Longitude": 116.77497920478824
    }
}
```

Field	Type	Description
Desc	String	Description of the location

Latitude	Number	Latitude
Longitude	Number	Longitude

When the receiver is an iOS or Android device and the app is working in the background, the offline push text is **[Location]** for the English version.

Emoji message element

```
{
    "MsgType": "TIMFaceElem",
    "MsgContent": {
        "Index": 1,
        "Data": "content"
    }
}
```

Field	Type	Description
Index	Number	Emoji index customized by users
Data	String	Additional data

When the receiver is an iOS or Android device and the app is working in the background, the offline push text is **[Face]** for the English version.

description

When a message contains only one `TIMCustomElem` custom message element, if both the `Desc` and `OfflinePushInfo.Desc` fields are not entered, the offline push of the message will not be received, unless the `OfflinePushInfo.Desc` field is entered.

Custom message element

```
{
    "MsgType": "TIMCustomElem",
    "MsgContent": {
        "Data": "message",
        "Desc": "notification",
        "Ext": "url",
        "Sound": "dingdong.aiff"
    }
}
```

Field	Type	Description

Data	String	Custom message data. This field is not delivered as a payload field by APNs, and therefore the data field cannot be obtained in payload.
Desc	String	Custom message description. When the receiver is an iOS or Android device, and the app is working in the background, the offline push text is displayed.If a custom message is sent with the OfflinePushInfo.Desc field set, the field will be overwritten; therefore, please enter the OfflinePushInfo.Desc field first. **Note：** When a message contains only one TIMCustomElem custom message element, if both the Desc and OfflinePushInfo.Desc fields are not entered, the offline push of the message will not be received, unless the OfflinePushInfo.Desc field is entered.
Ext	String	Extended field. When the receiver is an iOS or Android device and the app is working in the background, this field is delivered as an Ext key value in APNs request packet payloads. The protocol format of Ext is defined by the business end, the APNs is only responsible for passthrough.
Sound	String	Custom APNs push ringtone

When the receiver is an iOS or Android device and the app is working in the background, the `Desc` field is delivered as push text, the `Ext` field is delivered as an `Ext` key value in APNs request packet payloads, and the `Data` field is not delivered as a payload field by APNs. Note that a combined message can contain only one TIMCustomElem custom message element.

Voice message element

Caution

To send a voice message through the server-side RESTful API, you need to enter the `Url` , `UUID` , and `Download_Flag` fields. Make sure that the voice can be downloaded via the `Url` and the `UUID` is a globally unique string value, usually the MD5 value of the voice file. The message recipient can obtain the specified `UUID` through `V2TIMSoundElem.getUUID()` and the app can use the `UUID` to identify the voice. `Download_Flag` must be set to `2` .

4.X or later versions of Chat SDK (for Android, iOS, macOS, and Windows) send voice message elements in the following format:

```
{
    "MsgType": "TIMSoundElem",
    "MsgContent": {
        "Url": "https://1234-5678187359-1253735226.cos.ap-
shanghai.myqcloud.com/abc123/c9be9d32c05bfb77b3edafa4312c6c7d",
        "UUID": "1053D4B3D61040894AC3DE44CDF28B3EC7EB7C0F",
```

```
        "Size": 62351,
        "Second": 1,
        "Download_Flag": 2
    }
}
```

Field	Type	Description
Url	String	Voice download URL, through which the voice content can be downloaded directly.
UUID	String	Unique identifier of the voice, key value used by the client to index the voice
Size	Number	Voice data size, in bytes.
Second	Number	Voice duration, in seconds.
Download_Flag	Number	Flag of the voice download method. Currently, the value of `Download_Flag` must be `2`, which means that the voice content can be downloaded from the URL specified by the `Url` field.

Note

2.X and 3.X versions of Chat SDK (for Android, iOS, macOS, and Windows) send voice message elements in the following format:

```
{
    "MsgType": "TIMSoundElem",
    "MsgContent": {
        "UUID": "305c0201", //Unique identifier of the voice in String type. This is the key value the client uses to index the voice. The voice cannot be downloaded through this field. To obtain the voice, upgrade the Chat SDK to version 4.X.
        "Size": 62351,      //Voice data size in bytes, in Number type.
        "Second": 1         //Voice duration in seconds, in Number type.
    }
}
```

Image message element

Caution

To send an image message through the server-side RESTful API, you need to enter the `URL`, `UUID`, `Width`, and `Height` fields. Make sure that the image can be downloaded via the `URL` so that you can obtain the basic image information and process the image. `Width` and `Height` are the width and height (unit: pixels) of the image. `UUID` must be set to a globally unique string value, usually the MD5 value of the image. The message

recipient can obtain the `V2TIMImage` object by calling `V2TIMImageElem.getImageList()` and then get the specified `UUID` by calling `V2TIMImage.getUUID()` . The app can use the `UUID` to identify the image.

```
{
    "MsgType": "TIMImageElem",
    "MsgContent": {
        "UUID": "1853095_D61040894AC3DE44CDFFFB3EC7EB720F",
        "ImageFormat": 1,
        "ImageInfoArray": [
            {
                "Type": 1,           //Original image
                "Size": 1853095,
                "Width": 2448,
                "Height": 3264,
                "URL":
"http://xxx/3200490432214177468_144115198371610486_D61040894AC3DE44CDFFFB3EC7EB
720F/0"
            },
            {
                "Type": 2,      //Large image
                "Size": 2565240,
                "Width": 0,
                "Height": 0,
                "URL":
"http://xxx/3200490432214177468_144115198371610486_D61040894AC3DE44CDFFFB3EC7EB
720F/720"
            },
            {
                "Type": 3,   //Thumbnail
                "Size": 12535,
                "Width": 0,
                "Height": 0,
                "URL":
"http://xxx/3200490432214177468_144115198371610486_D61040894AC3DE44CDFFFB3EC7EB
720F/198"
            }
        ]
    }
}
```

Field	Type	Description
UUID	String	Unique identifier of the image, key value used by the client to index the image
ImageFormat	Number	Image format. JPG = 1, GIF = 2, PNG = 3, BMP = 4, Others = 255.
ImageInfoArray	Array	Download information of the original image, thumbnail, or large image.

Type	Number	Image type. 1: original image, 2: large image, 3: thumbnail.
Size	Number	Size of image data in bytes.
Width	Number	Image width in pixels
Height	Number	Image height in pixels
URL	String	Download URL of the image.

File message element

Caution

To send a file message through the server-side RESTful API, you need to enter the `Url`, `UUID`, and `Download_Flag` fields. Make sure that the file can be downloaded via the `Url` and the `UUID` is a globally unique string value, usually the MD5 value of the file. The message recipient can obtain the specified `UUID` by calling `V2TIMFileElem.getUUID()` and the app can use the `UUID` to identify the file. `Download_Flag` must be set to `2`.

4.X or later versions of Chat SDK (for Android, iOS, macOS, and Windows) send file message elements in the following format:

```
{
    "MsgType": "TIMFileElem",
    "MsgContent": {
        "Url": "https://7492-5678539059-1253735326.cos.ap-
shanghai.myqcloud.com/abc123/49be9d32c0fbfba7b31dafa4312c6c7d",
        "UUID": "1053D4B3D61040894AC3DE44CDF28B3EC7EB7C0F",
        "FileSize": 1773552,
        "FileName": "file:///private/var/Application/tmp/trim.B75D5F9B-1426-
4913-8845-90DD46797FCD.MOV",
        "Download_Flag": 2
    }
}
```

Field	Type	Description
Url	String	Download URL of the file, through which the file can be downloaded directly.
UUID	String	Unique identifier of the file, key value used by the client to index the file
FileSize	Number	Size of file data in bytes.
fileName	String	File name.

Download_Flag	Number	Flag of the file download method. Currently, the value of `Download_Flag` must be 2, which means that the file can be downloaded from the URL specified by the `Url` field.

Note

2.X and 3.X versions of Chat SDK (for Android, iOS, macOS, and Windows) send file message elements in the following format:

```
{
    "MsgType": "TIMFileElem",
    "MsgContent": {
        "UUID": "305c02010", //Unique identifier of the file in String type.
This is the key value the client uses to index the file. The file cannot be
downloaded through this field. To obtain the file, upgrade the Chat SDK to
version 4.X.
        "FileSize": 1773552, //The size of file data in bytes, in Number type.
        "FileName": "file:///private/var/Application/tmp/trim.B75D5F9B-1426-
4913-8845-90DD46797FCD.MOV" //The file name in String type.
    }
}
```

Video message element

Caution：

To send a video message through the server-side RESTful API, you need to enter the `VideoUrl`, `VideoUUID`, `ThumbUrl`, `ThumbUUID`, `ThumbWidth`, `ThumbHeight`, `VideoDownloadFlag`, and `ThumbDownloadFlag` fields. Make sure that the video and video thumbnail can be downloaded via the `VideoUrl` and `ThumbUrl` respectively. `VideoUUID` and `ThumbUUID` must be globally unique string values, usually the MD5 values of the video and video thumbnail. The message recipient can obtain the specified `VideoUUID` and `ThumbUUID` by calling `V2TIMVideoElem.getVideoUUID()` and `V2TIMVideoElem.getSnapshotUUID()` respectively. The app can use the `VideoUUID` to identify the video. `VideoDownloadFlag` and `ThumbDownloadFlag` must be set to `2`.

4.X or later versions of Chat SDK (for Android, iOS, macOS, and Windows) send video message elements in the following format:

```
{
    "MsgType": "TIMVideoFileElem",
    "MsgContent": {
        "VideoUrl": "https://0345-1400187352-1256635546.cos.ap-shanghai.myqcloud.co
        "VideoUUID": "5da38ba89d6521011e1f6f3fd6692e35",
        "VideoSize": 1194603,
        "VideoSecond": 5,
        "VideoFormat": "mp4",
        "VideoDownloadFlag":2,
```

```
        "ThumbUrl": "https://0345-1400187352-1256635546.cos.ap-shanghai.myqcloud.co
        "ThumbUUID": "6edaffedef5150684510cf97957b7bc8",
        "ThumbSize": 13907,
        "ThumbWidth": 720,
        "ThumbHeight": 1280,
        "ThumbFormat": "JPG",
        "ThumbDownloadFlag":2
    }
}
```

Field	Type	Description
VideoUrl	String	Download URL of the video, through which the video can be downloaded directly.
VideoUUID	String	Unique identifier of the video, key value used by the client to index the video.
VideoSize	Number	Size of video data, in bytes.
VideoSecond	Number	Video duration, in seconds. For web clients, this field cannot be obtained and the value `0` is used.
VideoFormat	String	Video format, for example, MP4.
VideoDownloadFlag	Number	Flag of the video download method. Currently, the value of `VideoDownloadFlag` must be 2, which means that the video can be downloaded from the URL specified by the `VideoUrl` field.
ThumbUrl	String	Download URL of the video thumbnail, through which the video thumbnail can be downloaded directly.
ThumbUUID	String	Unique identifier of the video thumbnail, key value used by the client to index the video thumbnail
ThumbSize	Number	Size of thumbnail data, in bytes.
ThumbWidth	Number	Thumbnail width in pixels
ThumbHeight	Number	Thumbnail height in pixels
ThumbFormat	String	Video thumbnail format, such as JPG or BMP.
ThumbDownloadFlag	Number	Flag of the video thumbnail download method. Currently, the value of `ThumbDownloadFlag` must be 2, which means that the video thumbnail can be downloaded from the URL specified by the `ThumbUrl` field.

Note：

2.X and 3.X versions of Chat SDK (for Android, iOS, macOS, and Windows) send video message elements in the following format:

```
{
    "MsgType": "TIMVideoFileElem",
    "MsgContent": {
        "VideoUUID": "1400123456_dramon_34ca36be7dd214dc50a49238ef80a6b5",//Unique
        "VideoSize": 1194603, //Size of video data in bytes, in Number type.
        "VideoSecond": 5,     //Video duration in seconds, in Number type.
        "VideoFormat": "mp4", //Video format in String type, for example, MP4.
        "ThumbUUID": "1400123456_dramon_893f5a7a4872676ae142c08acd49c18a",//Unique
        "ThumbSize": 13907,   //Size of thumbnail data in bytes, in Number type.
        "ThumbWidth": 720,    //Thumbnail width in Number type.
        "ThumbHeight": 1280,  //Thumbnail height in Number type.
        "ThumbFormat": "JPG"  //Video thumbnail format in String type, such as JPG
    }
}
```

Elements of a combined message

Caution

Only native SDK 5.2.210 or later and web SDK 2.10.1 or later support the sending and receiving of combined messages.

```
{
  "MsgType": "TIMRelayElem",
  "MsgContent": {
    "Title": "Group chat history",
    "MsgNum": 2,
    "CompatibleText": "The SDK version does not support combined messages. Please u
    "AbstractList": [
      "A: What do you think of this?",
      "B: I think it's great."
    ],
    "MsgList": [
      {
        "From_Account": "A",
        "GroupId": "group1",
        "MsgSeq": 85,
        "MsgRandom": 3998651049,
        "MsgTimeStamp": 1664437702,
        "MsgBody": [
          {
            "MsgContent": {
              "Text": " What do you think of this?"
```

```
            },
            "MsgType": "TIMTextElem"
          }
        ]
      },
      {
        "From_Account": "B",
        "GroupId": "group1",
        "MsgSeq": 86,
        "MsgRandom": 965790,
        "MsgTimeStamp": 1664437703,
        "MsgBody": [
          {
            "MsgContent": {
              "Text": "I think it's great."
            },
            "MsgType": "TIMTextElem"
          }
        ]
      }
    ]
  }
}
```

Field	Type	Description
Title	String	Title of the combined message.
MsgNum	Integer	Number of messages combined/forwarded.
CompatibleText	String	Compatible text. When an SDK of an earlier version that does not support combined messages receives a combined message, the Chat backend converts the message into compatible text and delivers it.
AbstractList	Array	Digest list of a combined message, in string array format.
MsgList	Array	Message list. This field is available only when the total length of the combined messages is less than or equal to 12 KB, in which case the `JsonMsgKey` field is unavailable.
JsonMsgKey	String	Key of the combined message list. This field is available only when the total length of the combined messages is greater than 12 KB, in which case the `MsgList` field is unavailable.

The structure of each message in `MsgList` is as follows:

Field	Type	Description

From_Account	String	UserID of the message sender. This field is available when the combined message is a one-to-one or group message.
To_Account	String	UserID of the message recipient. This field is available only when the combined message is a one-to-one message.
GroupId	String	Group ID. This field is available only when the combined message is a group message.
MsgSeq	Integer	Sequence number of the message (a 32-bit unsigned integer).
MsgRandom	Integer	Random number of the message (a 32-bit unsigned integer).
MsgTimeStamp	Integer	Message timestamp, in seconds.
MsgBody	Array	Message body. For details on formats, see Message Formats. (Note: a message can contain multiple message elements, in which case `MsgBody` is an array.)
CloudCustomData	String	Custom message data. It is saved in the cloud and will be sent to the peer end. Such data can be pulled after the app is uninstalled and reinstalled.

MsgBody Examples

Single text element message

A single message contains only one text message element. The text content is **hello world**.

```
{
    "MsgBody": [
        {
            "MsgType": "TIMTextElem",
            "MsgContent": {
                "Text": "hello world"
            }
        }
    ]
}
```

Combined messages

The following single message contains two text message elements and one emoji message element, in the sequence of text + emoji + text.

```
{
```

```
    "MsgBody": [
        {
            "MsgType": "TIMTextElem",
            "MsgContent": {
                "Text": "hello"
            }
        },
        {
            "MsgType": "TIMFaceElem",
            "MsgContent": {
                "Index": 1,
                "Data": "content"
            }
        },
        {
            "MsgType": "TIMTextElem",
            "MsgContent": {
                "Text": "world"
            }
        }
    ]
}
```

Caution

A combined message can contain only one `TIMCustomElem` custom message element, and an unlimited number of other message elements.

Description of Custom Message Data CloudCustomData

Each message can carry custom data `CloudCustomData` .

`CloudCustomData` is saved in the cloud together with the `MsgBody` of the message. It will be sent to the opposite end and can still be pulled after the program is uninstalled and reinstalled.

The following example shows the formats of `CloudCustomData` and `MsgBody` :

```
{
    "MsgBody": [
        {
            "MsgType": "TIMTextElem",
            "MsgContent": {
                "Text": "hello"
            }
        }
    ],
    "CloudCustomData": "your cloud custom data"
```

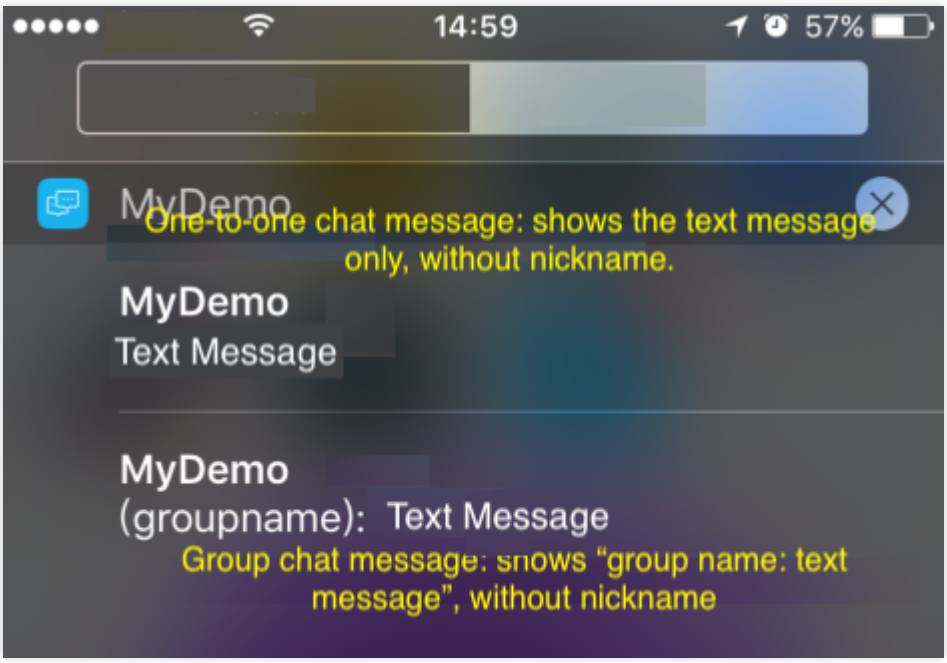
```
}
```

Message Formats for Apple Push Notification Service (APNs)

Push notification display format on the client

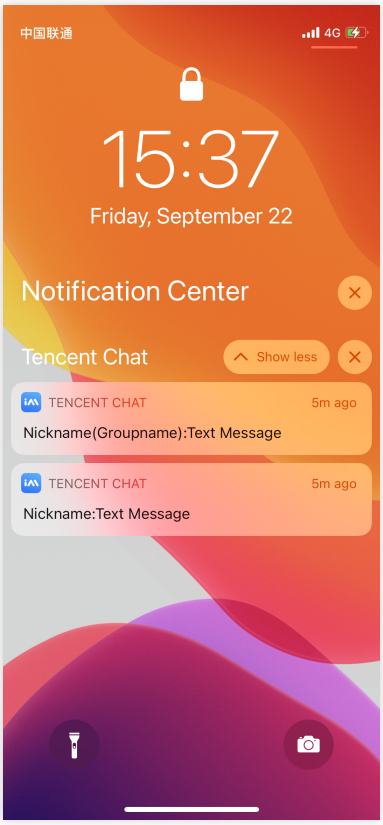
Account without a nickname

For an account without a nickname, APNs displays only text content: **push text** for one-to-one chat messages, and **(group name): push text** for group messages.



Account with a nickname

For an account with a nickname, APNs displays **nickname: push text** for one-to-one chat messages, and **nickname (group name): push text** for group messages.



Display format of combined messages

For combined messages, the text displayed shows the push text of each message element in sequence. The following example shows a one-to-one chat message with an account nickname set, and the push text is **helloworld**. Note that the text contains no spaces. The backend connects message elements in sequence without adding any extra characters. If spaces or other characters need to be added between different message elements, the caller should take control.

```
{
  "MsgBody": [
      {
          "MsgType": "TIMTextElem",
          "MsgContent": {
              "Text": "hello"
          }
      },
      {
          "MsgType": "TIMCustomElem",
          "MsgContent": {
              "Data": "message",
              "Desc": "world",
              "Ext": "https://www.example.com",
              "Sound": "dingdong.aiff"
          }
      }
```

```
    ]
}
```

The following table summarizes the push text of different message elements.

Value of MsgType	Type	Push Text of the Message Element
TIMTextElem	Text	`Text` field.
TIMLocationElem	Location	Offline push text is **[Location]** for the English version.
TIMFaceElem	Emoji	Offline push text is **[Face]** for the English version.
TIMCustomElem	Custom	`Desc` field.

RESTful APIs for nickname and group name settings

RESTful API for setting the account nickname: Setting the Profile.

RESTful API for setting the group name: Modifying Basic Group Information.

Advanced apps

Customizing push sounds and extended fields delivered by APNs

Use TIMCustomElem to customize message elements. In the `Sound` field, enter the file name of the custom audio. In the `Ext` field, enter the delivered extended field, which can be obtained from the `Ext` field in the APNs payload.

```
{
    "To_Account": "lumotuwe5",
    "MsgRandom": 121212,
    "MsgBody": [
        {
            "MsgType": "TIMCustomElem",
            "MsgContent": {
                "Data": "other information",
                "Desc": "hello",
                "Ext": "www.qq.com",
                "Sound": "dingdong.aiff"
            }
        },
        {
            "MsgType": "TIMTextElem",
            "MsgContent": {
                "Text": "world"
            }
        }
```

```
    ]
}
```

The received APNs JSON payload is displayed as follows on the client:

```
{
    "aps": {
        "alert": "Nickname:helloworld",   //Push text of each message element
is connected in sequence
        "badge": 5,
        "sound": "dingdong.aiff"         //Corresponds to the `Sound` field in
`TIMCustomElem`
    },
    "ext": "www.qq.com"                //Corresponds to the `Ext` field in
`TIMCustomElem`
}
```

OfflinePushInfo

`OfflinePushInfo` is a JSON object dedicated for configuring offline push. It allows you to configure whether to disable push, push text description content, and push passthrough strings for a message. With `OfflinePushInfo`, you can easily set offline push information, eliminating the need to encapsulate through `TIMCustomElem`.

Caution

If `OfflinePushInfo` has been filled in, the offline push settings in `TIMCustomElem` are ignored. Currently, `OfflinePushInfo` can work with APNs and the push services of various Android device brands, including Mi, Huawei, Meizu, OPPO, and vivo.

The following example shows the format of `OfflinePushInfo`:

```
{
    // ...
    "MsgBody": [...] // Message body related description here
    "OfflinePushInfo": {
        "PushFlag": 0,
        "Title": "This is the push title",
        "Desc": "This is offline push content",
        "Ext": "{\\"entity\\":
{\\"key1\\":\\"value1\\",\\"key2\\":\\"value2\\"}}",  // Pass-through field,
push uses JSON format string
        "AndroidInfo": {
```

```
            "Sound": "shake",  // Ringtone file name without suffix
            "XiaoMiChannelID": "xiaomi_channel_id",
            "OPPOChannelID": "OPPO_channel_id",
            "OPPOCategory": "MARKETING",   // OPPO message category
            "VIVOCategory": "MARKETING",   // VIVO message category
            "HuaWeiCategory": "MARKETING", // Huawei message category
            "HonorImportance": "LOW"       // Honor message category
        },
        "ApnsInfo": {
            "Sound": "apns.mp3", // Ringtone file name with suffix
            "BadgeMode": 1,
            "Title":"apns title",
            "SubTitle":"apns subtitle",
            "Image":"www.image.com",
            "MutableContent": 1
        }
    }
}
```

```
{
    // ...
    "MsgBody": [...] // Message body related description here
    "OfflinePushInfo": {
        "Ext": "{\\"entity\\":
{\\"key1\\":\\"value1\\",\\"key2\\":\\"value2\\"}}"  // Passthrough field, push
uses JSON format string
        "ApnsInfo": {
            "ContentAvailable": 1 // APNS silent push
        }
    }
}
```

The preceding fields are described as follows:

Field	Type	Required	Description
PushFlag	Integer	Optional	0: enable push, 1: disable offline push.
Title	String	Optional	Offline push title. This field is applicable to both iOS and Android.
Desc	String	Optional	The offline push content. This field overwrites the offline push display text of the TIMMsgElement elements mentioned above.If the message sent has only one TIMCustomElem element, this Desc field will overwrite the Desc field in the TIMCustomElem. If neither of the Desc fields is filled in, the offline

			push notification for the message will not be received.
Ext	String	Optional	Passthrough content of offline push. To make sure the offline push of all Android vendors are attainable, this field must be in JSON format.
AndroidInfo.Sound	String	Optional	Path to the offline push sound file in Android.
AndroidInfo.PushStyle	Integer	Optional	Android notification bar style: "0" represents the default style, "1" represents the big text style. If not filled, the default is 0. Only effective for Huawei/Honor/OPPO
AndroidInfo.HuaWeiChannelID	String	Optional	Notification channel field for Huawei phones with EMUI 10.0 and above. When this field is not empty, it will override the ChannelID value configured in the console push certificate.
AndroidInfo.XiaoMiChannelID	String	Optional	Notification category (Channel) adaptation field for Xiaomi phones with MIUI 10 and above. When this field is not empty, it will override the ChannelID value configured in the console push certificat
AndroidInfo.GoogleChannelID	String	Optional	Notification channel fields for Google phones with Android 8.0 and above.
AndroidInfo.OPPOChannelID	String	Optional	Message category for OPPO phones, used to identify the message type. See category description for details. When this field is not empty, it will override the category value configured in the console push certificate.
AndroidInfo.OPPOCategory	String	Optional	Message category for OPPO phones, used to identify the message type. See category description for details. When this field is not empty, it will override the category value configured in the console push certificate.
AndroidInfo.VIVOClassification	Integer	Optional	Message category for vivo phones, "0" represents operational messages, "1" represents system messages, default is 1 if not filled. (vivo push service optimized message classification rules on

			April 3, 2023, it is recommended to use AndroidInfo.VIVOCategory to set the message category)
AndroidInfo.VIVOCategory	String	Optional	Message category for vivo phones, used to identify the message type. See category description for details. When this field is not empty, it will override the category value configured in the console push certificate.
AndroidInfo.HuaWeiImportance	String	Optional	Notification level for Huawei phone messages, values are LOW, NORMAL.
AndroidInfo.HuaWeiCategory	String	Optional	Message category for Huawei phones, used to identify the message type. See category description for details. When this field is not empty, it will override the category value configured in the console push certificate.
AndroidInfo.HuaWeiImage	String	Optional	URL of the small icon on the right side of the Huawei push notification bar. The URL must use the HTTPS protocol. Example value: `https://example.com/image.png` . The image file must be less than 512KB, with recommended dimensions of 40dp x 40dp and a corner radius of 8dp. Images exceeding the recommended dimensions may be compressed or not fully displayed. The recommended image formats are JPG/JPEG/PNG.
AndroidInfo.HonorImage	String	Optional	URL of the small icon on the right side of the Honor push notification bar. The URL must use the HTTPS protocol. Example value: `https://example.com/image.png` . The icon file must be less than 512KB, with recommended dimensions of 40dp x 40dp and a corner radius of 8dp. Icons exceeding the recommended dimensions may be compressed or not fully displayed.
AndroidInfo.HonorImportance	String	Optional	Honor push notification message classification, values are LOW, NORMAL, used to identify message classification. For details, see Honor Message Classification.

AndroidInfo.GoogleImage	String	Optional	Google push notification bar message right-side icon URL, image resource should not exceed 1M, supports JPG/JPEG/PNG formats, example value: `https://example.com/image.png` .
ApnsInfo.BadgeMode	Integer	Optional	The default value or 0 indicates that counting is required. 1 indicates that counting is not required for this message, in which case the number in the upper-right icon does not increase.
ApnsInfo.Title	String	Optional	Title of an APNs push message. The top-level title is replaced when this field is filled in.
ApnsInfo.SubTitle	String	Optional	Subtitle of an APNs push message.
ApnsInfo.Image	String	Optional	Image URL carried by APNs. When the client obtains this field, it displays the image in a pop-up window by downloading the image through the URL.
ApnsInfo.MutableContent	Integer	Optional	Valid values: 1: enable the push extension of iOS 10 or later; 0 (default value).
ApnsInfo.Sound	String	Optional	IOS system notification ringtone file name with suffix. Custom ringtone length cannot exceed 30s, and the audio file needs to be linked into the Xcode project first. Example value: `shake.mp3` .
ApnsInfo.InterruptionLevel	String	Optional	Notification priority and interruption level of delivery time. For iOS 15+ notification levels, the value can only be one of active, critical, passive, or time-sensitive. For details, refer to: APNS InterruptionLevel Description.
ApnsInfo.ContentAvailable	Integer	Optional	For 1, it indicates iOS silent push, no notification bar pop-up. Apple recommends a maximum of 3 silent messages per hour. For details, refer to: APNS Background Notification.

Caution

The maximum data packet size supported by APNs is 4 KB. Therefore, we recommend that the total size of the `Desc` and `Ext` fields does not exceed 3 KB.

References

APNs development documentation

Offline Push (iOS).

Group Related
Group System

Last updated：2025-01-24 10:09:01

Group System Overview

The group system is an instant messaging system that allows multiple participants to communicate in one chat. The group system has the following basic capabilities:
Comprehensive group management capabilities: Group creation and disbanding, member management, group profile management, member profile management, and more.
Stable and reliable messaging and a sophisticated group message management mechanism: Permission control, muting/unmuting, message callback, message roaming, and more.
Based on common use cases, Chat provides the following default group types: **Work** , **Public** , **Meeting** , **AVChatRoom** , and **Community** .
Upper limit on the number of group members:
The number of members in a Work, Public, or Meeting group can be increased to a maximum of 6,000 if fees are paid. For more information, see Pricing.
A Community group supports up to 100,000 members per group.
There is no upper limit on the number of members in an AVChatRoom.
Note:
Although AVChatRoom supports unlimited group members, if a spike in group members is expected within a short time (in scenarios such as large online events where the number of members in a single group reaches 50,000 or above), contact the channel manager in advance and report service resource usage by providing the SDKAppID and the scheduled event time.
Currently, historical message storage is available only for non-AVChatRoom groups, with messages stored for 7 days for billing plans of the Developer edition and Standard edition and 30 days for the Pro edition、Pro Plus edition、Enterprise edition by default. If you require a longer storage period, change the storage period of historical messages in the console. Increasing the storage period of historical messages is a value-added service. For more information on pricing, see Pricing.
Community is a new powerful tool for entertainment collaboration. Within the same community, a high number of members can be divided into different groups and topics to separate messages for hierarchical communication, yet they can also share the same set of friend relationships. This helps you develop a unique path of social expansion. The community feature is widely suitable for diverse use cases, such as finding like-minded people, game-based social networking, fan marketing, and organization management.

The Community feature is supported by the SDK of the Enhanced edition on v5.8.1668 or later and the SDK for web on v2.17.0 or later. You need to purchase the Pro edition、Pro Plus edition、Enterprise edition, go to the **console**, select **Group feature configuration**, and enable **Community**.

Chat's group system is highly customizable, allowing you to use:

Custom Message Elements

Custom Group IDs

Custom Topic IDs

Custom Fields

Custom Callbacks

Group Member Roles

The following table lists various group member roles and their permissions:

Group Member Role	Description	Management Permission
Ordinary member	An ordinary member has no management permissions.	In a Work group, an ordinary member has the permission to modify the group profile.
Admin	An admin is appointed by the group owner to assist in managing group members and holds certain management permissions.	Modify the group profile. Remove an ordinary member from the group. Mute an ordinary member, that is, prevent the ordinary member from speaking for a certain period of time. Approve or reject a membership application. Work groups do not support the setting of admins by default.
Group owner	A group owner is the creator of a group and has the highest level of management permissions in the group.	The group owner has the following permissions in addition to all permissions held by an admin: Appoint or cancel an admin. Remove an admin from the group. Mute an admin. Disband the group. Transfer the group.
App admin	This special role has the authority to manage all group permissions in the app and has more power than the group owner.	The app admin has the same permissions as the group owner, whether it is a member of the group or not.

Group Types

Based on common use cases, Chat provides the following default group types:

Group type	Applicable scenario
Work	After a Work group is created, users can join the group only after being invited by group members. The invitation does not need to be accepted by the invitee or approved by the group owner. This group type is the same as private group (Private) in earlier versions.
Public	After a Public group is created, the group owner can designate group admins. To join the group, a user needs to search for the group ID and send a request, and the request needs to be approved by the group owner or an admin before the user can join the group.
Meeting	A Meeting group allows users to join and leave freely and view historical messages sent before they join the group. Meeting groups are ideal for scenarios that integrate Tencent Real-Time Communication (TRTC), such as audio/video conferencing and online education. This group type is the same as chat room (ChatRoom) in earlier versions.
AVChatRoom	An AVChatRoom group allows users to join and exit freely, supports an unlimited number of members, and does not store message history. Audio-video groups can be used with Cloud Streaming Services (CSS) to support on-screen comment chat scenarios.
Community	A Community group allows users to join and exit freely, supports up to 100,000 members, and stores message history. To join the group, a user needs to search for the group ID and send an application, and the application does not need to be approved by an admin before the user can join the group.

Differences in Basic Group Capabilities

Item	Work	Public	Meeting	AVChatRoom	Community
Available member roles	Group owner Ordinary member Application admin	Group owner Admin Ordinary member App admin	Group owner Admin Ordinary member App admin	Group owner App admin	Group owner Admin Ordinary member App admin
Permission to	Ordinary	Group admin	Group owner	Group owner	Admin

modify basic group information	member Group owner Application admin	Group owner App admin	App admin	App admin	Group owner App admin
Number of group members whose information can be obtained	All group members	All group members	All group members	None (no group member information stored)	All group members
Who can disband a group	App admin	Group owner and app admin	Group owner and app admin	Group owner and app admin	Group owner and app admin

Note:

Group types are upgraded in the new SDK version and they are **Work** , **Public** , **Meeting** , **AVChatRoom** , and **Community** . Private and ChatRoom in earlier versions (which have Public, Private, ChatRoom, and AVChatRoom groups) correspond to Work and Meeting in the new version respectively.

Ordinary members of Work can modify only the group name, introduction, announcement, and group profile photo URL, but not other group profile information.

If the roles of a group type cannot meet your business needs, you can add roles by setting member-level custom fields.

It is necessary to obtain the information about some members in scenarios where an audio-video group displays a list of some of its members.

Differences in Joining a Group

Item	Work	Public	Meeting	AVChatRoom	Community
Perform an exact search for a group ID to join a group	Not supported	Supported	Supported	Supported	Supported
Perform a fuzzy search for group information to join a group	Not supported	Not supported	Not supported	Not supported	Not supported
Apply to join a group	Not supported	Supported. Approval from the group owner or	Supported. No approval is needed.	Supported. No approval is needed.	Supported. No approval is needed.

		admin is needed.			
Join a group after an invitation from a group member is received	Supported	Not supported	Not supported	Not supported	Supported

Note:

Exact search is to search for a group by group ID. Fuzzy search is to search for a group by fields such as the group name.

Approval for joining a group: the group owner and admin can choose to approve or reject applications made by non-members to join the group. Only approved users can join the group.

For a group type that does not support the invitation of non-members to a group, group members can share the group ID with non-members in the app so that the non-members can join the group.

Differences in Member Management Capabilities

Item	Work	Public	Meeting	AVChatRoom	Community
Setting admins	Not supported	Supported	Supported	Supported	Supported
A group owner quits the group	Supported. After the group owner quits, the group has no group owner.	Not supported	Not supported	Not supported	Not supported
Remove a group member	Supported. The group owner can remove group members.	Supported. The group owner and admin can remove group members, but the admin can remove only ordinary group members.	Supported. The group owner and admin can remove group members, but the admin can remove only ordinary group members.	Not supported. The muting feature can be used to achieve a similar effect.	Supported. The group owner and admin can remove group members, but the admin can remove only ordinary group members.
Mute a	Not	Supported. The	Supported.	Supported. The	Supported. The

group member	supported	group owner and admin can mute group members, but the admin can mute only ordinary group members.	The group owner and admin can mute group members, but the admin can mute only ordinary group members.	group owner can mute group members.	group owner and admin can mute group members, but the admin can mute only ordinary group members.
Periodically remove offline group members	Supported, but disabled by default.	Supported, but disabled by default.	Supported, but disabled by default.	Not supported	Not supported

Note:

Muted group members cannot send group chat messages within the mute period.

Differences in Group Limits

Item	Work/Public/Meeting	AVChatRoom	Community
Maximum number of members	Developer edition: 20 per group Standard edition: 200 members/group by default, which can be extended to 2,000 members/group through a value-added service. Pro edition：2,000 members/group by default Pro Plus edition：5,000 members/group by default Enterprise edition: 6,000 members/group by default	Unlimited	Developer edition: not supported Standard edition: not supported Pro edition：100,000 members/group by default Pro Plus edition：10,00,000 members/group by default Enterprise edition: 10,00,000 members/group by default

Maximum number of groups	Developer edition: up to 100 existing groups, and disbanded groups do not count against the quota. Standard edition or Pro edition、Pro Plus edition、Enterprise edition: unlimited	Developer edition: up to 10 existing groups, and disbanded groups do not count against the quota Standard edition: up to 50 existing groups, and disbanded groups do not count against the quota. You can upgrade to an unlimited number of audio-video groups by purchasing the value-added service. Pro edition、Pro Plus edition、Enterprise edition: unlimited	Developer edition: not supported Standard edition: not supported Pro edition：100,000 members/group by default Pro Plus edition：10, 00,000 members/group by default Enterprise edition: 10, 00,000 members/group by default

Caution

Under the Standard or Premium Edition SDKAppID, the daily net increase in group count (excluding communities) is capped at 10,000 (i.e., created group count minus dissolved group count).

In the Standard edition or Pro edition、Pro Plus edition、Enterprise edition SDKAppID, the free peak group count is 100,000 per month, and you will need to pay fees for exceeding the quota in a plan. It is recommend that you disband the groups that are no longer needed in a timely manner.

Differences in Message Capabilities

Item	Work	Public	Meeting	AVChatRoom	Community
Unread message count	Supported	Supported	Not supported	Not supported	Supported
Historical message storage	Supported	Supported	Supported	Not supported	Supported
Viewing roaming messages from before a	It is disabled by default and can be configured in the console.	It is disabled by default and can be configured in the console.	It is disabled by default and can be configured in the console.	Not supported	It is enabled by default and can be configured in the console.

user joins the group					
Notification of group member change	A notification is pushed and stored on the roaming server by default when a user is invited to a group, asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.	A notification is pushed and stored on the roaming server by default when a user is invited to a group, asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.	A notification is disabled by default when a user is invited to a group, asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.	A notification is pushed but not stored on the roaming server when a user is invited to a group, asks other users to join a group, is kicked out of a group, or leaves a group.	A notification is pushed and stored on the roaming server by default when a user is invited to a group, asks other users to join a group, is kicked out of a group, or leaves a group. This feature can be configured in the console.
Notification of group profile change	A notification is pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group	A notification is pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting or the group joining mode is changed. Both	A notification is pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting or the group joining mode is changed. Both	A notification is pushed but not stored on the roaming server when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled when group muting or the group joining	A notification is pushed and stored on the roaming server by default when the group name, group notifications, group introduction, group profile photo, or group owner is changed, and a notification is disabled by default when group muting or the group joining mode is changed. Both can be

	muting or the group joining mode is changed. Both can be configured in the console.	can be configured in the console.	can be configured in the console.	mode is changed.	configured in the console. The community joining mode cannot be changed, so no notification will be pushed.
Notification of group member profile change	A notification is pushed and stored on the roaming server by default when the group muting or group admin is changed. This feature can be configured in the console.	A notification is pushed and stored on the roaming server by default when the group muting or group admin is changed. This feature can be configured in the console.	A notification is disabled by default when the group muting or group admin is changed. This feature can be configured in the console.	A notification is disabled by default when the group muting or group admin is changed. This feature can be configured in the console.	A notification is pushed and stored on the roaming server by default when the group muting or group admin is changed. This feature can be configured in the console.
A message must be sent to activate a new group	Required	Not required	Not required	Not required	Not required
Default message receiving option	Receive online and offline push messages	Receive online and offline push messages	Receive only online push messages	Receive only online push messages	Receive online and offline push messages

Note:

For a group that requires activation, before the group owner sends a message, the group is inactive and invisible to all group members except the group owner. A group that does not require activation is visible to all group members once it is created.

Currently, offline push is available only on Android (Android offline push) and iOS (APNs push) platforms.

The work group, public group, meeting group, and community group have the historical message storage capability, which allows historical messages to be stored for 7 days (30 days for the Pro edition、90 days for the Pro Plus edition， 90 days for the Enterprise edition) free of charge by default. If you need a longer storage period, change the

storage period of historical messages in the console. Increasing the storage period of historical messages is a value-added service. For more information on pricing, see Pricing.

Differences in Batch Import and Automatic Repossession

Item	Work/Public/Meeting/Community	AVChatRoom
Importing groups, group members, and group messages is allowed	Yes. It is allowed when historical groups are migrated from a third-party platform to Chat.	No. Only existing groups, group members, and group messages can be used.
Time before a group is automatically repossessed (in seconds).	The backend does not repossess groups, unless the group owner disbands the group or all members quit the group. (About group disbanding: the backend does not proactively disband a group unless the group owner disbands the group or the group is automatically repossessed. If automatic repossession is configured for a group, the backend irregularly traverses the group and disbands it if no one sends a message in the group for n seconds or the group profile is modified.)	The backend does not repossess groups, unless the group owner disbands the group or all members quit the group.

Group Data Structure

Group Basic Information

Field Name	Type	Description	Notes
GroupId	String	Unique identifier of the group	Read-only. Each group ID must be unique in the app. The prefix is @TGS#, and custom group IDs can also be used in the app.
Type	String	Group type	Read-only. The following group types are supported by default: work group, public group, meeting group, audio-video group, and community group. For more information, see Group Types. In the SDK of an earlier version, group types also include the private group, ChatRoom, and BChatRoom, which are not recommended.
Name	String	Name of the group	Readable and writable. The maximum length is 30

			bytes and cannot be adjusted.
Introduction	String	Introduction of the group	Readable and writable. The maximum length is 240 bytes and cannot be adjusted.
Notification	String	Group announcement	Readable and writable. The maximum length is 300 bytes and cannot be adjusted.
FaceUrl	String	URL of the group's profile photo	Readable and writable. The maximum length is 100 bytes and cannot be adjusted.
Owner_Account	String	ID of the group owner	Read-only.
CreateTime	Integer	Creation time of the group	Read-only.
InfoSeq	Integer	This value increases every time the group information changes.	Read-only.
LastInfoTime	Integer	Time of the last change to group information	Read-only.
LastMsgTime	Integer	Time of the last message in the group chat	Read-only.
NextMsgSeq	Integer	`Seq` of the next message in the group chat	Read-only. Every message in the group chat has a unique `Seq`, and the `Seq` values are consecutive numbers based on the sequence of sent messages. With every message sent to the group chat, `NextMsgSeq` (starting from 1) increases by 1 (by default, system messages such as notifications of group join or leaving are messages and can cause `NextMsgSeq` to increase by 1).
MemberNum	Integer	Number of current members	Read-only.
MaxMemberNum	Integer	Maximum number of members	Default value: The upper limit of the paid plan; for example, it is 20 on Developer edition. If you upgrade the plan, you need to modify this field to the corresponding value according to the basic information of the modified group.

ApplyJoinOption	String	Membership application option	The following options are available: DisableApply: disallow any application. NeedPermission: group owner or admin's approval is required. FreeAccess: users can join the group freely without prior approval.

Note:

The permissions to modify the group name, introduction, announcement, and profile photo URL are described as follows:

In a work group, any member can modify them.

For other group types, only **non-ordinary members** can modify them.

Group Member Profile

Field Name	Type	Description	Notes
Member_Account	String	Group member ID	Read-only.
Role	String	Role in the group	A group has the following roles: Owner (group owner), Admin (group admin), and Member (group member).
JoinTime	Integer	Time of joining the group	Read-only.
MsgSeq	Integer	Sequence number of the current read message of the member	Read-only.
MsgFlag	String	Message receiving option	The following options are available: AcceptAndNotify: Accept and notify. AcceptNotNotify means accept without notifying (does not trigger Offline Push) Discard: block group messages (messages are not pushed to clients) AcceptNotNotifyExceptAt means accept and notify for 'at' messages (Only 'at' messages trigger Offline Push, other messages do not trigger)
LastSendMsgTime	Integer	Time of sending the last message	It supports three ordinary groups, but does not support AVChatRoom. It can only be used by server-side APIs.
NameCard	String	Group name card	Readable and writable. It can contain up to 50

			bytes and cannot be adjusted.
MuteUntil	Integer	Muting status	If it is `0`, the group member is not muted; otherwise, it indicates the muting stop timestamp.

Permission Group Information

Field Name	Type	Description	Notes
PermissionGroupId	String	Unique identifier of the permission group	Read-only
PermissionGroupName	String	Name of the permission group	Readable and writable. It can contain up to 150 bytes and cannot be adjusted.
Permission	Integer	Permissions of the permission group	Readable and writable. It is a 64-bit integer, and each bit represents a management permission.
CustomString	String	Custom field of the permission group	Readable and writable. It contains up to 3,000 bytes. The business layer can use this field for implementing requirements in special scenarios.
MemberNum	Integer	Number of members in the permission group	Read-only
CreateTime	Integer	Creation time of the permission group	Read-only

Permissions in the Permission Group

Management of permissions within a group is primarily accomplished through the permissions detailed in the permission group information and those related to topics. Each bit represents a permission. When a permission bit is set to 1, this management permission is granted.

Meanings of Permissions in the Permission Group

Permission Name	Description	Permission Bits and

		Their Values
ManageGroupInfo	++Permission for modifying the group information+	1<<0 (left shift to 0 bit, the same below)
ManageGroupMember	Permission for adding/deleting members to/from a group or modifying the information of a member group	1<<1
ManagePermissionGroupInfo	1. Permission for creating, modifying, and deleting permission groups 2. Permission for setting permission groups (Add, Modify, and Delete) in all topics	1<<2
ManagePermissionGroupMember	Permission for adding/deleting members to/from a permission group	1<<3
ManageTopic	Permission for creating, modifying, and deleting topics	1<<4
GroupMuteMember	Permission for muting group members	1<<5
SendGroupMessage	Permission for sending messages in the community	1<<6
GroupAtAll	Permission for using @all when sending messages in the community	1<<7
GetGroupHistoryMessage	Pull Permission for getting history messages before the member joins the group	1<<8
RevokeOtherMemberGroupMessage	Permission for revoking group messages of others	1<<9
BanMemberGroupMessage	Permission for banning group members	1<<10

Topic Permissions

Permission Name	Description	Permission Bits and Their Values
ManageTopicInfo	Permission for modifying and deleting topics	1<<0 (left shift to 0 bit, the same below)

ManagePermissionTopicInfo	Permission for setting permission groups (Add, Modify, and Delete) in this topic	1<<1
TopicMuteMember	Permission for muting members in topics	1<<2
SendTopicMessage	Permission for sending messages in topics	1<<3
GetTopicHistoryMessage	Permission for getting history messages before the member joins the topic	1<<4
RevokeOtherMemberTopicMessage	Permission for revoking topic messages of others	1<<5
TopicAtAll	Permission for using @all when sending messages in topics	1<<6

Custom Group IDs

When a group is created in the app, Chat assigns a default group ID to the new group by default. This default group ID starts with @TGS# and is unique in the app.
Chat also allows you to customize group IDs that are simple and easy to remember and communicate. A custom group ID must be a string of ASCII characters (0x20-0x7e) with a length less than 48 bytes. Do not use @TGS# as the prefix to avoid confusion with assigned group IDs.
Note:
The prefix of the IDs of community groups (Community) must be @TGS#_.

Custom Topic IDs

When a topic is created in the app, Chat assigns a default topic ID to the new topic by default. The ID starts with `GroupId+@TOPIC#_` and is unique in the group.
To make it easier to remember and communicate the topic ID, Chat allows customizing it in the format of `GroupId+@TOPIC#_+ custom part` during topic creation through the RESTful API in the application. The custom part cannot contain `@TGS#_` and `@TOPIC#_@TOPIC#` (to avoid confusion with the default group ID) and must consist of printable ASCII characters (`0x20-0x7e).
For example, if `GroupId` is `@TGS#_@TGS#cQVLVHIM62CJ`, and the custom part is `TestTopic`, the custom topic ID will be `@TGS#_@TGS#cQVLVHIM62CJ@TOPIC#_TestTopic`. The entire custom topic ID must be no longer than 96 bytes.

Customizing Permission Group IDs

By default, when an app creates a permission group, Chat assigns a default permission group ID to the newly created group. This ID will start with @PMG#_@PMG# and is unique within the group.
To make the permission group ID simpler and easier to remember and disseminate, Chat supports app in customizing the permission group ID through the RESTful API when creating a permission group. The custom permission group ID must start with @PMG#_ (but not with @PMG#_@PMG# to avoid confusion with the default assigned permission group ID) and be printable ASCII characters (`0x20-0x7e`).

Custom Fields

Chat allows you to configure up to 10 group-level custom fields and 5 member-level custom fields based on your business needs. With custom fields, apps can attach additional data to groups, and the data can be read and written through existing APIs.

Description

Custom fields have the following characteristics:
Their values are expressed in key-value format.
Key is a string with a length less than 16 bytes. Its name contains only uppercase and lowercase letters, numbers, and underscores (_).
Value is a buffer customized by the user, which can be binary data. Group-level values have a maximum length of 512 bytes, while member-level values have a maximum length of 64 bytes.
You can configure the least read permission and the least write permission for each key.
The read and write permissions of a custom field are listed as follows, from high to low:
1. Readable and writable by the app admin.
2. Readable and writable by the group owner.
3. Readable and writable by the group admin.
4. Readable and writable by group members.
5. Readable and writable by anyone, including non-members.
For example, an app needs to extend the `GroupLevel` field for groups and the value of this field is a number representing the level of a group. If this level information is calculated by the app backend, then the least write permission should be **writable by the app admin**. If the field is part of the public profile of the group, its least read permission should be **readable by anyone, including non-members**.
If the value to be stored is a number, we recommend that C and C++ developers store it as a string instead of binary data. For example, when the number to be stored is 1, store it as string `1` instead of binary data `0x01` . In the future, Chat will offer more operations for custom fields, such as specific mathematical operations on values, which will be performed on the basis of string-type numbers.

Configuration

Custom fields at these two levels can be configured in the Chat console.
To configure member-level custom fields, you need to specify the group type first. Audio-video group and custom group types that are configured based on it do not support custom fields at the group member level, because these types of groups do not store member profiles.
The **self read and write permissions** indicate whether members can read and write their own member-level custom fields. For example, a member-level customer field named `MemberLevel` represents the level of a member in a group. Group members can read but not modify their own levels, and therefore their **self read and write permissions** are set to **readable/unwritable** for this field.
Note:
Configured custom fields cannot be deleted or modified. Proceed with caution.

Custom Callbacks

Third-party callback is an important means to meet the special requirements of apps. It provides users with the capability to customize actions.
Chat's group system supports different callbacks. For more information, see Third-Party Callback Overview and Callback Command List.

Group Management

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Based on common use cases, Chat provides the following default group types: work group (Work), public group (Public), meeting group (Meeting), audio-video group (AVChatRoom), and Community group (Community). For more information, see Group Types.

You can perform the following operations on groups:

Group Operation	Description	Remarks
Create a group	This operation creates a new group. You can specify the group type, name, and a list of users to add to the group. After the group is created, the group ID is returned, which is the unique identifier of the group and can be used to perform other group operations such as message sending and receiving.	The daily limit of net group consumption is 10,000 per app.
Transfer a group	This operation transfers a group and changes the group owner to another user.	The app admin can transfer a group through the RESTful API. The only other role that can transfer a group is the group owner.
Disband a group	This operation disbands a group that has been created on the app. When the group is disbanded, all group members receive a system message stating that the group has been disbanded.	The app admin can call the RESTful API to disband any group. The permission to disband a group on an app varies depending on the member role: For a public group (Public), meeting group (Meeting), audio-video group (AVChatRoom), or community group (Community), only the group owner can disband the group. For a work group (Work), no one in the group can disband the group.

Caution

When you create a group, Chat assigns a default group ID that begins with @TGS#. You can also manually specify a group ID. For more information, see Custom Group IDs.

After the group is created, a system message about the group creation is sent to the group owner‘s device to ensure synchronization across multiple devices (once a group is created on one device, all devices instantly perceive the created group).

Group Profile Management

The group profile includes properties that are specific to a single group, such as the group name, introduction, announcement, and group owner, as well as custom group fields.

Group Profile Management	Description	Remarks
Get the group profile	Pull basic group information. If you want to pull custom information, configure APIs for the custom fields that you want to pull.	**Group members obtain the group profile**: Group members can obtain the group profile.**Non-members obtain the group profile**: Non-members can only obtain the group profile if it is made public.**Obtain the personal profile in the group**: users can obtain their own profiles in all groups, or in a single group.**Obtain the profile of a group member**: An audio-video group (AVChatRoom) does not store group member information and does not support obtaining the profile of a group member.
Modify the group profile	You can modify the group name, introduction, announcement, profile photo, group name card, membership request options, group-level custom fields, in-group roles of members, member-level custom fields, and group message receiving options.	Currently, you can configure callbacks for group name, introduction, announcement, and profile photo URL changes for the app in the console. To enable callbacks for changes in other group information, including group-level custom fields, please submit a ticket.

Group Member/Group Management

Group member management involves two aspects:

Obtain and modify user profile in the group. This information can be obtained and set only by users themselves, for example, message receiving options.

Obtain and modify other group members' information, including the role, joining time, time of last message, group name card, and member-level custom information.

Group Member Management	Description	Remarks
Obtain group member information	Obtain user profile or other group members' information	Available information includes the role, joining time, time of last message, group name card, and member-level custom information.
Modify a group	The group owner,	The group owner and admins can modify in-group roles

member's profile	admins, and members can modify group member profiles.	(set or cancel admins), mute members, and modify the group name card and member-level custom fields. Group members can modify their personal profiles in the group, including the message receiving options, group name card, and member-level custom fields.
Invite to a group	Invite non-members to a group.	For a work group, any group member can invite non-members to the group, and invitees are added to the group without confirmation. For a public group or meeting group, only the app admin can invite non-members to the group by default. For an audio-video group, no member is allowed to invite any user to the group. For a community group, any group member can invite non-members to the group, and invitees are added to the group without confirmation.
Apply to join a group	A user proactively applies to join a group through the Chat SDK.	Work groups disallow non-members to join, and an error will be returned. Community groups does not require approval to join the group directly by default. If approval is required to join the group, it can be controlled through the ApplyJoinOption field in the group information. For other built-in group types, the result of the membership application depends on the `ApplyJoinOption` field in the group profile.
Delete a group member	The group owner or a group admin removes a group member from the group	When a group member is removed from the group by the group owner or a group admin, the deleted member receives a system message stating the removal, and other members in the group also receive an event message about the removal.
Quit a group	A group member initiates the quit operation	When a group member quits the group, the leaving member receives a system message stating that he/she has left the group, and other members in the group also receive an event message about the member quitting the group.
Obtain the list of groups a user has joined	Pull the list of groups that the current user has joined. The returned result contains only part of the basic information.	To obtain detailed group information, use the **group members obtain the group profile** feature.

List of pending group messages	A group's pending message includes all group operations that require approval.	You can pull the list of pending group messages, report pending read messages, and process pending group messages (approve or reject). For a single user, the list of pending group messages can contain up to 50 messages.

Official Account

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Official account features are similar to those of WeChat's official accounts, offering customers subscription and publishing features. Through the related interfaces for official accounts, users can create and manage official accounts, publish articles and rich media messages, interact with fans, and fans can also send private messages to the official account. Meanwhile, the app's back end can statistically manage and operate related data through RestAPI + third-party callback.

Introduction to Official Account Data Structure

Official Account Basic Information

Field Name	Type	Description	Remarks
Official_Account	String	Unique Identifier of Official Account	Read-only. Official Account ID, ensured to be unique within the App, its format prefix is @TOA#_. Additionally, the App can also self-define the Official Account ID.
Owner_Account	String	Official Account Creator ID	Read-only.
Name	String	Official Account Name	Readable and writable. Maximum length of 150 bytes, cannot be adjusted.
Introduction	String	Official Account Description	Readable and writable. Maximum length of 400 bytes, cannot be adjusted.
FaceUrl	String	Official Account Avatar URL	Readable and writable. Maximum length of 500 bytes, cannot be adjusted.
MaxSubscriberNum	Integer	Maximum Number of Subscribers for Official Account	Readable and writable. The current default value is 100000.
SubscriberNum	Integer	Current number of people subscribing to the Official Account	Read-only.
LastMsgTime	Integer	Time of the last message sent between the Official	Read-only.

		Account and the Subscriber	
CreateTime	Integer	Creation Time of the Official Account	Read-only.
Organization	String	Group organization the Official Account belongs to	Readable and writable. Maximum length of 500 bytes, cannot be adjusted.
CustomString	String	Official Account Information Dimensions Custom Definition Field	Readable and writable. Maximum length of 3000 bytes, cannot be adjusted.

Subscriber Basic Information

Field Name	Type	Description	Remarks
Subscriber_Account	String	Subscriber User ID	Read-only.
SubscribeTime	Integer	Subscription period	Read-only.
MsgFlag	String	Message receiving option	Message Receiving Options, including: AcceptAndNotify means to receive and alert AcceptNotNotify means to receive without alert (will not trigger offline push) Discard means to block Official Account Messages (no messages will be pushed to the client)
CustomString	String	Subscriber User Dimension Custom Definition Fields	Readable and writable. Maximum length of 3000 bytes, cannot be adjusted.

Custom Definition Official Account ID

By default, when an App creates a Official Account, Chat will assign a default ID to the newly created Official Account. This ID will start with @TOA#_ and is guaranteed to be unique within the App.
To make the Official Account ID simpler, easier to remember and spread, Chat supports custom Definition ID by Apps when creating Official Accounts through REST API. The custom Definition ID must consist of printable ASCII

characters (0x20-0x7e), be no longer than 48 bytes, and must start with @TOA#_, but cannot be @TOA#_@TOA# (to avoid confusion with the default assigned Official Account ID).

Use Limits

Last updated：2025-03-10 11:19:37

Service Feature Limits

Feature	Limit Item	Description
One-to-one/group message	Content length	A one-to-one or group message must be no longer than 12KB.
	Sending frequency	One-to-one message sending frequency: No limit for sending on the client; sending through the RESTful API is subject to the API frequency limit specified in the API documentation.Group message sending frequency: Up to 40 messages can be sent per second per group (regardless of the group type, and this limit applies to each group separately).
	Receiving frequency	Android/iOS/Mac/Windows/iPad: No limit for one-to-one messages or group messagesWeb: Up to 1,000 messages/second (total of one-to-one messages and group messages) for SDK versions earlier than 2.11.2; no limit for the SDK on v2.11.2 or later.
	Size of a single file	SDKs support a maximum file size of 100 MB for any single file to be sent. SDKs do not support creating and sending file messages. The Chat SDK for web does not support creating and sending voice messages.
	Message history storage period	The default configurations for different plans are as follows: Free Trial: 7 days, with no extension supported Standard edition: 7 days, with extension supported Pro edition: 30 days, with extension supported Pro Plus edition: 90 days, with extension supported Enterprise edition: 90 days, with extension supported
UserID	Naming rule	The maximum length of a user account is limited to 32 bytes. English letters or numbers are supported. Special characters are not allowed.
User profile	Custom field	The keywords of custom fields must consist of English letters with a length no longer than 8 bytes. The length of the values of custom fields cannot exceed 500 bytes.

UserSig	Validity period	User password. The signatures generated by the default API of the Chat backend SDK expire after 180 days.
Conversation management	Number of recent contacts	Each user can save up to 100 recent contacts by default. The Pro edition、Pro Plus edition 、Enterprise edition, supports up to 500 recent contacts. The limits can be configured in the console.
User relationship chain	Friends and friend groups	A single user can have up to 3,000 friends. The maximum number of pending friend requests supported is 100. The maximum number of friend lists supported is 32. The maximum length of a friend list name is 30 characters. The maximum length of friend remarks is 96 characters. Starting from v2.13.0, the Chat SDK for web supports friend relationship chain.
	Blocklist	A single user can add a maximum of 1,000 users to the blocklist.
Group	Number of groups	This refers to the total number of existing groups of all group types per `SDKAppID`, excluding disbanded groups. If the limit is reached, unnecessary groups can be disbanded first before new groups are created. The limits are as follows: Free Trial: 100 Standard or Pro edition、Pro Plus edition 、Enterprise edition: No limit
	Number of group members	Audio-video group (AvChatRoom): No upper limit on the number of group members. For non-audio-video groups, the default configurations are as follows: Free Trial: 20 members/group Standard edition: 500 members/group Pro edition: 2,000 members/group Pro Plus edition:5,000 members/group Enterprise edition:6,000 members/group
	Number of groups a user can join	This refers to the total number of groups of all group types that a user can join. The limits are as follows: Free Trial: 50 groups/user Standard edition: 1,000 groups/user Pro edition:1,000 groups/user Pro Plus edition :3,000 groups/user Enterprise edition:5,000 groups/user
	Group profile	The maximum length of the group name is 30 bytes. The maximum length of the group introduction is 240 bytes. The maximum length of the group announcement is 300 bytes.

		The maximum length of the group profile photo URL is 100 bytes. The maximum length of the group name card is 50 bytes.
	Custom group ID	The custom group ID must be printable ASCII characters (0x20-0x7e) with maximum length limited to 48 bytes. It cannot begin with @TGS# so as to avoid confusion with the default group IDs assigned by Chat.
	Group custom field	Groups support up to 10 custom fields: The Key field is String type, with a maximum length of 16 bytes. Its name can contain only uppercase and lowercase letters, numbers, and underscores. The Value field is a user-defined buffer and can be binary data. The maximum Value length for groups is 512 bytes.
	Group member custom field	Group Member supports up to 5 custom fields: The Key field is String type, with a maximum length of 16 bytes. Its name can contain only uppercase and lowercase letters, numbers, and underscores. The Value field is a user-defined buffer and can be binary data. The maximum Value length for Group Member is 64 bytes.
	Number of topics in a community	Currently, a community supports up to 200 topics.

API-related Limits

Note

This document lists only the RESTful APIs that have use limits. For a complete list of APIs, see RESTful APIs.

General limits

Limit Item	Description
Call frequency	Up to 100 times/second: importing multiple accounts, deleting accounts and querying accounts Up to 200 times/second: other RESTful APIs

Account management

API	Description
Importing multiple accounts	Up to 100 user names can be imported at a time, and this API does not support directly importing nickname and profile photo information of accounts.
Querying online status of accounts	A single request can query the status of up to 500 users.

One-to-one message

API	Description
Sending one-to-one messages in batches	A single request can send one-to-one messages to up to 500 users.

Relationship chain management

API	Description
Importing friends	A single request can import up to 1,000 friends.

Group management

API	Description
Adding group members	A maximum of 100 members can be added at a time.
Deleting group members	A single request can delete up to 500 members.
Querying a user's identity in the group	A single request can query up to 500 accounts.
Batch muting and unmuting	A single request can mute/unmute up to 500 accounts.
Sending ordinary messages in a group	The default sending frequency of a single group is limited to 40 messages/second. If two messages sent within 5 minutes from the same sender have the same random value (Random parameter), the later message will be discarded as a duplicate message.
Importing group messages	A maximum of 20 messages can be imported by a single request. Messages

	must be imported in ascending order by timestamp. The timestamps of imported messages must be earlier than the current time and later than the group creation time. Otherwise, the import fails.
Importing group members	Audio-video groups (AVChatRoom) do not support importing members.Up to 300 members can be imported in one request. However, different group types have different group member limits. For more information, see Group Features.