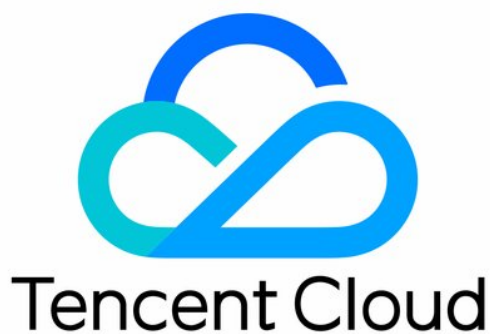


Tencent Real-Time Communication Video call (with UI)



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We are committed to providing personalized pre-sales consultation and technical after-sale support. Don't hesitate to contact us at 4009100100 or 95716 for any inquiries or concerns.

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Video call (with UI)

Overview (TUICallKit)

Last updated: 2025-03-27 11:51:21


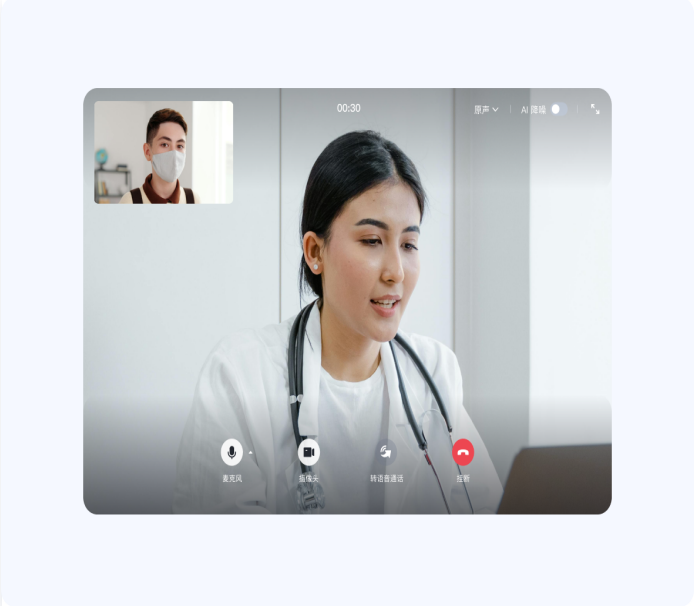
Component Description

TUICallKit is a deeply customized product for call scenarios, offering the same UI components as WeChat video chat. With just three steps, it can go live in as fast as one day, saving up to 90% of development time. It supports global interconnectivity across mini programs, iOS, Android, Web, uni-app, Flutter, and other platforms. In video call scenarios, it offers common features such as dual participant audio/video calls, group audio/video calls, mid-call third-party involvement, AI call noise reduction, and call lag optimization. It supports various image qualities including standard definition, HD, and ultra HD, combined with low latency, high-quality audio and video services, helping you quickly build stable and reliable audio/video call applications.

Search for the required CAM policy as needed, and click to complete policy association.

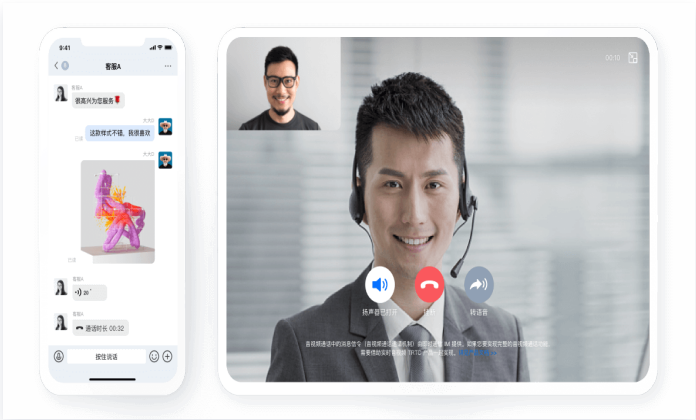


Use Cases

Use Cases	Scenario Display	Description
Social Entertainment	<p>Search for the required CAM policy as needed, and click to complete policy association.</p> 	<p>Quickly build social entertainment applications with multi-platform interconnectivity and enjoy real-time communication interaction.</p> <ul style="list-style-type: none"> • 1v1 Audio/Video Call • Group Call • Custom Ringtone • Custom Avatar, Nickname • Call Floating Window
Remote Medical Services	<p>Search for the required CAM policy as needed, and click to complete policy association.</p> 	<p>It offers stable and reliable call features, quickly enabling scenarios such as 1v1 psychological counseling and video consultation.</p> <ul style="list-style-type: none"> • Low Latency Real-time Interaction • On-Cloud Recording • AI Noise Reduction • Background
Online Customer Service	<p>Search for the required CAM policy as needed, and click to complete policy association.</p>	<p>Quickly integrate the online customer service feature to</p>

mer
Service
e

association.



- provide better communication service for your customers.
- 1V1 Audio/Video Call
 - Offline Push
 - Call Floating Window
 - Background

Online
Educa
tion

Search for the required CAM policy as needed, and click to complete policy association.



- Connect teachers and students through audio/video calls for easy classroom interaction.
- Group Call
 - AI Noise Reduction
 - Weak Network Lag Optimization

Features Overview

Feature Description:
TUICallKit combines the capabilities of Instant Messaging and TRTC to offer low-code components with UI. By writing just a few lines of code, you can add the audio/video call feature to your app. For more features and billing instructions, refer to [activate the Service](#).

Basic feature

	Feature Description
--	---------------------

1v1 Voice, Video Call	One-to-one voice/video chat
Group Call (invite others midway, join midway)	Multiple people can have voice/video calls at the same time and invite other members to join during the call
Custom Ringtones	Users can set app ringtones and offline push ringtones according to their needs/preferences
Set Avatar and Nickname	Users can set their avatar and nickname according to their needs/preferences
Call Floating Window	After minimizing the call interface, it can float above the application interface in a floating window style
Mini Program Call Acceleration	Supports call acceleration and mini program room call acceleration optimization on the mini program end to ensure call quality.

Advanced Features





	Feature Description
Offline Push	Even when the application is not open, users can receive audio and video call ring calls through push notifications.
Virtual Background	During a video call, users can set a blurry background or image background to hide the real call environment, protect privacy, and make the call more interesting. Supports iOS, Android, Flutter, mini-program, and Web End.
Cloud Recording	Facilitates users to archive and audit important call content.
AI Noise Reduction	Effectively filters background noise using AI capabilities, restores call quality, and improves audio quality.
Multi-client login on the same platform for calls	Supports multiple devices on the same platform, such as multiple iOS devices. When a call is answered on one device, it automatically stops the incoming requests on other devices.
Weak Network Lag Optimization	Optimizes lagging rate and enhances instantaneous loading speed in poor network environments like outdoors.
Call Records (Dashboard+API)	Provides call data statistics and a visual dashboard of call records. The service includes statistical data such as the number of calls, the number of participants in a call, and the

maximum concurrent calls. It also provides single call record information such as call initiation time, number of call participants, and call duration.

Supported Platforms

Platform	Android	iOS	Web&H5 (Vue2/Vue3)	Web &H5 (React)	uni-app (Mini Program)	Flutter	uni-app (Client)	WeChat Mini Program
Support Availability	✓	✓	✓	✓	✓	✓	✓	✓
Supported Programming Language s/Frameworks	<ul style="list-style-type: none">KotlinJava	<ul style="list-style-type: none">SwiftObjective-C	<ul style="list-style-type: none">Vue 3Vue 2	<ul style="list-style-type: none">React	<ul style="list-style-type: none">Vue 3Vue 2	Dart	<ul style="list-style-type: none">Vue 3Vue 2	—

Trying It Online

Platform	Web	Android	iOS	WeChat Mini Program
Online Experience				
Demo Integration	Github: web	Github: Andorid	Github: iOS	Github: WeChat Mini Program

TRTC Technology Exchange Group

Join [Tencent TRTC TRTC Technology Exchange Group](#) , you will get:

- **Reliable technical support**
- **Product details**
- **Close Industry Exchange**

Activating TUICallKit Service

Last updated: 2025-03-27 11:59:08

This article introduces how to [freely activate the trial version](#), [activate the official version](#), and [renew the official version](#) service. Based on [audio and video call capability version billing explanation](#), you can select the version you need and follow the guide below to freely activate and purchase and activate the official version of audio/video call capability.

ⓘ Note:

Thank you sincerely for your trust and long-term support of this product. To meet constantly changing market demands, continuously enhance user experience and optimize product performance, we have upgraded the product. You are cordially invited to upgrade to the new version to experience better effects and features. Note as follows:

- New [calls](#) API across all platforms, supporting initiating one-to-one calls or group calls, more flexible call member management, and support for a more powerful REST API. Welcome to use.
- New [join](#) API across all platforms, in conjunction with the calls API, supports joining existing calls.
- For users who need to upgrade to the calls API, please note the version grayscale. Use the calls API for calling. If the other party's version is not upgraded, it will cause a call failure.

Enable the Trial Version

TUICallKit is an audio/video communication component built on two paid PaaS services from Tencent Cloud: [Chat](#) and [Tencent Real-Time Communication \(TRTC\)](#). To provide you with a better experience of audio/video call features, we offer a 7-day trial version of the audio/video call capability for free for each SDKAppID (the trial version does not include additional call duration). Each SDKAppID can be tried for free twice, with each trial lasting 7 days.

Meanwhile, the total experience times for all SDKAppIDs under one account is 10 times.


1. Log in to the [TRTC console](#), click to enter the left-side application management page, and click **Create Application**. Enter the name of your application in the pop-up dialog box and click **Create Application**.

创建应用

应用名称 *
Test

场景(选填)

☒ 视频通话 (TUICallKit)
☐ 多人会议 (TUIRoomKit)
☐ 直播/语聊房 (TUILiveKit)
☐ 自由集成 (无UI)
☐ 暂不选择场景



*选择场景后，仍可以体验集成其他不同场景方案

应用版本 ⓘ
体验版 版本详情 ▼

☒ 免费领取7天体验版

解锁全部TRTC功能，但使用音视频通话、云端录制和混流等功能会产生用量会产生相应费用，[计费说明](#)。

标签 ⓘ
标签键 ▼ 标签值 ▼ ×
[+ 添加](#) ⓘ 键值粘贴板

创建应用

Note:

If you check **Claim a free trial coupon for a 7-day trial version** when creating, you can quickly create an application and claim the trial version. **After claiming the trial version, all audio/video call features will be unlocked.**

- Click the created application to enter the application management page. Find **Low-code Scenario Solution with UI > Video Call (TUICallKit)** in the bottom-right corner of the page. Click **Claim Experience** to **activate the 7-day free trial service of TUICallKit**. After claiming, you can see the basic information of the trial version, including service status, version information, feature details, and expiration time. The `SDKAppID` and `SDKSecretKey` here will be used in subsequent steps.

The screenshot displays the 'Application Management' interface. On the left, a sidebar lists navigation options: 'Return to Application List', 'Application Overview', 'Function Configuration', 'Recording Management', 'Callback Configuration', 'Content Security Review', and 'Material Management'. The main area is titled 'Application Management' and shows details for an application named 'Video Call (TUICallKit)'. Key sections include: 'Application Basic Information' (Application Name, Introduction, Tags, SDKAppID, SDK Key, Creation Time), 'Application Version Information' (Current Version, Version Details, Subscription, Free Trial), 'Application Service Status' (Status: Normal, Payment Info, More Actions), and 'Virtual Background' (NEW, Description, Toggle Switch, Details Link). On the right, there are sections for '含 UI 低代码集成接入' (含 UI Low-code Integration), '快速开始含 UI 视频通话方案接入' (Quick Start for含 UI Video Call Solution), and '无UI自由集成接入' (No UI Free Integration). The '含 UI 低代码集成接入' section highlights 'Video Call (TUICallKit)' and '多人会议 (TUIRoomKit)'. The '快速开始' section lists steps like '10 minutes to run code', 'Integrate code into project', and 'Experience Web demo'. The '无UI自由集成接入' section describes a more complex integration method.

Note:

- If necessary, you can click [Scene Package Subscription](#) to go to purchase page for **official application launch**.
- The audio/video call capability of IM provides differentiated paid editions for different business needs for you to choose from. You can learn about the included features on the [IM Purchase Page](#) and purchase the edition suitable for you.

3. If the trial version you currently claim with your SDKAppID has expired, you can click **Version Detail**. In the pop-up of version detail, click **Experience Renewal** to directly use the second trial opportunity. At this point, the valid period of the trial version will be extended by 7 days.

Note

Extend the valid period of the trial version through **Experience Renewal**, which will consume 1 free trial opportunity.

Enable the Official Version

Audio/video call capability is one of the TRTC Component Capabilities. The official version of audio/video call capability can only be purchased when the IM application is in the Ultimate Edition. You can see [audio and video call capability version billing explanation](#) to confirm the version you need to use and go to [buy official version](#) of audio/video call capability.

1. Log in to the [TRTC purchase page](#).
2. Select configuration based on actual business needs. For scheme selection, select **Low-code Rapid Development with UI**, as well as the SDKAppID for which you need to purchase audio/video call capability. It cannot be modified after purchase.

3. Select the package type **audio and video call** and choose the package version you need to activate. For more details on the capabilities of the audio and video call package, see [audio and video call capability version billing explanation](#).

选择套餐

套餐类型

音视频通话 (TUICallKit)
适用于社交聊天、医疗问诊、视频客服、视频面试等轻量音视频通话场景。[查看 UI 示例](#)

多人音视频 (TUIRoomKit)
适用于企业会议、网络研讨会、在线教育、语音聊天室等多人音视频互动场景。[查看 UI 示例](#)

在线直播/语音聊天室 (TUILiveKit)
适用于电商直播、语音聊天室、秀场直播、直播课等直播场景。[查看 UI 示例](#)

套餐版本

对比项	1v1 通话版 支持 1v1 语音/视频通话	群组通话版 - 38万分钟 支持小程序和群组通话	群组通话版 - 140万分钟 移动端虚拟背景 + 海量时长	
套餐价格	套餐组合方式	TRTC 基础版 未开通 IM 专业版 未开通	TRTC 尊享版 未开通 IM 旗舰版 未开通	TRTC 旗舰版 未开通 IM 旗舰版 未开通
	套餐组合单价 (限时折扣)	¥1,198.00/月	¥4,874.00/月	¥5,298.00/月
套餐赠送资源	音视频时长	11 万分钟/月	38 万分钟/月	140 万分钟/月
组件专属能力	微信同款 UI	✓	✓	✓
	通话呼叫/接听/拒绝/挂断	✓	✓	✓
	通话悬浮窗	✓	✓	✓
	通话呼叫通知	✓	✓	✓
	自定义呼叫铃声	✓	✓	✓
	视频通话切换语音通话	✓	✓	✓
	1v1 通话	✓	✓	✓
	群组通话 (HOT)	/	✓	✓
	通话记录 (看板 + API)	/	✓	✓
	中途呼叫/加入三方通话	/	✓	✓
小程序通话加速 (HOT)	/	✓	✓	

配置费用

共计2款商品

立即购买

4. After purchase completion, you can return to the [TRTC console](#) and view current version information in the **UI low-code integration access** feature area. After activation completed,

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you can see [integration guide](#) to integrate.

含 UI 低代码集成接入

◀ **视频通话 (TUICallKit)** 多人会议 (TUIRoomKit) 在线直播/语音聊天室 (TUI ▶

视频通话 (TUICallKit) 提供了音视频通话场景下常见的1V1通话、群组通话等功能，提供微信视频聊天同款 UI 快速集成方案，仅需几行代码即可快速集成。 [方案介绍](#)

基本信息

服务状态 **可集成**
当前版本 **1v1通话版** ⓘ [版本详情](#)
到期时间 **2024-11-11** ⓘ [续期](#)
自动续期 **未开启** ⓘ [开启自动续期](#)

Features and Billing Instructions

TUICallKit is technically supported by TRTC and Chat. **You need to purchase the specified package before using TUICallKit**, For information on the free trial version, refer to [Activate TUICallKit Trial Version](#).

The following table shows the features and pricing of the recommended packages for TUICallKit. You can also freely combine TRTC monthly packages and IM versions to get the corresponding version of TUICallKit. TRTC Basic Edition in conjunction with IM Professional Edition/Flagship Edition/Enterprise Edition can use the 1v1 call edition of TUICallKit; TRTC Prestige Edition and Flagship Edition in conjunction with IM Professional Edition/Flagship Edition/Enterprise Edition can use the group call version of TUICallKit. For detailed billing information of TUICallKit, please refer to [Tencent RTC Call SDK Billing Instructions](#).

Recommended Packages	Trial Version	1V1 Call Edition	Group Call Version 380,000 Minutes	Group Call Version 1.4 Million Minutes
Price	0 CNY/7 days	2,124 CNY/month Purchase Now	4,874 CNY/month Purchase Now	9,249 CNY/month Purchase Now

Including package versions		TRTC Trial Version + Any version of IM	TRTC Basic Version + IM Professional Edition	TRTC Premium Version + IM flagship version	TRTC flagship edition + IM flagship version
gift resources (Exceeding postpaid)	Call duration	–	110,000 minutes per month	380,000 minutes per month	1,400,000 minutes per month
	Daily Active Users (DAU)	According to the IM version	10,000 DAU	10,000 DAU	10,000 DAU
	Peak Group Count	According to the IM version	100,000 per month	100,000 per month	100,000 per month
TUICallKit Exclusive Feature	1v1 Video, Audio Call	✓	✓	✓	✓
	WeChat-like UI Design	✓	✓	✓	✓
	Call status display	✓	✓	✓	✓
	Offline Push (When the application is not open, users can still receive ring calls for audio and video calls through message push)	✓	✓	✓	✓
	Call floating window (After the call interface is collapsed, it can be displayed as a floating window above the	✓	✓	✓	✓

	application interface.)				
	Customize call ringtone	✓	✓	✓	✓
	Call/Answer/Decline/Hang up	✓	✓	✓	✓
	Switch from video call to voice call	✓	✓	✓	✓
	Group call	✓	–	✓	✓
	Mid-call/Join a three-way call	✓	–	✓	✓
	Call record (dashboard + API)	✓	–	✓	✓
	Mini Program Call Acceleration Support Mini Program End Call and Mini Program Room Entry Call Acceleration Optimization to ensure call quality.	✓	–	✓	✓
	Virtual background (Perform video calls, you can blur the background or replace the background image, support iOS, Android, Flutter, uin-app and Web)	✓	–	–	✓
	Multi-end login call	✓	–	✓	✓

	Seamless connection on any platform will automatically suspend other endpoint requests.				
	Cross-platform multi-end login and call (Support same platform, such as multiple iOS devices logged in. Answer calls on any device and Automatically Suspend Other Device Access Requests.)	✓ (Use only in conjunction with IM flagship version)	–	✓	✓
	AI noise reduction (Leverage AI capabilities to effectively filter background noise and restore call quality)	✓	–	✓	✓
	Weak network call lag optimization (Optimize the lag rate in outdoor and other weak network environments, with faster instant opening speed)	✓	–	✓	✓
Chat Functionality		According to the IM version See IM functionality	See details <IM Professio	See details IM flagship	See details <IM flagship

	ty for details	nal Edition Features>	version features	version features>
Tencent Real-Time Communication (TRTC) features	See details <trial version features of TRTC>	See details Basic features of TRTC Basic Version	See details Premium version features of TRTC	See details Features of TRTC flagship edition
Post-paid for additional resources	The post-payment price for call duration is detailed in audio/video duration billing instructions . The post-payment prices for DAU and peak group count are detailed in IM billing instructions .			
Supported Platforms	iOS, Android, Web, WeChat mini program (only available in trial version and group call version), uni-app, Flutter			

Note:

- **Including package versions:** TUICallKit is provided jointly by TRTC and IM Basic Package. To use TUICallKit, you need to simultaneous purchase TRTC monthly package and IM Basic Package. The features of TUICallKit provided by different version packages vary.
- **DAU:** A single-user daily login to Chat counts as 1 DAU. DAU does not accumulate for repeated logins by the same user.
- **Peak group count:** The total number of groups created and joined by all users under a single application (SDKAppID), settled based on the highest peak value in a natural month.

Renew the Official Version

You can renew the official version application. Specific operations are as follows:

1. Log in to the [TRTC console](#) , click on the left **Application Management**, select the application for which you need to renew the audio and video call (TUICallKit) capacity, and enter the application management page.
2. Find **low-code scenario solution with UI > Video Call (TUICallKit)** in the bottom-right corner of the page, click **Renew** to go to the [TRTC purchase page](#) to renew. For package price description, please see [audio and video call capability version billing explanation](#) .

含 UI 低代码集成接入

- ◀ 视频通话 (TUICallKit) 多人会议 (TUIRoomKit) 在线直播/语音聊天室 (TUI ▶

视频通话 (TUICallKit) 提供了音视频通话场景下常见的1V1通话、群组通话等功能，提供微信视频聊天同款 UI 快速集成方案，仅需几行代码即可快速集成。[方案介绍](#)

基本信息

服务状态	可集成
当前版本	1v1通话版 ⓘ 版本详情
到期时间	2024-11-11 ⓘ 续期
自动续期	未开启 ⓘ 开启自动续期

选择配置

接入方案



无 UI 自定义开发

直接集成 TRTC SDK，灵活开发多样化的需求
✓ 订阅解锁更多平台和场景（小程序通话等）
✓ 单独购买时长包享受更多优惠



含 UI 低代码快速开发

基于 TRTC 与 IM 的场景组件，1 天即可完成接入
✓ 音视频通话场景 —— TUICallKit
✓ 多人音视频会议场景 —— TUIRoomKit

使用须知

套餐内赠送音视频时长仅抵扣音视频时长用量，有效期为 1 个月，用尽/到期后，默认按后付费结算

搭配 IM 套餐拓展多样业务场景

选择应用

选择应用

创建新应用

请确认应用选择正确，购买后无法修改

当前应用版本

TRTC: 基础版 有效期至: 2024-11-11

IM: 旗舰版 有效期至: 2024-11-11

选择套餐

套餐类型



音视频通话 (TUICallKit)

适用于社交聊天、医疗问诊、视频客服、视频面试等轻量音视频通话场景。查看 UI 示例



多人音视频 (TUIRoomKit)

适用于企业会议、网络研讨会、在线教育、语音聊天室等多人音视频互动场景。查看 UI 示例



在线直播/语音聊天室 (TUILiveKit)

适用于电商直播、语音聊天室、秀场直播、直播课等直播场景。查看 UI 示例

根据已开通版本进行续费

套餐版本

对比项		1v1 通话版 续期 支持 1v1 语音/视频通话	群组通话版 - 38 万分钟 升级 支持小程序和群组通话	群组通话版 - 140 万分钟 升级 移动端虚拟背景 + 海量时长
套餐价格	套餐组合方式	TRTC 基础版 已开通 IM 旗舰版 已开通	TRTC 尊享版 未开通 IM 旗舰版 已开通	TRTC 旗舰版 未开通 IM 旗舰版 已开通
	套餐组合单价 (限时折扣)	5.80元/3000分钟	6.87元/38000分钟	8.24元/140000分钟
套餐赠送资源	音视频时长	11 万分钟/月	38 万分钟/月	140 万分钟/月
	微信同款 UI	✓	✓	✓
	通话呼叫/接听/拒绝/挂断	✓	✓	✓
	通话悬浮窗	✓	✓	✓

配置费用

共计2款商品


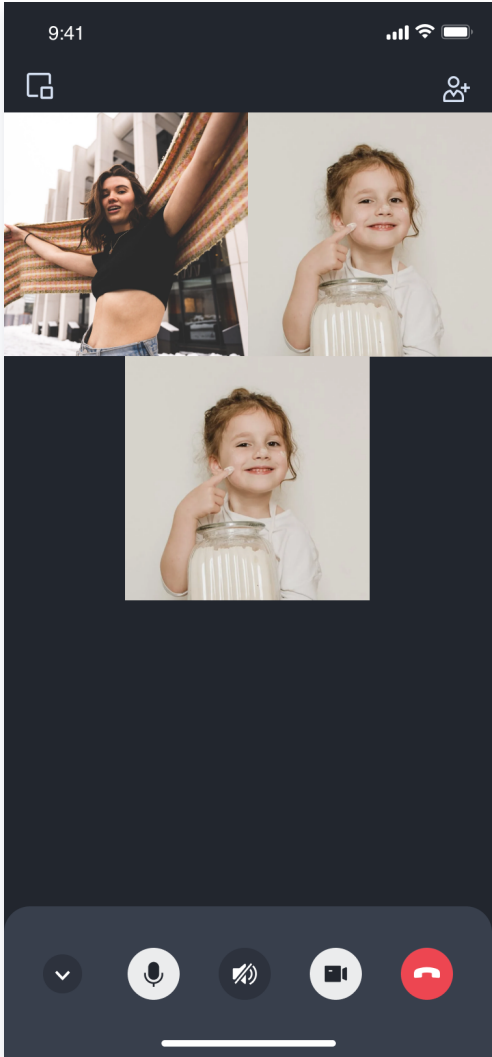
立即购买

Running a Demo (TUICallKit)

Android

Last updated: 2025-03-27 11:52:36

This article will show you how to quickly run the audio and video call demo. By following this document, you can run the demo within 10 minutes and finally experience an audio and video call feature with a complete UI interface.

Video Call	Group call
<p>Search for the required CAM policy as needed, and click to complete policy association.</p> 	<p>Search for the required CAM policy as needed, and click to complete policy association.</p> 

Environment Preparation

- [Android Studio](#)
- Two devices running Android 5.0 or later.

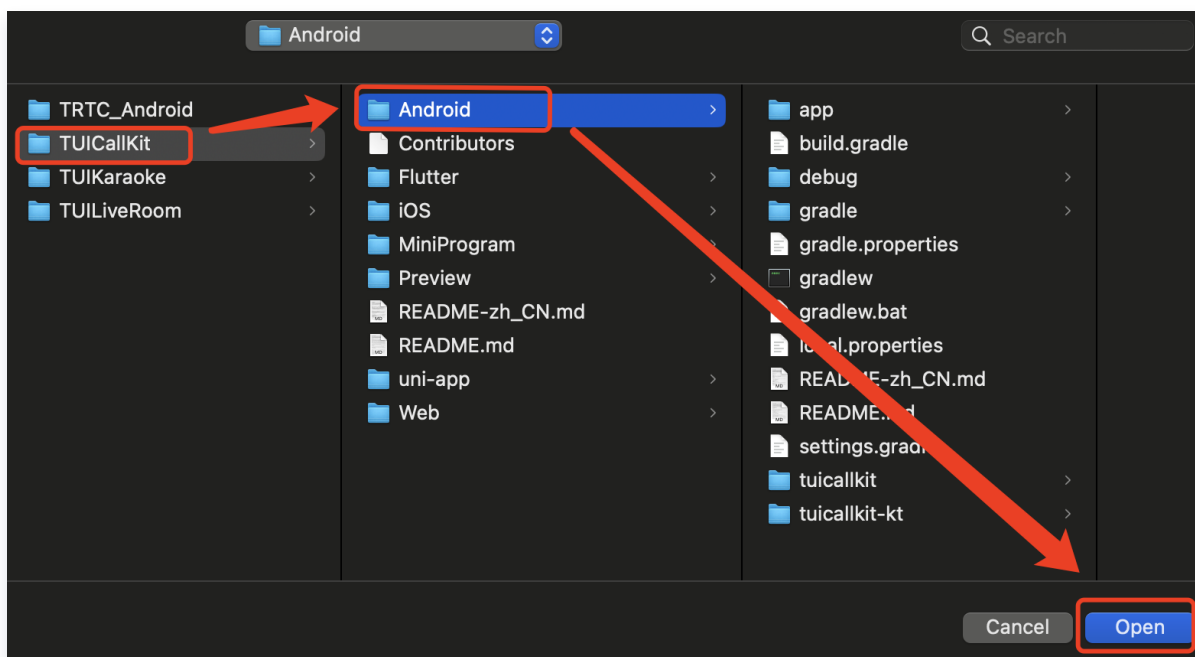
Step 1: Download the demo

1. Download the [TUICallKit Demo](#) source code from GitHub, or run the following command in the terminal:

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Open the TUICallKit **Android** project through Android Studio:

Search for the required CAM policy as needed, and click to complete policy association.



Step 2: Configure the demo

1. [Enable Audio and Video Services](#) and obtain the SDKAppID and SDKSecretKey.

Search for the required CAM policy as needed, and click to complete policy association.

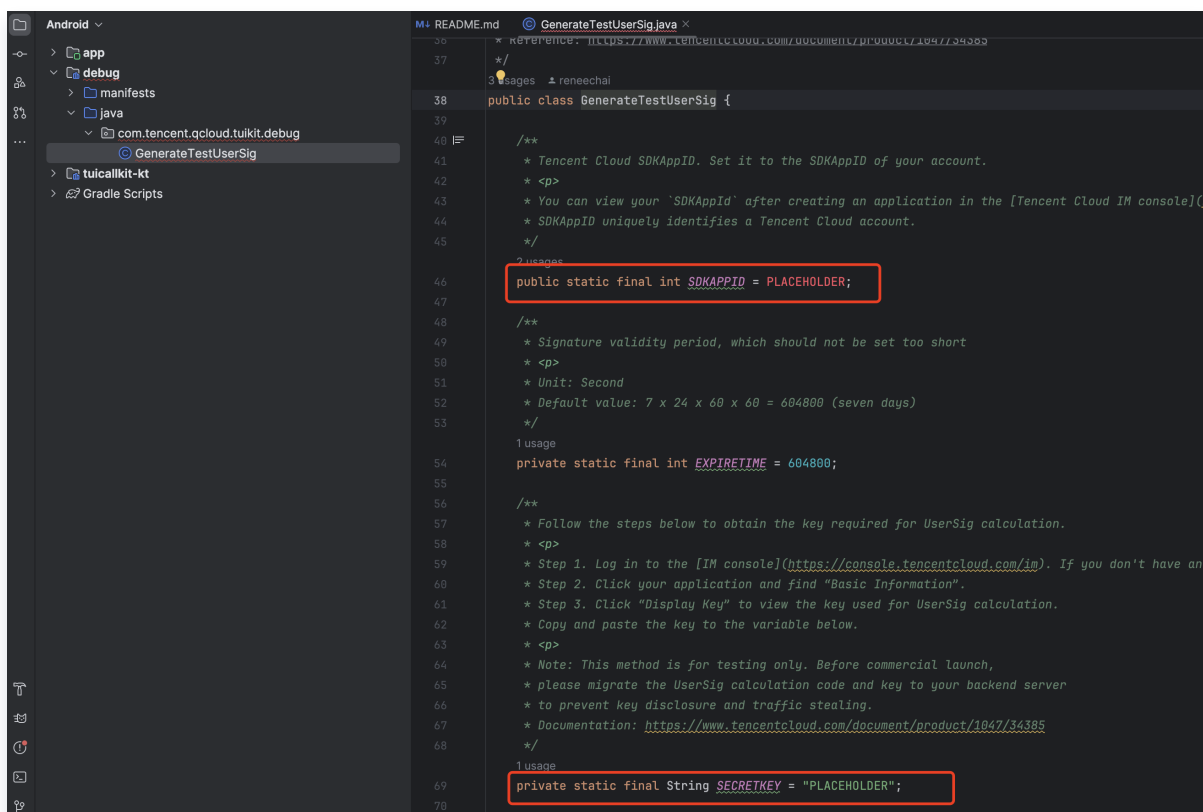


2. Open the

```
Android/debug/src/main/java/com/tencent/qcloud/tuikit/debug/GenerateTestUserSig.java
```

file and enter the obtained SDKAppID and SDKSecretKey from the [Enable Services](#):

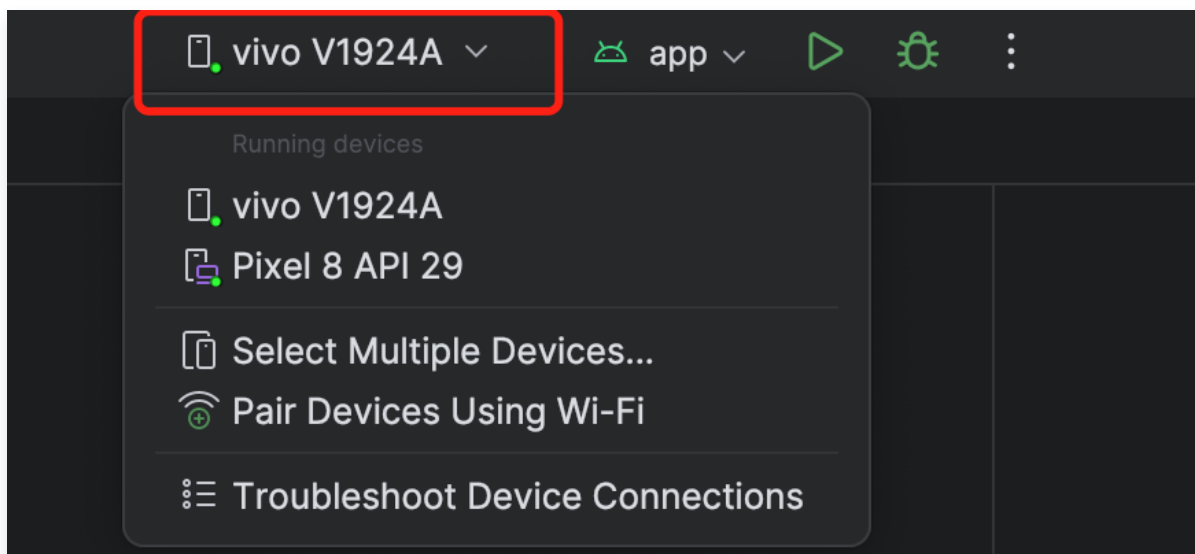
Search for the required CAM policy as needed, and click to complete policy association.



Step 3: Running the demo

1. In the top right corner of Android Studio, select the device you want to run the demo on as shown in the figure:

Search for the required CAM policy as needed, and click to complete policy association.



2. After selecting, click run to run the TUICallKit Android demo on the target device.
Search for the required CAM policy as needed, and click to complete policy association.



3. After the Demo is successfully run on the device, you can initiate a call by following these steps:

Make the first call

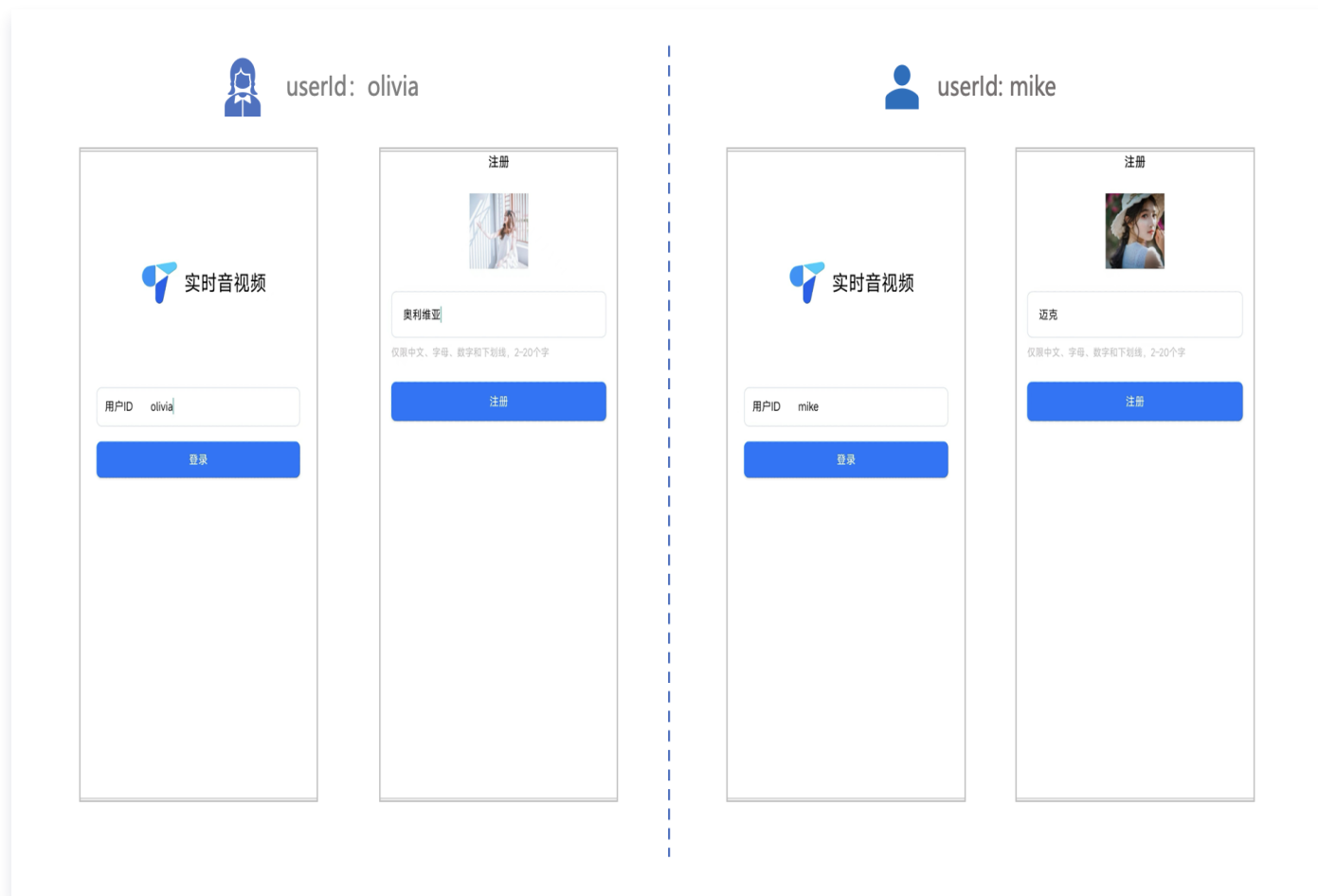
Note:

To experience the complete audio and video call process, log in to two users on two different devices with the demo, one as the caller and the other as the receiver.

1. Login & Registration

Please enter the ID at `User ID`. If your current User ID has not been used before, you will enter the **Registration** interface, where you can set your avatar and nickname.

Search for the required CAM policy as needed, and click to complete policy association.



Note:

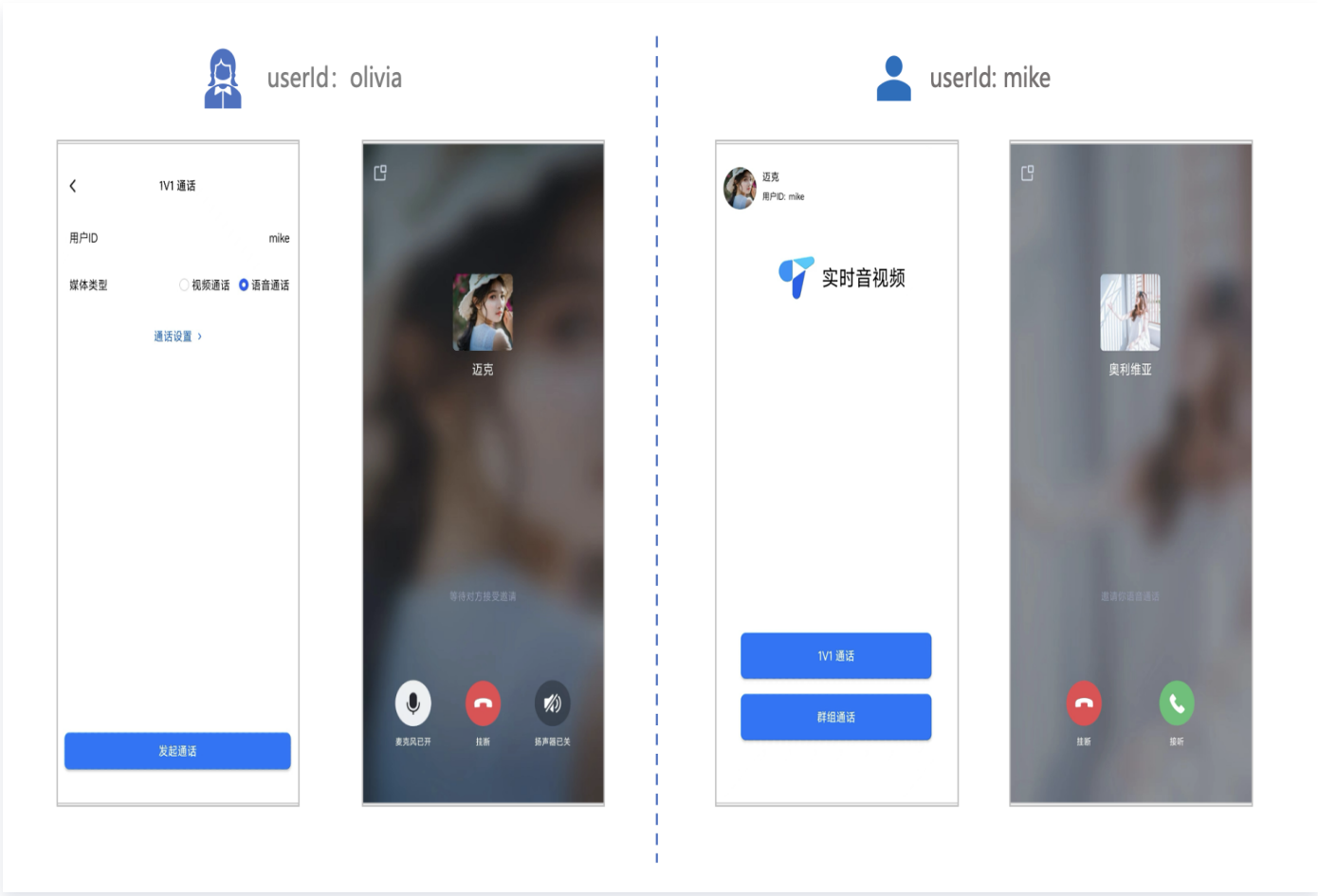
Try to avoid setting your User ID to simple strings like "1", "123", "111", etc. Since TRTC does not support multi-device login for the same User ID, such simple User IDs might be occupied by your colleagues during multi-person collaboration, leading to login failures. Therefore, we suggest setting distinctive User IDs during debugging.

2. Make a call

2.1 The caller should click **1:1 Call** on the interface, enter the receiver's User ID in the pop-up interface, and select the type of call you want.

2.2 click **Initiate Call**.


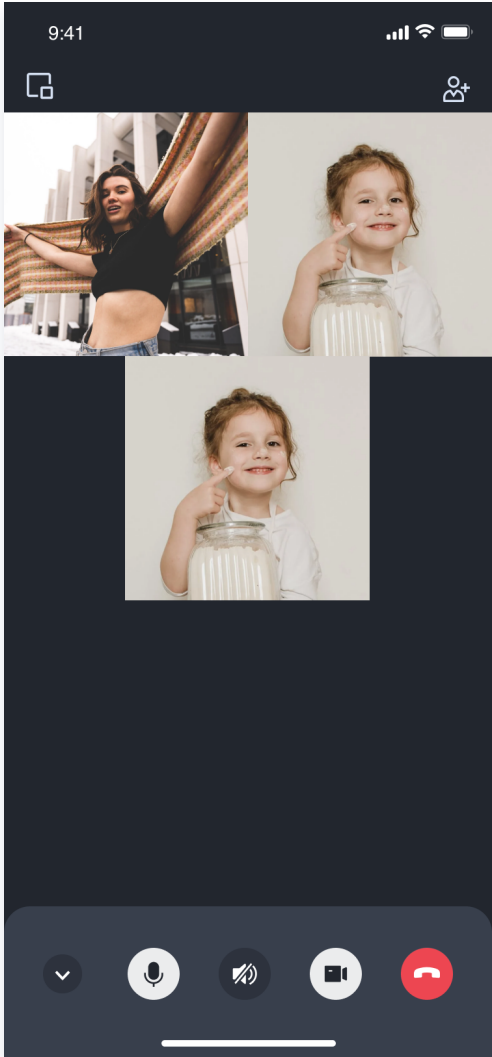
Search for the required CAM policy as needed, and click to complete policy association.



iOS

Last updated: 2025-03-27 11:53:00

This article will show you how to quickly run the audio and video call demo. By following this document, you can run the demo within 10 minutes and finally experience an audio and video call feature with a complete UI interface.

Video Call	Group call
<div>Search for the required CAM policy as needed, and click to complete policy association.</div> <div></div>	<div>Search for the required CAM policy as needed, and click to complete policy association.</div> <div></div>

Environment Preparation

- Xcode 13 or later.
- Two devices with iOS 13.0 or later.

Step 1: Download the demo

1. Download the [TUICallKit Demo](#) source code from GitHub, or run the following command in the terminal:

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Navigate to the iOS project directory in the command line:

```
cd TUICallKit/iOS/Example
```

3. Load the dependency library:

```
pod install
```

Note:

If you haven't installed CocoaPods yet, refer to [this guide](#) to learn how to install it.

Step 2: Configure the demo

1. [Activate the audio and video service](#) to obtain **SDKAppID** and **SDKSecretKey**.

Search for the required CAM policy as needed, and click to complete policy association.



2. Open the `/iOS/Example/Debug/GenerateTestUserSig.swift` file and enter the corresponding **SDKAppID** and **SDKSecretKey** obtained when [activating the service](#):

Search for the required CAM policy as needed, and click to complete policy association.

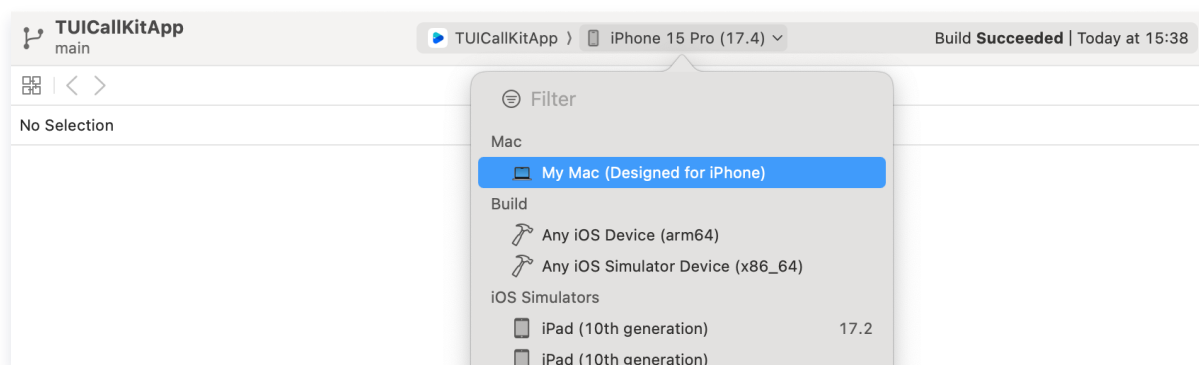
```

TUICallKitApp > Debug > GenerateTestUserSig > No Selection
10 import CommonCrypto
11 import zlib
12
13 /**
14  * Tencent Cloud SDKAppId, which needs to be replaced with the SDKAppId under your own account.
15  *
16  * Enter Tencent Cloud IM to create an application, and you can see the SDKAppId, which is the unique identifier used by Tencent Cloud to
17  */
18 let SDKAPPID: Int = 0
19
20 /**
21  * Signature expiration time, it is recommended not to set it too short
22  *
23  * Time unit: seconds
24  * Default time: 7 x 24 x 60 x 60 = 604800 = 7 days
25  */
26 let EXPIRETIME: Int = 604_800
27
28 /**
29  * Encryption key used for calculating the signature, the steps to obtain it are as follows:
30  *
31  * step1. Enter Tencent Cloud IM, if you do not have an application yet, create one,
32  * step2. Click "Application Configuration" to enter the basic configuration page, and further find the "Account System Integration" section.
33  * step3. Click the "View Key" button, you can see the encryption key used to calculate UserSig, please copy and paste it into the following
34  *
35  * Note: This solution is only applicable to debugging demos.
36  * Before going online officially, please migrate the UserSig calculation code and keys to your backend server to avoid traffic theft caused by
37  */
38 let SECRETKEY = ""
39

```

Step 3: Running the demo

1. In Xcode, select the device you want to run the demo on, as shown in the figure below:
Search for the required CAM policy as needed, and click to complete policy association.



2. After selection, click to run and deploy our TUICallKit Android demo on the target device.

Make the first call

Note:

To experience the complete audio and video call process, log in to two users on two different devices with the demo, one as the caller and the other as the receiver.

1. Login & Registration

Please enter the User ID in the `User ID` field. If your current UserID hasn't been used, you will be directed to the **registration** interface, where you can set your avatar and nickname. Search for the required CAM policy as needed, and click to complete policy association.



Note:

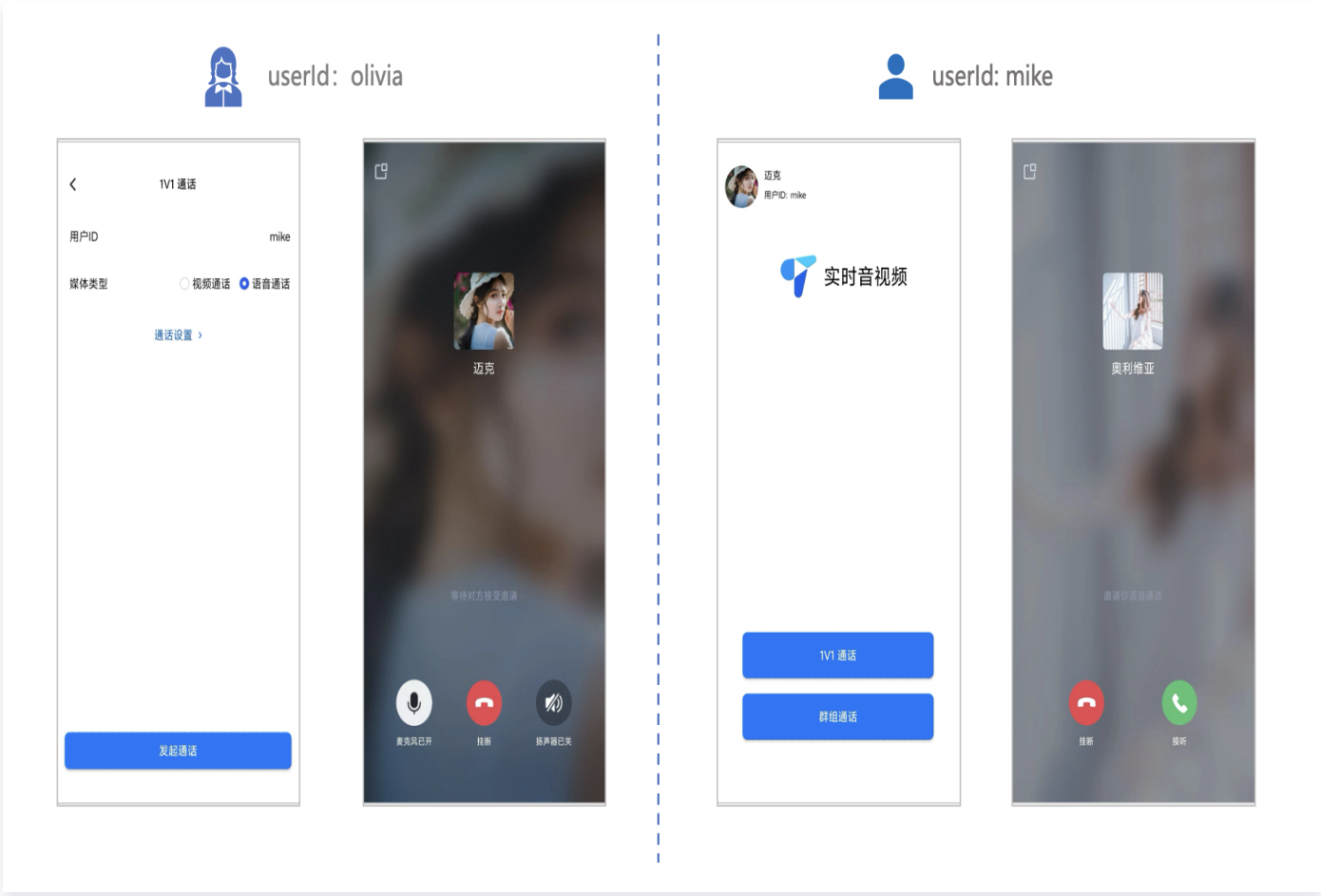
Try to avoid setting your User ID to simple strings like "1", "123", "111", etc. Since TRTC does not support multi-device login for the same User ID, such simple User IDs might be occupied by your colleagues during multi-person collaboration, leading to login failures. Therefore, we suggest setting distinctive User IDs during debugging.

2. Make a call

2.1 The caller should click **1:1 Call** on the interface, enter the receiver's User ID in the pop-up interface, and select the type of call you want.

2.2 click **Initiate Call**.

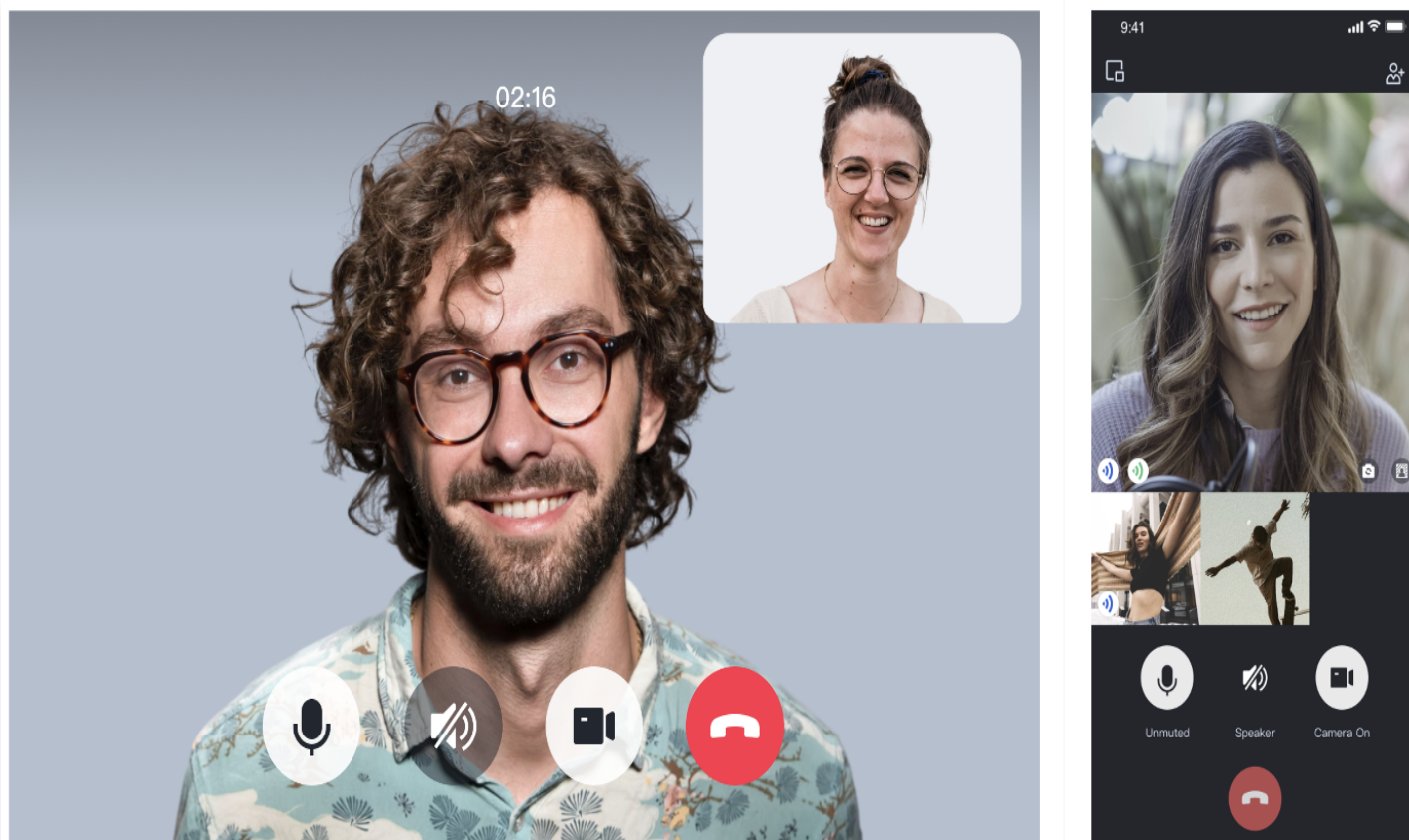
Search for the required CAM policy as needed, and click to complete policy association.



Web

Last updated: 2025-03-27 11:54:27

This document will introduce how to quickly complete a video call demonstration. You will complete the following key steps within 10 minutes and finally obtain a video call feature with a comprehensive user interface.



Environment Preparation

- Node.js. If not, [click to download](#).
- Modern browser, supporting WebRTC API.

Step 1: Download Demo

1. Open terminal, clone repository.

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Install dependencies.

React

```
cd ./TUICallKit/Web/basic-react
```

Vue3

```
cd ./TUICallKit/Web/basic-vue3
```

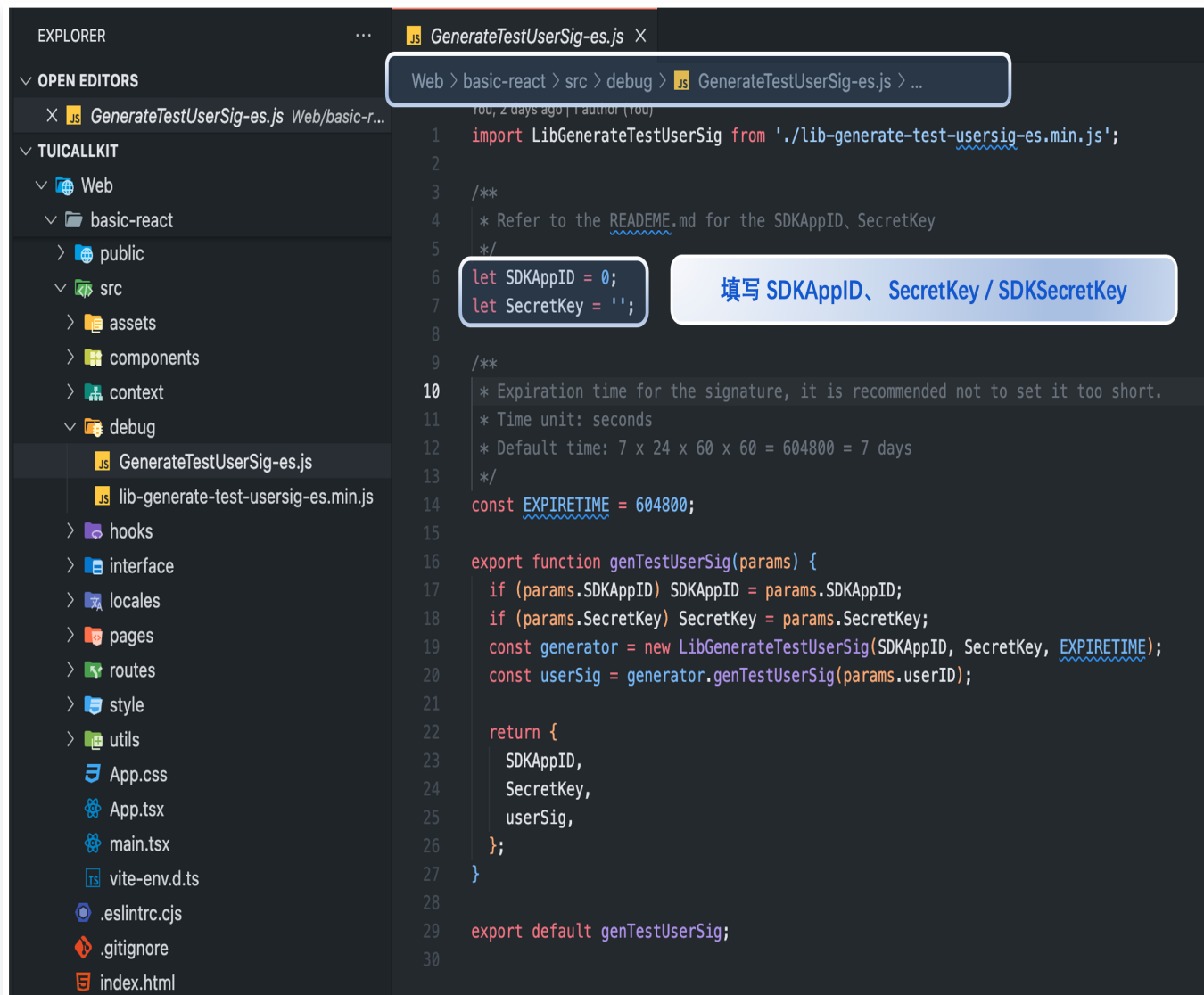
```
npm install
```

Step Two: Configuration Demo

1. [Click to enter the Activate Service page](#), obtain `SDKAppID`, `SecretKey`.
2. Fill in `SDKAPPID`, `SecretKey`.

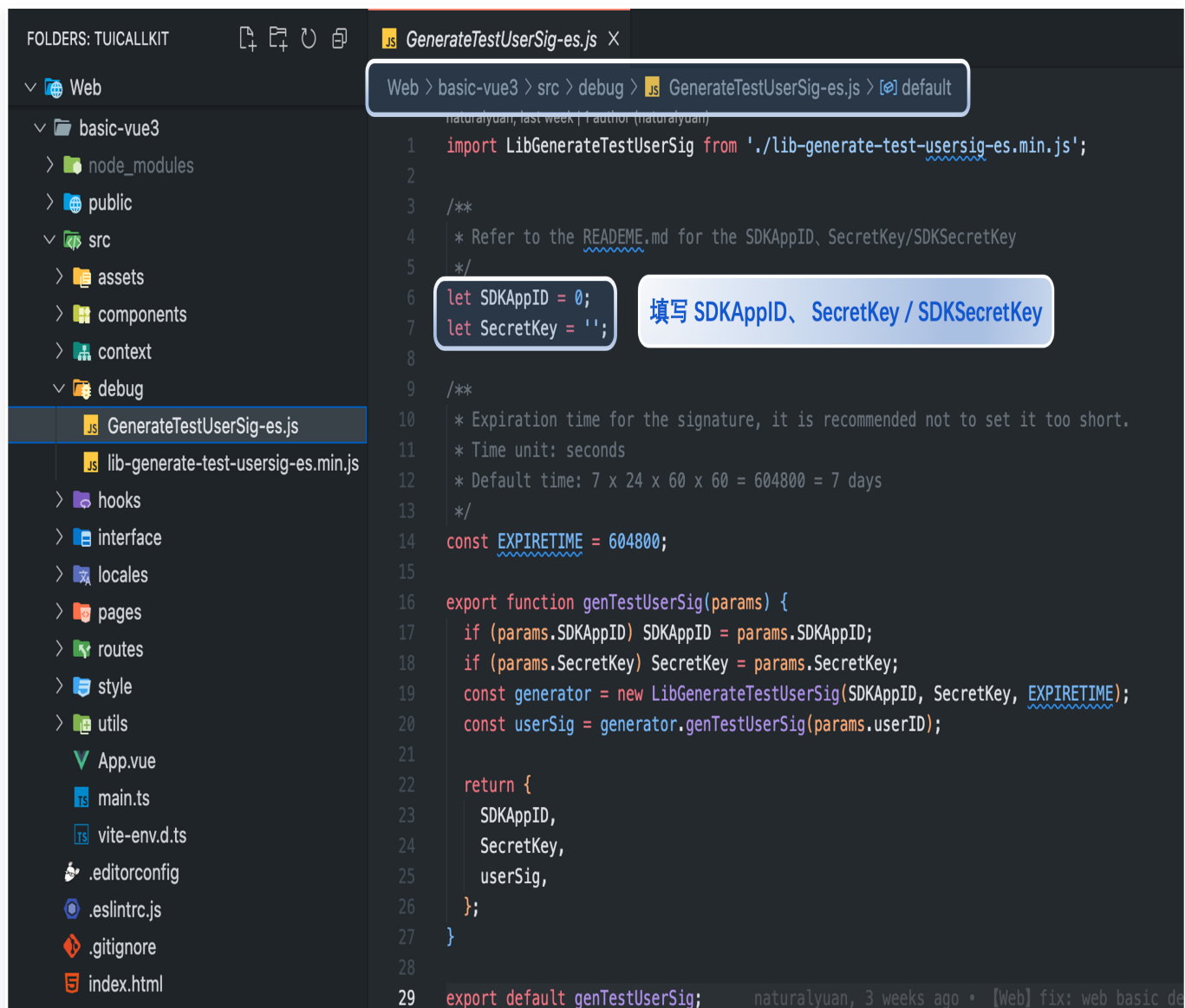
React

File path: `TUICallKit/Web/basic-react/src/debug/GenerateTestUserSig-es.js`



Vue3

File path: `TUICallKit/Web/basic-vue3/src/debug/GenerateTestUserSig-es.js`



Step 3: Run Demo

Open terminal, copy the sample command and run Demo.

TUICallKit/Web/basic-react

```
npm run dev
```

TUICallKit/Web/basic-vue3

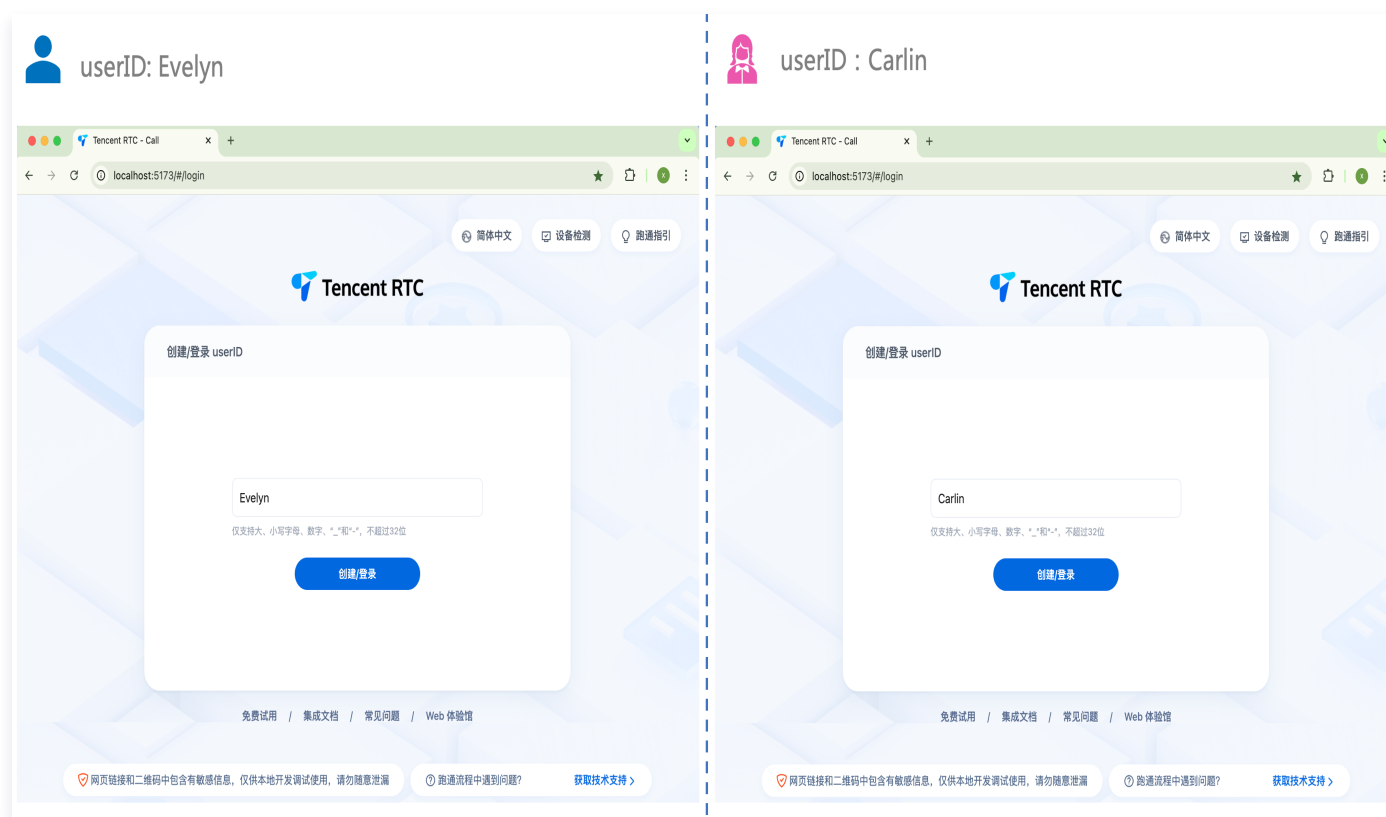
```
npm run dev
```

Warning:

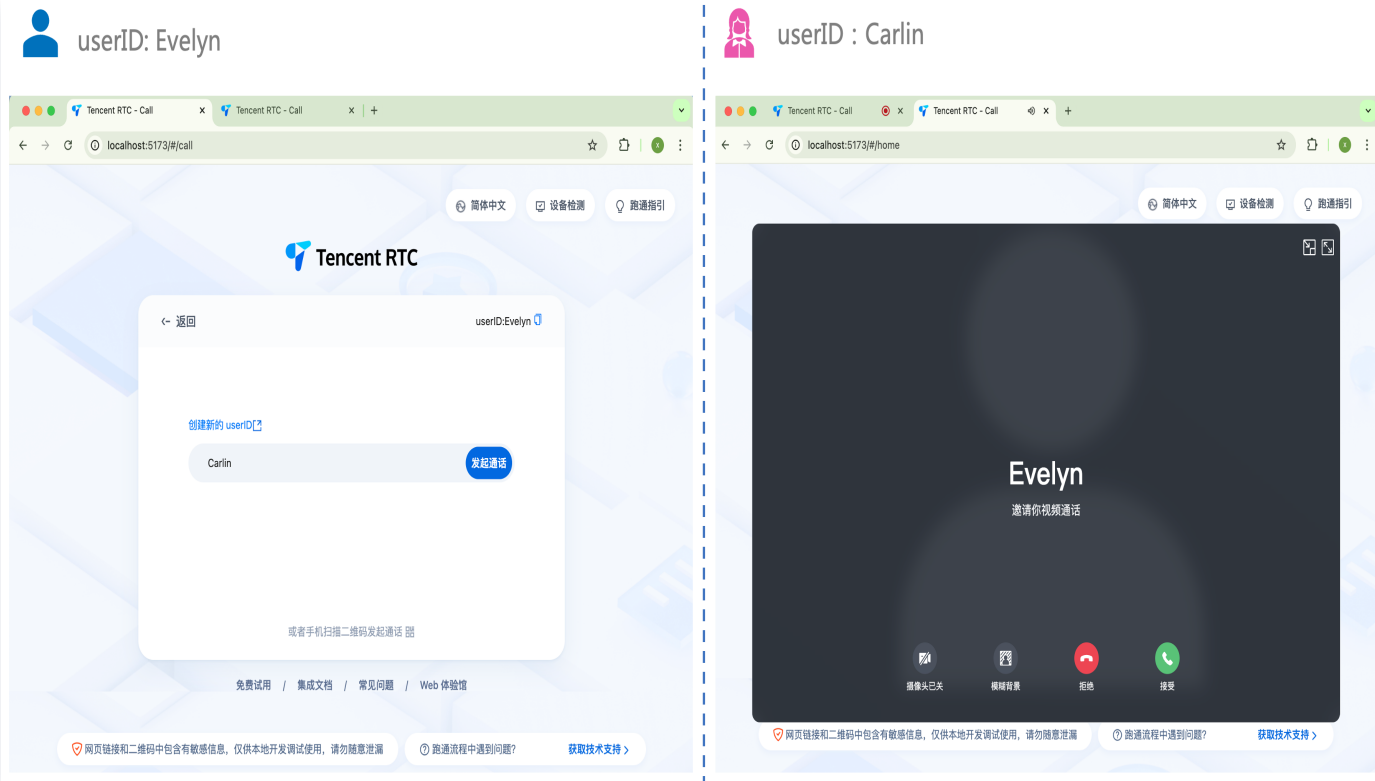
In the local environment, please access under the localhost protocol. For the public network experience, please access under the HTTPS protocol. Refer to [description of network access protocol](#).

Step 4: Make Your First Phone Call

1. Open browser page, input project operation address, log in userID (defined by you).



2. Input the called party's userID and click `Initiate Call` to experience your first call.



Flutter

Last updated: 2025-03-27 11:53:40

This article will show you how to quickly run the audio and video call demo. By following this document, you can run the demo within 10 minutes and finally experience an audio and video call feature with a complete UI interface.

Video Call	Group call
<div>Search for the required CAM policy as needed, and click to complete policy association.</div> <div></div>	<div>Search for the required CAM policy as needed, and click to complete policy association.</div> <div></div>

Environment Preparation

Flutter

Flutter 3.0 or later.

Android

- Android Studio 3.5 or above.
- Android device on Android 4.1 or later.

iOS

- Xcode 13.0 or above.
- A valid developer signature for your project.

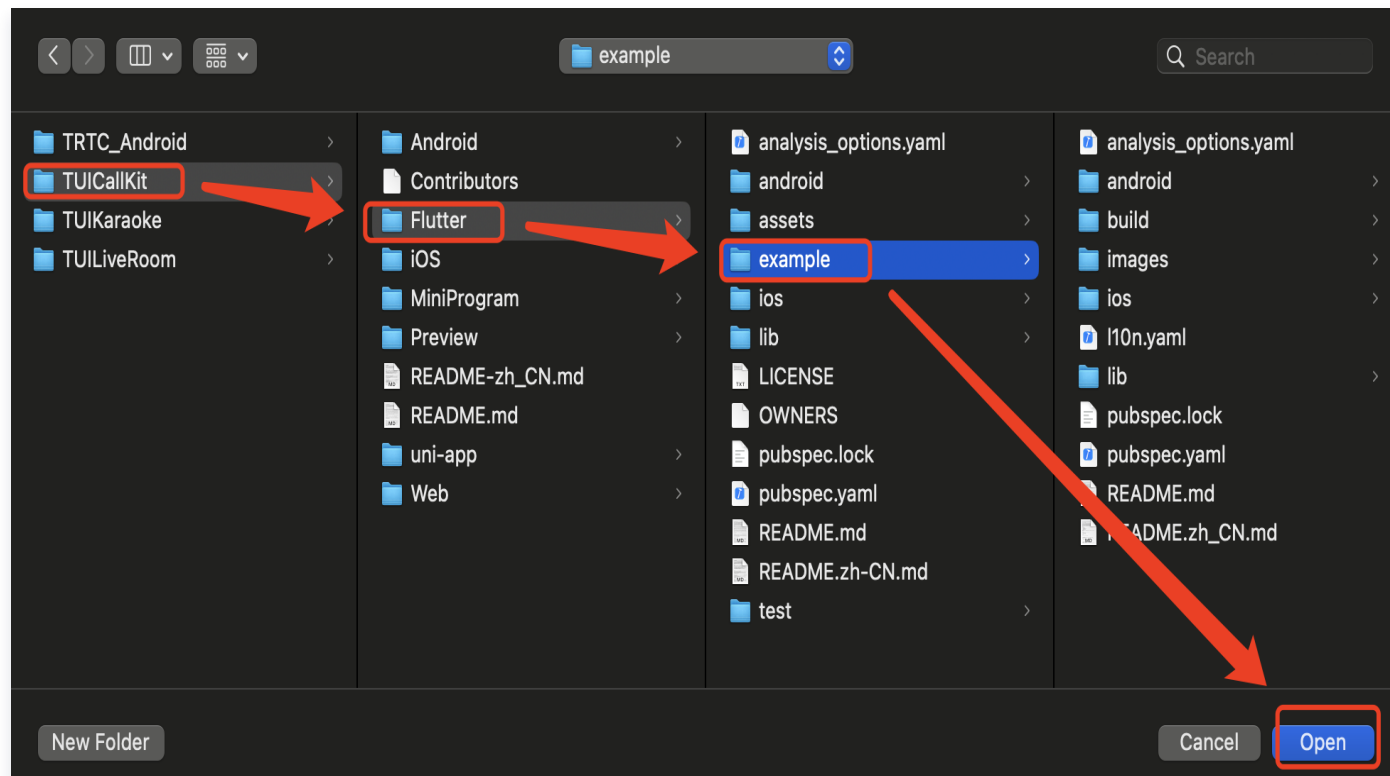
Step 1: Download the demo

1. Download the [TUICallKit Demo](#) source code from GitHub, or run the following command in the terminal:

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Open the TUICallKit Flutter example with Android Studio or VSCode. The following process will take Android Studio as an example:

Search for the required CAM policy as needed, and click to complete policy association.



Step 2: Configure the demo

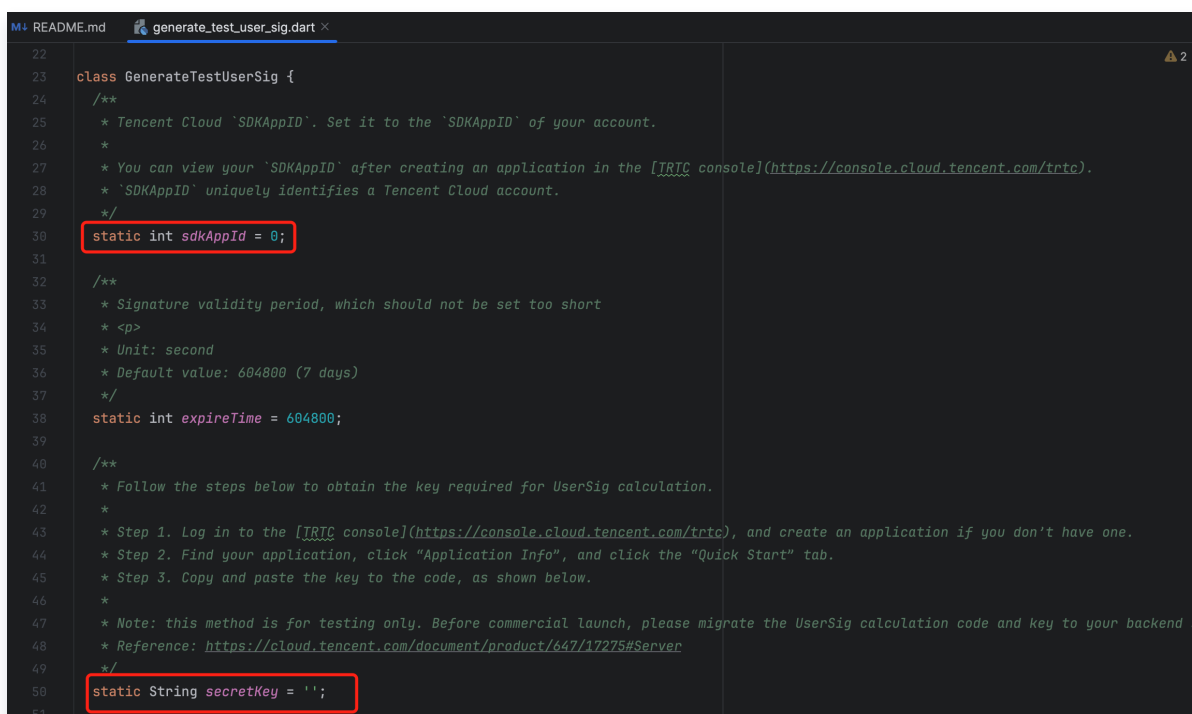
1. Activate the audio and video service to obtain SDKAppID and SDKSecretKey.

Search for the required CAM policy as needed, and click to complete policy association.



2. Open the `Flutter/example/lib/debug/generate_test_user_sig.dart` file, and fill in the corresponding SDKAppID and SDKSecretKey obtained when activating the service:

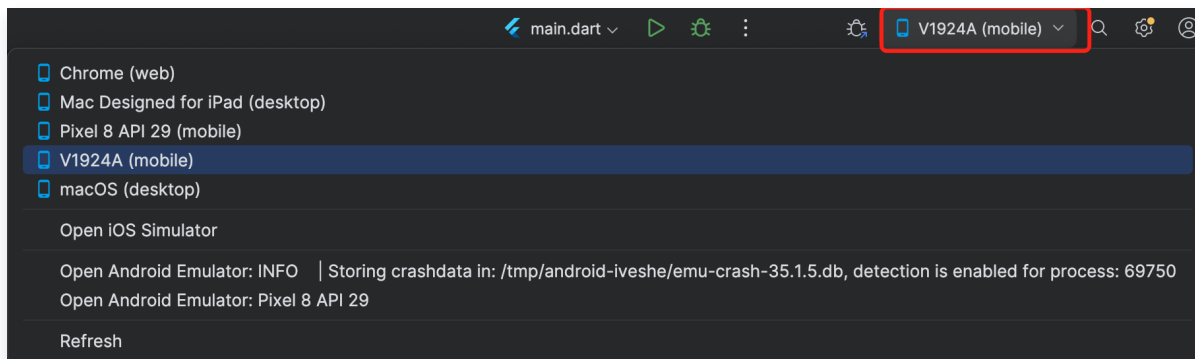
Search for the required CAM policy as needed, and click to complete policy association.



Step 3: Running the demo

1. In the top right corner of Android Studio, select the device you want to run the demo on as shown in the figure:

Search for the required CAM policy as needed, and click to complete policy association.



2. After selecting, click run to run the TUICallKit Android demo on the target device.

Search for the required CAM policy as needed, and click to complete policy association.



Make the first call

Note:

To experience the complete audio and video call process, log in to two users on two different devices with the demo, one as the caller and the other as the receiver.

1. Login & Registration

Please enter the ID at `User ID` . If your current User ID has not been used before, you will enter the **Registration** interface, where you can set your avatar and nickname.

Search for the required CAM policy as needed, and click to complete policy association.



Note:

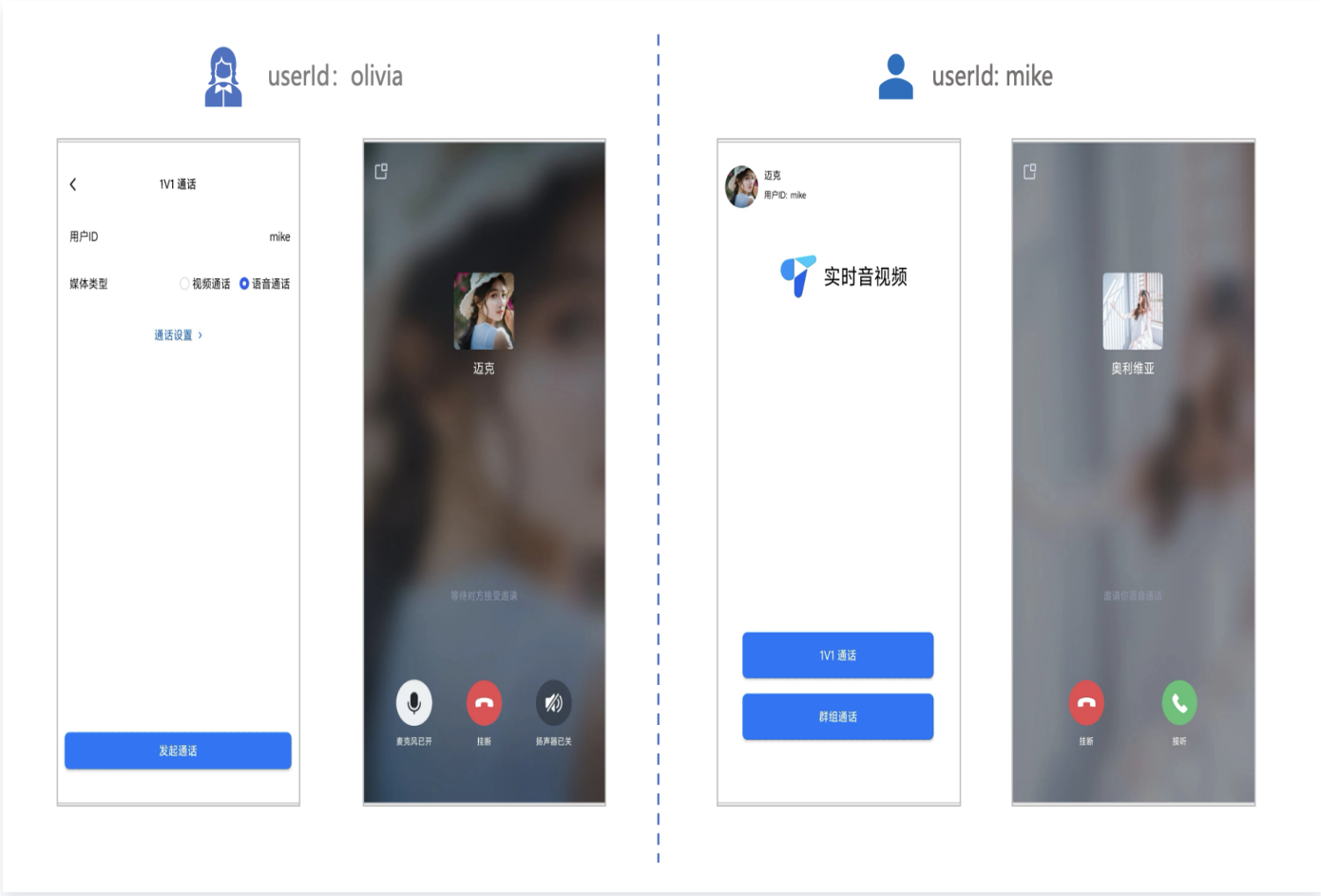
Try to avoid setting your User ID to simple strings like "1", "123", "111", etc. Since TRTC does not support multi-device login for the same User ID, such simple User IDs might be occupied by your colleagues during multi-person collaboration, leading to login failures. Therefore, we suggest setting distinctive User IDs during debugging.

2. Make a call

2.1 The caller should click **1:1 Call** on the interface, enter the receiver's User ID in the pop-up interface, and select the type of call you want.

2.2 click **Initiate Call**.

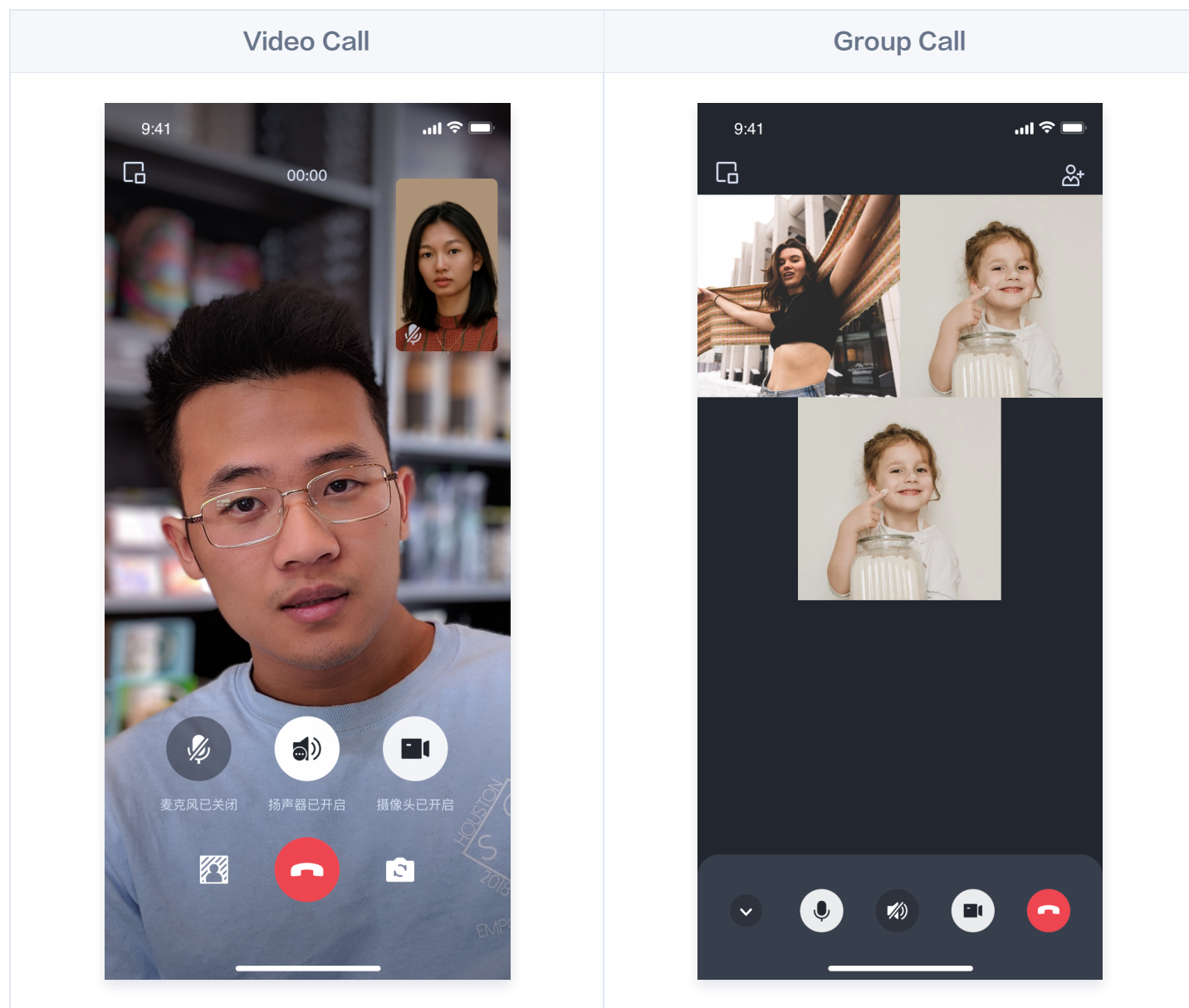
Search for the required CAM policy as needed, and click to complete policy association.



WeChat Mini Program

Last updated: 2025-03-27 11:56:37

This document introduces how to quickly run through the audio/video call Demo. Follow this documentation, and you can run through the Demo within 10 minutes and finally experience an audio/video call feature with a complete UI interface.



Development Environment Requirement

- Minimum version requirement for WeChat App on iOS: 8.0.40.
- Minimum version requirement for WeChat App on Android: 8.0.40.
- Minimum version requirement for mini program base library: 2.10.0.

Step 1: Download Demo

1. Open terminal, clone repository.

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Install dependencies.

```
cd ./TUICallKit/MiniProgram
```

```
npm install
```

3. Copy the source code

Windows Side

```
xcopy node_modules\@tencentcloud\call-uikit-wx-uniapp\ .\TUICallKit /i /e
xcopy node_modules\@tencentcloud\call-engine-wx\RTCCallEngine.wasm.br .\static
```

Mac Side

```
mkdir -p ./TUICallKit && cp -r node_modules/@tencentcloud/call-uikit-wx-uniapp/ ./TUICallKit && cp node_modules/@tencentcloud/call-engine-wx/RTCCallEngine.wasm.br ./static
```

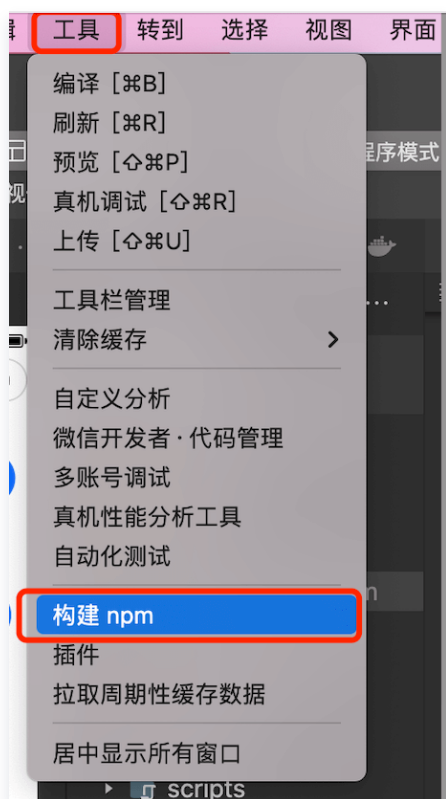
Step Two: Configuration Demo

1. Click [to enter the Activate Service page](#) , obtain SDKAppID, SDKSecretKey .
2. Open the TUICallKit/MiniProgram/TUICalling/debug/GenerateTestUserSig.js file and fill in the corresponding SDKAppID and SDKSecretKey obtained during service activation.

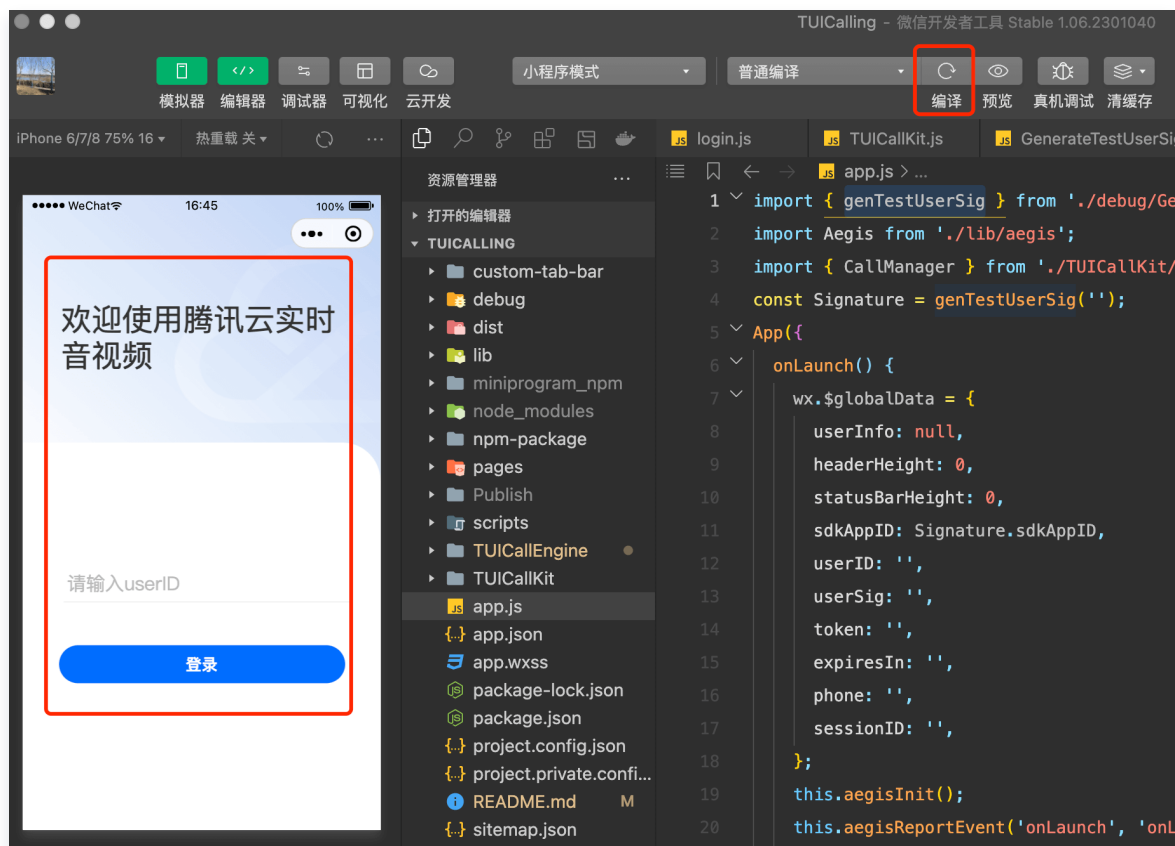
```
function genTestUserSig(userID) {  
  /**  
   * 腾讯云 SDKAppId, 需要替换为您自己账号下的 SDKAppId。  
   *  
   * 进入腾讯云实时音视频[控制台](https://console.cloud.tencent.com/rav ) 创建应用, 即可看到 SDKAppId,  
   * 它是腾讯云用于区分客户的唯一标识。  
   */  
  var SDKAPPID = 0; 将 SDKAppId 粘贴到此处  
  
  /**  
   * 签名过期时间, 建议不要设置的过短  
   * <p>  
   * 时间单位: 秒  
   * 默认时间: 7 x 24 x 60 x 60 = 604800 = 7 天  
   */  
  var EXPIRETIME = 604800;  
  
  /**  
   * 计算签名用的加密密钥, 获取步骤如下:  
   *  
   * step1. 进入腾讯云实时音视频[控制台](https://console.cloud.tencent.com/rav ), 如果还没有应用就创建一个,  
   * step2. 单击“应用配置”进入基础配置页面, 并进一步找到“帐号体系集成”部分。  
   * step3. 点击“查看密钥”按钮, 就可以看到计算 UserSig 使用的加密的密钥了, 请将其拷贝并复制到如下的变量中  
   *  
   * 注意: 该方案仅适用于调试Demo, 正式上线前请将 UserSig 计算代码和密钥迁移到您的后台服务器上, 以避免加密密钥泄露导致的流量盗用。  
   * 文档: https://cloud.tencent.com/document/product/647/17275#Server  
   */  
  var SECRETKEY = ""; 将 密钥 粘贴到此处
```

Step Three: Running the Demo

1. Import the project into WeChat Developer Tools and build npm. Open WeChat Developer Tools, select **Tools > Build npm**. Details are given below:



2. Compile and run in WeChat Developer Tools.



Make the First Call

Note:

To allow you to experience the complete audio and video call process, please log in two users on two devices respectively for the Demo, with one acting as the caller and the other as the callee.

1. Please input your ID in the `user ID` field.

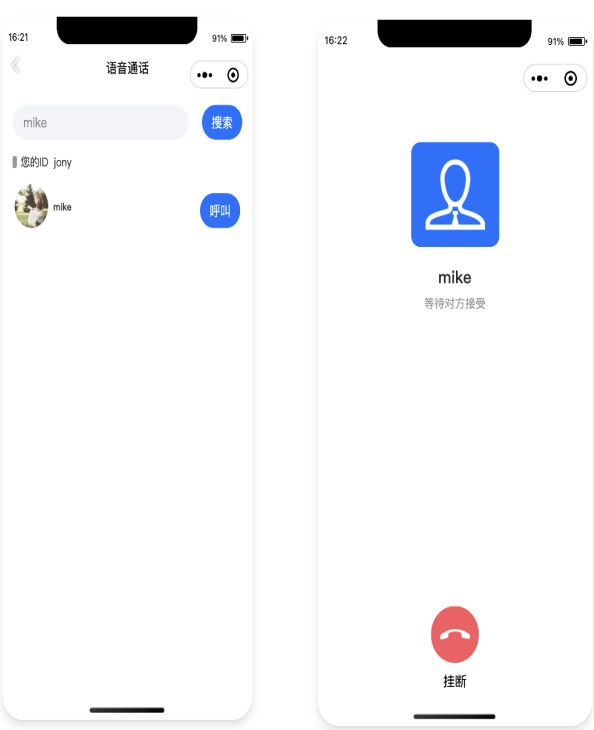
**Note:**

Try to avoid setting your UserID to simple strings such as "1", "123", "111". Since TRTC does not support multi-end login for the same UserID, UserIDs like "1", "123", "111" are easily occupied by your colleagues during collaborative development, resulting in login failure. Therefore, we recommend that you set some highly recognizable UserIDs when debugging.

2. Make a phone call

userId: jony

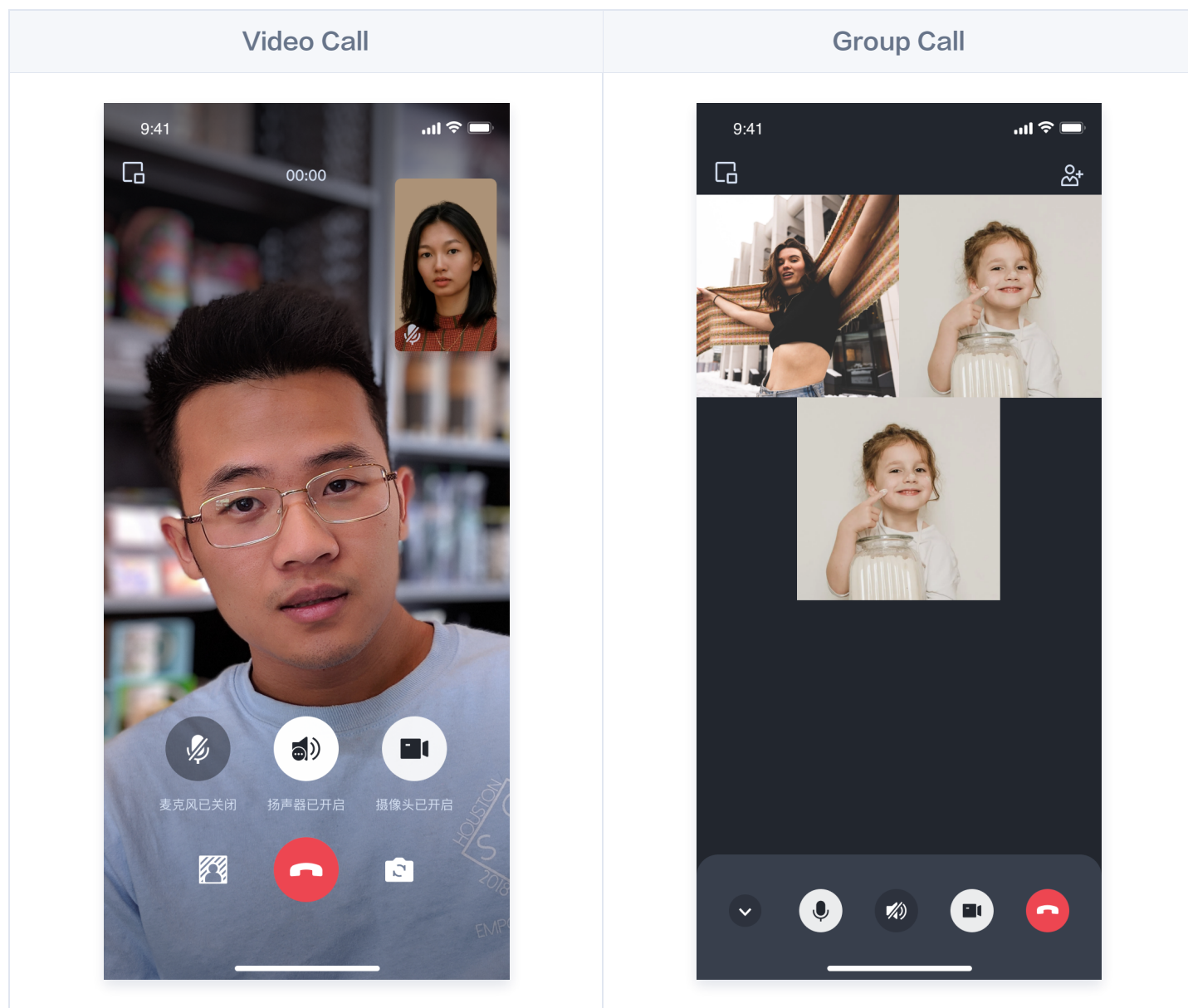
userId: mike



Using Uni-App (Mini Program)

Last updated: 2025-03-27 11:59:37

This document introduces how to quickly test the audio and video call Demo. Follow this documentation, you can test the Demo within 10 minutes, and finally experience an audio/video call feature with a complete UI interface.



Development Environment Requirement

- Minimum version requirement for WeChat App on iOS: 8.0.40.
- Minimum version requirement for WeChat App on Android: 8.0.40.
- Minimum version requirement for mini program base library: 2.10.0.

Step 1: Download Demo

1. Open terminal, clone repository.

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Install dependencies.

```
cd ./TUICallKit/uni-app/TUICallKit-Miniprogram/TUICallKit-Vue3
```

```
npm install
```

3. Copy source code

window End

```
xcopy node_modules\@tencentcloud\call-uikit-wx-uniapp\ .\TUICallKit /i /e
xcopy node_modules\@tencentcloud\call-engine-wx\RTCCallEngine.wasm.br .\static
```

mac End

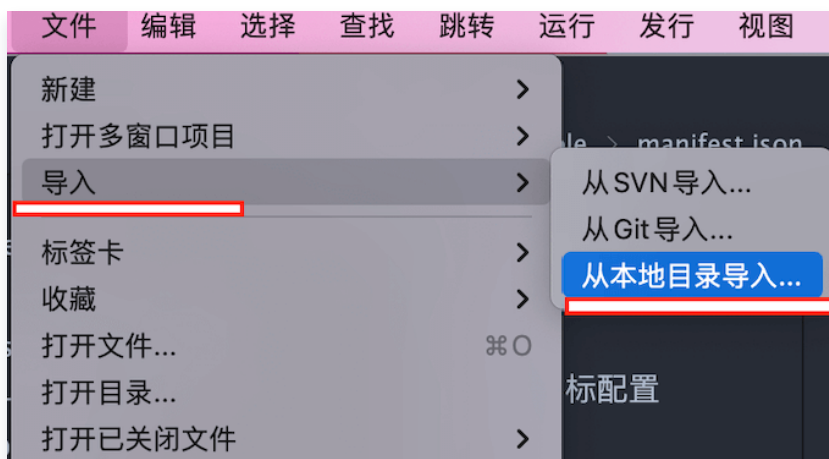
```
mkdir -p ./TUICallKit && cp -r node_modules/@tencentcloud/call-uikit-wx-uniapp/ ./TUICallKit && cp node_modules/@tencentcloud/call-engine-wx/RTCCallEngine.wasm.br ./static
```

Step Two: Configuration Demo

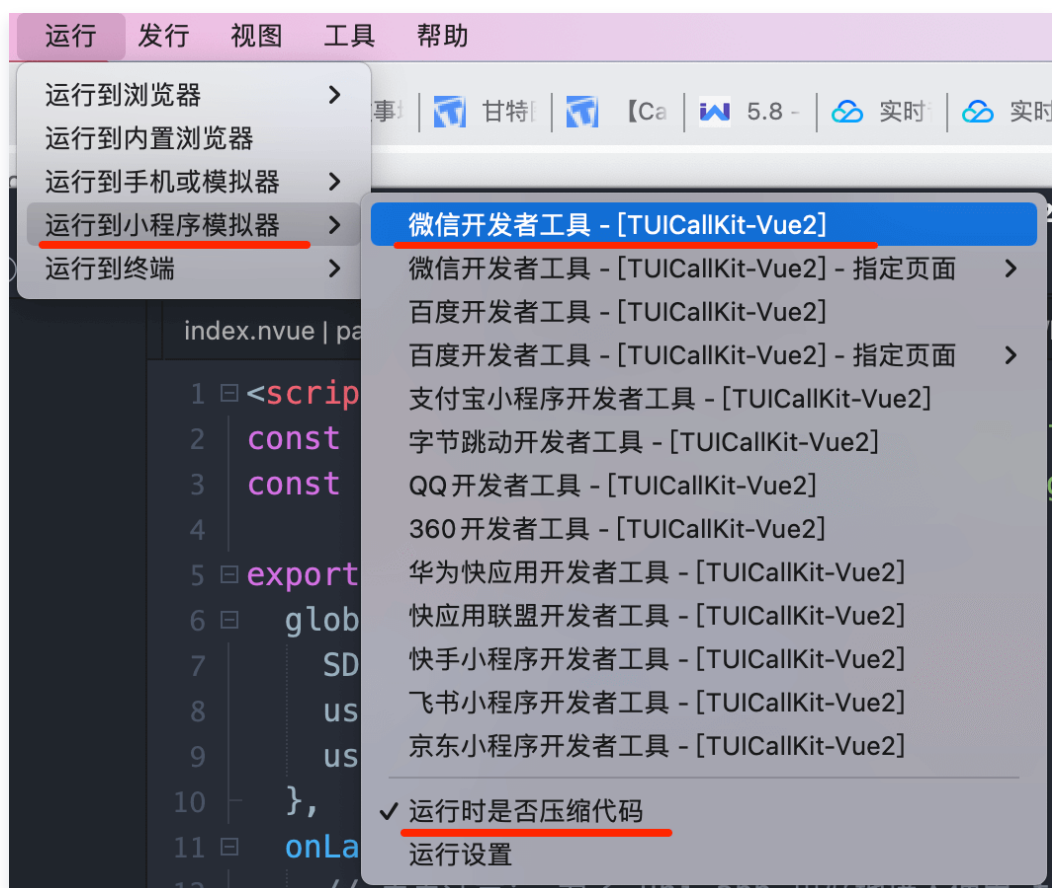
1. Click [to enter the Activate Service page](#) , get <4>SDKAppID, SDKSecretKey</4>
2. Open the./TUICallKit/uni-app/TUICallKit-Miniprogram/TUICallKit-Vue3/TUICallKit/debug/GenerateTestUserSig-es.js file and fill in the corresponding SDKAppID and SDKSecretKey obtained when activating the service.

Step 3: Running through the Demo

1. Import a project in HBuilder.



2. Run to WeChat Developer Tool and check whether to compress code at runtime.



Make the First Call

Note:

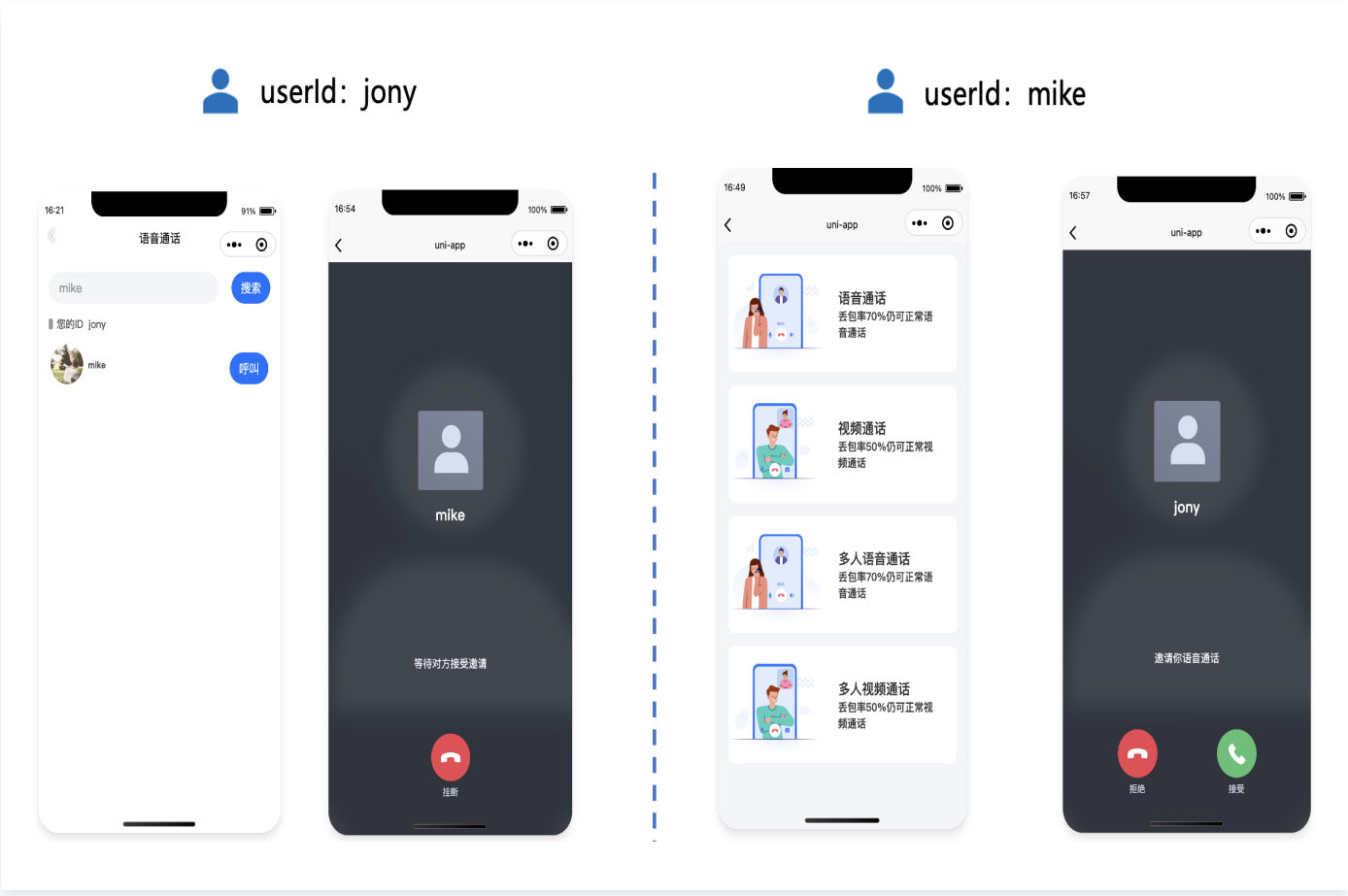
To allow you to experience the complete Audio/Video Call Flow, please log in two users on two devices respectively for the Demo, with one acting as the caller and the other as the callee.

1. Please input your ID in the `User ID` field.

**Note:**

Try to avoid setting your UserID to simple strings such as "1", "123", "111". Since TRTC does not support multi-end login for the same UserID, UserIDs like "1", "123", "111" can be easily occupied by your colleagues during collaborative development, resulting in login failure. Therefore, we recommend that you set some highly recognizable UserIDs when debugging.

2. Make a phone call



Uni-App (Client)

Last updated: 2025-03-27 12:00:51

This document describes how to quickly complete a video call demonstration. You will complete the following key steps within 10 minutes and finally obtain a video call feature with a comprehensive user interface.

Video Call	Group Call

Environment Preparation

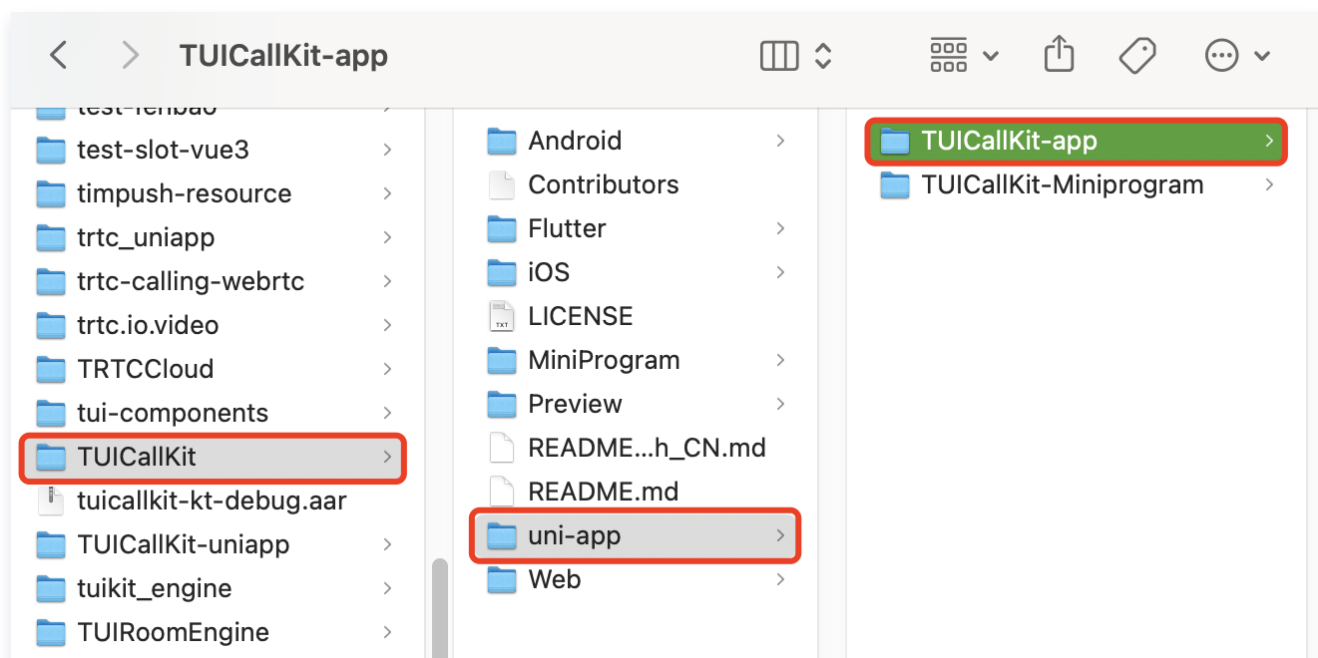
- [HBuilder X](#)
- Two mobile devices: Android device 5.0 or higher / iOS device 13.0 and above.

Step 1: Download Demo

1. Download the [TUICallKit Demo](#) source code from github, or run the following commands in command line:

```
git clone https://github.com/Tencent-RTC/TUICallKit.git
```

2. Open the **uni-app/TUICallKit-app** project through HbuilderX:



Step Two: Configuration Demo

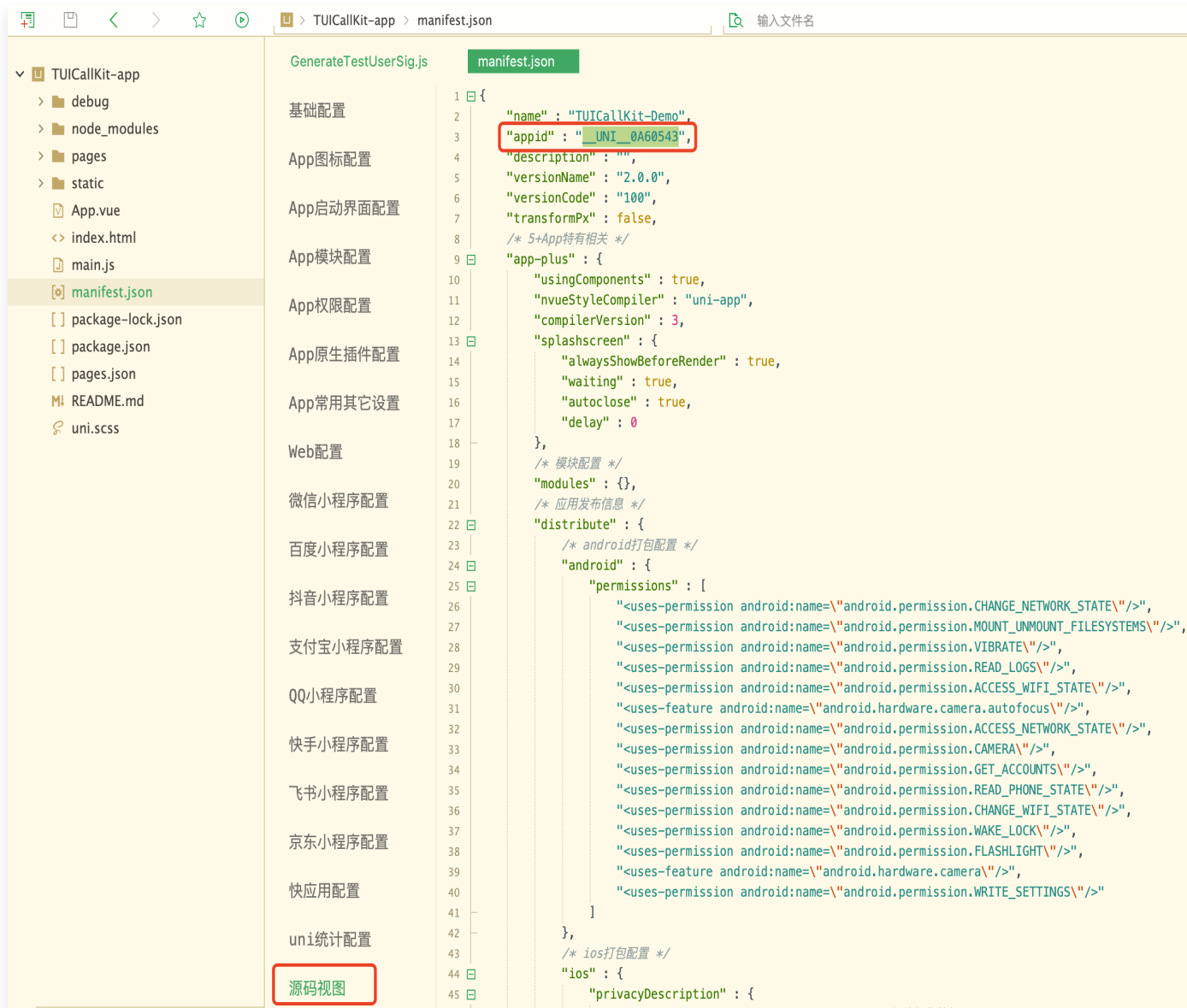
1. [Click to enter the Activate Service page](#), obtain `SDKAppID`, `SecretKey`.
2. Fill in the `SDKAPPID`, `SecretKey` in the 'TUICallKit/uni-app/TUICallKit-app/debug/GenerateTestUserSig-es.js' file.



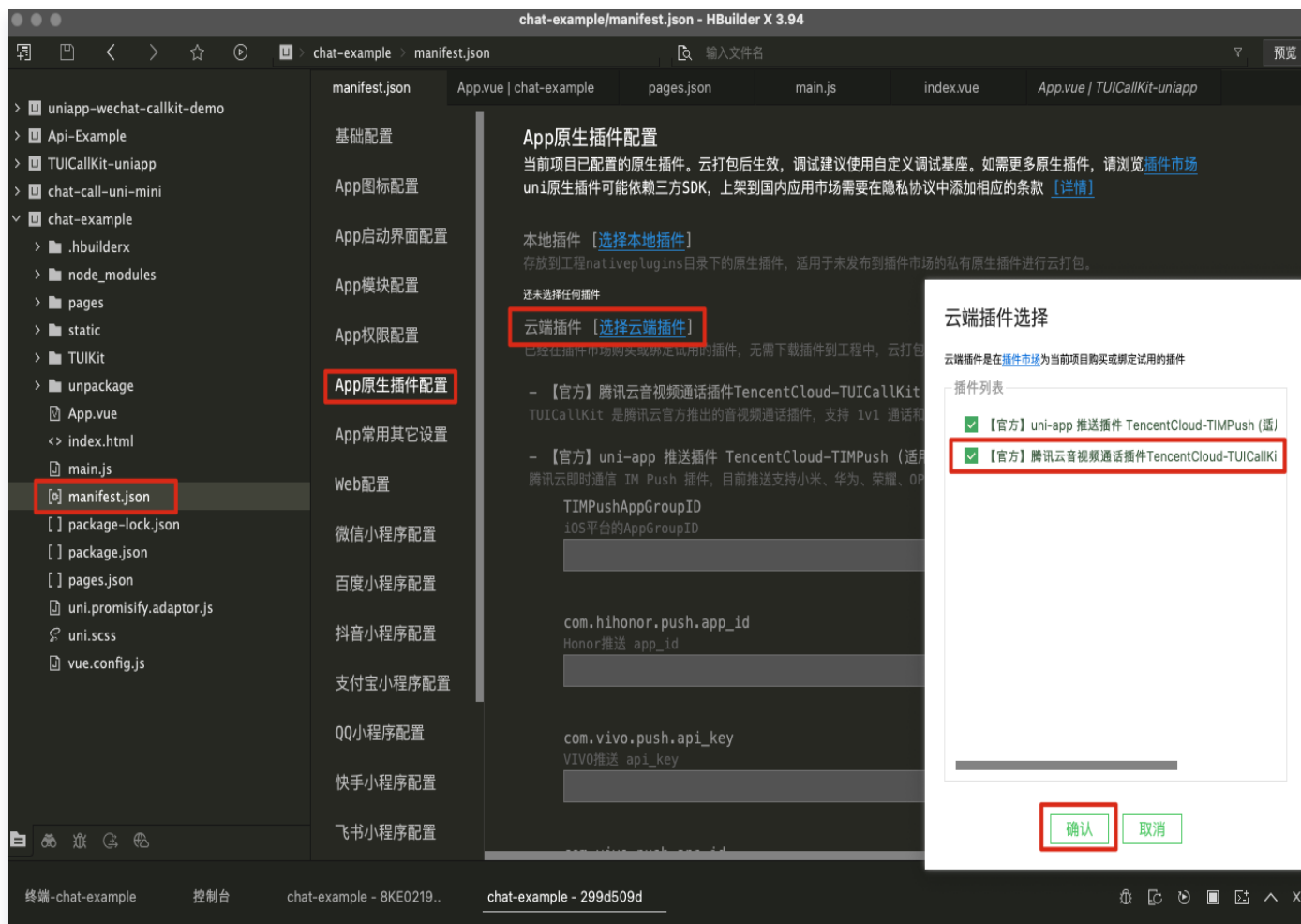
3. Access [TencentCloud-TUICallKit plug-in](#), purchase the plug-in (free) on the plug-in details page, select the corresponding AppID when purchasing the plug-in, and bind the correct package name.



4. Replace the appid in the TUICallKit-app/manifest.json file with the appid bound to the TencentCloud-TUICallKit plug-in above.



5. Import the plug-in in the TUICallKit-app project.



Step 3: Run through the Demo

1. Make a custom debugging base. Please select **traditional packaging method** to pack.



chat-example - App 打包

example [修改manifest配置](#)

第4步：输入您绑定插件的包名

☒ Android (apk包) ☐ iOS (ipa包)

Android设置 iOS设置

Android包名

[Android证书使用指南](#)

☐ 使用自有证书 [如何生成证书](#) ☒ 使用云端证书 [详情](#)

第5步：选择使用云端证书

证书别名

证书私钥密码

证书文件 [浏览...](#)

渠道包 [渠道包制作指南](#)

☐ 无 ☐ GooglePlay(AAB) ☐ 应用宝 ☐ 360应用市场

☐ 华为应用商店 ☐ 小米应用商店 ☐ OPPO ☐ VIVO

☐ 打正式包 ☒ 打自定义调试基座 (iOS的Safari调试需要用苹果开发证书打包) [什么是自定义调试基座?](#)

☐ 生成iOS符号表 (dsym) 文件 [\(参考文档\)](#) ☐ 生成SourceMap (可用于uni统计的错误分析) [\(参考文档\)](#)

原：第6步：选择打自定义调试基座

广告联盟

加入uni-ad广告联盟，帮助你的App变现。 [\[官网介绍\]](#) [\[如何开通?\]](#)

开通DCloud快捷广告：[\[管理\]](#)

☒ 快捷开屏广告 ☒ 悬浮红包广告 ☐ uniMP激励视频广告 [\[更多配置\]](#)

集成渠道SDK广告SDK [\(AD组件文档\)](#)：

国内广告

☐ 腾讯优量汇 ☐ 穿山甲GroMore ☐ 快手广告联盟 ☐ 百度百青藤广告联盟

☐ 华为广告联盟 ☐ Sigmob广告联盟

国外广告

第7步：打包

☒ 传统打包 (上传代码及证书，DCloud承诺不保留) ☐ 快速安心打包 (不上传代码及证书，打包更快) [详情](#) [打包](#)

2. Upon success of the self-defined debugging stand, run the project using custom base.

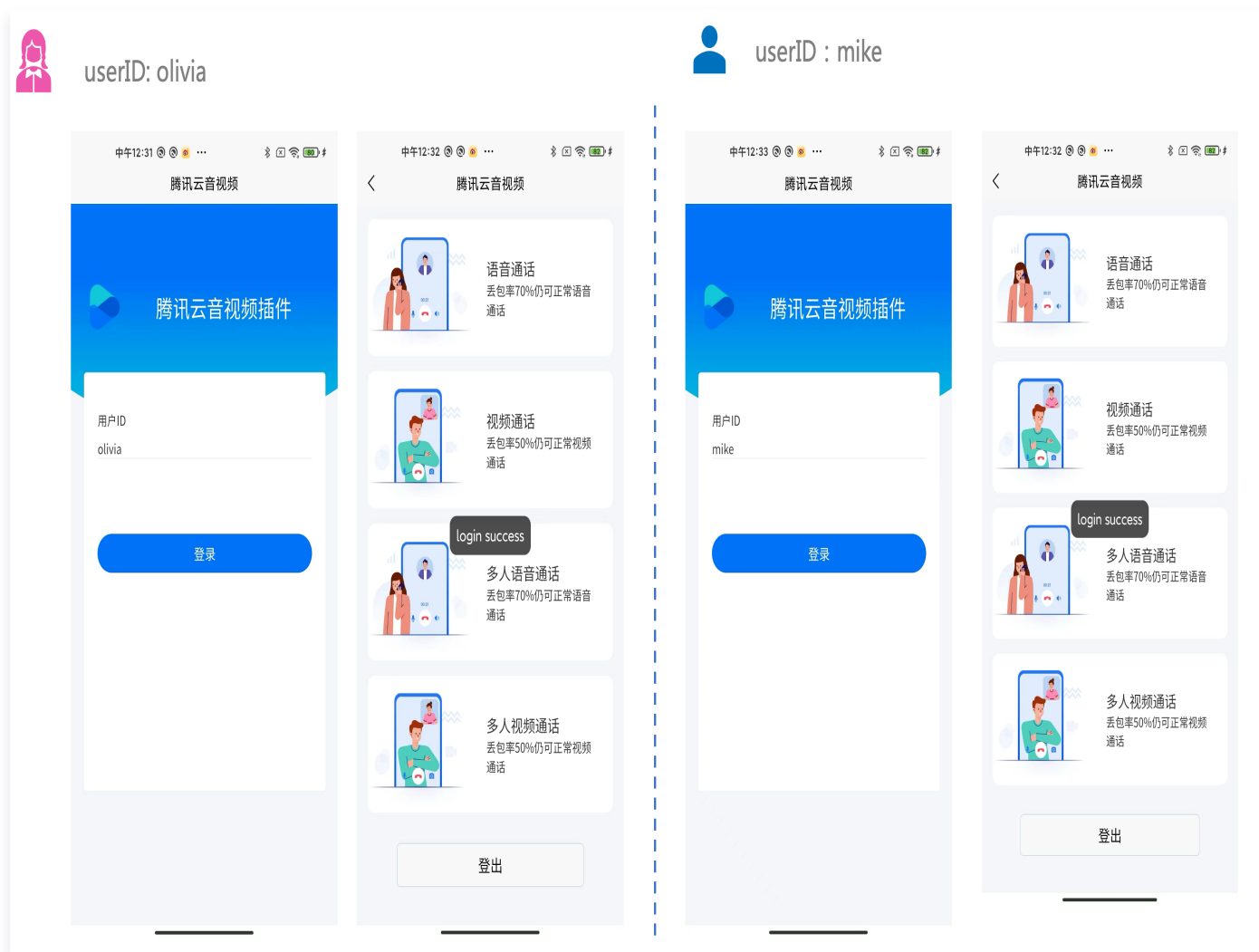


Step 4: Make the First Call

Note:

To allow you to experience the complete audio and video call flow, please log in two users on two devices respectively in the Demo, with one as the caller and the other as the callee.

1. Log in / register userID (defined by you).



Note:

Try to avoid setting your UserID to simple strings such as "1", "123", "111", etc. Since TRTC does not support multi-end login for the same UserID, UserIDs like "1", "123", "111" are likely to be occupied by your colleagues during collaborative development, resulting in login failure. Therefore, we recommend that you set some highly recognizable UserIDs when debugging.

2. Call

