Game Multimedia Engine

FAQ

Product Documentation

Contents

FAQ
Product Features

Last updated：2024-01-18 15:16:53

What features does GME have?

GME supports voice chat, voice messaging, and speech-to-text conversion. For more information, see Features.

What are the gaming application scenarios of GME?

GME is suitable for gaming scenarios such as team battling, game commanding, and online board games. For more information, see Scenarios.

Does GME support countries/regions outside the Chinese mainland?

Yes. Based on self-built 10-Gigabit cloud data centers connected over 20 BGP lines, GME accelerates the domain name based on your business conditions to deliver a stable and fast gaming experience to players. In addition, it supports sites deployed in third-party data centers to cover regions that can be hardly covered by traditional cloud vendors, such as Middle East, South America, and Australia, so as to implement global availability.

Is there a limit on the number of voice chat rooms or members in GME?

There is no limit on the number of voice chat rooms. There can be up to 100,000 members in a voice chat room.

How many users can speak at the same time in a room?

1. There is no limit on the number of concurrent mic-on users in a voice chat room, but only the voice of up to 12 users (i.e., 12 mixed audio streams) can be heard at the same time by default.
Note:
Up to 20 mixed audio streams can be received concurrently. We recommend that you use the default value, as receiving too many audio streams at the same time will lead to a poor user experience.
2. If your game requires a large number of players to join the same voice chat room, for example, in a large-scale immersive virtual scenario or multiplayer game, we recommend that you use the range voice feature. With this feature, the GME server can route audio streams based on the distance between players, which enables over 10,000 people to communicate at the same time. For more information, see Range Voice.

Does the voice chat feature of GME support mobile systems?

Yes

Does GME support Weixin Mini Game?

Currently, the GME SDK doesn't support Weixin Mini Game and only supports Weixin Mini Program.

What game engines and platforms does GME support?

The GME SDK supports the following game engines: Unity, Unreal Engine, and Cocos2d-x. The following platforms are supported: Windows, macOS, iOS, Android, and HTML5. For more information, see Overview.

Does GME support Weixin Mini Program?

Yes. The GME SDK supports mini programs.

Can GME on Android and GME on iOS communicate with each other?

Yes. They can communicate with each other under the same `Appid`.

Does a GME room support mic sequence-based karaoke?

GME's HD sound quality can meet the needs of karaoke; however, mic sequence is something that should be implemented at your own product's application layer through a delivery protocol, for example.

What should I do if another player (such as QQ Player) is required to play back the accompaniment on the Windows client?

Call the relevant API as instructed in Windows Player Accompaniment. As accompaniment with a third-party player uses an advanced API, you need to contact us for assistance and provide the `tmg_adv_win.h` header file.

How do I enable the minor speech recognition feature of GME?

The minor speech recognition feature is currently made available through an **allowlist**.
To enable the minor speech recognition feature for a created application, submit a ticket for application.
If you haven't created an application, you need to log in to the console to create one first, and then submit a ticket for application.

Can GME's voice messaging and speech-to-text conversion services be used together with voice chat?

Yes. The features in the SDK are compatible with each other.

Which file formats can be recorded by the karaoke feature of GME?

MP3 and OGG formats are supported.

Does GME support Android emulators?

Yes. The GME SDK for Android contains x86 and x64 libraries.

How do I implement a scenario in which only two members in a room can talk to each other while other members can only listen to them?

You can use the voice chat role configuration feature to set two members to host and other members to listener.

Troubleshooting Guide

Last updated：2024-01-18 15:16:53

This document describes how to solve GME issues encountered during development.

FAQs

For common issues encountered during development, you can analyze their type and solve them as follows:

Document	Solved Issues
Features	GME feature issues such as platform compatibility.
Billing	Questions about billing mode or billing time
Demo	Issues encountered when you use GME's `SampleProject` or demo
Authentication	Issues encountered during GME authentication
Room Entering Failed, Sound and Audio, and Network	Issues encountered when you use the GME voice chat feature
Speech-to-text Conversion	Issues encountered when you use the speech-to-text conversion feature
Program Export	Issues encountered when you export the application for each platform (to a real device)

Development Issues

If a feature issue occurs during development, you can identify it based on the returned error code first. If you cannot troubleshoot the issue based on the error code, you can submit a ticket for assistance.

Error codes

For detailed error codes and their causes and solutions, see Error Codes.

How do I get logs?

When providing logs, you also need to specify the time point when the problem occurred as well as the logs of both the recipient (listener) and sender (speaker).

Log path

The file named `QAVSDK_date.log` is the log file, which is in the following directories:

OS	Path
Windows	`%appdata%\\GMEGLOBAL\\GME\\processName`
iOS	`Application/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx/Documents`
Android	`/sdcard/Android/data/xxx.xxx.xxx/files`
Mac	`/Users/username/Library/Containers/xxx.xxx.xxx/Data/Documents`

If you are using the Unity engine and developing on PC, try to find the log under the `%appdata%\\Tencent\\GME\\Unity.exe` path.

On iOS virtual machine, logs can be obtained through application supporting file sharing as follows:

1. Add the UIFileSharingEnabled key to the application's `Info.plist` file, and set the key value to "YES".

2. Place the files to be shared in the Documents directory of your application.

3. Once the device is plugged into the user's computer, iTunes displays a File Sharing area in the Apps tab of the selected device.

4. User can add files to the directory or drug files to the desk computer.

Note:

With GME version 2.8.4 or below, the Windows platform log location is:
`%appdata%\\Tencent\\GME\\ProcessName` .

Log output level

It is recommended to restore the default log output level if you have called the SetLogLevel when providing logs.

Log encryption

Currently, GME logs are encrypted by default. You can call the following API to disable log encryption. We recommend you disable log encryption during development and enable it before application release. This API must be called before `init` .

```
SetAdvanceParams("DisableEncryptLog", "1");
```

Parameter	Description
Parameter 1	Enter `DisableEncryptLog` to enable/disable log encryption.
Parameter 2	Valid values: `1` : Disable log encryption; `0` : Enable log encryption.

Crash Issue

If a crash occurs, troubleshoot as instructed in Program Export first. If the issue persists, provide the stack to GME developers for assistance.

If you have connected to a third-party exception reporting plugin, you can contact GME developers to share the link to the crashed stack.

For iOS or Android, you can connect the device to a PC, use Xcode or Logcat in Android Studio to get the crashed stack, replicate it, and provide it to GME developers.

For Windows, provide the dump file.

Billing

Last updated：2024-01-18 15:16:53

Voice Chat

How is GME voice chat service billed?

GME voice chat supports pay-as-you-go billing mode. It is billed by the duration of audio generated and settled on a daily basis.

When does the billing of the voice chat start?

The voice duration starts when the `EnterRoom` API is called for room entering and stops when the `ExitRoom` API is called for room exiting.

Does the initialization incur fees?

No.

Is the data generated in SDK initialization collected to DAU?

No. The data is not collected to DAU as the initialization is not over GME servers.

Will the billing continue if the client is disconnected from the server when using the voice chat?

In case the client is disconnected when using the voice chat, then:

1. The server keeps a heartbeat connection with the client. If the heartbeat pauses for 90 seconds, the server will remove the client and the billing will stop.

2. If the client process is not ended, the client keeps trying to reconnect to the server for 60 minutes. If the process is ended, it does not try to reconnect.

Are there any differences among the billing of three GME sound qualities (smooth, standard, and HQ)?

No. The voice quality does not affect the billing.

Speech-to-text Conversion

What are the billing modes for GME voice message and speech-to-text conversion services?

The GME voice message and speech-to-text conversion services are billed by voice message DAU. For more information, please see Daily Pay-as-You-Go Billing Mode.

Sample Project Usage

Last updated：2024-01-18 15:16:53

Where can I download the GME sample project and SDK?

For detailed directions on how to download the GME sample project and SDK, see SDK Download Guide. Currently, sample projects for the Unity engine, Unreal Engine, Cocos2d engine, Android, iOS, Windows, macOS, and web are provided.

Which version of Visual Studio should I use to open the GME sample project for Windows?

Please open with VS2015. Downgrade then project if you need VS2010.

How do I replace the account with your own account after downloading the GME sample project?

Get the `AppID` and permission key in Service Management > Application Settings in the console.
To use your own `AppID`, you need to change the key of voice chat in `GetAuthBuffer` in `AVChatViewController`.

Is it OK for multiple users to use the same `OpenID` in GME?

`OpenID` is used to uniquely identify a user in the application during initialization of the GME engine. Sharing an `OpenID` across multiple devices, such as for multi-device login, may render your account unable to use GME properly.

How can I experience the effect if I am the only person in the room?

Use the sample project on another device to enter the same room.

What should I do if `errinfo=priv map info error` is displayed when I use the sample project?

There is an error in the relevant room entry parameters. Check whether the `SDKAppID` and permission key have been replaced.

How do I use the downloaded sample project or demo?

See Demo Guide.

For the demo for Unity, see Basic Feature Demo.

Why is the sample project exported from Unity often silent when used?

`OnApplicationFocus` is set in the Unity sample project. When the application loses focus, sound will be paused. To play back the sound on the backend, remove the code for calling the `Pause` API.

How do I get logs?

When providing logs, you also need to specify the time point when the problem occurred. The file named `QAVSDK_date.log` is the log file, which is in the following directories:

Platform	Path
Windows	`%appdata%\\Tencent\\GMEGLOBAL\\ProcessName`
iOS	`Application/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx/Documents`
Android	`/sdcard/Android/data/xxx.xxx.xxx/files`
macOS	`/Users/username/Library/Containers/xxx.xxx.xxx/Data/Documents`

If you are using the Unity engine and developing on PC, try to find the log under the `%appdata%\\Tencent\\GME\\Unity.exe` path.

On iOS devices, logs can be obtained through application supporting file sharing as follows:

1. Add the `UIFileSharingEnabled` key to the application's `Info.plist` file and set the key value to `YES`.

2. Place the files to be shared in the `Documents` directory of your application.

3. Once the device is plugged into your computer, iTunes will display the **File Sharing** area on the **Apps** tab of the selected device.

4. Then, you can add files to the directory or drug files to the desktop.

Note:

If you use a GME version earlier than 2.8.4 on Windows, logs are stored in `%appdata%\\Tencent\\GME\\ProcessName`.

Log output level

It is recommended to restore the default log output level if you have called the SetLogLevel when providing logs.

Which Unity versions are supported by the GME SDK for Unity?

The GME SDK for Unity supports all Unity versions.

Does GME's .so library on Android support ARMv8?

Yes. It is supported on v2.3.5 or later.

Does the .so library on Android support x86-64?

No.

General

Last updated：2024-01-18 15:16:53

General Issues

Does the so library for Android provide the x86_64 version?

No.

What should I pay attention to when hot-updating GME?

To hot-update the GME SDK, you need to update the modules depending on the SDK together by including all GME-related code in the hot update.

What gaming scenarios does the voice chat service support?

There are mainly three types of applicable scenarios:
Mic sequence: Users take turns to speak. This mode allows a high sound quality and fluency and is suitable for such scenarios as Werewolf.
Free audio call: This mode allows multiple players to speak at the same time with ultra-low latency, which is suitable for competitive games such as multi-player team chat.
Command: Suitable for one-to-many commanding, audio interaction with host, and other scenarios in large-scale commander games.
Voice chat features provided by the Tencent Cloud SDK can meet the needs of the above-mentioned scenarios. However, the specific mode (such as mic sequence) is something that should be implemented in your own product's application layer through a delivery protocol, for example.

APIs

The error code 7015 is returned in the initialization. How to fix it?

If it happened during development, please check whether all the SDK files are of the same version, as you might have upgraded SDKs but not in a comprehensive manner.
If it happened after the executable file is exported, you can ignore it, as the packaging program of Unity and a third-party reinforcement program might modify the MD5 value of the SDK files.

Is there a requirement for the value of `OpenId` ?

Only a 64-bit unsigned integer is allowed for `OpenId` . Please convert it to a string before passing it to SDK.

Can one `OpenId` be used to enter multiple rooms at the same time?

No. Each `OpenId` can only exist in one single room at a time.

When should the Poll function in the GME SDK be called?

Please call the Poll function periodically after initializing the SDK.

As calling the Poll function periodically is required for triggering events, can I start a new thread, wake it up periodically, and then call the Poll function?

Theoretically, all of our APIs need to be called in the same thread. If you choose to call them in a child thread, make sure to call them in the same child thread, especially for the Init and Poll function.

How often should I call the Poll function?

If you don't have other special requirements, please call it as instructed in the sample code of the demo. You can see the `EnginePollHelper.m` of the demo, the recommended frequency is every 1/30 seconds.

I periodically called the Poll function before finishing recording and the interface was stuck. How to fix it?

Please check whether the Poll function is called in the main thread.

Is uninitialization required after I exited a voice chat room?

No. The operation is only required when you do not use SDK or switch accounts.

Authentication

Last updated：2024-01-18 15:16:53

How do I ensure the security of authentication?

We recommend deploying the authentication feature on the client at the early stage, and later deploying it at the game app backend.

Solution	Advantage	Disadvantage
Deployment on backend	Higher security	Joint testing by backend developers is required
Deployment on client	Quick integration	Lower security

How long is the validity of the authentication generated by the client?

The validity is permanent.

When I access GME, an error code is displayed prompting an authentication failure. How to fix it?

First, check if the voice message service is enabled in the console. If yes, then verify the following:

The SDK `AppID` is consistent with it in the console.

The `OpenID` is greater than 10,000.

`null` must be entered for the parameter of the voice message room ID.

The key obtained from the Tencent Cloud console is valid.

Is any LIB file available for TEA encryption?

We provide the [Authbuffer](#) compilation document and a ZIP file.

Voice Chat Room Entry Failure

Last updated：2024-01-18 15:16:53

Voice Chat Room Entry Failure

Why is there no callback after the `EnterRoom` API is called?

Follow the steps below for troubleshooting:

1. Check whether initialization is successful and whether `0` is returned after initialization.

2. Check whether the `Poll` function is called periodically.

3. Check whether all APIs are called in the main thread.

Why room entry fails even if `0` is returned when the `EnterRoom` API is called?

A callback will be returned after the `EnterRoom` API is called, which, instead of the API returned value, should be used to determine whether room entry succeeds.

Why is "HTTP Invalid id" returned when I enter a room in an application?

If your account mapped by the `OpenId` parameter when you call the `EnterRoom` API starts from 0, you are recommended to add 10000 to it. For example, if your account is 999, 10999 should be entered as your `OpenId`.

How do I troubleshoot failures such as 10001 returned for room entry?

Follow the steps below for troubleshooting:

1. View and confirm the validity of the parameters in the room entry API, such as `AppId`, `UIN`, and `AuthBuffer` (see the API documentation for the corresponding platform).

2. Check whether the relevant parameters in the console match the local ones.

3. Check whether your account has overdue payments in the console.

4. Check whether your testing devices are in the private network or public network. If they are in the private network, troubleshoot as instructed in Dealing with Corporate Firewall Restrictions.

What should I do if the callback returns the error code 1101 when the `EnterRoom` API is called for room entry after the `Init` method is called?

Please make sure that all APIs are called in the same thread and the `Poll` API is called periodically.

After Successful Voice Chat Room Entry

Will the client automatically exit the voice chat room after being switched to the background?

At this point, the client maintains a heartbeat connection with the server for 90s. If the heartbeat stops, the server will kick the client out of the room after 90s.

What should I do if a client is disconnected from a voice chat room?

If the network connection is interrupted, the client will try reconnecting to the room in 60 minutes. `ITMG_MAIN_EVENT_TYPE_ROOM_DISCONNECT` will be called back after 60 minutes. After the reconnection, the mic and speaker status do not need to be set.

Is there an API for room ID recycling?

No. After the last member exits the room, the room will be automatically terminated.

How should be APIs called when room entry is performed immediately after room exit?

If there is a scenario in the application where room entry is performed immediately after room exit, you don't need to wait for the `RoomExitComplete` callback notification from the `ExitRoom` API during API call; instead, you can directly call the API.

Can the room exit and room entry APIs be called at the same time?

The `ExitRoom` API needs to be called first, and the `EnterRoom` API can be called only after the callback for successful room exit is received.

When is the member status synced? Will a user receive a notification when entering the room for the first time?

Notifications for audio events are subject to a threshold, and the notification "A member sends an audio packet" will be sent only when this threshold is exceeded. If a member in the room does not speak for two seconds, the notification "A member stops sending audio packets" will be sent.

There will be a notification when a user enters the room for the first time.

Will a blocked user stay in the blocklist after exiting the room?

No. After voice room exit, the blocklist becomes invalid.

The speaker's voice can be heard when using the range voice feature on the client, but there is no attenuation effect, and the returned value is `0` even if the 3D sound effect file is set. What should I do?

Check whether the 3D sound effect API `EnableSpatializer` is enabled and whether the local coordinates are updated: UpdateSelfPosition and UpdateAudioRecvRange.

Sound and Audio

Last updated：2024-01-18 15:16:53

No Sound

Why is there no sound after two clients entered a voice chat room?

Please check the following for troubleshooting:

1. Whether the two clients have successfully entered the room.

2. Whether the two clients have entered the same room.

3. Whether the two clients have entered using the same `OpenId`.

4. Whether their microphones have been allowed to use and enabled on the main thread.

5. Whether the two clients have blocked each other.

After I entered a room on an iPhone, I can't hear other members speaking. How to fix it?

Please check whether the mute switch on iPhone is on.

After I entered a room, my mobile phone volume level becomes very low, and then it becomes very high after I turned on the microphone. How to fix it?

A mobile phone's volume can be divided into media volume and call volume. If you don't enable the microphone before entering a room, the media volume will be used by default. In this case, when the media volume is low, even if the call volume is high, the actual volume will be low. Therefore, you need to ensure that the media volume is appropriate. Similarly, if the volume becomes high after the microphone is enabled, you need to adjust the mobile phone's call volume.

After exporting the APK to an Android mobile phone, when I enable the microphone, an error message pops up indicating that the phone has no microphone permission. How to fix it?

The permission management is of the system operations of the mobile phone. Please troubleshoot by following the steps below:

1. Please make sure that the microphone permission is included in the `AndroidManifest`.

2. You can apply for the microphone permission through the code.

Audio

Why is there a harsh noise when two devices with enabled microphones nearing each other?

This is a screeching noise that is common in phone calling scenarios as well. In real gaming scenarios, it is not likely that two players near each other would communicate through their microphones, so the audio is enhanced by default for better audio reach.

Generally, it may happen a lot during program development rather than real use cases, as people can directly speak to whom in front of them.

I can still hear sound in the room after I turned on the mute switch on an iPhone. How to fix it?

You should configure `AVAudioSession` in Xcode for the mute switch to work.

The sound comes out of the receiver instead of the speaker after the microphone is enabled on an Android mobile phone. How to fix it?

Grant the `<uses-permission android:name="android.permission.MODIFY_AUDIO_SETTINGS" />` permission to GME.

How to enable the speaker instead of the receiver by default after integrating the SDK?

It's automatically set so by default.

Does the SDK support playing sound from receiver?

No.

How to only allow two room members to talk to each other while others can only listen to them?

You can implement a feature on the client that prevents other members from enabling their microphones.

How do I remind users if they have no available microphones?

You can use the `GetMicListCount` API to get the number of microphones.

Can I set the microphone volume before entering a room?

No. The voice chat APIs such as `ITMGAudioCtrl` and `ITMGAudioEffectCtrl` can be used only when you are in the room.

How do I get and release the microphone permission?

You can get the microphone permission after calling the function `EnterRoom` successfully, and other programs cannot capture the audio data from the microphone then.

Calling the function `EnableMic(false)` does not release the microphone.

Please call `PauseAudio` if you need to release the microphone, and then the entire engine will be paused and can be resumed by calling `ResumeAudio`.

Is there an API to obtain the microphone status before the function `EnableMic` is called?

The API `getMicCount` can be used to check whether the microphone is available.

How often can the microphone volume be reported?

The `GetMicLevel` API collects the volume every 20 milliseconds. Therefore, you can get the volume information as frequently as every 20 milliseconds.

How can I determine whether music is played in the background?

Use the API `IsAccompanyPlayEnd()`.

After I entered a room, the accompaniment can only be played back when my microphone is on. How to fix it?

After entering a room, you can call `EnableAudioCaptureDevice`, play back the accompaniment, and then call `EnableAudioSend` to control audio up- and downstreaming. For more information, please see Accompaniment in Voice Chat.

Why does sound stutter?

Music stutter: a host plays music using a speaker, and captures and broadcasts the audio through another phone. This will inevitably cause stutter, so we recommend the host to use a headset.

Network stutter: the audience will experience stutter when the upstream packet loss rate is too high or the upstream latency fluctuates greatly.

It needs to be determined whether the stutter occurs in the sound itself or is caused by the sound transfer latency.

What are the requirements for the microphone and speaker to achieve the 3D sound effect?

Dual-channel playback is required.

Network

Last updated：2024-01-18 15:16:53

How much traffic does GME voice chat consume?

The bitrate is 30 Kbps for the fluency sound quality, and 64 Kbps for the standard and high sound quality. The traffic is related to the bitrate and also the number of room members who communicate through voice chat. The formula is: bitrate x the number of the members / 8 = bytes.

The error code 7004 indicating a network error is returned when I am entering a room. How to fix it?

Please check the following for troubleshooting:

1. Whether the parameters of the `EnterRoom` API are valid, such as `AppID`, `UIN`, and `AuthBuffer`. For more information, please see relevant API documentation.

2. Whether your testing devices are in the private network or public network. If they are in the private network, please troubleshoot as instructed in How to Deal with the Restrictions of Corporate Firewall.

3. Other network problems below:

How do I troubleshoot network problems?

Network diagnosis

Click here to check the status of the domain name `tcloud.tim.qq.com`.

Click here to check the status of the domain name `gmeconf.qcloud.com`.

Click here to check the status of the domain name `yun.tim.qq.com`.

Please use the device with network issues to open the three URLs above in a browser, and wait for the results (the checks take about 5 to 10 seconds to finish). Click **copy result URL and share** and then submit a ticket for assistance.
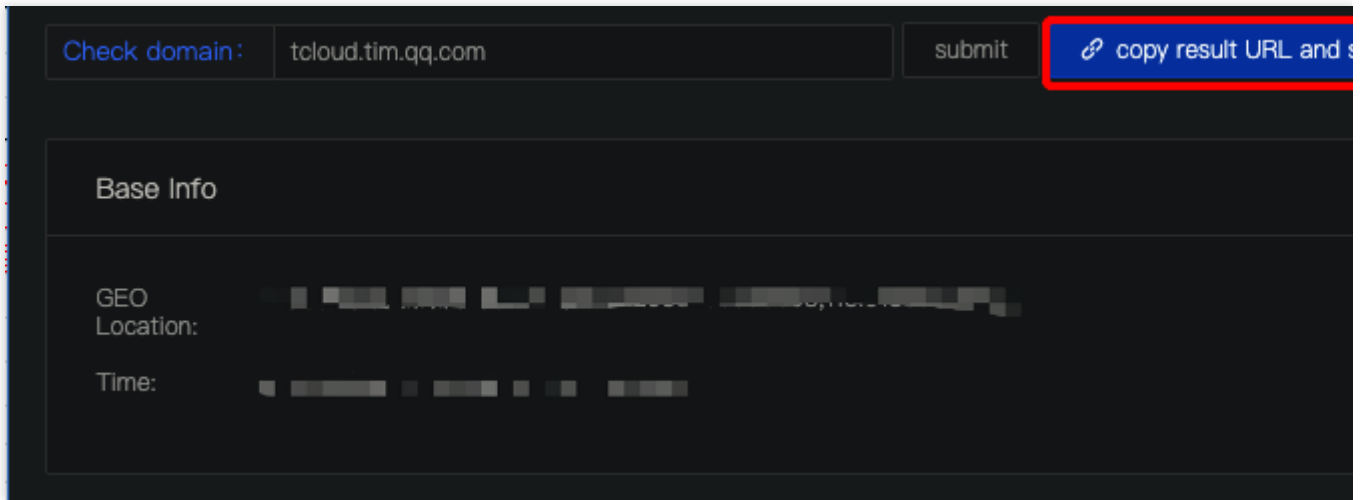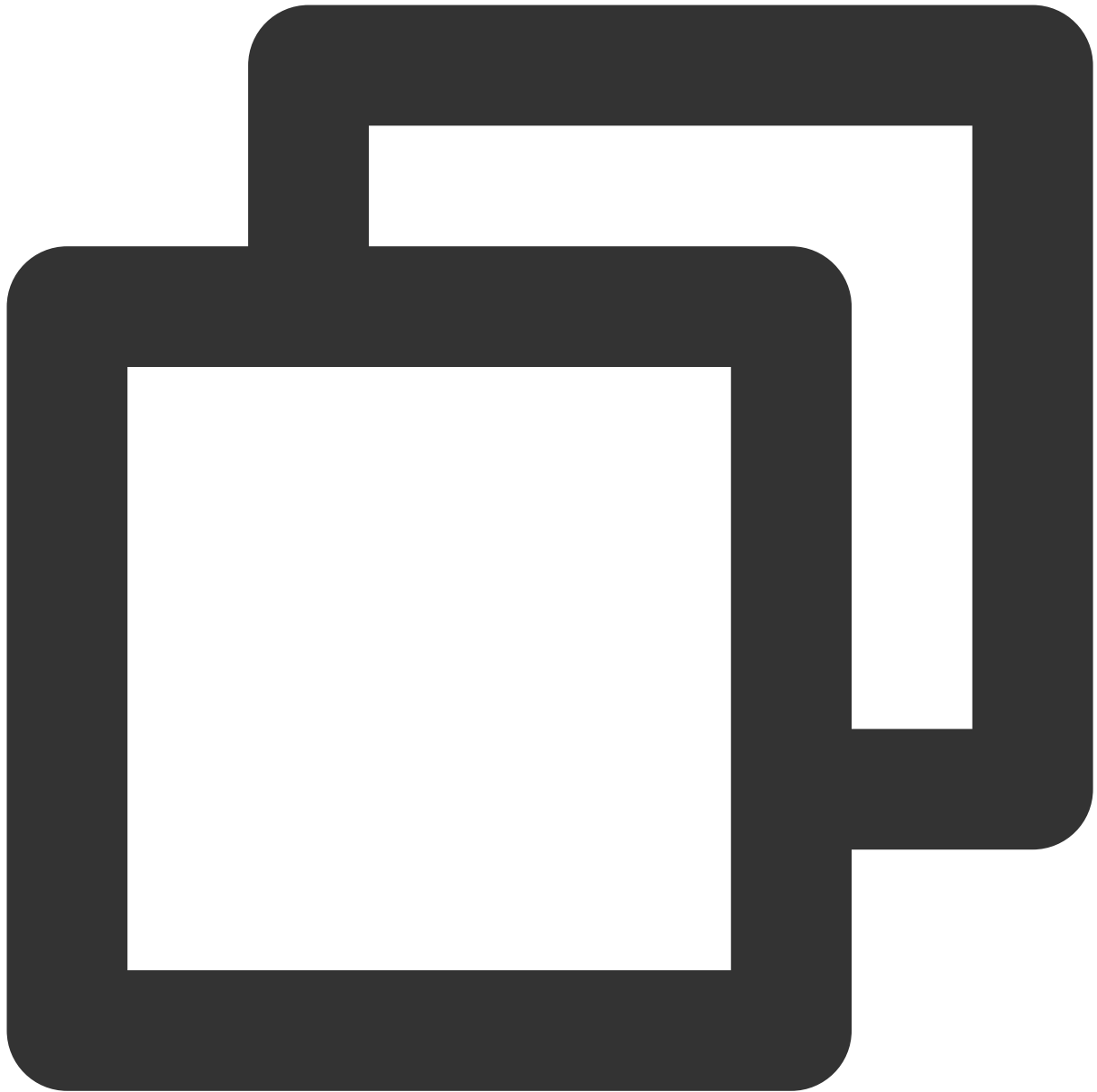
SSO diagnosis

Please use the device with network issues to open tcloud.tim.qq.com for domain name status checks. Take a screenshot of or copy the results and then submit a ticket for assistance.

The sample code is as follows:

{"ActionStatus":"FAIL","ErrorCode":60002,"ErrorInfo":"HTTP parse Error"}

Speech-to-text Conversion

Last updated：2024-01-18 15:16:53

General Issues

Which languages are supported by the GME voice message and speech-to-text conversion services?

More than 120 languages are supported, such as simplified and traditional Chinese, English, Japanese, and Korean. For more information, please see Language Parameter Reference List.

Can the voice message and speech-to-text conversion services of GME be used with voice chat?

Yes. You can call corresponding APIs to switch services.

After I upload a voice file successfully by calling the API for uploading voice files, a URL is returned as the `fileid` . How to use it?

Call the API for file downloading and download the file through this URL. Specifically, the `fileid` called back upon file upload completion needs to be sent to the server, and other clients can get the voice message through the `fileid` .

Can the voice message files be downloaded?

Yes. After a file is uploaded, a URL will be returned, through which the voice message file can be downloaded.

How long is the validity of a voice message file?

A voice message file will be retained on the server for 90 days. Then, the download URL to the file will become invalid. If you want to retain the file permanently, please store it on your own server.

Is there a time limit for voice message recording?

Yes. The duration of a voice message is limited to 1 to 58 seconds.

It takes too long to upload or download a voice message file. How to fix it?

If the delay in converting a voice message to text is too high, we recommend using the streaming recording API.

I have obtained the voice ID from the client, can the GME voice chat sound effect be played back in the HTML5 end?

The HTML5 end currently only has the voice chat feature.

Speech-to-text Conversion Failed

The error code 8200 is reported when I am using the voice message feature. How to fix it?

This error is caused by incorrect initialization of the voice message feature. We recommend checking whether the `AppID` and `OpenId` entered during initialization and authentication are correct.

The error code 4101 indicating an access failure occurs when I am finishing a recording. Do I need to create a folder first?

Yes. For security concerns, GME does not actively create a folder. Please create a folder first and make sure that the path is secure.

After I started recording, the error code 4098 occurred. How to fix it?

Please check the following for troubleshooting:

1. Whether the microphone of the computer is available.

2. Whether the microphone is allowed to use.

Please see the example of the settings on Windows:
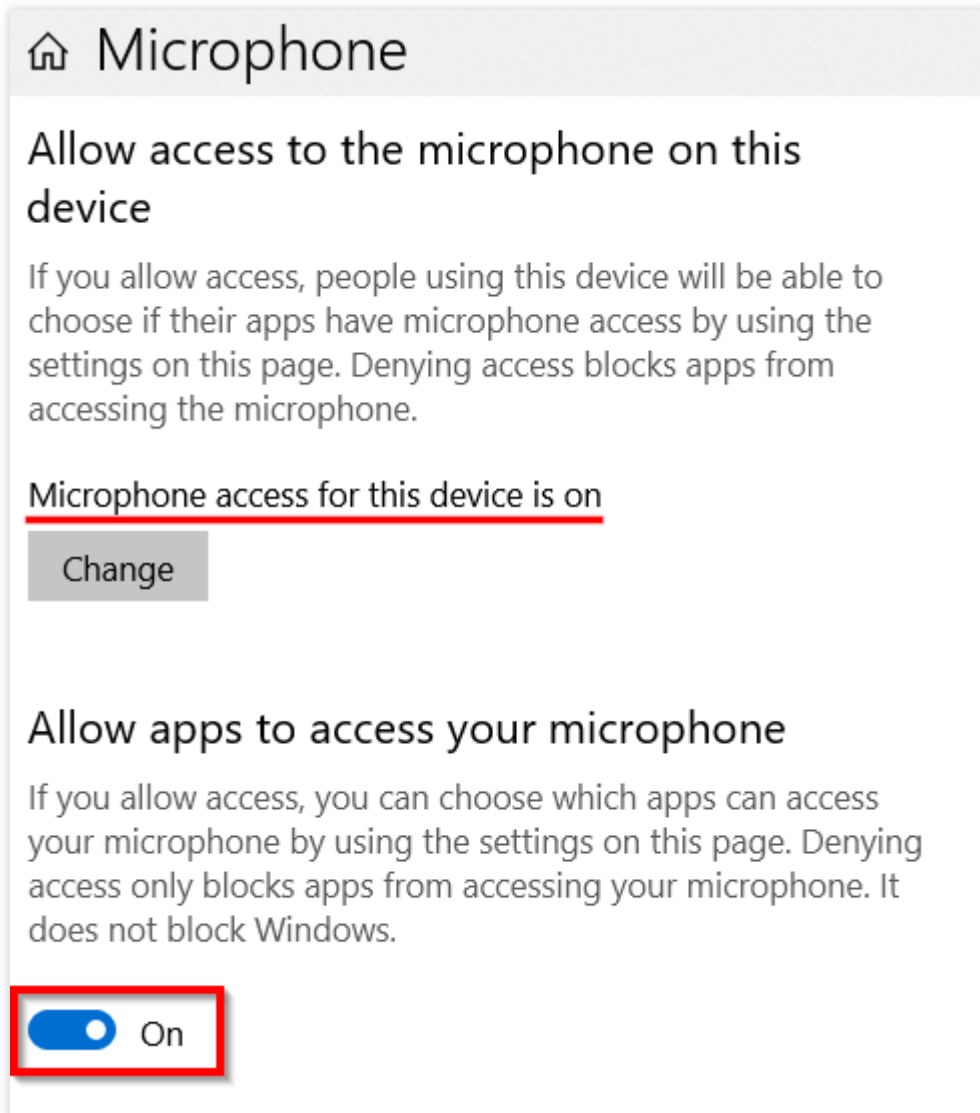
The initialization and authentication succeeded, but the error code 8194 occurred when I was uploading voice message files. How to fix it?

Please check whether the `OpenId` in initialization and the `applyauthbuffer` API are the same.

I have successfully uploaded a voice message, but why there is no callback information?

Please check whether you have periodically called the Poll function.

Program Export

Last updated：2024-01-18 15:16:53

Export for iOS

What should I do if an error occurs during compilation when I try to export an executable file from Xcode after adding the `GMESDK.framework` library?

Select **Build Settings** in the project file and check whether the "-all_load" flag is used in **Other Linker Flags**; if so, delete it and compile the project again.

What should I do if I'm prompted `framework not found GMESDK` after exporting an Xcode project using Unity?

To use the Unity engine, integrate the GME SDK for Unity and use the `libGMESDK.a` library instead of the framework file.

An ARMv7-related error occurred when I tried to export an iOS executable file from the SDK for Unity, but the export worked properly after I deleted ARMv7. What should I do?

We recommend you upgrade Unity. For more information, see [this thread](#) in Unity's forums.
If you have no upgrade needs, simply ignore the ARMv7 architecture during the build.

What should I do if the downloaded demo for iOS cannot run?

After you download the official demo for iOS, if an error similar to `ld: warning: directory not found for option` occurs during compilation through Xcode (v10 or later), you need to manually add the `GMESDK.framework` file in `GME_SDK` at the same level of the demo folder to the `Framework` list of the project.

Does the SDK for iOS support debugging in a simulator?

Yes. Use the latest package from [SDK Download Guide](#) for verification.

What should I do if a certificate error occurs while exporting the demo?
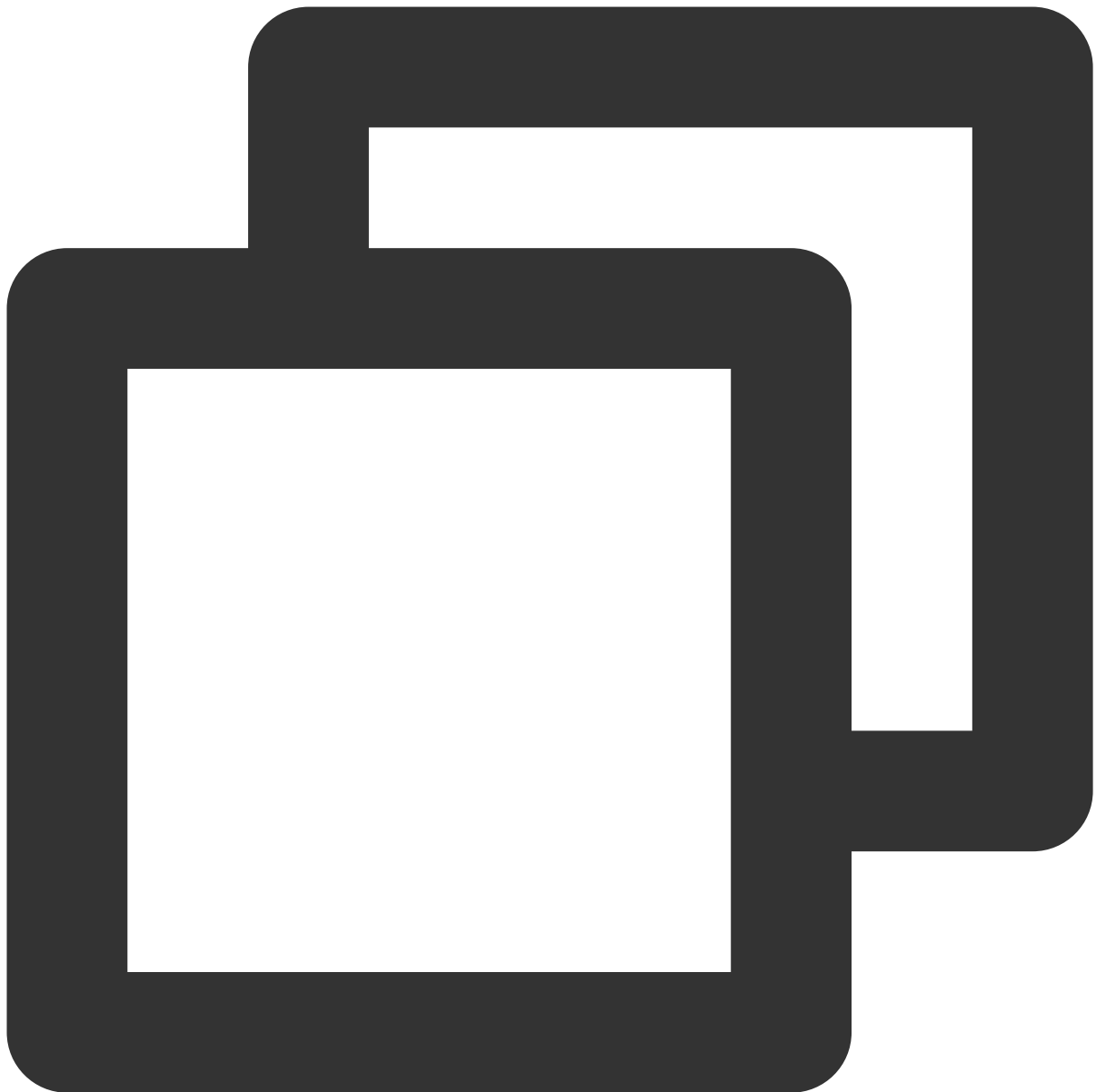
Below is the error message:

```
Showing Recent Messages:-1: Unity-iPhone has conflicting provisioning settings. Uni
```

Solutions:

Replace the Tencent Cloud enterprise certificate with your developer certificate during export on a real device.

What should I do if the following error occurs during export on a real device?

Below is the error message:

```
dyld: Library not loaded: @rpath/libLamemp3.framework/libLamemp3
Referenced from: /private/var/containers/Bundle/Application/XXXX
Reason: image not found
dyld: launch, loading dependent libraries
DYLD_LIBRARY_PATH=/usr/lib/system/introspection
DYLD_INSERT_LIBRARIES=/Developer/usr/lib/libBacktraceRecording.dylib:/Developer/usr
```

Solutions:

If a dynamic library is used, once it is loaded, it will be displayed in **Linked Frameworks and Libraries** by default.

Select the dynamic library, click **-** below it to delete it, and click **+** in **Embedded Binaries** to add it again.

Alternatively, modify the framework as shown below:
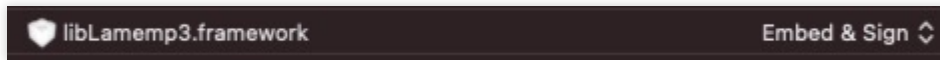
Export for Windows

What should I do if an error occurs when I download the demo for Unity and export an executable file for PC?

If an error similar to `Found plugins with same names and architectures` occurs, it is because the GME SDK is available for both the x86 and x86-64 architectures by default. Delete either SDK in the `plugins` folder.

What should I do if the DLL file cannot be found when I download the demo for Unreal Engine and export an executable file for PC?

Take Windows x64 as an example. Once you export the executable file, you should copy all the DLL files in the directory `UEDemo1\\Plugins\\GMESDK\\Source\\ThirdParty\\GMESDKLibrary\\x64` to the same directory as the executable file.

Export for Android

What should I do if the screen goes black when I try to open an application after integrating the GME SDK and exporting an APK file?

Some LIB files may be missing. Please decompress the APK file and check whether all library files are present in each folder under `lib`.

After the application is exported to an Android phone, when I open the application, an error message pops up indicating that the application is not supported by the device. What should I do?

This problem is relevant to the architecture of the packaged executable file. If you don't need the arm64-v8a architecture, you can deselect it in export configuration in the Unity project configuration.

What should I do if the exported APK file doesn't support emulators?

First check whether the APK file has x86 library files; if not, download the SDK, import the x86 SDK files, and export an executable file again.

Export Unity Project to WebGL

Is the HTTPS or HTTP protocol required for the Unity WebGL export?

The build needs to be deployed over the **HTTPS protocol**. If you use the HTTP protocol, feature exceptions will occur.

What should I do if error 1004 occurs during room entry after the Unity WebGL build is created?

If error `1004(Invalid Argument)` occurs during room entry, it is because the entered `Openid` is less than 10,000, so **enter a value greater than 10,000**.

Does Unity WebGL supports mobile devices?

According to Unity's official website, the Unity WebGL build currently cannot run on a mobile device. For more information, see WebGL Browser Compatibility.

After I create a Unity WebGL build, can I use the GME's range voice feature?

Currently, WebGL only supports the most basic voice chat features such as room entry/exit and mic-on/off. If you call an API of an unsupported feature, error code 1006 will be returned. We are trying to adapt the range voice feature to WebGL.