Game Multimedia Engine

FAQ

Product Documentation

Contents

FAQ

Troubleshooting Guide

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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.

Features

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What features does GME have?

GME supports voice chat, offline voice messaging, speech-to-text conversion, and voice analysis.

What are the gaming application scenarios of GME?

E-sports, commander games, casual games, Werewolf, etc.

Which games use GME?

For the specific games, see the Customer Success module on the Game Multimedia Engine (GME) page.

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.

Does the voice chat feature of GME support mobile systems?

Yes.

Does GME support WeChat Mini Game?

Currently, GME doesn't support WeChat Mini Game and only supports WeChat Mini Program.

What game engines and platforms does GME support?

The following game engines are supported: Unity, Unreal, and Cocos2d-x. The following platforms are supported: Windows, macOS, iOS, Android, and HTML5.

Does GME support mini programs?

Yes. GME supports mini programs; however, only pull (listening) from mini programs is supported, while push (speaking) is not.

Does GME provide a demo for a mini program?

No. GME currently does not have a demo for a mini program.

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

Yes. They can be interconnected by entering the same room with the same `SDKAppId` .

Does GME support Bluetooth switching on mobile phones?

No. The switching of sound playback is at the OS level. GME supports playback by Bluetooth devices.

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 accompaniment on the Windows client?

Call the relevant API as instructed in the document of player accompaniment for Windows. 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.

Billing

Last updated：2022-07-07 11:56:09

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.

Demo

Last updated：2022-05-20 12:04:02

Where can I download GME demos and SDKs?

See SDK Download Guide. GME provides demos for Unity, Cocos2d, Android (native) and iOS (native).

Which version of Visual Studio is supported for Windows Demo?

VS2015 is recommended. If you want to use VS2010, you need to downgrade the project on your own.

How can I use my own account in the Demo?

- Go to the GME Console and get the AppID and key in **Service Management**.
- Modify the key for voice chat in GetAuthBuffer in AVChatViewController.

Does GME allow using only one openid across multiple devices?

An OpenId is the unique ID of a user. If you use the same OpenId on multiple devices, such as for multi-device login, it may cause login failure.

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

Use the demo on another device to enter the same room.

What should I do if I receive the error message "errinfo=priv map info error" when using the Demo?

If an error occurs for room access parameters, check whether your SDKAppID and access key have been replaced as instructed.

How do I use a downloaded demo?

- See Usage Documentation.
- For Unity Demo users, see Using Unity Demo.

Why is the Unity exported demo muted when using?

`OnApplicationFocus` is configured in Unity Demo. When the program loses focus, the sound is paused. If you need to play sound in the backgroud, remove the codes that calling the Pause API.

How do I get logs?

For troubleshooting, provide the log and the occurrence time
Logs are all named in the format of QAVSDK_date.log, and can be found in the following directories:

OS	Path
Windows	`%appdata%\Tencent\GMEGLOBAL\ProcessName`
iOS	`Application/xxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx/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` .

On an iOS device, 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 connected with 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 drag files to the desktop computer.

> Note：
>
> For GME SDK 2.8.4 and older versions, logs of Windows devices are stored under `%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.

General

Last updated：2022-05-23 15:25:45

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：2021-03-18 10:06:47

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.

Room Entering Failed

Last updated：2021-06-03 16:23:39

General Issues

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

No.

How many room members can speak at the same time?

It only supports up to 6 members to speak at the same time.

> Note：
>
> GME supports up to 20 mixing channels. We do not recommend more channels as it will be hard to know which player is speaking.

Is there a requirement for the value of room ID?

A room ID is up to 127 characters (for voice message room, enter `null`).

Why is there no callback information after calling the `EnterRoom` API?

Follow the steps below for troubleshooting:

1. Check whether the initialization is successful (i.e., the returned value is 0).
2. Check whether the Poll function is called periodically.
3. Check whether all the APIs are called in the main thread.

I called the `EnterRoom` API and 0 is returned, but why I still failed to enter a room?

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 the HTTP Invalid ID returned when I enter a room in the app?

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

Voice Chat Room Entering Failed

How to troubleshoot issues when 10001 or other error codes are returned when I failed to enter a room?

Follow the steps below for troubleshooting:

1. Check whether the parameters of the `EnterRoom` API are valid, such as `AppID` , `UIN` , and `AuthBuffer` . For more information, please see relevant API documentation.
2. Check whether the relevant parameters in the console match the local ones.
3. Go to the console and check whether your account is in arrears.
4. Check 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.

After calling the `Init` method, I called the `EnterRoom` API to enter a room, then the error code 1101 was returned. How to fix it?

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

Voice Chat Room Entering Succeeded

After entering a voice chat room, will the client be removed from the room if it switches to another app?

The server will have a heartbeat connection with the client. If the heartbeat pauses for 90 seconds, the server will remove the client.

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 microphone and speaker status do not need to be set.

Is there an API for repossessing room IDs?

No. A room ID will be terminated when the last member exits the room.

What to do with API calls if I enter a room immediately after exiting the room?

If you enter a room immediately after exiting the room in the application, you can directly call the `EnterRoom` API with no need to wait for the `RoomExitComplete` notification in the callback information of `ExitRoom` .

Can I call `EnterRoom` and `ExitRoom` at the same time?

No. You need to call `ExitRoom` to exit the current room first, and then call `EnterRoom` to enter another room after receiving the callback information indicating a successful operation.

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 triggered when reaching a preset threshold. The notification that "A member sends an audio packet" is sent when this threshold is reached. If a room member does not speak for two seconds, the notification "A member stops sending audio packets" will be sent.
- A user will receive the status notification when the user enters the room for the first time.

If I add a member to the blocklist and then I exit the room, will the blocklist still be valid?

No. The blocklist will be invalid if its creator exits the room.

I use the range voice feature and the 3D sound effect feature at the same time, only the range voice feature is effective. I have set the 3D sound effect file, but the return value is 0. How to fix it?

Please check whether the 3D sound effect API `EnableSpatializer` is enabled, and then check whether its position is updated as instructed in 3D Sound Effect.

Sound and Audio

Last updated：2022-05-23 15:28:42

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：2021-03-01 11:33:25

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.
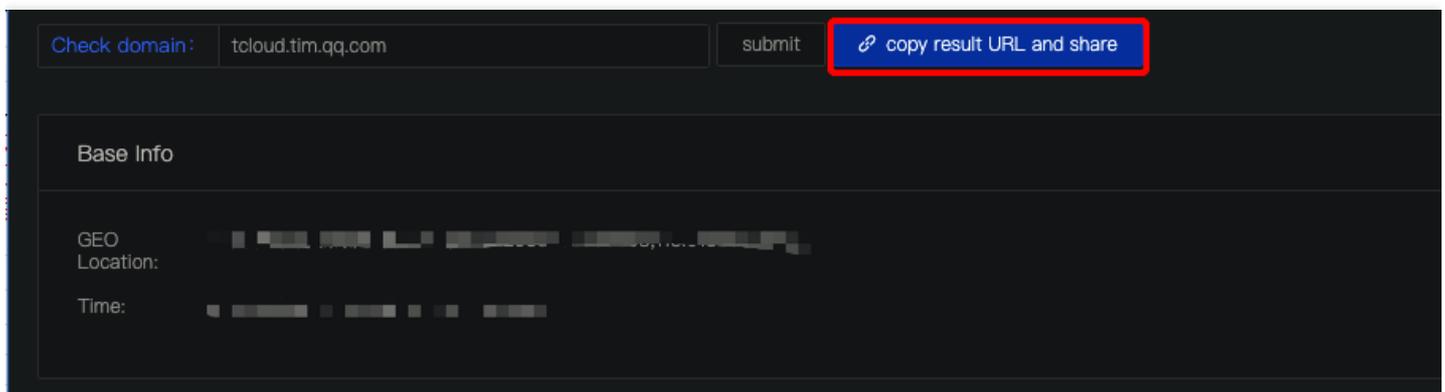
- **SSO diagnosis**

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：2022-06-08 16:44:19

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:
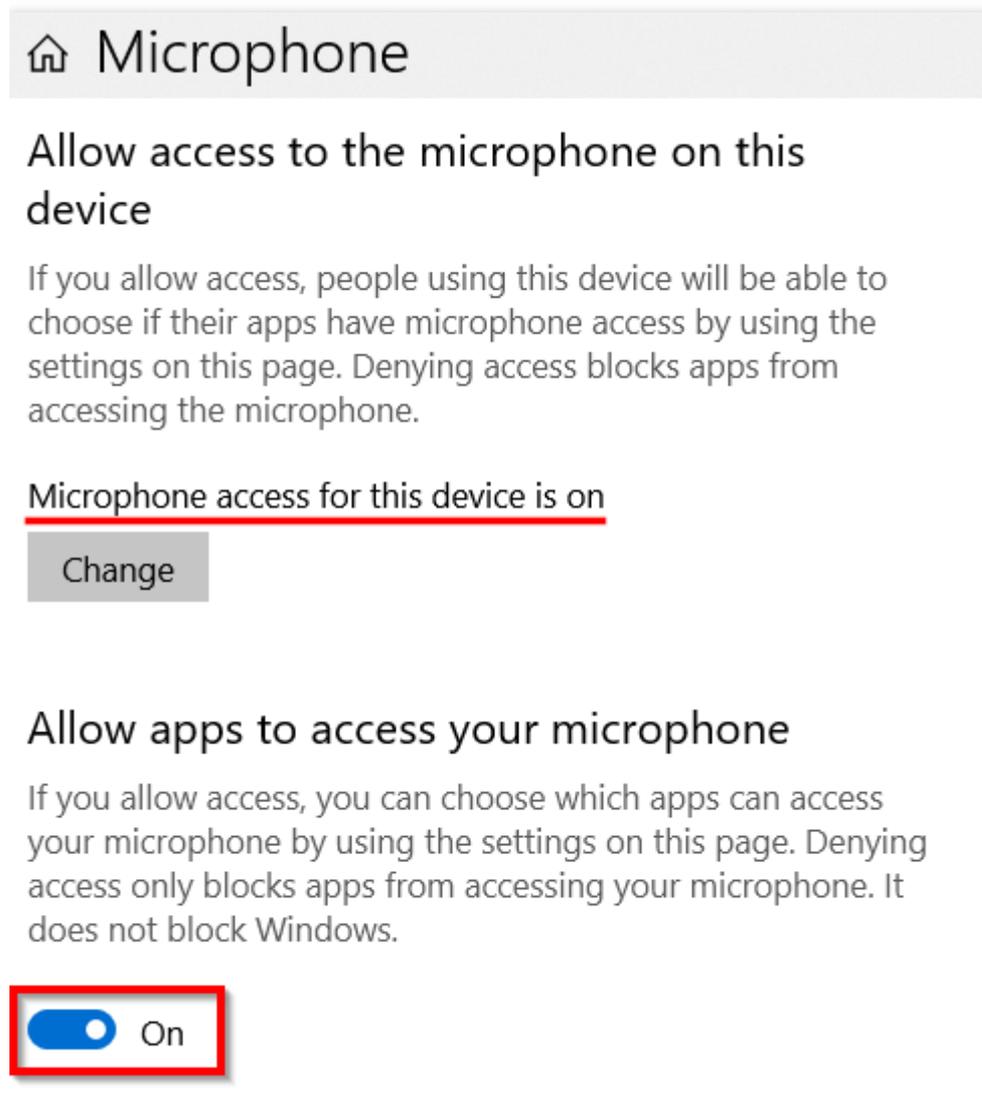
The initialization and authentication succeeded, but the error code 8194 occurred when I was uploading voice message files. How to fix it?

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：2021-03-18 10:06:47

Exporting 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 Setting` in the program file and check whether the `-all_load` flag is used in `Other Linker Flags`. If yes, delete it and compile the program again.

After exporting Xcode program using Unity, an error `framework not found GMESDK` pops up.

To use the Unity engine, please integrate the GME Unity SDK 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.

We recommend upgrading Unity. For more information, please see this thread in Unity's forums.

- If it does not require an upgrade, then you do not need to package the ARMv7 architecture.

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 above), you need to manually add the `GMESDK.framework` file in the `GME_SDK` folder at the same level of the demo folder to the `Framework` list of the program.

Does the SDK for iOS support debugging in a simulator?

Yes. Please use the latest version.

How to fix the certificate error occurred during demo export?

Error message:

```
Showing Recent Messages:-1: Unity-iPhone has conflicting provisioning settings. U
nity-iPhone is automatically signed, but code signing identity iPhone Distributio
n: Tencent Technology (Shenzhen) Co., Ltd has been manually specified. Set the co
```

```
de signing identity value to "iPhone Developer" in the build settings editor, or
switch to manual signing in the project editor. (in target 'Unity-iPhone')
```

Solution:

Please replace the Tencent Cloud enterprise certificate with your developer certificate.

The error below occurs when I am exporting the demo to a device.

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/u
sr/lib/libMainThreadChecker.dylib:/Developer/Library/PrivateFrameworks/DTDDISuppo
rt.framework/libViewDebuggerSupport.dylib
```

Solution:

- If you use a dynamic library, the loaded dynamic library is under the static library `Linked Frameworks and Libraries` by default. You need to select it, click the `-` icon to delete it, and then click `+` below `Embedded Binaries` to add a dynamic library.
- You can also modify `framework` to the below:
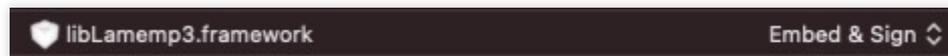
Exporting for Windows

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 that the GME SDK is available for both the x86 and x86_64 architectures by default. Please 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 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.

Exporting 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 APK is exported to an Android mobile phone, when I open the app, an error message pops up indicating that the app is not supported by the device.

The error is related to the architectures contained in the packaged executable file. If you do not need the v8a architecture, you can untick it from the export bar in the Unity program configuration.

The exported APK does not support the simulator.

Please check whether there is any library file containing the x86 architecture SDK in the exported APK. If no, please download the SDK again, import the x86 architecture SDK, and finally export the executable file again.

How to deal with the restrictions of corporate firewall

Last updated：2022-04-12 10:22:17

If your organization has restrictions placed on public network access, you need to configure the firewall allowlist accordingly before you can get access. The following describes the relevant rules:

Client Native SDK (v2.2 or Above)

Firewall port:

Port Type	Allowed Item
TCP port	443
UDP port	8000

Domain name allowlist:

```
tcloud.tim.qq.com
gmeconf.qcloud.com
yun.tim.qq.com
gmeosconf.qcloud.com
sg.global.gme.qcloud.com
```

Note：

- Tencent Cloud server IP addresses are dynamically updated, so we cannot provide you with a list of fixed IPs.
- To use the GME SDK on Windows XP, you need to add the following items to the firewall allowlist:

Firewall port:

Port Type	Allowed Item
TCP port	15000

Domain name allowlist:

```
cloud.tim.qq.com
openmsf.3g.qq.com
```

Using the SDK for HTML5

Firewall port:

Port Type	Allowed Item
TCP port	443, 8687
UDP port	8000, 8800, 843, 443

Domain name allowlist:

```
qcloud.rtc.qq.com
rtc.qcloud.qq.com
```

Using Voice Messaging and Speech-to-Text Conversion Service

Firewall port:

Port Type	Allowed Item
TCP port	80, 443

Domain name allowlist:

```
gmespeech.qcloud.com
yun.tim.qq.com
gmeconf.qcloud.com
```