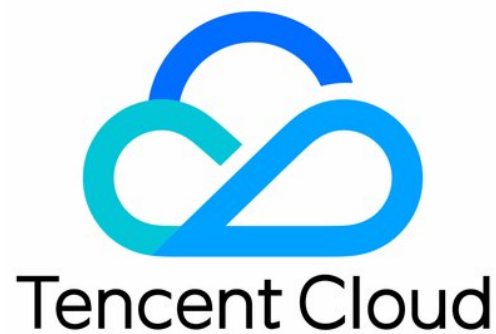


Game Multimedia Engine

Product Introduction

Product Documentation



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Product Introduction

Overview

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Tencent Cloud Game Multimedia Engine (GME) is a one-stop voice solution featuring high quality and cost effectiveness, which covers a wide range of internet-based application scenarios, such as gaming, social networking, entertainment, live broadcasting, and ecommerce. It supports group voice chat, 3D location voice, voice messaging and speech-to-text, and voice analysis.

Voice Chat Service

3D sound effects

Leveraging HRTF, 3D spatial processing, and distance-based EQ compensation technologies, GME can create a voice model based on human perception to process and convert non-directional sound into 3D immersive sound, thereby generating the sound sensation to human ears as if from a sound source at any spatial position.

Public messaging

Public voice within a certain range with 3D sound effects in 6 directions is supported.

Mic sequence mode

Users take turns to speak with mic on. 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 gaming scenarios such as multi-player team chat.

Command mode

This mode is suitable for one-to-many commanding, audio interaction with host and other scenarios in large-scale commander games.

Voice Message and Speech-to-text Service

GME supports sending recorded voice messages to game channels and converting them into text messages in real time, with clear sound quality and high accuracy of voice recognition.

Strengths

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Comprehensive Application Scenarios

In gaming, social networking, entertainment, live broadcasting, ecommerce, and other application scenarios, GME helps you meet common voice requirements such as in-game voice chat, voice chat room, live voice broadcasting, and online karaoke.

Global Service Availability

Backed by Tencent's 10-Gigabit cloud-based data centers and 20 BGP lines, GME delivers a stable and ultra-smooth gaming voice experience. In addition, it supports deployment in third-party data centers and covers regions hard to be reached by traditional cloud vendors such as the Middle East, South America, and Australia to make its services available globally.

Professional Network Access

GME reuses QQ's access deployment and scheduling policies to effectively solve the connectivity problem in weak network environments, achieving a connectivity rate of up to 99.995%.

Superior Service Hosting Capacity

GME hosts QQ's service capacity and can sustain hundreds of millions of online users. It ensures service security and reliability through real-time monitoring, remote disaster recovery, and intelligent scheduling.

Ultra-low Integration Threshold

GME provides a universal framework to meet diverse voice service requirements with no repeated integration needed.

Complete and Comprehensive Features

GME has many commonly used features for gaming scenarios, such as multi-person voice chat, real-time video chat, voice messaging, speech-to-text conversion, and voice analysis.

Use Cases

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Table Games

The traditional role-playing table game, Werewolf, can now be played online. Players greet each other before they start, speak in turn during the game, and review the game after it ends. This interaction is made possible by real-time audio and video chats. GME provides real-time audio services that focus on picture clarity and sound quality. The services are specifically customized for table games to meet players' needs for audio interaction.

E-Sports

In e-sports games, battle situations are constantly changing and players in the same camp need to share their strategies against the enemy in real time. GME makes this possible by implementing real-time in-game free voice chat that features ultra-low latency and prioritizes smoothness, allowing players to better communicate with each other and enjoy the battle games.

Commander Games

MMORPG is a typical example of commander games. Since these games involve squads, gangs, and many other playing modes, they have a higher requirement for voice latency. GME offers real-time automatic broadcasting joining/quitting and voice calls with ultra-low latency. These features can perfectly meet players' voice chat requirements during commander games even when a large number of players are online at the same time.