Overview

1 Introduction

Live Video Streaming, as a type of online socializing and entertainment, has been gaining popularity over the recent years. Live Video Streaming platforms allow streamers to broadcast their performances to their audience through live streaming video. During a live broadcast, the streamer (i.e., that host) can invite or accept viewers or other streamers to become co-hosts of the broadcast and interact with each other in real time, which greatly enhances the platform's interactivity and engagement level, hence significantly increases user stickiness and spending.

As mentioned above, there are two scenarios in Live Video Streaming:

1. Single-Host Live Streaming

   In this scenario, there is only one host in a live room publishing live video to CDN, and all other users join the same room as viewers to play the stream and watch the video. The `ZEGO Express-Video SDK` can be used for both stream publishing and stream playing.

2. Multi-Host Interactive Live Streaming

   In this scenario, multiple hosts can interact with each other in a live broadcast. The hosts publish/play streams to/from ZEGO's cloud severs using the `ZEGO Express-Video SDK` to have real-time interaction. At the same time, stream mixing is carried out on ZEGO's cloud servers to mix the streams of all hosts into a single one, which is forwarded to CDN. Then viewers can play the mixed stream from the CDN and watch the video of all the hosts participating in the interaction.

   When a live broadcast switches from the single-host mode into the multi-host mode, the mixed stream can be pushed to the same CDN URL previously used for

single-host mode, so that the viewers do not need to switch stream playback URL.

2 Feature List

Major Feature	Description
Live Room	A live channel where users get to interact with each other. Users need to log in to a live room before they can start publishing/playing streams to start or view a live broadcast.
Stream Publishing	Publishes media streams to ZEGO's cloud servers or CDN.
Stream Playing	Plays media streams from ZEGO's cloud servers or CDN.
Stream Mixing	Combines multiple media streams into a single one. With stream mixing enabled, users can view all videos of different hosts by playing just one media stream, which lowers the complexity of implementation and the requirement on the client device's performance.

> The ZEGO Express-Video SDK supports both the single-host and multi-host scenarios. Please refer to ZEGO Express-Video SDK Quickstarts to get familiar with the basic steps of how to use the SDK for live streaming. For more advanced features of the SDK, such as audio mixing, custom video capturing, and custom video rendering, please refer to the related topics included in SDK's documentation: **Common Features**, **Advanced Streaming**, **Advanced Video Processing**, **Advanced Audio Processing**.