

Multimedia – Live Video Broadcast

Classic Solution

Introduction

Web based multimedia was once restricted to uploading and downloading videos hours or days after an event had taken place. With the expansion of the Internet and advent of the cloud, any event can be broadcasted across the world in real-time. According to [Cisco's June 2016 Visual Networking Index Report](#), streaming video accounts for more than two-thirds of all Internet traffic and is expected to jump to 82 percent by 2020. The increasing usage of cloud-based video streaming solutions is helping the market to grow, as it enables small companies to adopt these solutions without expanding their IT resources.

Background

Live video broadcasting is the fastest growing service in the multimedia industry. Traditional broadcasting solutions involve satellite communication and the Internet. Transcoding using physical transcoders is not only cumbersome but also full of many challenges. This includes building a robust and cost-effective live-streaming ecosystem with high network quality, low latency, and smooth transcoding of streamed data.

Based on its industry-leading delivery network capabilities, Alibaba Cloud provides quick access and smooth streaming, along with low latency and high concurrency live video broadcasting. This allows users to quickly and efficiently develop low-cost live video broadcasting platforms.

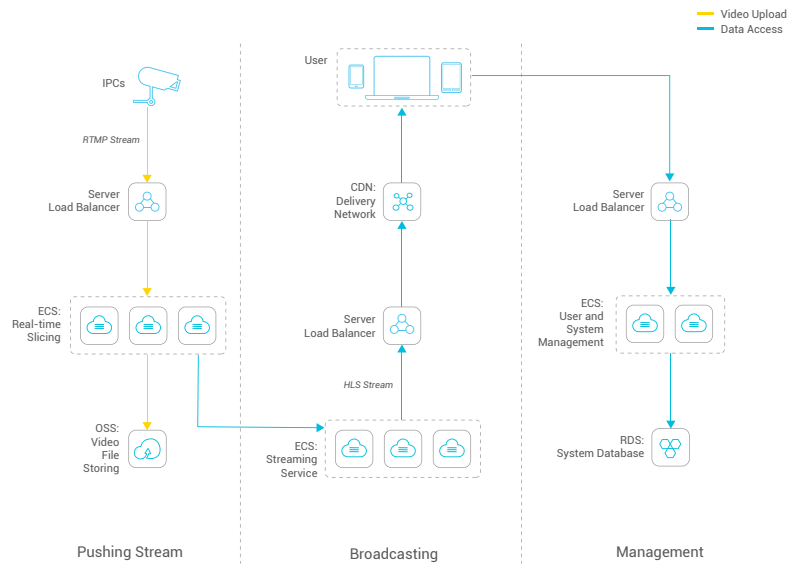
Highlights

- Customizable solution as per business needs
- Provides smooth migration across geographies

Benefits

- ✓ High level of flexibility for different needs
- ✓ Low latency for enhanced user experience
- ✓ Enables building of low-cost live video broadcasting platforms

Recommended Solution Architecture



This solution has three modules: **pushing stream**, **video broadcasting**, and **system management**.

The pushing stream module uses a Server Load Balancer with ECS architecture to construct a real-time video segmentation cluster for segmenting video streams pushed by clients, that are later stored in OSS. In video broadcasting, authenticated users request live-streaming, then a real-time video segment is converted to HLS format and pushed to CDN to serve the request. The system management module is responsible for system management, including user information management, device management, user verification, and other system management related services.