

Media Streaming with IBM Cloud Video Streaming

Project Documentation: Implementation Phase

Introduction

In the previous design phase, we conceptualized and designed a media streaming platform using IBM Cloud Video Streaming. In this phase, we will discuss the step-by-step process of transforming our design into a fully functional platform. The implementation phase involves setting up the technical infrastructure, developing the necessary software components, and ensuring that our platform aligns with the design specifications.

Step 1: Infrastructure Setup

1.1 IBM Cloud Account Setup:

Ensure that we have a registered IBM Cloud account and access to the IBM Cloud Video Streaming service.

1.2 Access IBM Cloud Video Streaming:

Log in to our IBM Cloud account and access the IBM Cloud Video Streaming service from the IBM Cloud catalog.

Step 2: Creating a Streaming Channel

2.1 Channel Creation:

Within the IBM Cloud Video Streaming service, creating a streaming channel to represent our media streams.

Defining the channel's name, description, and streaming settings.

2.2 Stream Credentials:

Obtain the necessary stream credentials, including the RTMP URL and stream key, provided by IBM Cloud Video Streaming. These credentials are essential for connecting our streaming software.

Step 3: Setting Up Streaming Software

3.1 Select Streaming Software:

Choosing suitable streaming software (e.g., OBS, Wirecast, or custom encoding software) for content encoding and broadcasting.

3.2 Configuration:

Configuring the selected streaming software to use the RTMP URL and stream key provided by IBM Cloud Video Streaming.

Set up video and audio encoding settings according to our platform's requirements.

Step 4: Testing and Verification

4.1 Test Broadcast:

Performing a test broadcast from our streaming software to verify that it successfully connects to IBM Cloud Video Streaming.

Monitoring the stream quality, ensuring that both video and audio are transmitted correctly.

Step 5: User Interface Development

5.1 UI Design Implementation:

Begin developing the user interface (UI) of our media streaming platform based on the design specifications created in the previous phase.

Implement responsive design to ensure usability across various devices.

5.2 Video Player Integration:

Integrating a video player component into our UI, allowing users to view on-demand content seamlessly.

Step 6: Platform Features

6.1 Playlist Functionality:

Develop user-generated playlist features, including creation, editing, deletion, and sharing.

Implement options for playlist privacy settings (public, private, shared).

Conclusion

The implementation phase is a critical step in turning our design into a functional media streaming platform. It involves technical setup, development, testing, and user interface implementation, culminating in a limited release and, eventually, a full-scale launch. Our goal is to provide users with a seamless and engaging media streaming experience while ensuring the platform's stability and security.