

Media streaming with IBM cloud video streaming

Innovation

Real-Time Messaging

One of the core features we developed was real-time messaging. Users could join chat rooms and instantly send messages that were synchronized across all participants. Leveraging the power of Socket.IO, we ensured efficient and reliable communication, allowing users to engage in dynamic conversations.

User Authentication and Registration

To enhance security and privacy, we implemented user authentication and registration functionality. Users could create accounts, securely log in, and enjoy personalized chat experiences. We integrated server-side authentication logic, password hashing for secure storage, and password reset functionality, ensuring a robust authentication system.

```
<!DOCTYPE html
```

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
<meta http-equiv="X-UA-Compatible" content="ie=edge">
```

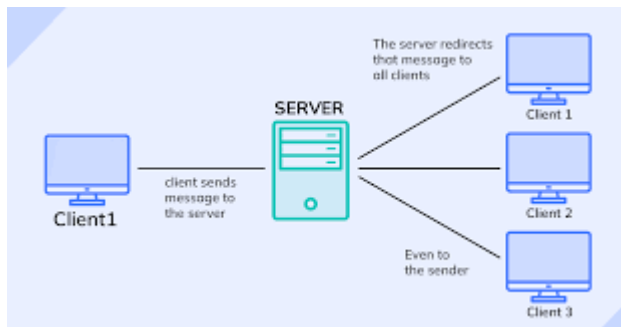
```
<link rel="icon" href="favicon.png">
```

```
<title>Chat App</title>
```

```
<link rel="stylesheet" href="styles.css">
```

```
</head>
```

Architectural Overview



The architecture of our Chat App consists of a client-server model. Clients interact with the frontend interface built with HTML, CSS, and JavaScript, while the server, powered by Node.js and Express.js, handles the communication and storage of messages and user data. Socket.IO facilitates real-time bidirectional communication between the clients and the server, ensuring instant message updates.

The Most Difficult Technical Challenge

One of the most challenging technical aspects we encountered was ensuring synchronized message updates across multiple clients. To overcome this, we implemented an event-driven communication approach using Socket.IO's event-based architecture. We utilized broadcasting techniques to emit messages to all connected clients within a chat room, ensuring real-time updates for all participants. This required meticulous planning, efficient data synchronization techniques, and a deep understanding of websockets.

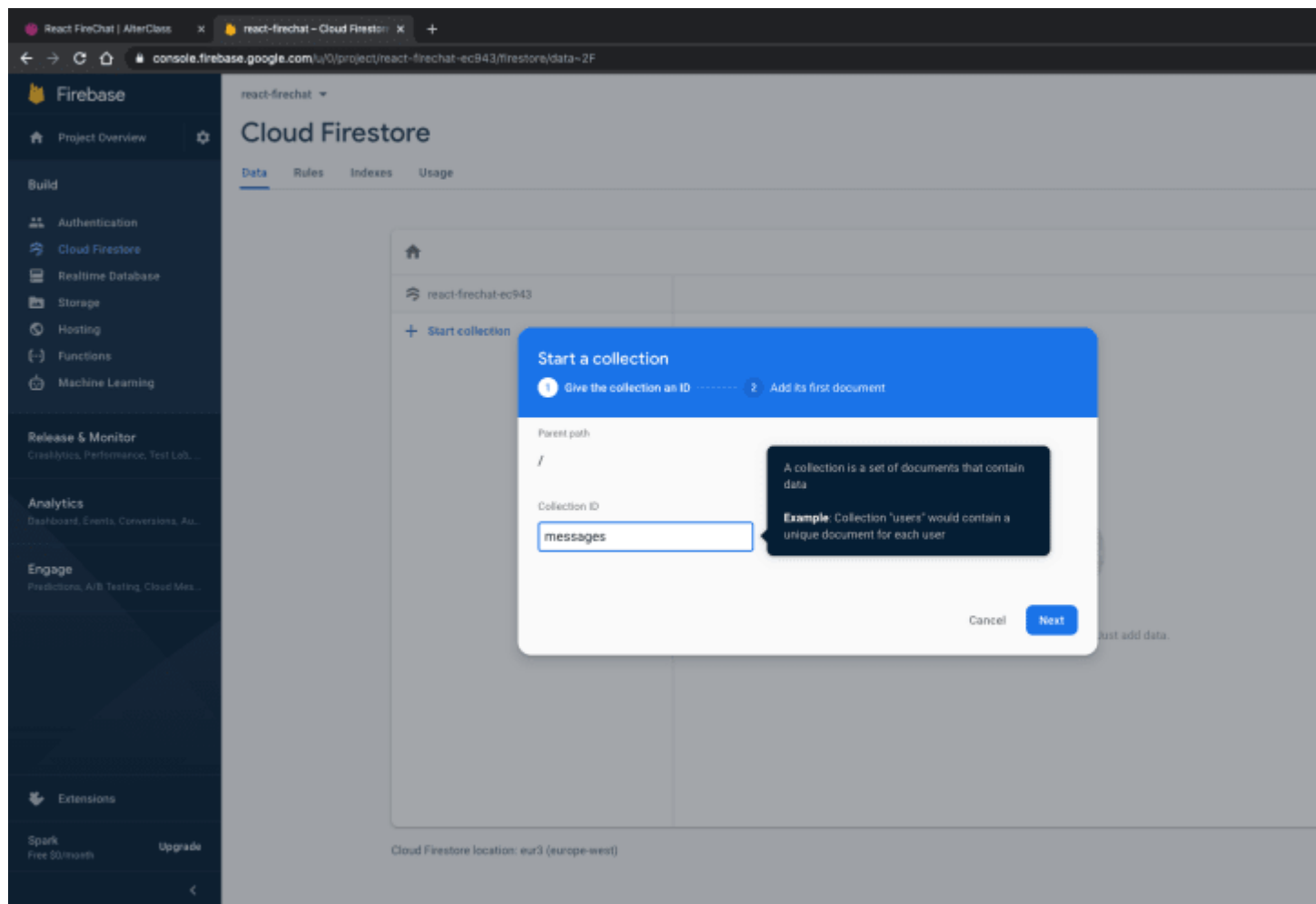
Read data in realtime from Firestore

Now, let's jump into creating the `Channel` component.

This one is responsible for displaying the chat messages and an input field to allow the user to send new messages to the chat.

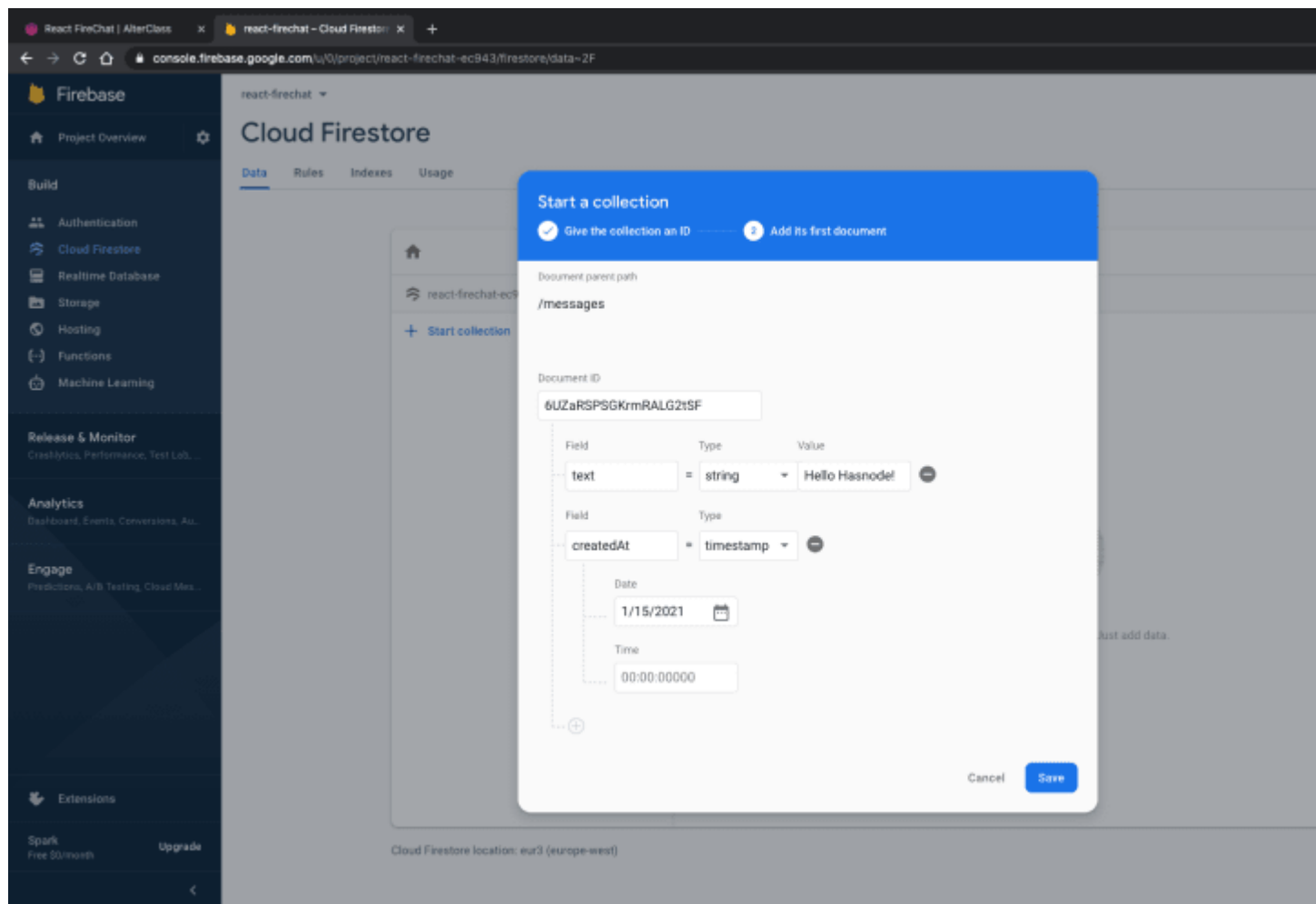
But first, we need to set up our Firestore database from the Firebase console.

Cloud Firestore stores data within "documents," which are contained within "collections." In our case, we'll store the chat messages of our users within a "Messages" collection.



Let's go ahead and also create our first document within this collection.

For now, we just add two fields to this new document. The text of the message itself and a timestamp representing the date and time when the message has been created.



communications & events

IBM Enterprise Video Streaming can power video-based communications ranging from employee town halls, to trainings and department meetings, to digital events – boosting engagement from virtually anywhere.

Through a cloud-based solution, alleviating costly updates and continued maintenance from IT, administrators can manage a security-rich end user experience. This experience includes AI-driven deep search and the ability to track usage down to the individual user level with metrics as detailed as when content was accessed, device information, geographic location of the viewer and completion percentage.

Security-rich video solution

Intelligently restrict access to corporate video assets. Easily integrate with corporate directory systems for single sign-on, or use email authentication, enabling individual user tracking.

AI-driven deep video search

Through automated, AI-driven transcription, video content can be searched at the library level, returning results based on keyword searches. Viewers can jump to specific moments based on AI insights.

Make it yours with a video portal

Provide a hosted, company branded and customizable portal to access video content and digital events, or leverage APIs to pull the experience into a custom-built event microsite.

Key Features

- Single sign-on (SSO) solution
- AI-driven deep search
- Analytics and insights
- Cloud video transcoding
- Automatic closed captioning
- Individual viewer tracking

Product images

Carousel

Customizable video portal with SSO

Available on IBM Cloud

This product is available on IBM Cloud®, an open source environment that helps you quickly and easily create, deploy, and manage applications. With IBM Cloud, you can scale and adapt quickly to changing business needs without compromising security.

[Learn more about IBM Cloud security](#)

“

Our clients have seen a marked improvement in [their] ability to onboard new practices ... one industry-leader cut their M&A training costs over 60%, increased training attendance over 50%, and decreased onboard timeline by weeks... ”

Erik Woodard Producer Marshall Multimedia

IBM Enterprise Content Delivery Network

IBM ECDN, an add-on for IBM Enterprise Video Streaming, protects your local network by offering flexible and scalable enterprise video delivery solutions, allowing scale through caching a single version of a video asset that is delivered across a network to viewers.

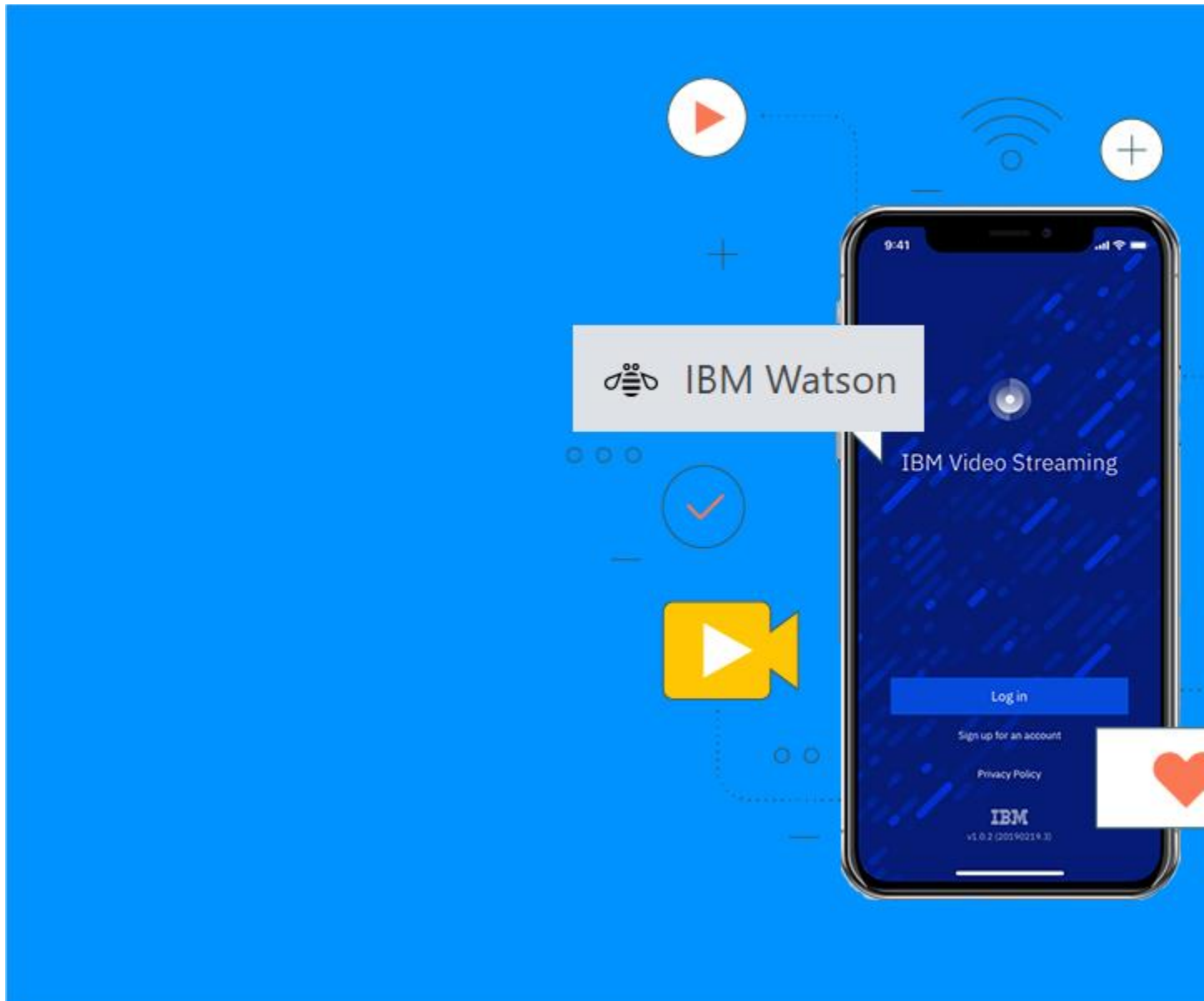
Each viewer pulls video content from the appropriate node, with built-in methodology to improve redundancy and reduce strain through multiple installations.

This virtual appliance solution forgoes costly hardware deployments and can be installed on shared or dedicated hardware as a virtual server, with included flexibility for multiple instances to support multiple ISPs or multiple offices.

Media, “This product really helps enterprises to securely deliver their corporate communications, end to end, all the way from a device to the consumers of the enterprise stream,”.

He also said that though there are several live-streaming apps for users, none of them deliver adequate toolkits for the enterprise. IBM Video Streaming app has IBM Watson Media Launches Live Mobile Video-Streaming App

January 23, 2023



News in Brief:

- IBM launches its IBM Video Streaming app enhancing workplace communication globally.
- The mobile application can be downloaded from the Play Store and App Store.
- IBM Video Streaming allows users to broadcast multiple live-streamed videos.

Video conferencing has become an essential medium for businesses for smooth workplace communications. Though there are many tools out there facilitating the business leader to broadcast meetings to their globally-dispersed workforce, there was still a little room left for a new initiative.

Recently, [IBM Watson Media](#) has launched its brand new IBM live-streaming video mobile application.

IBM Video Streaming is an enterprise-ready broadcasting tool offering enterprise businesses a solution enriched with security and impeccable features. [Enterprise app development companies](#) are sure to find this launch inspiring.

This video streaming mobile application facilitates multiple live-streamed videos. The features added to the app are tailored for the business including closed captioning powered by AI. Administrators can easily edit this closed captioning for contextual relevance or more understanding.

What is more, after the completion of broadcasts, the enterprise can utilize auto-generated metadata to browse for and index data.

In the [IBM blog](#), the company stated- “The IBM Video Streaming application offers businesses full control over video content including ingestion, transcription, storage, distribution, content and metadata management and access. In order to safeguard confidential information like financials and sales strategies, administrators have the power to grant individual access to specific employees.”

It also goes on to say that via this video-streaming application, they have lowered the “barrier to entry for live streaming video”. According to the company, impeccable live video-streaming previously required the cooperation of professional production teams, which now can be done with the help of the application and a mobile device.

In the words of David Mowrey, Product and Development VP at IBM Watson, the potential to offer large and small opportunities for live-streaming from allowing the CEO to interact with thousands of employees and partners to help a manager launch a broadcast to his team.

This newly launched video streaming app really complements the IBM Watson Media’s [Enterprise Video Streaming](#) which is an on-demand and live streaming platform connecting globally-dispersed workforce via laptops and desktops.

Mowrey also said that this platform is in use currently by customers in all industries and around the world, also including clients namely, Herman Miller, Nvidia, and Rodan + Fields.

After this launch, the tide of [investment in enterprise mobility solutions](#) is not a far cry as IBM has always been an epitome of inspiration to many businesses.

The IBM Video Streaming app is now available to download on both Android and iOS platforms. So, say goodbye to ineffective Video Conferencing and download this solution to your business communication problems.