LiveSwitch

Case Study

Client

Cavrnus Delivers Cross-Platform XR Collaboration Solution with LiveSwitch Server

Cavrnus

VR CAVRNUS™

Industry: Computer Software
HQ: Carlsbad, CA, USA

Industries served:
Oil & Gas, Automotive,
Energy, Education,
Architecture, Engineering,
and Design

"Organizations are looking for secure, end-to-end VR/XR collaboration platforms. They want the ability to deploy Cavrnus Spaces in the cloud or on-premises."

Anthony Duca, Founder/
CEO of Cavrnus

The Company

As enterprises and multinational corporations tap into the opportunities offered through extended reality technology (XR), spatial collaboration platforms are becoming more sophisticated. Cavrnus, a software company based in Carlsbad, California, has released an enterprise-grade platform that is an immersive, engaging, and productive virtual solution for design and engineering professionals. Their platform, Cavrnus Spaces, is a flexible, user-friendly and comprehensive solution readily available on devices and platforms including HTC Vive, Oculus Rift and Quest, Magic Leap, iOS and Android tablets, phones, and Windows and macOS.

Currently leveraged by Fortune 500 companies in automotive manufacturing, and oil and gas industries, Cavrnus Spaces has supported a variety of use cases including group remote training programs, employee onboarding processes, and team collaboration initiatives.

"Cavrnus is sought after for use cases such as training," explained Anthony Duca, Founder/CEO of Cavrnus. "3D scans of facilities are uploaded to Cavrnus Spaces, where field technicians learn about the facility remotely before visiting actual sites. Operations and design reviews are hosted in Cavrnus Spaces, where remote teams gather in the same space to whiteboard and collaborate efficiently."

Identifying Opportunities

Anthony Duca and his colleagues were already seasoned experts in the 3D visualization field when they identified an opportunity to redefine what XR collaboration platforms could be.

"When virtual reality headsets first came out, we knew as industry veterans that virtual reality could be used in many more ways than what was readily available at the time," explained Anthony.

In the past, 3D visualizations for enterprise-grade platforms were rudimentary, and intuitive spatial collaboration platforms that worked seamlessly between VR/AR headsets and desktops, browsers, phones, and tablets were almost unheard of.

"We knew there was something innovative we could bring to the field of spatial collaboration," said Anthony. "We leveraged our experience in 3D visualization and brought that to Cavrnus. We wanted to tap into the concept of 3D collaboration. With rapidly evolving performance advancements in laptops, tablets, phones, and XR devices, we knew there was an opportunity to redefine how teams interacted."

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>
> Anthony Duca, Founder/CEO of Cavrnus

The Cavrnus Advantage

As the most user-friendly and comprehensive enterprise XR collaboration and simulation platform, Cavrnus has offered multinational corporations the ability to ramp up their employees' training in completely immersive onboarding programs, impart specialized information with higher information retention rates, and improve remote collaboration for all kinds of teams from all departments and across all verticals.

Cavrnus Solutions:

Virtual Conference Rooms
Virtual Workshops
Virtual Stores
Virtual Classrooms

Visit https://cavrn.us/ to request a demo or to learn more about Cavrnus's capabilities.

The Challenge

To ensure Cavrnus worked across all major platforms, devices, and browsers, they required a live video SDK that could work with their existing VR codebase and also extend to support additional platforms.

"We wanted users to be able to interact using MacOS, Windows, iOS and Android devices, with the freedom to put on a VR headset to see the visualizations and manipulate them at scale, anytime," said Anthony. "Therefore we knew from the start that Cavrnus Spaces needed to work across all devices."

It was critical that Cavrnus Spaces could be hosted in the cloud and installed on-premises to satisfy enterprise-class client requirements for data security. "Organizations are looking for secure, end-to-end VR/XR collaboration platforms," explained Anthony. "They want the ability to deploy Cavrnus Spaces on-premises when needed."

Reaching out to LiveSwitch

"WebRTC is an open standard, but we wanted a professional WebRTC solution that could accelerate our development timelines," said Anthony. "We looked at many solutions on the market, but most of them were tied to the Cloud. The ability to deploy in the cloud and on-premises drew us to LiveSwitch."

After considering their options, Anthony's team decided to move forward with LiveSwitch Server.

"We chose LiveSwitch Server because we could easily deploy Cavrnus onto our client's company workflow and infrastructure. Organizations in this space go to great lengths protecting their CAD data," Anthony explained. "Our solution must offer both Cloud and On-Premises installations and LiveSwitch Server helped us achieve this requirement."

Cavrnus supports these devices and more.

oculus
Oculus Rift
Oculus Quest

magic leap
Head-Mounted AR

VIVE
HTC Vive
Vive Focus

The Results

Cavrnus was launched across major platforms to great success. "Users [without VR or AR devices] don't even need to download Cavrnus Spaces," said Anthony. "They could access Cavrnus in any browser using WebGL, thus taking the idea of flexible cross-platform interoperability even further."

The live video component was customizable, ensuring that various file types could be ingested and that end-to-end security was established. Working with a flexible live video, voice, and messaging SDK enabled the team to meet their enterprise clients' requirements.

"The relationship with LiveSwitch beyond LiveSwitch itself has been exceptional," Loren Colin, VP of Product Management at Cavrnus explained. "Working with the Frozen Mountain team has been invaluable. We're pleased to have a partner in our product development with WebRTC expertise. We're excited to see what the future brings." ℒ

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Learn more about LiveSwitch Server here.

Request a demo of Cavrnus to see how the enterprise-grade spatial collaboration platform works here.