Advanced Video Analytics Solution – Enhancing Edge Video Management and On-Prem Cloud Integration

Seamless integration of edge devices and on-prem Cloudera

Reduced data management expenses

250 concurrent video streams supported

Improved scalability, reliability, and cost efficiency

Client

A leading North American manufacturing company specialized, purpose-built vehicles, the client supports defense, airport, and commercial missions with high-performance trucks engineered for speed, reliability, and operational resilience in high-stakes environments.

Problem Statement

The client's legacy system struggled to process and manage high-volume video data across its distributed environment. Fragmented components, limited real-time visibility, and weak integration made it difficult to detect faults, unify operational data, or perform timely video analysis, ultimately impacting the safety, uptime, and performance of mission-critical vehicles.

Business Need

Build a robust, scalable video management system for processing video streams from multiple edge devices

Optimize operational costs through on-prem cloud infrastructure

Ensure secure storage, seamless playback, and effective data management

Solution

Innominds proposed a unified video management solution for complete visibility into all video streams coming from its fleet, consolidating previously fragmented data, providing access to historical and live footage. With seamless storage and retrieval, the solution proved effective to handle increasing volumes of video.

Key Capabilities

Streamlined integration of cloud and on-prem systems

User-friendly interface for efficient video analytics

Enhanced session management, and

Optimized concurrent storage leveraging Cloudera's data lake

Value Delivered

The solution helped:

Achieve a significant reduction in data management expenses

Enable streamlined and scalable video management

Support up to 250 concurrent video streams

Tools and Technologies

AWS EKS | API Gateway | KubeEdge | Triton | Jetson Inference | Golang | Python | ReactJS | Prometheus | Kibana

This approach improved operational reliability, reduced infrastructure costs, and supported the client's critical, high-speed operations.

Reimagine Video Management with Edge AI
Analyze Smarter. Streamline Operations. Enhance Reliability.
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