



Business Domain

Transportation and Logistics

Project Type

AWS Solutions

Video Server and HelpDesk Integration Improved IoT Security, Resulting in a Twofold Increase in Response Speed

Client

A startup company that offers IoT solutions for tracking and securing assets, primarily serving sectors like logistics, manufacturing, and transportation.

Project

The company relies on a video server to analyze live streams from multiple sources and detect real-time critical events or anomalies. The project involved integrating a customer's video analysis server with their HelpDesk system to optimize incident response and streamline alert management.

Objective

The primary objective of the project was to improve the client's operational response to critical incidents by creating an integrated solution that combines video analysis alerts with the HelpDesk system.

Team Reinforcement

The Client sought expertise to successfully integrate their video analysis server with the HelpDesk system. The project required an end-to-end solution to address challenges such as real-time alert integration, automation, and centralized incident management, all while maintaining strict adherence to high-security standards. Intetics provided the necessary expertise and services to manage the development and deployment processes. This approach ensured a seamless and secure connection between the systems, optimizing operational efficiency and incident response.

Challenge

The Client's workflow struggled with inefficient alert management due to a lack of seamless integration between the video alert system and the operational management platform. This caused delays and overwhelmed HelpDesk with excessive notifications from multiple video sources, making it difficult to prioritize critical incidents. The result was a complex process that reduced overall team efficiency.

Maintaining a comprehensive and traceable history of incidents without an integrated solution was challenging, leading to inefficiencies in compliance and analysis.

The current infrastructure needed improvements to manage the increasing number of alert sources and to ensure consistent, real-time processing. Given that the integration involved sensitive security data, all components had to comply with strict security standards, which included encryption, access control, and logging.

Quick Facts

- ✓ The response times for the HelpDesk have been improved, incident management has been streamlined, and data traceability has been enhanced.
- ✓ Customizable alert parameters reduced unnecessary notifications, **resulting in a 60% reduction** of false alerts and significantly less operator workload.
- ✓ The serverless architecture reduced infrastructure costs **by 70%**, enabling the system to scale as alert volumes increased without additional overhead.

Technologies

Java / Spring / MySQL / Elasticsearch / Redis / AWS Io / AWS services

Solution

★ 01

We developed a custom integration using AWS's serverless and managed services. This approach ensured a secure, scalable, and cost-effective solution that aligned with the customer's business objectives.

★ 04

AWS CloudWatch monitored the performance of the integration and sent alerts to administrators in case of anomalies, such as latency issues or missing alerts. It also provided metrics and logs to help identify areas for improvement in real-time alert processing.

★ 02

AWS Lambda was used to implement a serverless architecture that processed video server alerts as they occurred. This setup ensured low operational costs, scalability, and ease of maintenance.

★ 05

By leveraging AWS's low-latency communication channels, the solution ensured that alerts were transmitted from the video server to the HelpDesk in real-time. HelpDesk operators could respond immediately, significantly improving operational response times.

★ 03

DynamoDB stored each alert along with its associated metadata (timestamp, alert type, priority, etc.), providing a high-performance, cost-efficient database. This allowed the HelpDesk team to view and retrieve the history of alerts, analyze patterns, and support incident resolution.

To prevent HelpDesk overload, Lambda functions included logic to filter and prioritize alerts. The customer could customize thresholds, ensuring that only relevant alerts were passed to HelpDesk, while others were logged for later review.



Benefits and Results

- ★ The serverless architecture minimized infrastructure costs while providing the ability to scale seamlessly as alert volumes grew.
- ★ HelpDesk operators gained instant access to alerts, reducing response times and enabling quicker resolution of incidents.
- ★ A detailed alert history facilitated more effective incident reviews, audits, and compliance reporting, promoting enhanced accountability and transparency.
- ★ Customizable alert parameters ensured that HelpDesk received only critical notifications, which optimized workflows and enhanced response efficiency.

Techstack:

Java, Spring, MySQL, Elasticsearch,
Redis, AWS IoT, and more AWS
services

Team: 4

Project Manager,
AWS Solution Architect,
Database Engineer,
Cloud Security Expert