AiKAAN

Case Study

Smart Surveillance

Smart Surveillance company could scale and operate globally faster with reduced OpEx.

Customer Details

Our customer is an award-winning AI-based computer vision enterprise focused on making cameras smarter. Powered by real-time edge-based intelligence for a safer, secure & more efficient world.

Offering solutions in some of the major applications such as ANPR, vehicle movements & detection, and face & gesture detection. With use-cases in different verticals like smart parking, toll automation, gate security, ATM security, intelligent traffic monitoring, site-worker safety, retail analytics and many more.

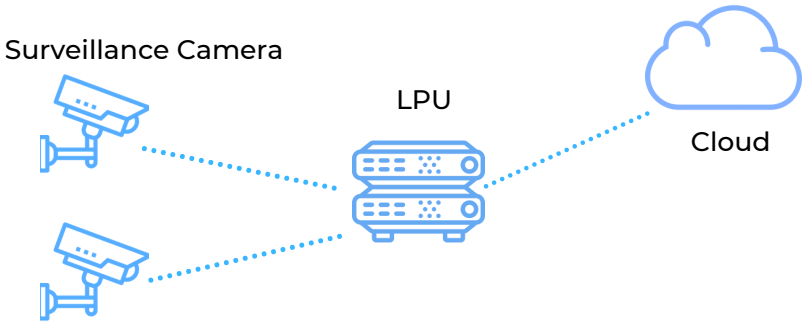

Fig 1: Basic Smart Surveillance deployment consisting of Cameras, Local Processing Unit (LPU) and Cloud.

Key Metrics

40%

Reduction in time for Application deployment and updates.

4

Lesser site-visits per year

27%

Faster response to failures

90

Minutes lesser to debug a failure

Issues with Scaling-Up Globally

With the vast customer portfolio in the local markets, now the company wish to foray into global markets, starting from Japan and North America.

With the plan of global deployment, one of the shivering thoughts is operational challenges and monitoring performance of the complex multi-vendor IoT edge infrastructure.

Business-critical applications with strict SLAs running on the Local Processing Units (LPU), makes it mandatory for the company to come up with an IoT edge infrastructure monitoring and application performance management system. Issues such as cameras not working, application crashes, tedious process to update Machine Learning (ML) models for applications, a mismatch between the hardware specs and application's system requirements turned out to be some of the major road-blocks for scaling.

With large deployments, the overall dev-ops and support cost is going to increase linearly for the organization, another major concern as profitability is compromised.

> ***"As we are scaling ahead with more number deployments and increased customer sites, our DevOps/support could ensure maximum uptime across multiple edge sites and could react quickly to any performance issue with the help of AiCon controller"***
> CTO of the Company

AiKaan's Approach & Solution

AiKaan team worked with the customer to on-board IoT edge computing nodes (LPU) on the AiKaan Dashboard by installing AiKaan software agent ("AiAgent"). The complete installation took less than a minute/device for the brown-field installation. Subsequently, for the new installation, the AiAgent is bundled with the LPU firmware.

Once the devices are on-boarded, the organization can now have a holistic view of the entire deployment across sites. With details such as which sites are performing well and which one needs attention. Camera, network, application and system failures are now reported as events and notified to dev-ops/support team instantaneously through slack message.

Detection of issues such as system under-voltage or network failures is a part of the solution.

AiKaan has a unique way of identifying issues by applying data-analytics methods on the operational telemetry. This helps customer to identify and resolve application issues, even before the end-customer knowing it and hence improve overall customer satisfaction.

Challenges

- Monitoring camera and other peripherals status.
- Provisioning and updating ML applications on the LPU's is tedious.
- Frequent failure results in a truck roll.

How AiKaan Helped

- A holistic view of the entire deployment across sites.
- Single click application deployment and update across sites.
- Root-cause analysis of failures to avoid preliminarily debugging.
- Real time status reports and notifications on failures, helps to bring the system back faster.

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