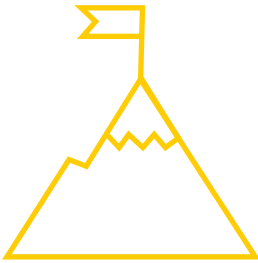**LTIMindtree**

Case Study

Edge-based Security Solution for Largest, US-based Natural Gas & Electric Energy Provider

The client is a US-based, largest natural gas and electric energy company serving close to 5.1 million households throughout a 70,000 square mile service area.

The client was looking to prevent security related incidences involving monitoring of security breach incidences. With investment in latest technology, the organization wanted to reduce theft risk for the worksite and ensure secure remote site operations. The current state posed following challenges:
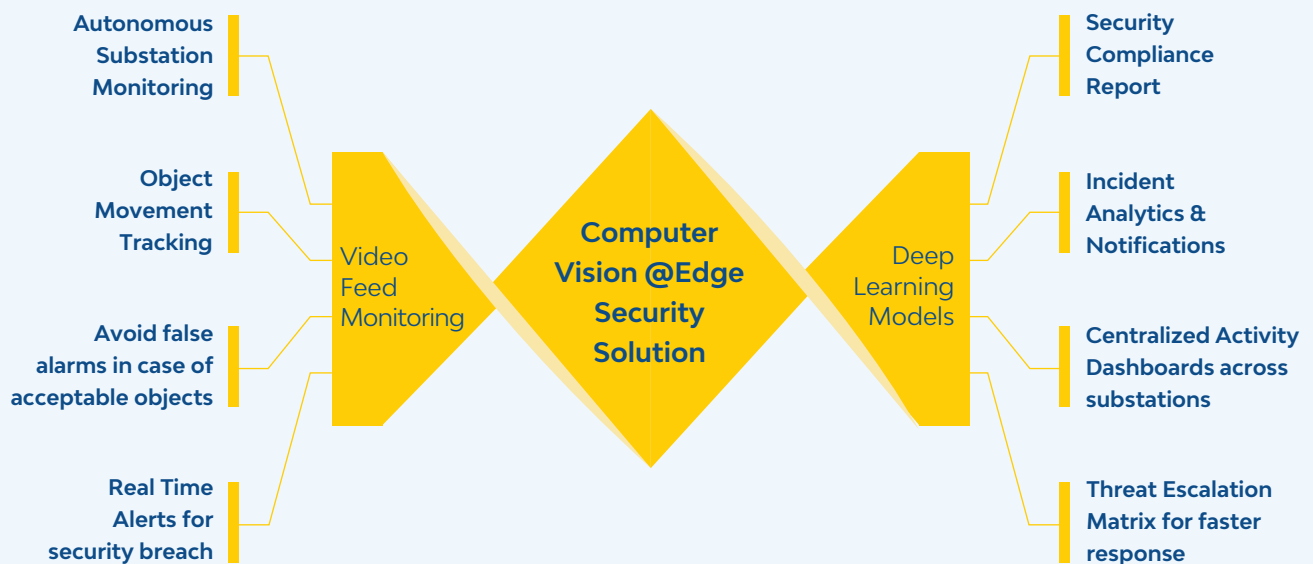
☑ With operations spread to remote geographies, the organization faced difficulty in securing the perimeter of the worksites and monitor in-out movement.

☑ The organization wanted to ensure round-the-clock security for substation premises, and to provide alerts to the local authorities in case of security breach.

☑ Delayed response time in case of incidents due to lack of evidence.

☑ No visibility into tracking the in/out movement.

☑ No evaluation of historical incident leading to repeated events of security breach.

Business Challenges

LTIMindtree Solution

LTIMindtree Security Solution, powered by AWS, is computer vision @Edge and video analytics-based solution ensuring safe and secure worksite. The solution leverages power of IoT and enables real-time monitoring and automated alerts, thereby eliminating threats. The edge-based solution detects security compliance breach in real-time and raises alerts for timely action. The security authorities are notified in case of any aberration, enabling faster response to ensure safer environment.

Autonomous Substation Monitoring

Object Movement Tracking

Avoid false alarms in case of acceptable objects

Real Time Alerts for security breach

Video Feed Monitoring

Computer Vision @Edge Security Solution

Deep Learning Models

Security Compliance Report

Incident Analytics & Notifications

Centralized Activity Dashboards across substations

Threat Escalation Matrix for faster response

Highlights

Implemented AWS-based computer vision @Edge analytics solution for inspection and monitoring worksites, unattended object detection, movement in-out tracking and avoid false alarms due to wild animals

The solution included deep learning-based, intuitive toolset that empowered continuous monitoring and alerting in real-time

Built secure environment zones for substations with continuous processing of video feed from camera using prebuilt machine learning architecture to identify hazard and to detect unsafe movement, in real-time

Provided a centralized dashboard for a single screen view of multiple sites, providing a comprehensive list of incident and actions taken with timestamp

Worksite insights for substation enabling data-driven decisions by manager to mitigate risks

Business Benefits

95% accuracy
for security breach detection resulting in secure premises

Faster response
for the breach scenarios with enhanced movement visibility and real-time alerts to authorities

Cost saving
of approximately 180K per annum per site with complete autonomous site monitoring