

THIRDEYE VISION ANALYTICS PLATFORM

Powered By



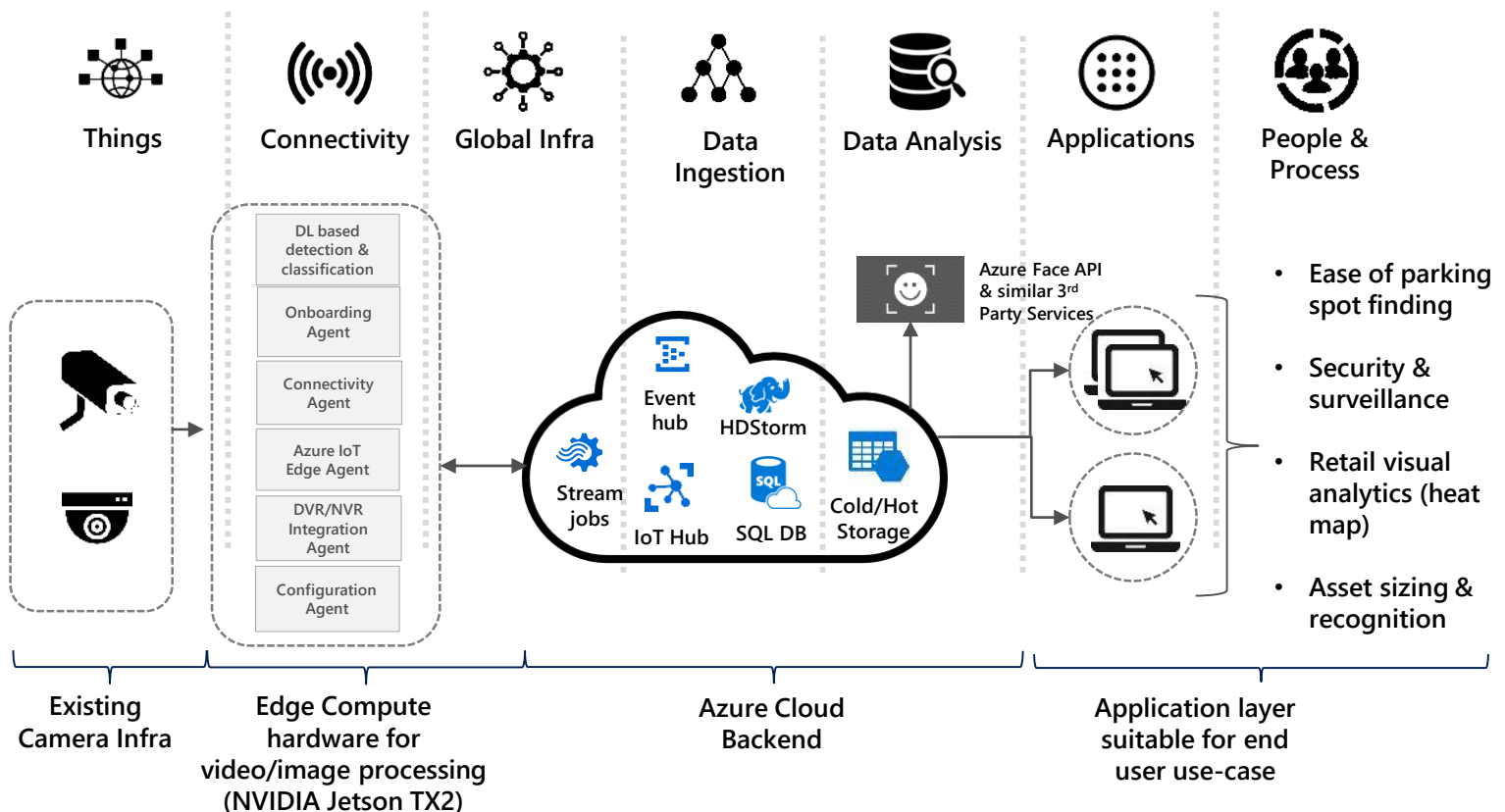
Overview

ThirdEye is an advanced AI-driven vision analytics platform that aims to improve operational intelligence and enhance decision-making abilities across different business scenarios. Designed to complement and boost existing CCTV and/or IP camera infrastructure, ThirdEye offers actionable insights and specific patterns based on the video feeds captured by the cameras.

The ThirdEye Vision Analytics platform can be extended to solve challenges across industries as diverse as retail, transportation, healthcare and law enforcement. Some of its key applications include smart parking, smart lobbies, retail heatmaps, security and surveillance, face detection and vehicle number-plate detection.

Platform Architecture

ThirdEye Vision Analytics Platform sends the camera feed data from existing or new CCTV/IP camera to the edge-computing hardware for video/image processing. This data is then passed on to Microsoft Azure. The data is further processed on Azure to provide real time and predictive analytics to multiple stakeholders.



Key Features



Cam-Sense Box

An on-Premise device installation running Artificial Intelligence software for processing feeds from cameras



Mobile App

App for the remote monitoring teams to monitor alerts, analytics from mobile – anywhere, anytime



Web App

Dashboard for command and control centers to view real time feed along with alerts, identification and stats

- **Object Identification** - Identifies person, vehicles and several other objects, parameters
- **Facial Recognition** - Real time demographics, unknown person / suspect flagging
- **Product Inspection** - Automate product monitoring and quality control in manufacturing
- **Video Analytics at the Edge** - Derive patterns, actionable insights and summarization of the feed

Azure Resources



IoT Hub



Stream Analytics Jobs



Document DB
(aka Cosmos DB)



SQL Server +
SQL DB



App Service
(Web Apps)



Storage
Account



Machine
Learning

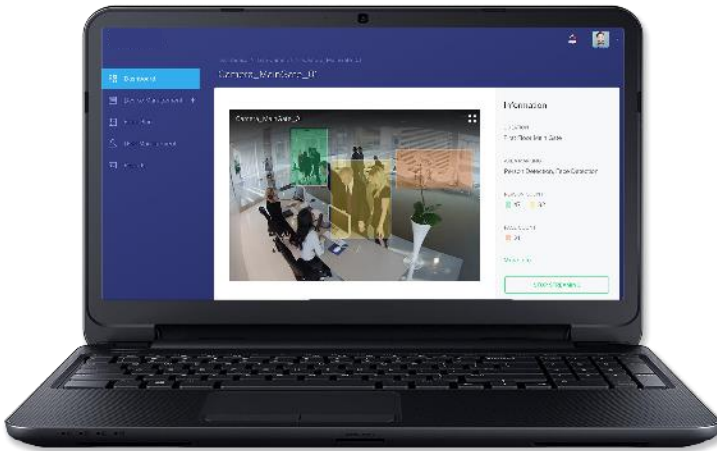


Event Hub

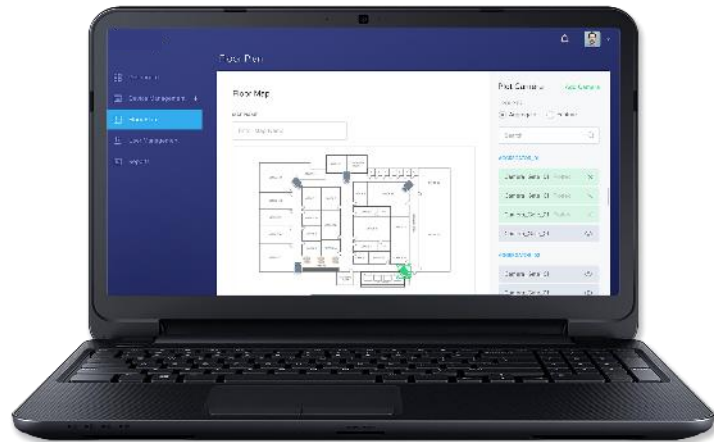


App Insights

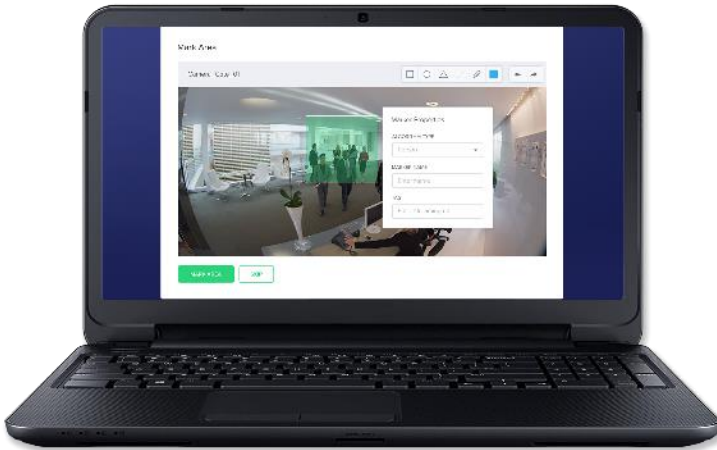
Platform Screenshots



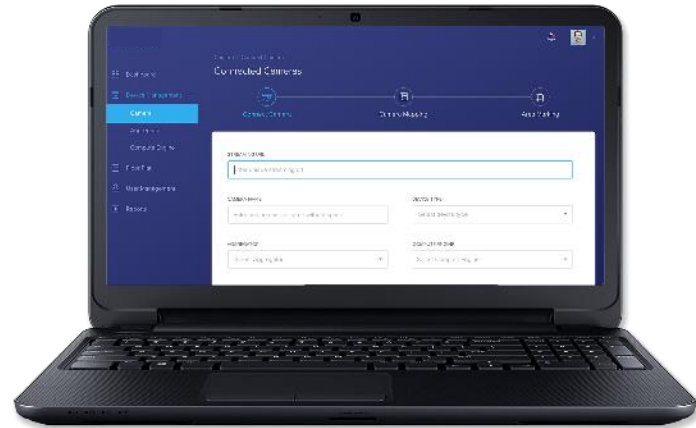
Dashboard



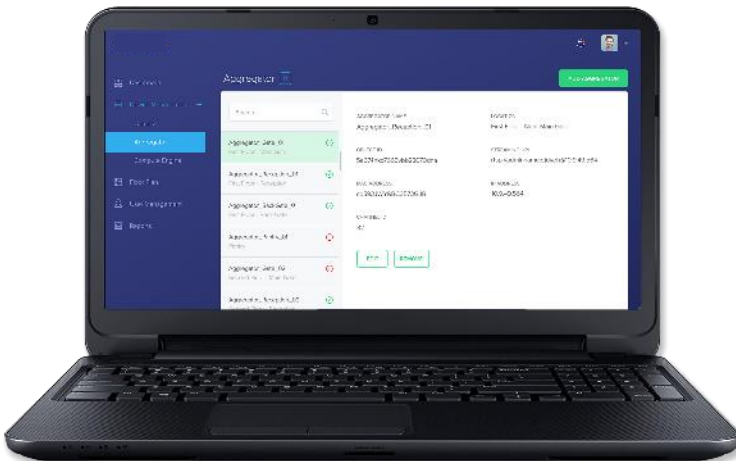
Floor Plan



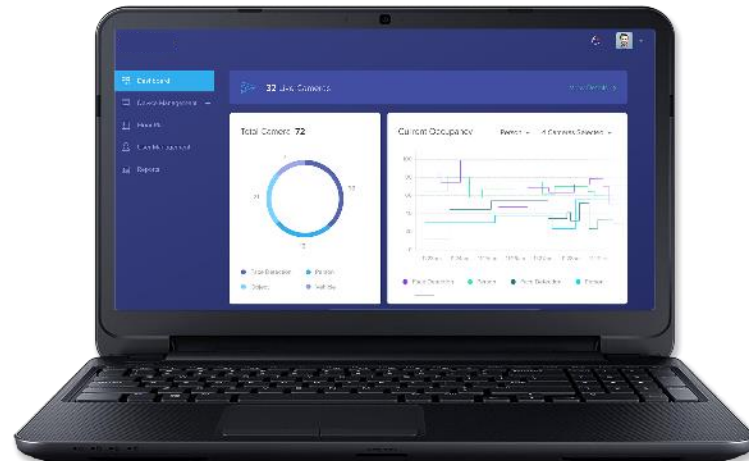
Person Detection



Camera Management



Device Aggregator



Analytics

Case Study: Smart Parking Solution

Overview

A US-based telecom company wanted a solution to manage its parking space efficiently. With increasing office size & employee strength, it was becoming tenacious for the company to guide employees in finding the right parking spot.

Also, the inclusion of a more prominent workforce to manage their parking didn't bring expected results. Hence, it was essential for the company to build a solution to help them:

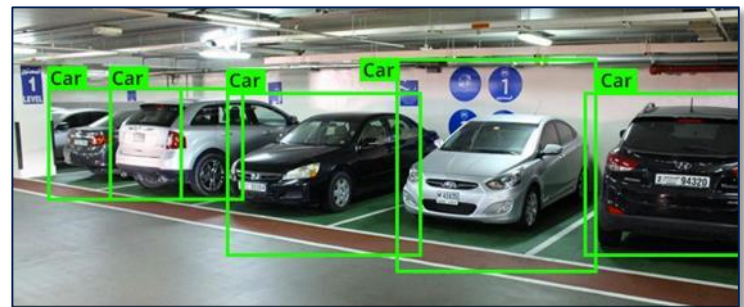
- Detect empty parking slots from their camera feed and instruct the employees' about the same
- Automate free slot counting in real time
- Capture vehicle in/out time information
- Guide the user to the correct exit gate

The company partnered with QuEST due to their immense experience in similar vision based software's. QuEST provided this solution in a quick turn around time, thereby saving much cost for the client.

Results

- **Reduced 40% time** in parking
- **50% less** workforce required
- **Better forecasting** using in-built analytics for future vehicle & space needs
- **Improved facility & security**

Actual Project Images



Solution Consisted of

- Video cameras to detect parking spot occupancy
- Enabled local computation – Deep Learning at the Edge using NVIDIA Jetson
- Enabled detection of objects and parameters – vehicle type, make / model, license plate
- Notifying the users looking for parking space on mobile app

Technology

