AWS-Intel

GRAYMATICS-CWT ON AWS

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Cwt-Aerospace is based in Singapore, having a strong presence in Singapore and Indonesia and catering to surveillance needs to their clients which includes airports, ports and government agencies.

Project

The client's need is to protect the coastal surveillance from any potential threats. With the help of AI based Intelligent video analytics, CWT-Aerospace objective is to showcase the capabilities and bring automation in security & surveillance with unmanned security. The objective of the project is to detect swimmers within 70 meters range and small boats within 200-meter range of the coastal areas and send an alert to the control centre.

The Solution

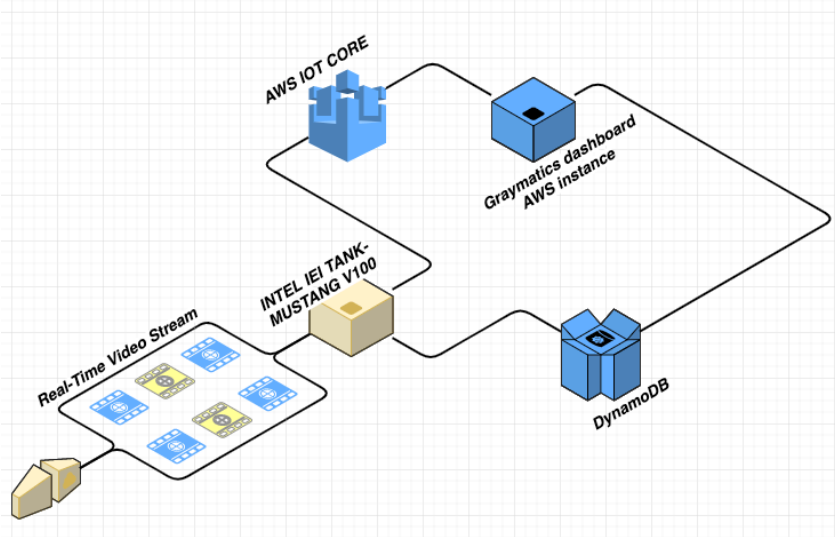
The above-mentioned requirements have been developed by CWT-Aerospace/Graymatics and the project has been tested and running on Intel-IEI tank V100 card supported by Intel-AWS for this project. The solution deployed for Project is blend of on-prem/cloud support, The Intel hardware to run the application for detecting boaters and swimmers and AWS cloud to send alerts via dashboard

The Deployment

The project has been deployed on PTZ camera (Grayscale)resolution 2048 x1536 covering the coastal area of Marina South Pier in Singapore to have a wider area covered the frame.

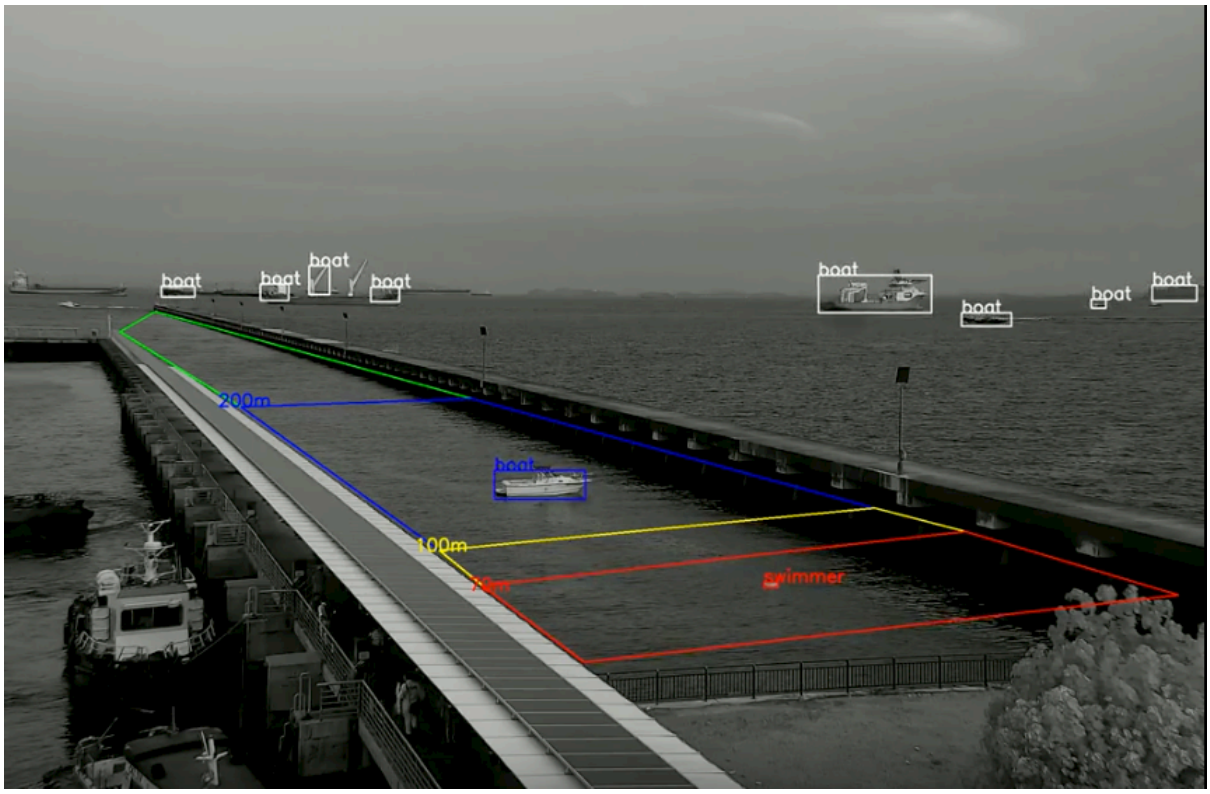
The real-time feeds from CWT camera are extracted in the Intel IEI tank and metadata are processed from the Intel device to detect both boats and swimmers. The storage and alert are handled by AWS with S3 & EC2 instances in order to track the detections and simultaneously to send alerts via AWS database and AWS IOT respectively.

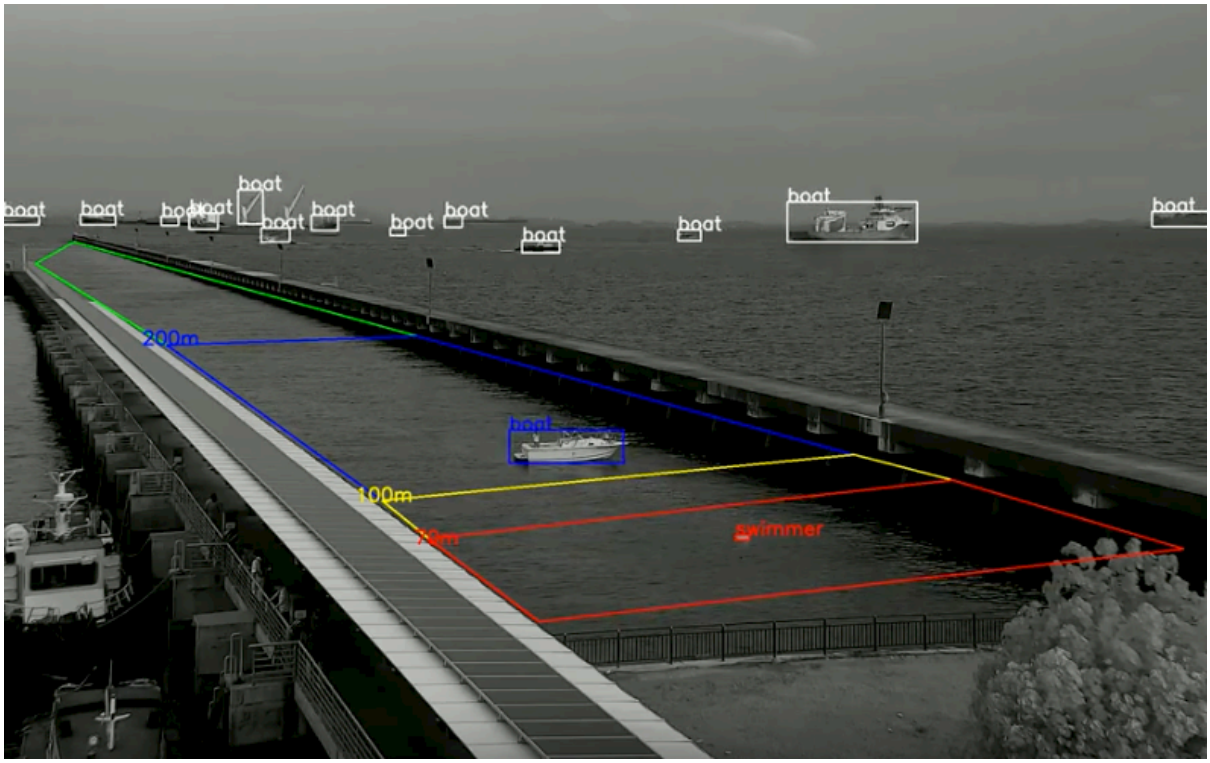
Attached is the diagram for the general workflow on Intel & AWS workloads



Video Stream Processing

Screenshots of the real-time detection of boat and swimmer at the site





CWT-Graymatics is looking for scaling the exemplary model globally with the support of AWS-Intel team.