



Safer Streets Solution allowing Local Government to tackle their day-to-day issues with a comprehensive intelligence solution that is flexible, scalable & customisable

CLIENT:

Bayside Council

INDUSTRY:

Government

LOCATION:

NSW, Australia

SOLUTION:

AoL Video Analytics
Object Detection
Licence Plate Recognition
Nx Witness VMS

SYSTEM INTEGRATOR

AFN Solutions

Bayside Council took a proactive approach to improve public safety and reduce anti-social behaviour along the Botany Bay foreshore.



Bayside Council Challenges to Address:

The streets of Bayside Council have never been safer thanks to a state-of-the-art Machine Learning, Computer Vision, and Artificial Intelligence (AI) system that has been deployed by the council.

The system uses advanced technology to analyse footage from CCTV cameras and identify illegal or dangerous activity whilst sending real-time alerts to the NSW Police Local Area Command (LAC).

The Safer Streets deployment addresses the following issues:



ANTI-SOCIAL BEHAVIOUR



HOONING



LOITERING



ILLEGAL PARKING



DEALING ILLICIT DRUGS



PUBLIC NUISANCE

Art of Logic's Solution:

Network Optix (Nx Witness) has been an integral partner for Art of Logic in the design and development of our innovative analytics platform. Nx Witness VMS platform provides an open source and open architecture framework that allows Art of Logic's Engineers to create and deploy custom analytics on top of a safe, secure substrate of video.

Art of Logic used edge-based video analytic hardware, fully integrated with Nx Witness VMS, to address the challenges raised by Bayside Council with a simple, easy-to-implement solution that gave the foreshore the ability to address existing issues and the flexibility to expand upon the reach and applications of their solution.

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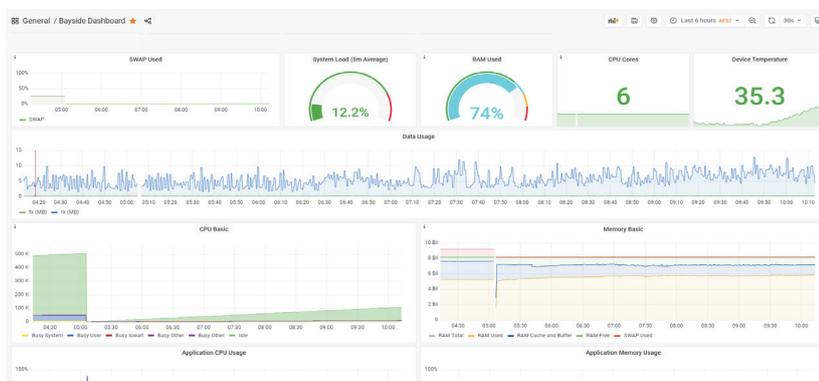
The Safer Streets solution uses standard high-definition optics, using Computer Vision on Edge based servers to do Object Detection in designated areas. AoL Engineers then apply in-house analytics to identify a number of different elements including: vehicle, make, model, colour (MMC) and licence plate number.

Art of Logic's Micro GPU box is a powerful Edge server, integrated with Nx Witness VMS, Object Detection and Licence Plate Recognition, that is used to deliver high quality detection and recognition, enabled using renewable energy platforms that power AoL's Machine Learning servers.

The solution provides a strong level of accuracy and reliability in detecting, monitoring and enforcing the consequences of anti-social behaviour, illegal parking, and loitering.

AOL Health Monitoring Platform

The AOL Health Monitoring Platform is a cloud-based solution that allows the System Integrator (Si) to actively monitor every aspect of the software and hardware deployments. The platform provides a visualisation of real-time data, usage statistics and health overview enabling system integrators to proactively manage the deployment, while tracking its performance over time.



Microsoft Power BI

Bayside Council has been using Microsoft Power BI to make real time decisions on how to best serve their residents.

Bayside Council have implemented this dashboard to assist with classifying related data sets eg; the object is a white sedan, that is parked illegally and is the same vehicle that has also offended in three other streets in the last month. The AOL Development team has enabled this metadata, which is built into the code, to deliver real time consistent alerts via Nx Witness VMS. Based on the data, Bayside Council can predict future trends to ensure that plans are robust enough for their predicted growth

Results

“We have seen a 75-80% drop in repeat offenders parking illegally or undertaking acts of dangerous driving. Our community has also told us that they have seen up to a 90% decrease in hooning and illegal driving”.

Ben Thompson – Manager Business Transformation at Bayside Council



ANTI-SOCIAL BEHAVIOUR

Anti-social behaviour has dropped by 90%



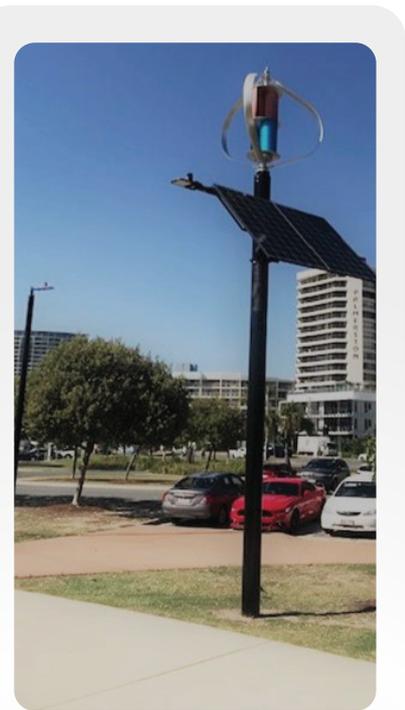
HOONING

Dangerous driving reduced significantly



ILLEGAL PARKING

Significantly reduced overstays due to new infringement technology



“The cameras are the equivalent of having a Parking Patrol Officer stationed along our foreshore 24 hours a day, 7 days a week – all whilst keeping our community safe.”