

Heavy-Vehicle Compliance





Challenge:

Unseen Heavy-Vehicle Breaches

Cities waste thousands of officer hours chasing escalating complaints about heavy vehicles routinely ignoring designated load limits by using restricted residential and rural roads. This unauthorised traffic caused significant infrastructure damage, increased community complaints, and compromised resident safety and amenity.

Our solution automates detection, captures real-time evidence, and delivers actionable insights allowing cities to keep community safe, protect infrastructure and maximise ROI.

“Our officers spent half their shift sitting roadside—and still missed many offenders.”

- Compliance Manager, Hills Shire Council

Solar-Powered AI Cameras

Turn every road entry into an intelligent checkpoint with solar-powered AI cameras that detect, capture and timestamp heavy-vehicle breaches - no officer on-site required.

- Dual-camera entry/exit timing validates non-stop 'rat-run' infringements
- High-accuracy truck classification (100% detection with minimal false positives)
- Real-time alerts via cloud dashboard

Our rapidly deployable cameras can be easily relocated with minimal efforts simplifying portable deployment at an affordable price.

"Plug-and-play" – takes less than 30 minutes to install



Rapidly deployable
design



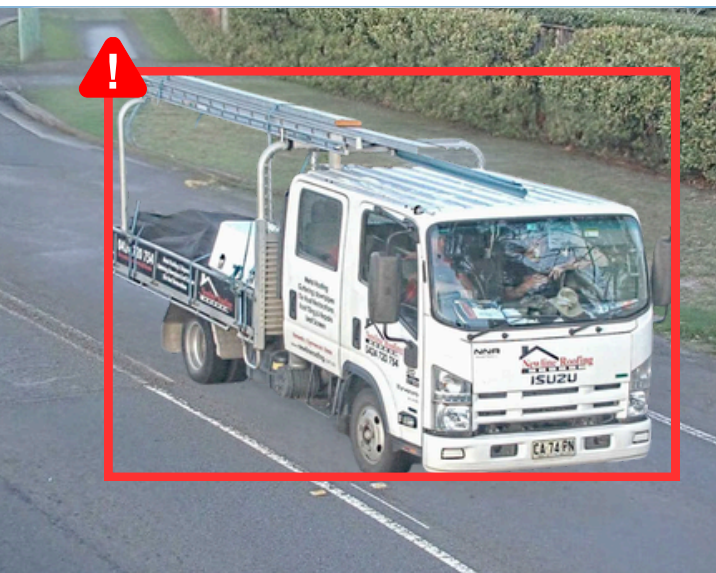
Scalable and cost
effective



Integrate with existing
infrastructure



Operational in all
weather conditions



Automated Detection & Real-Time Enforcement

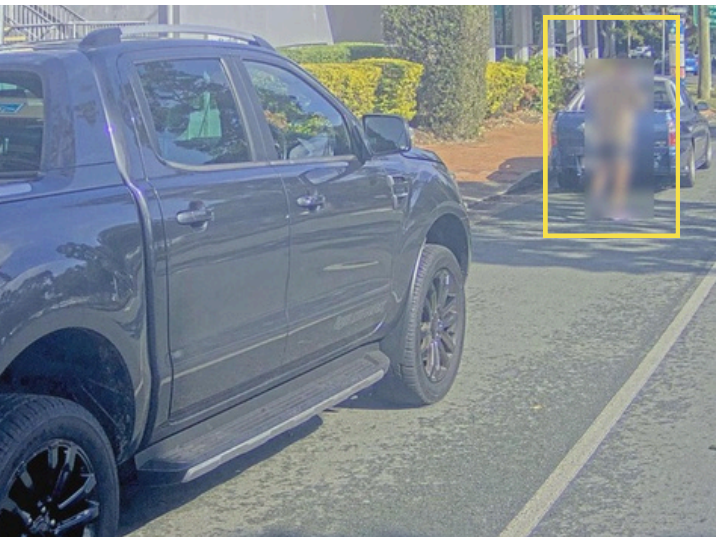
Move away from manual patrols to automated, solar-powered AI camera networks that identify and verify heavy vehicle breaches across restricted roads instantly. Authorities receive prompt, court-defensible evidence, and council staff are freed from low-yield field patrols to focus on higher-priority issues.

Introduce the “context-aware” and “actionable” solution today!

Maximise ROI with Scalable, Flexible Deployment

Start with the compliance area you need and expand as priorities change. Rapid plug-and-play installation minimises resource impact, while seamless integration and subscription model support fiscal planning.

44% reduction in complaints and reported reductions in patrol hours maximises operational ROI and real-world impact.



Privacy, Transparency, and Community Trust

Protect resident safety and infrastructure through consistent enforcement backed by built-in privacy safeguards, full data governance, and clear communication - fostering public confidence in fair, modern enforcement.

Blur faces and bodies automatically, with councils always in control of data retention and sharing for complete policy compliance.



SenBOS Portal cloud hosted back office software

A unified portal for rapid review, evidence packaging and issuance of letters of demand.

Add an unmatched layer of efficiency to your heavy vehicle compliance monitoring with a full-featured AI-based back-office software package that reads live video and provides real-time license plate recognition (LPR) results. SenBOS empowers your team for remote compliance monitoring, patented vehicle recognition technology, and enforcement software to generate insights that grow and protect revenue. Access auditing and evidence review capabilities for all violation on our cloud hosted back office and own and control your data retention and sharing policies.

- Centralized event queue with high-resolution plate captures
- Automated evidence bundles: GPS, date/time, infractions
- API hooks for permit and state-mass lookups

Violation alert review

The one-stop event centre provides **centralised display** of identified violation events, reducing the added pressures of resource management, enabling an officer to quickly review alerts from the previous day at the start of their shift, before continuing with their allocated patrol while providing the option to accept the right data for infringement ticket issuance.

Event Lists

A collection of multiple real-time alarm events

The screenshot shows the SenBOS Dashboard interface. On the left, there's a sidebar with 'Events' and 'Alerts' sections. The main area displays a table of events with columns for ID, Timestamp, Type, Camera, and Photo. A detailed view of a specific event is shown on the right, including its Type, Detection Details, Events, and a captured image of a heavy vehicle.

Event Data

Key information at a glance

Captured Images

Evidence Package

Automate collection of high-resolution images leveraging a unique combination of cloud IoT and AI, tagged with the precise date and time, GPS location with contextual information such as the type of violation ensuring accurate and reliable documentation.

Beyond "face blurring" to **protect privacy** of parents, the community and students, the system is upgraded to include "body blurring", blurring the entire body of any citizen captured alongside an illegally parked vehicle.

The evidence package includes two high-resolution images of a heavy vehicle on a road. To the right, a table provides the following data:

Timestamp	Camera
Jul 30, 2025 14:36:43 PM	8104 - Entry to Southbound
Jul 30, 2025 14:38:25 PM	8101 - Exit to Southbound

Case Study


The Hills Shire Council NSW


AT A GLANCE

The system creates an alert for trucks that travel the route in a predetermined time that would not account for the vehicle stopping to make a delivery.

KEY METRICS

SenBOS cloud portal used for reviewing flagged events, packaging court-defensible evidence, and integrating with council ticketing workflows.

 **4.0**
Detection per Day in '22

 **2.5**
Detection per Day in '23

 **1.3**
Detection per Day in '24

CHALLENGES

Traditional enforcement approaches involved manual patrolling and dash-cam evidence gathering. These methods were labor-intensive, costly, and inefficient. Officers spent hours waiting on-site with low detection rates. Despite these efforts, many breaches went unrecorded, communities remained frustrated, and the council's operational costs rose without clear returns.

SOLUTIONS

Council deployed our Heavy-Vehicle Compliance solution at key entry and exit points, automatically identifying and time-stamping suspected rat-run journeys by trucks. The advanced AI filters and verifies only relevant heavy-vehicle events, minimising false positives and officer involvement.



Reduced Road
Repair Expenses



Maximised
Deterrence Effect



Enhanced Public
Trust

BENEFITS

1

Compliance Gains

Documented, court-defensible detections deterred repeat offenders.

2

Revenue Impact

Significant fine revenue collected covered technology investment within the first 6 months.

3

Public Trust

Transparent, automated enforcement fostered community support.

About SenSen

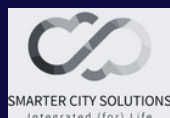
SenSen Networks Ltd., (ASX:SNS) is a world leader in AI technology with the pioneering Live Awareness AI Platform that analyses data from cameras and sensors in real-world spaces. SenSen's solutions are alleviating traffic congestion, enhancing road and personal safety, and elevating urban life through its cutting-edge technologies of computer vision & multi-sensor fusion AI, leading the future of AIoT for a safer and more efficient global landscape.

Testimonials

"Since deployment, we saw community complaints nearly halve. Residents noticed the difference almost immediately, with some even petitioning to bring the cameras back after the first trial ended. We've also been able to redirect enforcement resources to more pressing community issues, providing better service overall."

Manager of Compliance, Hills Shire Council

Selected Clients and Partners



SenSen Networks Ltd.

Unit 2, 570 City Rd, South Melbourne, VIC 3205, Australia

www.sensen.ai sales@sensen.ai (+61) 3 9417 5368

Copyright (c) 2025 SenSen Networks Ltd. All rights reserved.