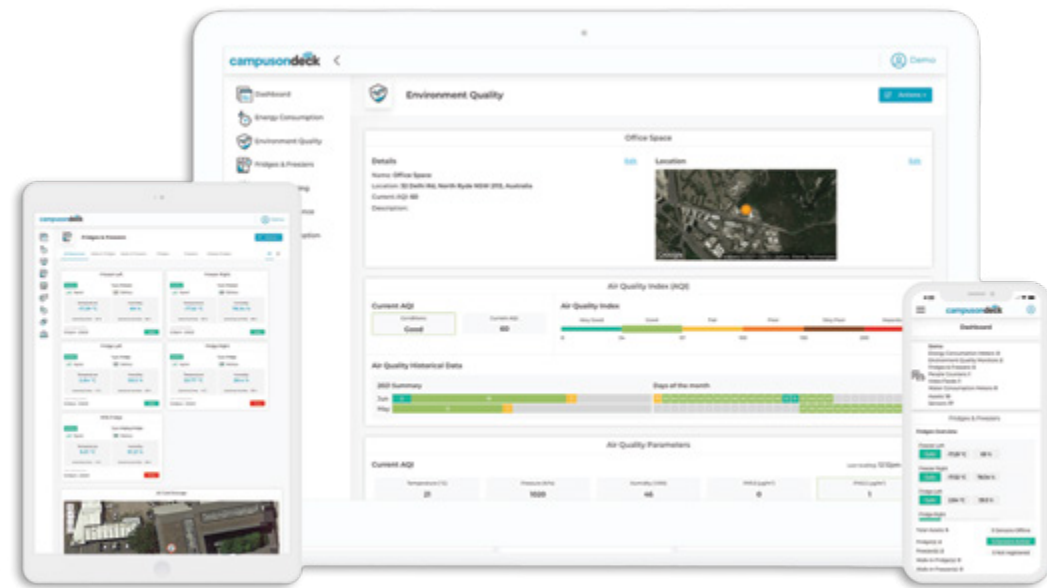
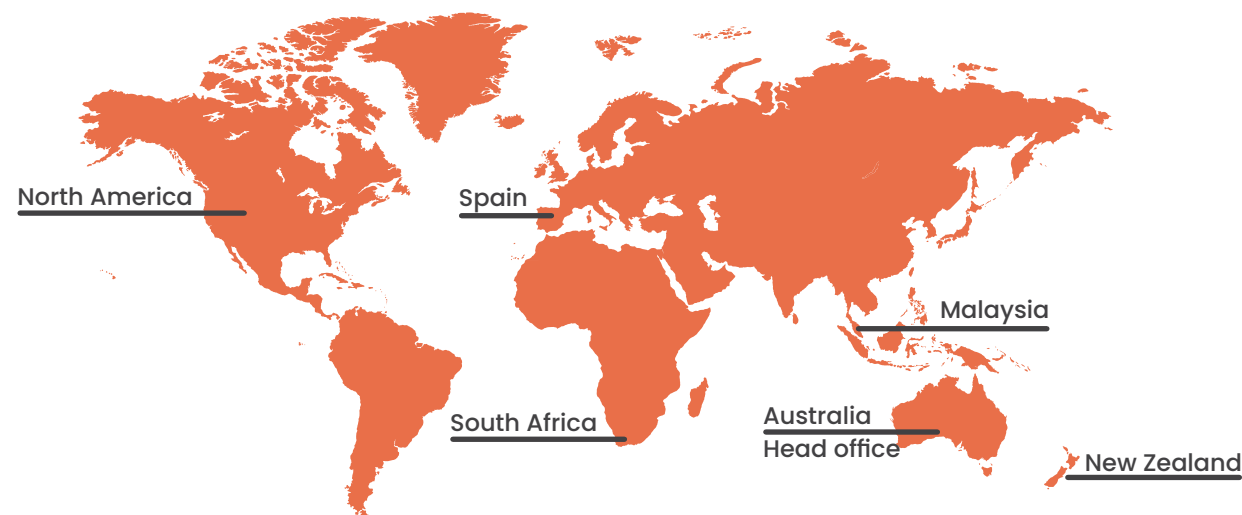


**Gain real time visibility over  
your communities with  
365mesh IoT portal.**



## **WE ARE FOUND GLOBALLY**

Australian based, owned & operated with local manufacturing capabilities



## **Contact us**

Visit our Website: [www.365mesh.com](http://www.365mesh.com)

Email us: [sales@365mesh.com](mailto:sales@365mesh.com)

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**outcomex**

POWERING 365mesh greenmesh broadsecure

# smart citydeck

POWERED BY  
**365mesh**

**Metropolitan, Rural,  
Recreation, Public Spaces  
and Park Areas**

**All in one IoT Solution with rich analytics  
for end-to-end application across local  
government councils (departments,  
outbuildings and assets)**



# IoT solutions for councils and communities

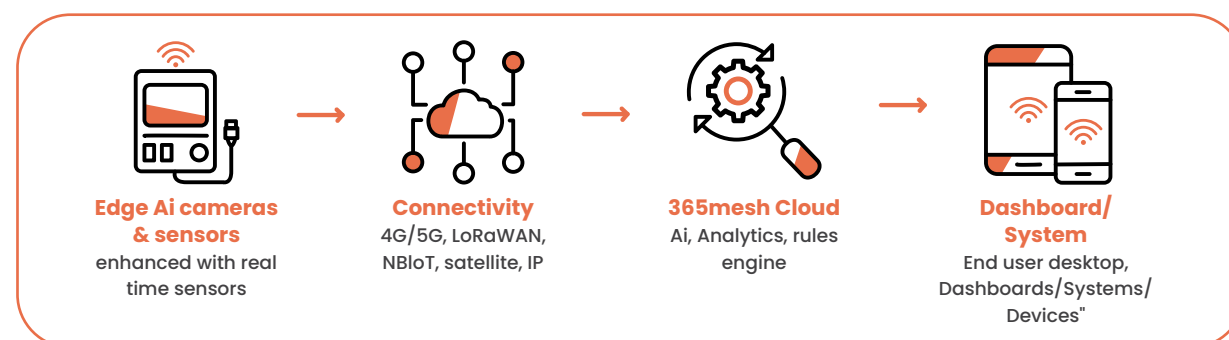
**Smart cities, thriving communities. Connected, efficient, sustainable.**

Public spaces and amenities are the connection points between cities, councils, and communities. To manage local wellbeing, councils need to meet rising expectations for safe, clean, and convenient experiences. Smart CityDeck is an end-to-end Internet of Things (IoT) solution designed for cities, councils, and other locations open to the public. With sensors and devices, network and connectivity, data processing, and a user application, Smart CityDeck is a complete IoT solution.

Using the Smart CityDeck app, councils can make educated real-time decisions to immediately respond to issues and maintain assets efficiently, while collecting data to provide information for long term planning, including capacity and usage information.

Our team of engineers and IoT specialists install sensors and cameras at your locations so you can start collecting data quickly. All our features are presented centrally on a user-friendly dashboard and can be accessed remotely via a web browser. Smart CityDeck gives you the possibility to configure alerts and notifications, as well as reports for each feature.

## Secure end-to-end IoT solutions with advanced artificial intelligence capabilities



## What makes us different:

- Our organisation has over a decade of experience in networking technologies and security, which form an integral part of the underlying architecture required for IoT networks. Our extensive network engineering capabilities give us a unique ability to understand and deploy every component of an IoT network.
- We have developed a quality assurance program for the IoT sensors; analysing factors such as their range, sensitivity, battery life, security, manufacturing quality, dust and water proofing, and ease of integration. Every sensor recommended in Smart CityDeck has been selected following this program which ensures
- they is secure and follow best practice design principles.
- Smart CityDeck has been developed in Australia and our team of engineers provide installation and support services nationally, including in rural areas.
- Smart CityDeck provides a private network solely for councils and all data is kept within Australia. (Unlike various other offerings, where data is collected by sensors in Australia, but then processed overseas and sent back for visualisation in Australia, allowing overseas providers to mine the data.)

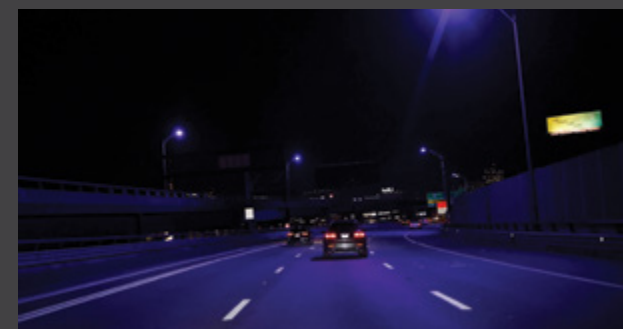
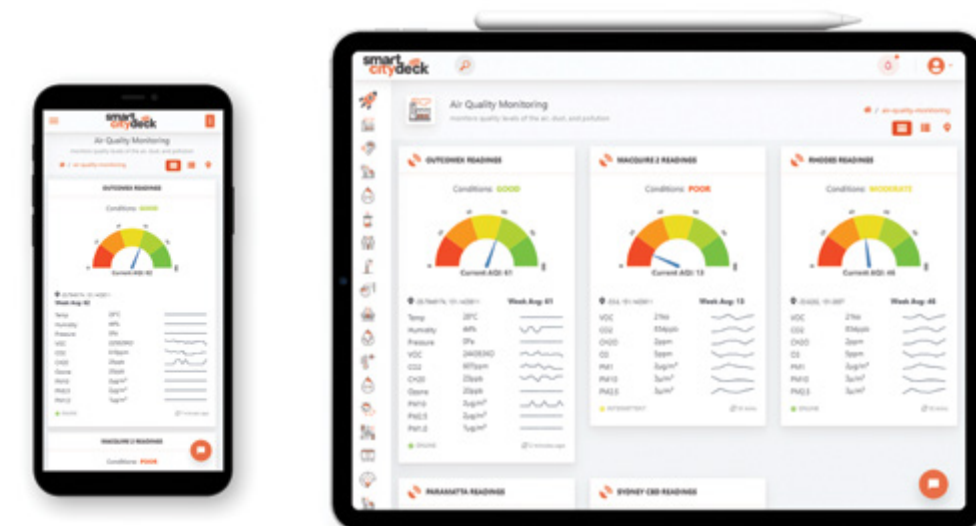


## Walk the walk

Through sensors integrated in pavement/roads, customers will be able to gain real-time updates on traffic flow. This can aid councils and governments to adjust traffic and pedestrian lights where traffic is heavy to help alleviate the flow. Traffic trends such as peak hour traffic times can also be established by the data derived from these sensors used to help create a solution to ease congestion. With the same sensors, pedestrian counting can be monitored. This will assist councils when assessing if amenities need to be relooked at – if bathrooms need to be cleaned more often, if playgrounds need more maintenance, etc.

## Real-time environment monitoring

Through sensors installed in public spaces, councils can monitor air conditions and current air quality index rating, temperature, as well as the noise level (decibels) in certain areas. Through this, new zones can be introduced to lower these levels in the city. Monitoring indoor air quality (IAQ) in public and government buildings can alert staff of unsafe pollutant levels to ensure the safety of the public.



## Sustainable cities

Minimise energy wastage through the use of smart lighting. Our sensors monitor pedestrian traffic and light up or dim lights accordingly to when someone walks into the vicinity – lights are dimmed to keep a low level of light until movement is detected whereupon it lights up fully. This tracking will reduce the need of electrical power and save on costings.

## The all-in-one IoT solution

Maximise technology and utilise IoT to make the quality of life within cities and day-to-day activities simpler, easier, and more effective.



### Crowd Detection and Alerting

Count people in large event spaces, track queue lengths and movement to estimate waiting times and manage capacity.



### Illegal Dumping and Monitoring

Monitor waste sites and detect unauthorised dumping in private and public properties.



### Digital Twins (Interactive & Real-time)

Virtually gain visibility of a physical space or object with accurate data collection, environment simulations and educated predictions.



### Sun Ultraviolet Radiation

Detect UV radiation levels at beaches or similar public locations and display them onto information kiosks and signage to advise safety level.



### Traffic Flow Monitoring

Count vehicles and people in key locations during peak/off peak times and detect traffic congestion.



### Temperature Monitoring

Monitor temperature of indoor/outdoor, fridges and similar, with real-time alerting and reporting.



### BBQ

Track public BBQ usage and availability via the council website and public dashboards and signage.



### Asset Tracking

Manage indoor and outdoor asset and location advice (vehicles, machinery, inventory).



### Security

Count and monitor how many people are using the space during certain times.



### Forest Fire Detection

Monitor smoke and other combustion gases and detect preemptive fire conditions.



### Waste Management in Rubbish Bins

Tracks litter level in bins and receive alerts when bins reach a specific level or are full.



### Smart Parking

Monitor individual car park availability and usage. Understand occupancy and trends.



### Measurement of Soil Moisture and Irrigation

Measure the moisture of sport grounds or parks and turn irrigation on and off automatically when necessary



### Information Kiosks and Digital Signage

Delivers content from council like advertising, information services and weather or road notifications.



### Hazard Gases Detection

Detect gas levels and leakages in councils and public environments.

## Ensure sustainable water for your community



### Water Management

Accurately measure the amount of water being stored and used in water tanks and bubblers at parks and similar locations. Ensure efficient water usage and management in community spaces.

### Water Meter Monitoring

Monitor water meters with automated remote readings across residences and businesses. Receive real-time data on water usage, reducing the need for council staff to conduct physical inspections.

### Water Meter Reading and Monitoring (remotely)

Continuously monitor water conditions such as algae in lakes, dams, and estuaries and perform timely remediation.

### Water Quality Monitoring

Track and analyse water quality in rivers, ponds, tanks, and wildlife areas, including camping sites. Ensure safe and clean water for both wildlife and recreational use.



### Water Levels

Monitor water and liquid levels in lakes, ponds, and tanks. Detect leaks early with advanced leakage detection capabilities, ensuring optimal water management.

### Water Chemicals Monitoring

Regularly monitor chemical levels, such as chlorine, in public swimming pools and similar locations. Ensure public safety and maintain proper chemical balance for healthy swimming environments.

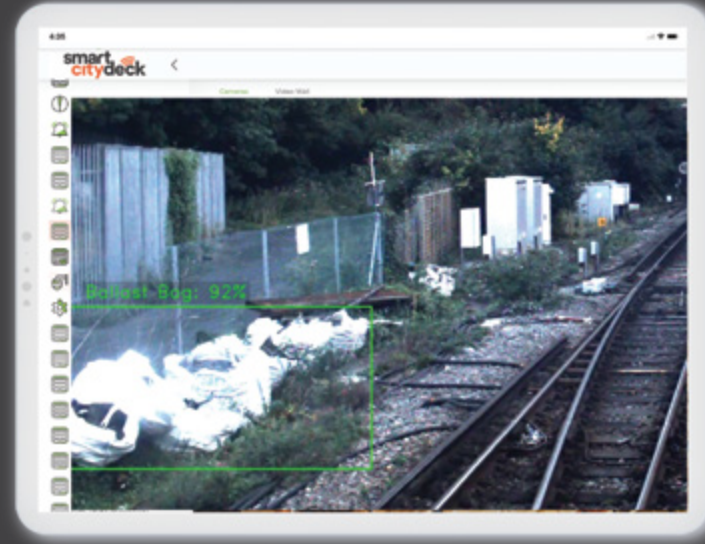


### Combat illegal dumping

Using advanced technology to assist Councils, we discreetly mount 360-degree cameras in moving vehicles (such as bin collection trucks) or around known dumping hotspots. These cameras detect illegally disposed items and activities (even in low light and poor visibility) and collect custom information such as vehicle number plates. Trained with AI and ML, our solution aims to help councils detect and identify illegal dumping and to act accordingly with the data and video evidence collected.

### Detect litter for enhanced safety

Detect litter and dumping on the side of footpaths, roads and tracks such as abandoned trolleys, mattresses and other items that could create safety obstructions in roads and railways and alert the maintenance/operational teams.

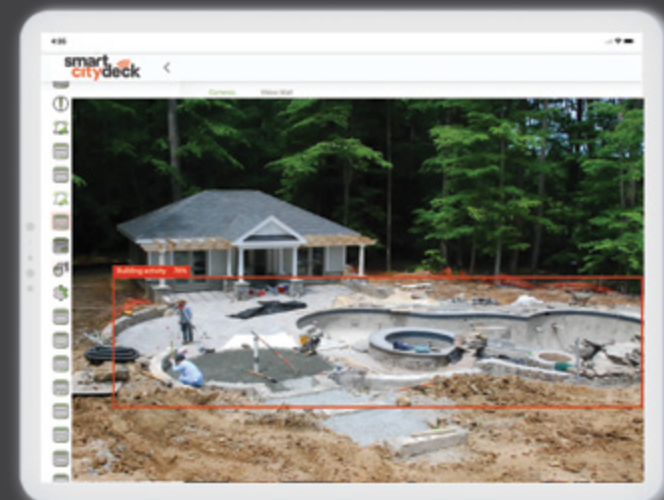


### Keep track of utility monitoring

Smart CityDeck offers automated remote readings for comprehensive utility monitoring. Track electrical meters across residents and businesses in real-time, whether as individual units or as part of a whole system. This solution significantly reduces the need for council staff to perform manual meter inspections, enhancing efficiency and accuracy in utility management.

### Have visibility over unauthorised building activity

Effortlessly monitor extensive areas, from large territories to entire states, for unauthorised building activity. Our Smart CityDeck technology performs daily, weekly, or monthly scans of maps, detecting any changes and promptly reporting building activities to the council.



## 365mesh Telematics and Fleet Management Solution

### Vehicle and Asset Tracking:

Using 4G LTE technology, maintain realtime GPS tracking on all council vehicles and other mechanical and maintenance assets (such as trailers, generators etc).

### Receive diagnostics reporting of vehicles health and usage remotely:

Gain awareness of vehicle's health and usage with our real time diagnosis reporting and receive alerts every time a fault code is detected.

### Fleet Management:

See live and historical rich trip and vehicle data through our user-friendly interface with updates every second.

### Driver behaviour:

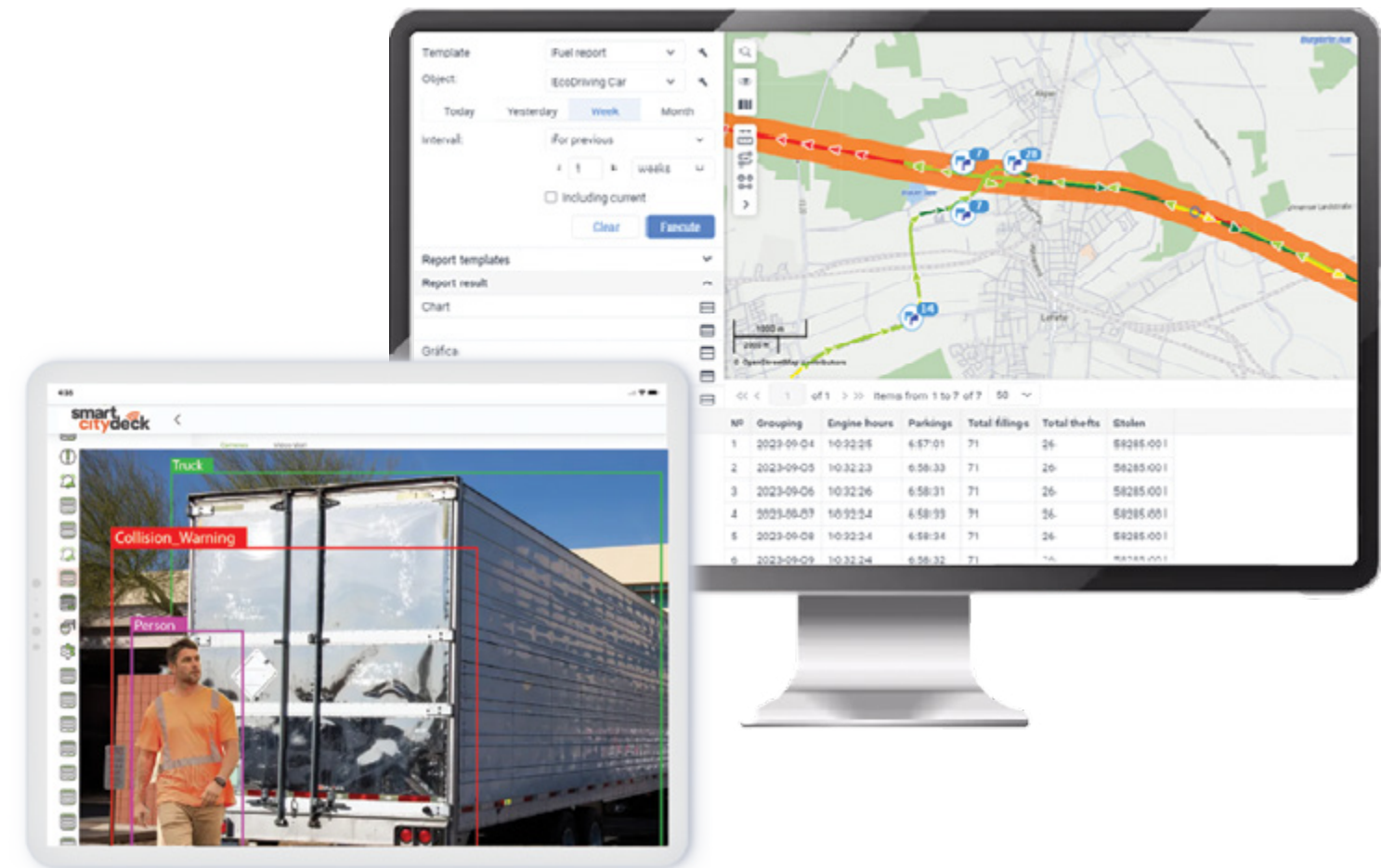
Detect and report instances of harsh braking crashes and monitors driver's behaviour such as tiredness, falling asleep and other behaviours that could lead to unsafe driving conditions.

### Collision detection and avoidance:

The installation of strategically placed blind-spot detection and driver monitoring cameras onto vehicles gives drivers real-time warnings of hazardous collision risks.

### Rollover Detection and Alerts:

Provides rollover detection and realtime alerting.







## Aether Sensor

### Senses and detects:

- › Air quality and atmospheric contaminants
- › Room presence/occupancy
- › Audible indicators of aggression, distress, damage
- › Theft detection – breaking glass
- › Ambient temperature, humidity, pressure
- › People counting

All while remaining secure against physical and digital exploits

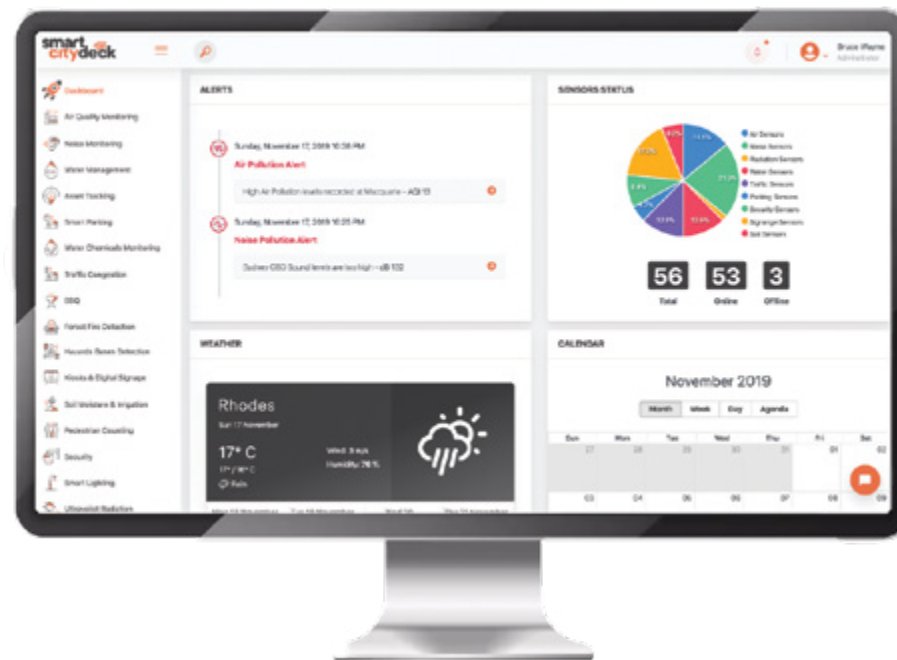
**Managed with cloud and browser-based dashboards so you can view alerts and data anywhere and at any time, by multiple teams.**

### Receive alerts on Air Quality and Atmospheric Contaminants

Monitor and create custom alerts for ambient temperature, humidity, pressure and more than 12 hazardous gases. Identify gas signatures for vaping, THC smoking, tobacco, methane, among others.

### Multi-sensing

The Aether sensor excels at differentiating between gases, including distinguishing tobacco smoke from marijuana, and more; and it's engineered to alert when it detects an attempt to mask smoke, such as aerosol sprays.



### Sense audible indicators of aggression, distress and damage

Uses AI/ML noise detection technology to detect and differentiate alarming audio such as glass windows breaking, gun shots, screaming, etc, and send alerts for a prompt action.

### Anti-theft / Anti-tamper proof

The Aether sensor alerts if tampered with and utilises a backup battery to maintain monitoring functionality even when unplugged or during power outages.



### Measure overall noise levels

Monitor noise levels in public spaces and pair this feature with our video surveillance features for identification of the route cause.

### Detect quality and level of light in a room

Create custom alerts for your security teams if lights are left on overnight or automatically switch off.

























### Leakage detection

When installed at park outbuildings or bathroom amenities, the Aether sensor can detect and alert if water has been left turned on or if there's a leakage happening.

# Video surveillance can monitor how people use facilities and understand when and where there are any risks of harm.

With minimal disruption, a surveillance capability can improve safety, deter crime, and reduce risk.

## Use Cases

- |  |   |  |   |
|--|---|--|---|
| <br><b>Intelligent, cloud based video surveillance solution</b><br>With advanced AI/ML capabilities   | <br><b>Compatible with users' existing cameras</b><br>No need to replace cameras   | <br><b>Single dashboard with floor MAP</b><br>Shows all camera locations with one-click access to live video feeds  | <br><b>Streaming back-up to cloud</b><br>Multiple storage durations for footage: 30, 60, 90, 120, 180 Days (custom)  |
| <br><b>Identify only people of interest</b><br>Protect the privacy of people outside the watch list with a no biometric data saving enabling option | <br><b>Behavioural analysis capabilities</b><br>Manage and analyse people's behaviours to optimise standard operating procedures   | <br><b>Allow Motion Search</b><br>Search and filter through a library of motions within specific area of interest in the video stream. Set an alert for any activity within a particular area of interests. | <br><b>Face Search with integration into AD</b><br>Pull up a library of faces detected and select one to see all the times and dates of when they were identified in footage |
| <br><b>Image Detection and Identification</b><br>Advanced AI/ML capabilities to accurately process and detect items off footage                   | <br><b>Object Identification</b><br>AI capabilities to accurately identify objects   | <br><b>Animal Identification</b><br>AI capabilities to accurately identify species of animals   | <br><b>Identify and classify by people demographics</b><br>AI capabilities to identify age, gender, colour and type of clothing  |
| <br><b>Motion heat maps</b><br>View the way people or objects move around areas, including Push events/triggers                                   | <br><b>Person tracking based on facial or electronic tag</b><br><b>Utilise tags and facial</b><br>Recognition to implement site safety monitoring and automate time attendance | <br><b>Create custom zones</b><br>Narrow down areas of interest on a field of view. Collect data and set up alerts that occur only within this zone   | <br><b>Create virtual fences and boundaries</b><br>Create landscape boundaries on a digital map and contain people/animals using tags                                      |
| <br><b>History View</b><br>View the history of data collected which updates every hour, up to 120 days  | <br><b>ONVIF compliant</b><br>Remotely control the cameras' zoom, focus etc  | <br><b>Real time camera surveillance</b><br>With intelligent detection directional pan, tilt and zoom capabilities  | <br><b>Share access</b><br>Send incident alerts to anyone via sms and email  |
| <br><b>Motion heat maps</b><br>View the way people or objects move around areas, including Push events/triggers                                   | <br><b>Person tracking based on facial or electronic tag</b><br><b>Utilise tags and facial</b><br>Recognition to implement site safety monitoring and automate time attendance | <br><b>Create custom zones</b><br>Narrow down areas of interest on a field of view. Collect data and set up alerts that occur only within this zone   | <br><b>Create virtual fences and boundaries</b><br>Create landscape boundaries on a digital map and contain people/animals using tags                                      |

## Workplace Safety

- |  |   |
|--|---|
| <br><b>Detect workplace incidents and alert before they happen</b><br>Identify potential problems quickly and isolate recurring problems  | <br><b>Machinery safe distance monitoring and alerting</b><br>Produce an alert triggering detection zone around machines and restricted areas                    |
| <br><b>Man down detection and alerting</b><br>Instantly trigger alerts so immediate action can be taken                                   | <br><b>Collision detection and avoidance</b><br>Install blind spot detection cameras, giving drivers real-time warnings of collision risks                       |
| <br><b>Workplace machinery exclusion zone monitoring and detection</b><br>Keep unauthorised personnel safe and distant from caution zones | <br><b>PPE monitoring, detection and identification</b><br>Identify PPE and deny workers from entering job sites if all the safety wear required is not detected |
| <br><b>Pedestrian vehicle/machinery accident detection</b><br>Reduce the risk of vehicle-pedestrian collisions in busy workspaces         | <br><b>Realtime electronic tags for unique identification</b><br>Utilise tags to implement site safety monitoring around exclusion zones                         |

## Advanced Analytics for Security and Theft Detection

**24x7 Cloud** based advanced surveillance with rich analytics to monitor council assets, depots, parks, campsites and other locations such as remote bathroom amenities.

**Close monitoring** after hours for theft or activity around council buildings and other selected assets.

**Besides video surveillance,** our solution uses audible detection of glass breaking or similar noises.

**Customise** unauthorised zones and receive alerts when intruders or animals are detected.



## Locally Manufactured in Australia and New Zealand

### Guaranteeing the highest level of quality

We follow a strict quality assurance program for the IoT sensors; analysing factors such as their range, sensitivity, battery life, security, manufacturing quality, dust and waterproofing, and ease of integration.

### Manufacturing facilities in Australia and New Zealand for fast shipping and local support:

- > Rapid prototyping
- > Injection moulding
- > Assembly and shipping
- > Electronics PCB
- > Hardware testing
- > Manufactured by experienced engineers



Managed Services Provider operating

# 24x7x365 days

NOC (Network Operations Centre) in Sydney and Melbourne.

# MONITOR. ANALYSE. OPTIMISE. AUTOMATE