

XY SENSE



SOLUTION BRIEF
1.1 2020



Introducing the world's most advanced AI sensor for workplaces.

Designed and engineered using proprietary AI, XY Sense is a world-leading smart sensor platform that helps companies access and act on workplace data in real-time.

We help our customers:

- Stop costly space guessing games
- Create workplaces people love
- Maximise OPEX costs & efficiency
- Future-proof CRE strategies



MONITOR SPACE UTILISATION IN REAL-TIME



UNLOCK WORKPLACE INSIGHTS TO INFORM SPACE PLANNING



FUTURE-PROOF YOUR COMMERCIAL REAL ESTATE STRATEGY

Our sensor is the first of its kind.

Developed in-house by leading machine learning engineers.

Advanced AI sensor

Analyse people movement not tags or devices.

Truly real-time

When we say real-time we mean it. Updating your analytics every 2 seconds.

Pin point accuracy

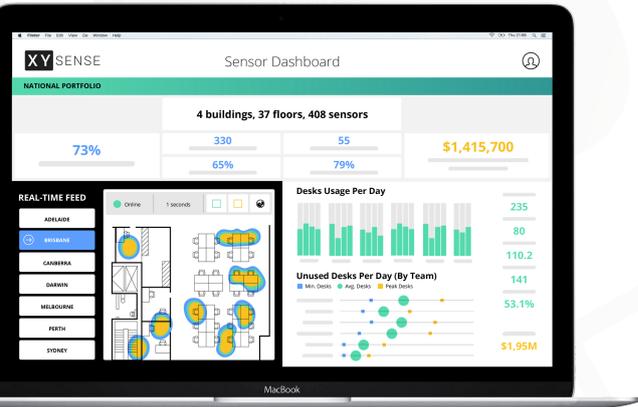
The best positional resolution on the market. Capture sightings from 30cm - 1m.

Greatest range sensor on the market

95 sqm line of sight means fewer sensors to install, cheaper to run.

Enterprise-grade security & privacy controls

100% anonymous data capture, processed at the edge of the sensor.



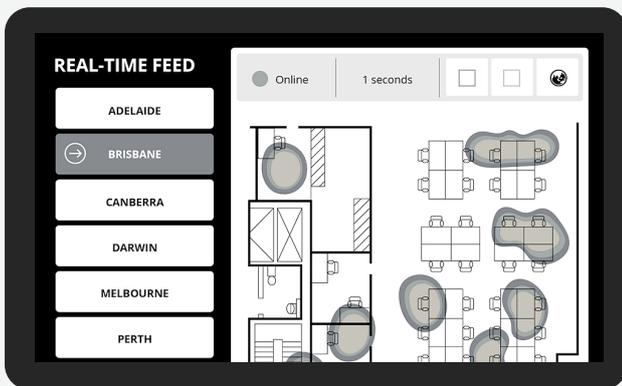
Delivering powerful workplace analytics in real-time.

At XY Sense, we know that sensor data is only as good as what you can do with it.

That's why, in addition to our smart AI sensor we deliver an equally advanced, but simple to use, analytics application for teams to access and act on their workplace data in real-time.

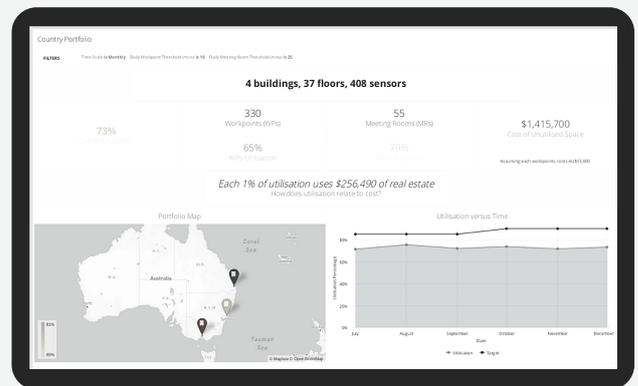
Unlock the workplace insights that matter most

From global portfolio analytics, right down to real-time desk availability, XY Sense is changing the way teams can access and act on workplace data.



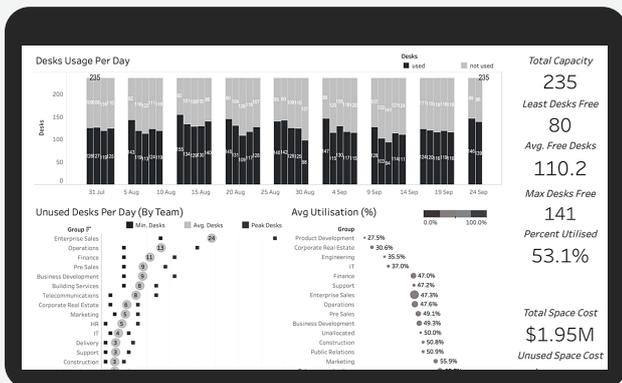
REAL-TIME MONITORING

See real-time occupancy as well as movement across space. Updated every 2 seconds.



NATIONAL & GLOBAL PORTFOLIO VIEWS

Track utilisation by location, benchmark across portfolios and optimise CRE strategy.



DESK UTILISATION BY TEAM & FLOOR

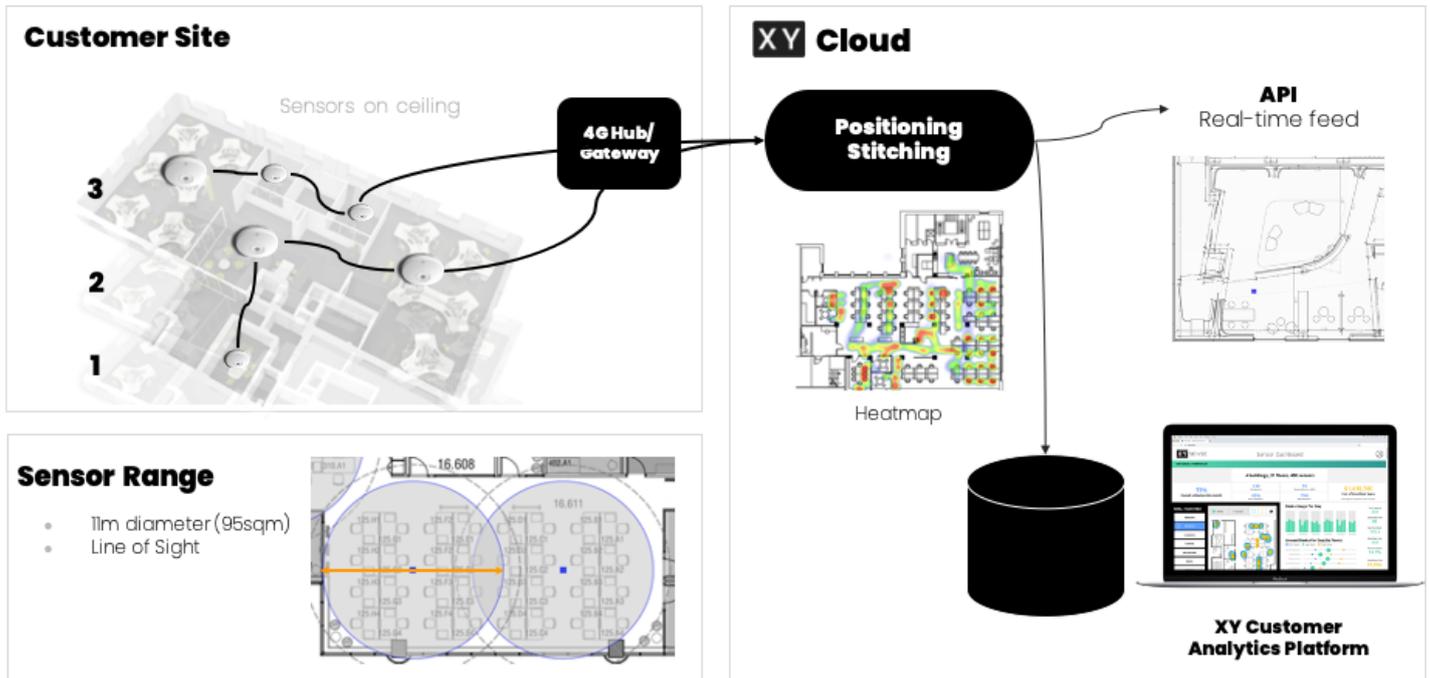
View by teams, neighbourhoods or individual desks to inform space planning.



MEETING & SHARED SPACE UTILISATION

View by room capacity, duration, averages and drill down to see occupancy per meeting.

How it works



1. Real-time, anonymous data capture

When installed and in active mode, the sensor works continuously to capture sightings of the wide-range sensor zone every 2 seconds. While the sensor has pinpoint positional accuracy (<30cm -1m,) of people moving in a given space, the sensor itself only captures XY coordinates of people to protect privacy.

This anonymous scene data is then processed locally at the 'edge of the device', ensuring that no scenes are ever stored on, or ever leave the sensor device.

2. Data processing at the edge

Processed data is then transmitted via an encrypted MQTT connection to XY Sense's cloud platform through an on-premise 4G hub. Customers have the option to configure the sensors to use their corporate network and firewall. XY Sense's unique sensor daisy-chaining capabilities allows for multiple sensors to connect to one 4G hub.

3. AI powered position stitching

Encrypted, anonymous sensor data is then processed by proprietary algorithms on the XY Cloud Platform to deliver accurate positional stitching between sensor sightings. This enables full floor plan coverage without duplicates.

4. Seamless data flows

Having stitched real-time sightings together and normalised against the mapped floor plan, sensor data is then pushed to both our real-time API feed and XY customer analytics platform to update dashboards and customised analytics views.

This processing happens in near real-time with updates delivered to XY customer analytics platform every 2 seconds. This means users can monitor live movement in real-time.

5. Continuous improvement & remote releases

XY Sense remotely maintains and updates sensor AI and machine learning capabilities, this makes it possible for us to push new features and sensor capabilities without the need to update hardware. Upcoming feature releases include human behaviour recognition such as; sit stand detection, mobile phone usage, computer usage, anonymous individual's paths of travel, as well as health and wellbeing measures like ambient noise, temperature.



Technical Specifications Summary

INBUILT SENSORS	CMOS
TECHNOLOGY	Ultra low power deep learning at the edge running custom neural networks designed by XY Sense.
POWER CONSUMPTION	3 -5 W
POWER & DATA SUPPLY	External - Ethernet Cat5e cable via Gateway
DATA OUTPUT	For each person detected, an encrypted binary packet is sent via direct connection to the gateway. <ul style="list-style-type: none"> •X,Y coordinates relative to the sensor •Anonymous person vector to help differentiate people and prevent double counting. Eg [1.375, 2.75, 0.375,]
COMMS PROTOCOL	HTTPS/ Encrypted MQTT over ethernet
DATA USAGE	1.5 MB/s per 40 sensors
COMPLIANCE	Our sensors have passed FCC and CE certification for international use. XY Sense is a US company and we have validated our installation designs against US and European installation guidelines.

Clean energy installations

Our installations are permanent - not battery powered, saving money for our customers and protecting the environment. Batteries aren't suitable for a true real time solutions as they require consistent changes, draining the environment and facilities team patience.

XY Sense's permanently installed low powered sensors help companies maintain sustainable clean energy ratings and ensure data continuity.

Our daisy-chain difference

To our knowledge, we're the only daisy chain capable AI sensors in the utilisation space. This enables us to have vastly cheaper installations with up to 16 sensors drawing power and comms from a single source.

Installation can be performed with pre terminated patch cables and much shorter cable runs.

A smart sensor platform, designed for enterprise teams.



Truly passive, real-time data capture

No need for workers to carry anything, install apps, enable Bluetooth or connect to Wifi.

Our sensor works day and night capturing data in real-time.



Easy to use analytics

No manual data wrangling or external data support required. Powerful workplace analytics are at your fingertips with our out of the box analytics and data science support.



Enterprise-grade security

Enterprise-grade security with fully anonymised data collection. Our sensor only captures XY coordinates of individuals within a given zone, hence our name.



Flexible Integrations

Our open data platform and APIs support integrations with a variety of IWMS, desk booking and BI tools.

Enjoy seamless data flows.



About XY Sense

Founded in 2016 by Alex Birch and Luke Murray, XY Sense is a Melbourne headquartered technology startup that has designed and engineered a world-leading smart sensor platform to help businesses access and act on workplace data in real-time.

- Our sensors are unique. Our proprietary sensor technology has been designed and engineered in house using the latest in machine learning, AI technologies.
- Our founders have 20+ years' combined experience in real estate technology (Serraview Co-Founder & Former Senior Architect) and our team is made up of leading ML/AI engineers, enterprise software experts and data scientists.
- We're backed by Blackbird Ventures (Canva, CultureAmp, Safety Culture & Zoox) and have growing team of 15+ across Melbourne and Sydney.
- We're trusted by major enterprise companies across Australia and New Zealand. And are on track to install our sensors in over 150,000 sqm of corporate offices by the end of our launch year, 2020.
- We're expanding rapidly and have commenced remote global installations in the UK, USA and EMEA.

Are you ready to use AI sensors to create a truly data-driven workplace?

Let's talk.



info@xysense.io

www.xysense.io

