



**INDUSTRY GUIDE**

# **2021 Buyers Guide to Office Utilization Technology**

# 2021 Buyers Guide to Office Utilization Technology

In 2021, it's never been more important to understand how your office space is actually being used.

For some years now, companies have been adopting a variety of utilization tools and technologies to benchmark occupancy for space planning, inform CRE decisioning and improve workplace experience, but now due to COVID-19, the stakes have been raised.

Companies are increasingly turning to utilization technologies to help support COVID-safe office re-entries as they enable more accurate people counting in a space, targeted cleaning and in some cases real-time social distancing alerts.

There are many different types of tools and solutions on the market including badge systems, PIR, WiFi, thermal people counters and computer vision sensors like XY Sense.

It can be confusing to choose the right workplace or utilization sensor for your needs, so we've put together this guide to help explain the different types of utilization technologies out there and the jobs they're best suited for in 2021 and beyond.



**Luke Murray,**  
Co-Founder & CTO  
XY Sense

## ***Why listen to me?***

As the Co-Founder and CTO of XY Sense (*and former Senior Solution Architect at Serraview*), I've been working in the real-estate technology/proptech space for over 15 years', working alongside corporate property teams to solve their most pressing workplace data challenges.

I've personally tested every one of the technologies we'll be discussing in this guide and (*full disclosure*) I focused on solving many of the solution drawbacks we'll be discussing when designing and engineering the XY Sense sensor hardware and analytics solution.

# Guide Contents

---

**Why utilization data matters (now more than ever) ? ..... Pg 4**

**Choosing the right technology to get the job done ..... Pg 5**

**The Utilization Technology Landscape ..... Pg 7**

Surveys ..... Pg 8

Badge Systems ..... Pg 8

Lighting Sensors ..... Pg 9

WiFi & Bluetooth ..... Pg 9

CCTV/ Security Cameras ..... Pg 10

Passive Infrared Sensors ..... Pg 10

Thermal Sensors ..... Pg 11

Ultra-wide Band Systems ..... Pg 11

RFID ..... Pg 12

People Counters ..... Pg 12

Computer Vision ..... Pg 13

XY Sense ..... Pg 14

**Why now is the time to act ..... Pg 16**

**Ends**

# Why utilization data matters (now more than ever)?

To anyone new to the world of office occupancy or utilization tracking, it's worth knowing that even though real estate is typically a company's second or third largest expense (*behind people's wages*) there is often a complete data vacuum for property and facilities teams when it comes to understanding exactly how their office space is used. It's been the number one complaint for property teams for years. They just don't have the data to tell you with any real accuracy on a given day how many of their desks or meeting rooms are being used.

In 2019, JLL reported that only 62% of companies were gathering any kind of utilization data at all and even then they were often relying on time-consuming and expensive human-based observational surveys to count people at seats on a given day.

Without accurate data about how your space - be that workpoints, project areas, breakout spaces or meeting rooms - are being used day to day, it's very difficult to manage a portfolio with many teams, spaces, floors and buildings effectively.

## Utilization data helps to answer questions like:

- What's our actual (rather than projected) SQM utilization on a given week?
- Do we need to downsize or grow our office footprint to support our strategy?
- What's the most effective space design for the new building fit-out?
- Does marketing really need that extra twelve desks?

Over-utilization is just as much a problem as under-utilization. Everyone hates never being able to find a meeting room or a desk near a colleague. It impacts your productivity every day. In that respect, the lack of access to accurate, timely, workplace utilization data impacted every single employee of every company on earth in 2019.



## In 2020, COVID raised the stakes

At this point, we all know that COVID has transformed the world of corporate work. JLL and others suggest that by April 2020 around 60% of the global corporate workforce had transitioned and was working from home. This left office towers standing empty and corporate property teams wondering how they could transform their activity-based working environments (*which some have labelled the perfect COVID incubators*) into safe, controlled spaces that people could return to work from.

Where before utilization data was something teams needed for accurate future space planning and improved employee experience, in 2020 capturing accurate utilization data has become critical to helping to make the post-pandemic office 'COVID-safe'. Companies are now turning to utilization sensors/tools to plan physical separation between workers (*floor plan changes*) and cleaning activities, measure people's temperatures, and in advanced cases to deploy real-time occupancy tracking and alerts to help maintain social distancing.

With flexible working considered the new normal and the cost of empty offices beginning to bite, many organizations are also turning to utilization tracking technologies to properly capture empirical data on the now more transient nature of people coming into an office. In a relatively short period of time, utilization technologies have become critical to understanding how the office 'as we know it' will have to change to adapt to the needs of a post-pandemic workforce and business landscape.

**Now that we know why utilization data matters so much, let's dig into the different tools that are available and the use cases that they're best suited for.**

# Choosing the right technology to get the job done

## Mapping use cases to the right tool

We know that the use case mandate for utilization technologies has evolved in 2020 and that they're now playing a key role in answering critical questions like:

- What's our new normal when it comes to office occupancy?
- What types of spaces are we using when people do return to offices?
- How does our workplace need to change in a post-pandemic world?

But with a variety of different sensors and tools on the market it can be difficult to understand which tool is the right fit for contemporary business 'use cases'.

Let's explore the most popular use cases for utilization tech in 2021 and which tools have the capability to get the job done.

### Popular utilization measurement use cases

USE CASE	DATA REQUIRED
<b>Monitor Occupancy</b> Count people in a building, floor or space to benchmark across time or ensure compliance with COVID capacity limits.	Count people as they move into a designated zone or space. For COVID compliance requires real-time data processing and digital display updates.
<b>Monitor fixed desk utilization</b> Count the number of desks used on a given floor over time to inform capacity and space planning for teams. I.e. <i>'If our team grows, how many more desks do we need on a floor?'</i>	Count desk or fixed furniture use.
<b>Whole-of-office space utilization</b> Involves counting how many people are in a building, floor, room or space as well as capturing data around their movement and usage trends to understand how they're interacting with the entire office environment.	Requires whole-of-space sensor coverage with human detection and counting, positional accuracy <2m and ideally real-time/continuous data capture (as opposed to point in time or batch).
<b>Enable real-time wayfinding and space booking</b> Using real-time utilization data to avoid 'booking no-shows' in meeting rooms and desks. Sensors detect whether a space is really 'in use' in and can update booking applications or kiosk displays in lobbies showing available desks or rooms.	Real-time utilization data (accurate to <1m) from desks and meeting rooms.
<b>Measure social distancing for historical breach reporting</b> Measure the distance between people in a given space and deliver reporting around common breach areas or zones.	Requires whole-of-space coverage, human detection and counting, positional accuracy <1m.
<b>Provide real-time social distancing reporting &amp; alerts</b> Measure the distance between people in real-time and check against control measure (i.e. 2m). If in breach trigger a text alert to a geofenced area or notify a nominated dashboard manager.	Requires whole-of-space coverage, human detection and counting, positional accuracy <1m, + real-time data capture and processing.
<b>Optimize cleaning &amp; building costs</b> Monitor desks and room usage in a given day and provide heatmap or usage reporting for optimized cleaning services. (I.e. <i>Ensure you clean the 3 meeting rooms and 10 desks used that day as opposed to the whole floor</i> ). Daily space usage reporting has additional applications for things like analyzing after-hours air conditioning requirements etc.	Real-time and historical space utilization.

# Choosing the right technology to get the job done

## Mapping use cases to the right tool

So how do most technologies measure up against these use cases?

Below, we've mapped the most well known utilization tracking tools to each of the use cases outlined above.

	Monitor Occupancy	Monitor fixed desk utilization	Whole-of-space utilization	Enable real-time wayfinding and space booking	Measure social distancing	Real-time social distancing	Optimise cleaning
<b>XY SENSE</b>	✓	✓	✓	✓	✓	✓	✓
<b>Surveys</b>	Manual	Manual	✗	✗	✗	✗	✗
<b>Badge Systems</b>	✓	✗	✗	✗	✗	✗	✗
<b>Lighting Sensors</b>	✓	✗	✗	✗	✗	✗	✗
<b>WiFi &amp; Bluetooth</b>	✓	✓	✗	✗	✗	✗	✗
<b>CCTV/ Security Cameras</b>	✓	✓	✓	✓	✓	✗	✓
<b>Under desk/ Passive Infrared Sensors</b>	✓	✓	✗	✓	✗	✗	✓
<b>Thermal Sensors</b>	✓	✓	✓	✓	✗	✗	✓
<b>Ultra-wide Band / RFID</b>	✓	✓	✓	✗	✗	✗	✗
<b>People Counters</b>	✓	✗	✗	✗	✗	✗	✗

All of the technologies listed above have their own unique pros, cons and cost considerations for property teams.

And while some solutions can technically be used 'to get the job done', as with any workplace technology decision, each tool should be evaluated based on your unique circumstances, security requirements and appetite for privacy risk.

**With that in mind, let's jump into a deeper dive on the benefits and drawbacks of each solution.**



BADGE SWIPE



LIGHTING



SMART SECURITY  
CAMERAS



SURVEYS



THERMAL

# The Utilization Technology Landscape

Let's explore the pros and cons of the major technologies on the market



DESK MOTION  
SENSORS



UWB



WiFi



PEOPLE COUNTERS



COMPUTER VISION  
SENSORS

# Surveys



## How it works

Corporate property teams or external consultants conduct manual surveys to either count people in desks or a given space, or ask them questions about their perceptions of space use and capacity in an office.

## Cost

From \$0 > \$50k.

Can range from relatively inexpensive if conducted at a small scale by existing team members but can also range to upwards of \$50k for larger scale studies conducted by consultants.

## ✓ Pros

- Ability to capture direct experiential feedback from workers in a space.
- Can provide a valuable 'human' perspective when analyzing space use and team dynamics. Can measure more than pure occupancy or people counts (*i.e. understanding when people are "on phone", "using computer" etc.*)

## ✗ Cons

- Point in time measurement only. It's prohibitively expensive to measure on the hour, every hour, for more than 1-2 weeks.
- Data can also be inaccurate due to the human nature of the data collection. People surveyed may not remember accurately when asked about past or typical space usage and in some cases they can also manipulate the data (*by ensuring all team members are at desks when surveyors attend*) so as not to lose space.
- It can be difficult to build a business case for more or less space on the accuracy of this type of data and for a larger company with many locations across the world this type of data has severe limitations.

# Badge Swipe Systems



## How it works

Data from employee swipe badges or security passes can be collected at access points like building lobbies, security gates or elevators to count the number of occupants in a building or floor.

## Cost

Cheap or even free - Most existing systems have the ability to capture/share this level of data.

## ✓ Pros

- Can be readily accessible and cheap if badge system is in place.
- Is effective in providing a rough idea of how many people are in a building or floor on a given day.

## ✗ Cons

- Lacks space level accuracy. You know people are in a building or potentially on a floor from elevator data but you don't know how they're actually using the space. Are they sitting at desks or hanging in the communal kitchen?
- Many building security systems in lobbies of shared buildings (*containing multiple tenants*) are owned and maintained by the landlords. They can manually export the data but tenants can run into problems getting seamless integrations/data flows with their own workplace systems.
- Not all offices have turnstiles which can count people individually.
- Tailgating can also obfuscate data at entry points.



# Lighting Sensors



## How it works

Some smart lighting solutions in offices can capture data about when the sensors are triggered to put lighting on. The sensor being triggered indicating that a person has entered the space.

## Cost

Relatively cheap - especially if smart lighting has already been installed

## ✓ Pros

- Most major enterprises can likely access this data from existing lighting systems.
- Can work fairly effectively if individual lighting sensors have been installed in small spaces like a phonebooth.

## ✗ Cons

- The data is not detailed enough. You understand that people are in an area but you don't know how many, where or how they're using the space. This is exacerbated by the fact that in open plan offices, lighting systems often cover a large area so beyond telling you that people were on the floor you can't learn a whole lot to inform space planning.
- Another factor at play is the fact that landlords often own/supply the lighting in tenanted areas. This adds complications to accessing the data or negotiating installing a new lighting system.

# WiFi & Bluetooth Tracking



## How it works

Let's talk about both WiFi and bluetooth together as they both come down to triangulation of devices using radio signal.

When you arrive at the office, your phone or laptop sends out a 'probe request' with a unique ID (such as a MAC address for WiFi). Your devices do this constantly, you just need your WiFi turned on or the right application installed for Bluetooth. With WiFi, the wireless access points in the office are listening to your device, collect the signal strength (among other things) across multiple APs to triangulate your device's position.

For Bluetooth it is similar, except your phone is doing the hard work and listening for BT beacons, and draining your battery at the same time. You'll need an application installed (and running) which listens for pings from beacons and typically sends the relevant data elsewhere to again triangulate your device within the space.

## Cost

Ranges from cheap if you use your existing network infrastructure to very expensive if you want to enhance your network for location services. If you want location services you need many more access points which can be expensive and time consuming to set up.

## ✓ Pros

- Can be low cost and readily available if using existing network infrastructure.

## ✗ Cons

- You're tracking devices not people. This means that the data is not as rich or accurate. A prime example would be when someone leaves their laptop at their desk and goes to a meeting. You're not able to capture how people are really using the office behind a basic people count in a large area.
- It's also not passive. You inherently need people 'to do something' in order to capture the data. They need to carry a device that actively looks for WiFi or a device with Bluetooth switched on and a certain application installed. This limits data accuracy and potentially leaves out contractors or others who could be onsite but using different networks or unregistered devices.
- Typical office installs of WiFi use enough access points for coverage, not for location services. This means that accuracy will suffer and you may only get 10 to 20m resolution. Location services require strategically placed access points. An expensive infrastructure upgrade is required to get anywhere near the accuracy required.

# Smart CCTV / Security Cameras



## How it works

Some newer models of CCTV / security cameras can run software to perform people counting, tracking and even facial recognition. While many solutions require a feed of the video to process the data in the cloud or a data center, there are some solutions on the market that process data on the camera itself.

## Cost

From \$300 - \$1,000+ per camera unit.

Highly variable depending on the type of camera. Usually sold in bundles with a camera device and a security-focused analytics application.

## ✓ Pros

- Can be relatively cost-effective if you already have a network of cameras that could become software-enabled.
- Potential for highly accurate data. More advanced camera systems can leverage computer-vision to support accurate people counting, facial recognition and movement through space.

## ✗ Cons

- Many of the solutions require access to the raw video feed/images causing privacy concerns for those pictured. While some advanced cameras can process at the edge and obscure faces that capability is not widespread.
- Security is another factor. A network of cameras inside your office is often the perfect target for bad actors and InfoSec/security teams are often loath to install systems that can access such sensitive data outside of corporate networks.
- If you manage to get beyond the privacy and InfoSec concerns, the biggest deal-breaker for the property team is the fact that these cameras are often only located at entrances/exits to buildings. As such they don't offer full coverage of office spaces and thus fail to accurately position people in a given space to offer utilization insights. The answer here is more cameras which can get expensive fast.

# Passive Infrared Sensors

(Under desk sensors)



## How it works

Passive infrared sensors (PIR) detect movement within an area of space by looking at a change in temperature in the area. If they are covering a larger area you can refer to the smart lighting section above. Here we'll focus on sensors for single spaces that are placed at or underneath desks.

The person sits at the desk and the PIR sensor detects heat and counts the desk as being in use. The data is typically processed via a 4G network connection and delivered in a batch or feed which can be processed by workplace software applications.

## Cost

Can be very cheap - as little as \$50 per unit

## ✓ Pros

- Easy to install
- Cost-effective and can be relatively simple to deploy as battery-powered units can be easily attached to desks.
- A good solution for phone booths or other single person spaces.

## ✗ Cons

- Scale inefficiency - If you have 10,000 employees you need 10,000 sensors under desks and in conference rooms to get a true picture of space utilization across your portfolio.
- There's also the issue of privacy. We often hear how having a single device at each desk feels intrusive and because these sensors are associated with specific desks it can feel like it's individually tracking people. For this reason there's often pushback from employees when these types of solutions are rolled out.
- On top of that, the data just isn't that useful. Because the sensors are fixed to furniture you only really understand that the specific desk is occupied. It doesn't allow for insight capture in collaborative spaces like kitchens, projects spaces or hallways. It doesn't give you the full picture of space utilization across your portfolio.

# Thermal Sensors



## How it works

Thermal sensors use body heat and computer algorithms to determine that a moving object is in fact a human.

You can think of these sensors as containing a grid of temperature sensors, where each square gives a temperature reading for what is in front of it. The readings from this grid creates a heatmap-style image of a larger space than an under desk or PIR sensor. The sensor also uses computer algorithms to predict that a shape/movement is a human. Some solutions do not do the processing on the sensor and send the grid of heat data off the sensor for processing.

## Cost

Price varies by vendor from a few hundred dollars to over \$1k per unit.

## ✓ Pros

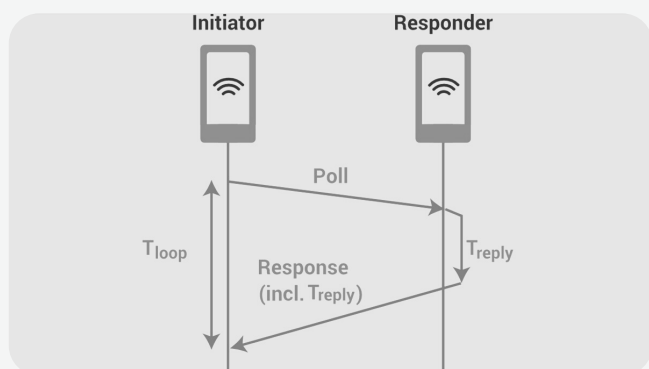
- Privacy. People cannot be identified.
- Passive data capture - People don't need to connect to anything or carry anything in order to capture the data.

## ✗ Cons

- The range of each thermal sensor is still relatively small (<5-10m) and thermal signals can be blocked by furniture. This means that you need a lot of thermal sensors to cover an individual floor in an office building. So while each individual unit may appear cheap, when taken together in the volume you need and with the scale of the install required, things start getting very expensive and complicated.
- In areas with a lot of thermal activity - e.g. confusing a laptop as a person - the data can also be unreliable, inaccurate.
- Generally speaking, the low resolution of the data captured also enforces limitations on the types of behaviour you can capture insights around. You can see it's a human near a couch-shaped object but you can't tell if they're sitting, standing or on the phone as an example.

# Ultra-Wide Band Systems

(Sensors +tags)



## How it works

Ultra-wide-band solutions sometimes also known as UWB require a transmitter and a receiver. So to use them for tracking utilization you usually deploy many receivers across your floor (similar to a wireless access point). You then require your employees, or occupants of the space to carry a small battery powered transmitter. Typically these can be integrated into a swipe badge or other employee identification cards.

This set up of transmitters and receivers lets the solution do fine-grained triangulation to locate the position of tags.

## Cost

Expensive to roll out across a portfolio. You're buying a battery device for all occupants and you'll require 60+ receivers for any given floor.

## ✓ Pros

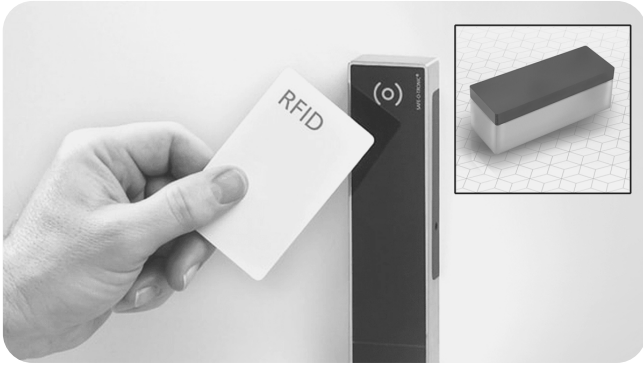
- Highly accurate detailed data capture - can get down to cm level accuracy.
- Captures more people movement data as people carry tags when compared to a fixed desk sensor.

## ✗ Cons

- Like WiFi tracking the data can be compromised because it's not passive. You need people 'to do something' to capture the data - in this case carry a swipe badge or tag everywhere they go. This includes visitors and contractors.
- The range of UWB hubs / access points on the market is also fairly limited meaning that you require hubs installed every 5-10m on the ceiling on one given floor. This means getting appropriate coverage gets expensive, fast.

# RFID Systems

(Sensors +tags)



## How it works

In a similar vein to UWB, RFID is an older technology that uses transmitters and receivers installed throughout an office floor to capture information about the amount of people on a floor and their approximate location relative to an RFID receiver. Transmitters are again typically small tags attached to an employee security swipe or badge.

Because these tags are transmitting a signal, in a utilization set up they will be 'active' tags, meaning your occupants will be carrying a battery powered card or tag. Again, triangulation is used to locate the tags typically with poorer accuracy than UWB.

## Cost

Mid-level. Cheaper than UWB.

### ✓ Pros

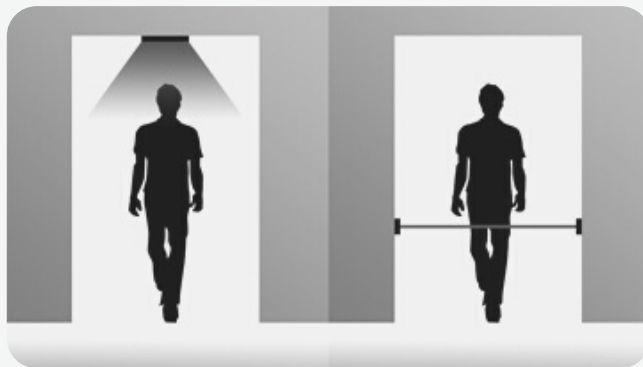
(If required volume of receivers are in place)

- Generally accurate enough to pinpoint which group of desks or area of space is being utilized on a given floor.
- Can provide 'whole of space' coverage / data capture as solution is not associated with fixed furniture.

### ✗ Cons

- Not passive. Requires employees to carry their tags into each space they use (*not leave them at their desk or in their bag*).
- Often requires an upgrade of employee badges / swipe passes. This can be complicated/time consuming when considering portfolio-wide implementation at multiple building locations.
- Lacks accuracy - You generally won't be able to get sub 2m data.

# People Counters



## How it works

So far, we've talked about different technologies and the pros and cons of using them to understand utilization across your space. Here I want to talk about a kind of sub-category of utilization solutions called 'People Counters' which utilise a variety of different technologies.

People Counting, also known as Ingress / Egress counting is where a sensor or device is placed at an entrance or exit of a space and it counts people entering and exiting that space. You'll know how these work if you've ever entered a convenience store and heard the 'beep'. The technology behind them can range from simple trip beams to ultrasonic, thermal cameras, depth cameras and computer vision.

It's important to note here that these tools have been designed and engineered to count people entering or exiting a space - which certainly has a use case - but when you're looking to understand how individual spaces are being used, a simple count of people in a large space is not going to provide any meaningful space planning insights for corporate offices.

## Cost

Can vary dramatically depending on the solution type. Basic trip beam solutions are dirt cheap while the more advanced counting systems are expensive up to US\$800 per unit.

### ✓ Pros

- Provides a more accurate occupancy count for spaces when compared with badge swipes at access points or lighting sensors.
- Passive data capture - You don't need people to carry a tag or connect to a specific network.
- Anonymous and privacy-preserving.

### ✗ Cons

- Are not all created equal. People counting sensors can suffer from cumulative error - throughout the day their counts progressively get more and more inaccurate.
- Are typically only deployed at entryways so they're good at counting occupancy but not at giving you true space utilization insights. Again, you know people are in a room but you don't know what they're doing.
- Field of view or range can be very limited. Hence they are often installed in entrance ways only.

# Computer Vision Sensors



## How it works

Computer vision sensors work in a similar way to a smart security/CCTV camera except that they have been designed to deliver space utilization insights. They work by taking an image and processing it through a computer algorithm to detect people. Some do this processing on the sensor while others send it to a gateway or the cloud as these algorithms (typically AI) are compute intensive.

This people location data is compared by an algorithm to a mapped floorplan of an office to understand how people are interacting with the space and furniture across a whole floor.

## Cost

Mid-range to expensive depending on the solution and area of space covered.

## ✓ Pros

- Passive data capture - You don't need people to carry a tag or be connected to a specific network.
- Can provide 'whole of space' coverage / data capture as solution is not associated with fixed furniture.
- High-level of positional accuracy.
- Long hardware shelf life as AI updates can be run remotely.

## ✗ Cons

- Typically 50m<sup>2</sup> or under coverage area.
- Requires line of sight so installation needs to work around walls, pillars, etc.
- Security and privacy risks for solutions that send or store images off the sensor.
- Installations can be complicated/ expensive due to required data cabling.

## A note on computer vision technology

When we co-founded XY Sense, I was immediately drawn to the data capture accuracy and utilization feature capabilities of computer vision technology.

It clearly provides the strongest foundation on which you could build an excellent enterprise utilization solution but existing computer vision solutions on the market just didn't cut it when it came to range, privacy, data security and installation ease.

The team and I at XY Sense spent 2+ years in research and development engineering our own computer vision sensor technology to overcome the cons outlined above.

**Read on....**

# XY Sense

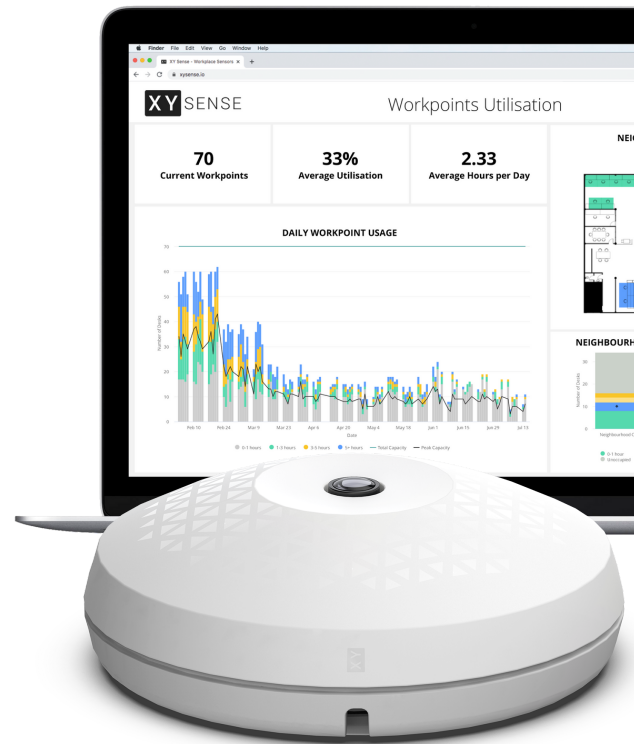
## How it works

XY Sense is a new kind of computer vision sensor that enables completely passive data capture with the range of a WiFi access point and positional resolution of UWB while still protecting the privacy and data security of businesses.

It requires low powered sensor units, the size of a smoke detector, to be installed in the ceiling of your office. These sensors then use computer vision to process scene information about people movement in real-time (*processes sightings every 2 seconds*) and with positional accuracy down to 30cm / 1ft. Designed from the ground-up to be anonymous and secure, the sensor doesn't record, save or send image files at any time, not even during sensor setup and configuration.

AI running at the edge (*on the sensor itself*) simultaneously processes scene data into anonymous XY coordinates in real time. Encrypted, anonymous sensor data is then pushed to a real-time API feed and XY customer analytics platform to update dashboards and customised reports.

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 and space utilization across their property portfolio in real-time.



### ✓ Pros

- Passive data capture - You don't need people to carry a tag or be connected to a specific network.
- Anonymous and privacy-preserving
- Whole of space coverage and high resolution/accuracy. The real-time sensor captures people movement sub <1m/ 3ft allowing you to properly understand how people are using the space across time as opposed to just counting them.
- Truly real-time data capture and live floorplan views allow for new forms of real-time monitoring and end-user tools for people using the office space (*for example maps of available desks, real-time social distancing alerts for COVID*)
- Has the longest range of any sensor or thermal camera on the market (95sqm) meaning 1.5-3 x fewer sensors need be installed to achieve whole-of-floor coverage. This means it's more cost effective.
- Engineered to be private-by-design, secure-by-design and comply with enterprise InfoSec requirements.
- Daisy-chain installation capability allows up to 96 sensors to be connected to one 4g hub. This means simpler, cheaper permanent installs than other solutions.
- Customer analytics platform is provided as part of the solution with a variety of out-of-the-box dashboards and reporting. No need to manually wrangle and interpret data.
- An open API also allows for simple integration into other IWMS or BMS solutions.
- Can also be deployed for real-time People Counting in entrances or exits where that use case fits while maintaining the above benefits.

### ✗ Cons

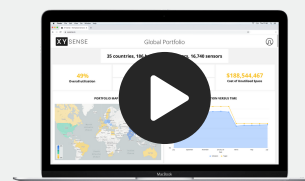
- As it is a low-powered, environmentally friendly solution, it does require a permanent installation. As such it's less applicable for 'point in time' studies.

### Cost

Cheaper than UWB, thermal cameras and the majority of computer vision sensors on the market.

Sensor hardware and subscription averages AUD\$7 per SQM covered.

### Want more detail?



[Watch a demo](#)



[Solution Brief](#)

# The clear solution winner

When you benchmark utilization tools against the most popular use case requirements of today's property teams, it becomes clear that XY Sense offers both the most comprehensive capabilities (*in terms of real-time monitoring and employee experience tooling*) and the greatest protections for data security and privacy.

A further benefit to XY Sense is the ability to remotely maintain and update sensor AI and machine learning capabilities. This makes it possible for XY Sense to push new features and sensor capabilities without the need to update hardware.

This is particularly relevant for larger enterprises or multi-national companies looking to roll-out utilization technology across their portfolio as solutions leveraging older hardware technologies like thermal or PIR are likely to become obsolete in the coming years while computer vision hardware can continue to evolve with remote feature upgrades.

For instance, XY Sense has a number of AI-powered feature releases on our immediate roadmap, including human behaviour recognition such as; sit stand detection, mobile phone usage and computer usage with many more currently being worked on in our AI feature lab.

**XY** SENSE



- ✓ **WIDE 'WHOLE OF SPACE' COVERAGE**
- ✓ **100% PASSIVE DATA CAPTURE**
- ✓ **PRIVATE & ANONYMOUS**
- ✓ **TRULY REAL-TIME / LIVE ANALYTICS**
- ✓ **COVID-SAFE FEATURES**
- ✓ **ENTERPRISE DATA SECURITY**
- ✓ **CHEAPER INSTALLS**
- ✓ **ANALYTICS INCLUDED**
- ✓ **FLEXIBLE AI HARDWARE**

# Why now is the time to act

In 2020, the workplace as we know it was transformed.

In 2021, there's never been a better time to take a data-driven approach to your workplace utilization strategy. Not just to reduce risk and increase savings but to use data to deliver on the promise of the post-pandemic working environment for your number one business asset, your people.

Whether you're opting for a real-time, computer-vision solution like XY Sense, or more tactically pulling together data from existing sources or surveys, as an organization it's the right time to get prepared to collect data on your office's new normal and to use data to measure before you act on high stakes property decisions.

For further information and insights on how to best navigate this process, feel free to [check out our blog](#).

**Thanks for your interest.**







## 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 & Zoon) 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 200,000 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?

info@xysense.io

[www.xysense.io](http://www.xysense.io)



## About Anders +Kern

**Anders+Kern is an authorised distributor of XY Sense technologies in the United Kingdom.**

Anders+Kern UK Ltd is a leading Digital Workplace distributor and audio visual channel integration partner based in Suffolk, UK. Founded in 1989, A+K are specialists in AV, digital signage, sensors, room and desk management/booking systems, visitor management and data analytics.

Our mission is to inspire with innovation and simplicity, and be the Distributor of choice for IoT & workspace software solutions, championing "best in class" through quality service & support.'

For more information, visit [www.anders-kern.co.uk](http://www.anders-kern.co.uk)

Phone: +44(0)1638 510 900 | Email: [sales@anders-kern.co.uk](mailto:sales@anders-kern.co.uk)