

OpenBlue

Location Manager

Safe and Adaptable Spaces:

This Bluetooth-Based Cloud Solution Will Help Companies Maintain Social Distancing as They Return to the Office



By Ger McNamara, director for data-enabled business, Johnson Controls

The future of the office has turned into a surprisingly divisive topic. A quick glance at the business pages reveals that there are two camps in this pitched battle. On one side are the [office cheerleaders](#), who appear to believe that working from home is a cop-out. These are the folks who predict that occupancy levels will bounce back to pre-pandemic level any day now. On the other are the office naysayers, who gloomily forecast the death of the office and offer a [dystopian vision](#) of deserted business districts.

As is often the case with such polarized issues, the truth lies somewhere in between. The world's working spaces may never return to full occupancy, but that doesn't mean that the office is dying. Nevertheless, it's safe to say the office will never look the same again. As you read this, companies with large head counts and real estate footprints are implementing "managed hybrid" strategies of teleworking and working from the office, and reconfiguring every aspect of their buildings to allow for safe in-person collaboration. Meanwhile, they will be monitoring their national or regional COVID-19 situations and controlling the number of people who are on-site.

But these challenges are much harder for companies that lack actionable insights about their space. Many firms have

little idea if their space is even safe, let alone the ways in which employees are using it. One major concern will be the difficulty of [physical distancing](#) as occupancy increases. But technology can help to make physical distancing feasible.

Companies can now utilize a cloud-based solution in their buildings that harnesses Bluetooth technology, real-time data and artificial intelligence to generate insights about how people and teams interact and move within spaces. This solution, [OpenBlue Location Manager](#), can alert companies to potential infection hot spots, help to maintain social distancing in their buildings and ultimately allow them to maximize their vital collaborative spaces.

Restoring confidence

This technology is not just a “nice to have”; it is essential. In March, a full year after the first stay-at-home orders were issued in the U.S., [45% of work in the country](#) was still being done from home, according to researchers from the University of Chicago. The same researchers anticipate that about 20% of full workdays will be spent at home after the pandemic ends. But the U.S. will get close to those numbers only if its workforce feels confident, safe and secure.

And there’s plenty of evidence that, even with increased vaccination and lower mortality rates in the U.S., many Americans still fear returning to the status quo. About 4.2 million adults responding to a [U.S. Census survey](#) in March 2021 said they were so afraid of getting or spreading the virus that they were no longer working. And 44% of respondents to a [recent McKinsey survey](#) expressed increased fear of getting sick if they return to the office.

Meanwhile, more than [seven out of 10 workers](#) say they want flexible remote work options as the world recovers a semblance of normality. Almost the same proportion of people are yearning for in-person work with their colleagues.

All this might seem paradoxical, but taken together, the message is clear. Employees want control of where, when and how they work, and if they return to the office, they expect their companies to provide them with a safe, collaborative space.

Companies have some standard [“analog” tools](#) at their disposal when it comes to conquering fear and providing flexibility. Nearly all firms will opt for hybrid working models, but these models will need plenty of fine-tuning, especially when it comes to the midweek capacity conundrum: Employees generally prefer to be in the office on Tuesdays, Wednesdays and Thursdays, and stay home on Mondays and Fridays.

And when it comes to [social distancing](#), nearly all firms will use overt physical reminders such as signs and colored tape on the floor. They can enhance these efforts with behavioral nudges, such as discouraging handshaking and advising people to minimize the time they spend in crowded areas and poorly ventilated spaces [when indoors](#). If they supplement these measures with digital technologies such as [Location Manager](#), they can maximize safe, sustainable collaboration in their spaces.

Leveraging data and insights

The technology that underpins Location Manager relies on insights gleaned from data about the ways people use office space, particularly where people are at any given moment. Before the pandemic, companies were not hugely interested in this information, and relied on a couple of numbers to evaluate their use of space: head count and cost per square foot. But Johnson Controls has long relied on these insights for its own buildings and operations. As the world returns to the office, more granular data will start proving invaluable to thousands of companies, especially firms that value collaboration.

Location Manager’s data-gathering hardware consists of small devices called transceiver modules that are plugged in around the building, typically no more than around 10 meters apart. The modules constantly receive Bluetooth signals from employees’ badges and relay them into the cloud. The data about employee locations in relation to the modules and one another allow the system to track movements within a space. The solution supports privacy by default and design by using anonymized badge data.

The solution allows companies to take a proactive approach to physical distancing, because it enables them to understand the areas, spaces and badges that experience high levels of distancing incidents. Reducing such incidents will help to minimize the spread of COVID-19 should an employee test positive, because the system boasts a feature that can trace the movements of any infected employees and then detect and alert the people with whom they came into close contact.





Beyond COVID-19

Location Manager won't just be a proactive troubleshooter against COVID-19. The system can be a long-term ally to companies by helping them understand and predict the usage of their space. That's because the software allows companies to group their employees by team, function and neighborhood, which offers them insights into how different groups are moving around a space in practice, rather than in theory.

For example, a company might discover that hybrid workers use the office most often from Tuesday to Thursday, which causes peaks in the bookings of hot desks and meeting rooms on those days – although the actual usage of those spaces is surprisingly low when certain hybrid working groups spend more time in collaboration areas and breakout areas. Facility managers can then reconfigure the space to fit the groups, perhaps by removing a portion of hot desks from the booking system. Other groups may have members who use hot desks all day for three days and rarely interact with others on-site. Companies might choose to tweak their hybrid models to allow these groups to work from home more often.

Whatever their decisions over real estate and space usage, companies can use real-time data to take an agile approach to changing their space layout. Over the longer term, a clear

picture will emerge of the optimal layout for the office space, and companies will build their own understanding of the portion of unutilized space. Whether companies eventually choose to “right-size” their real estate footprint or not, they can be confident their decisions are based on insights generated from hard, emotion-free, anonymized data.

Technology also allows employees to control and personalize their prized collaborative spaces. OpenBlue [Companion](#), another app from Johnson Controls, allows people to easily find and reserve meeting rooms, navigate a safe and efficient route across large buildings and control aspects of their environment, such as lighting, blinds and temperature. Location Manager and Companion can work in synergy, because of Johnson Controls' cloud-based platform called [OpenBlue](#). The platform leverages sophisticated APIs to gather data from a legion of disparate apps and systems, whether they are monitoring the average utilization rate of the boardroom, foot traffic in the reception area or the energy consumption of the building's HVAC systems. There's a bonus: The OpenBlue platform is agnostic to any infrastructure, building automation system or service provider, which means it can integrate with any technology or system that was already in place, allowing for insights that simply weren't possible before.

Companies that harness technology to develop an understanding of their workspaces and the ways people move around in them will be well positioned as the world returns to the office. Whether you are seeking to ensure the safest possible return to the office in coming weeks or pursuing a complete digital transformation of your enterprise, OpenBlue is the place to start.



About OpenBlue

OpenBlue is a complete suite of connected solutions that serves industries from workplaces to schools, hospitals to campuses, and beyond. This platform includes tailored, AI-infused service solutions such as remote diagnostics, predictive maintenance, compliance monitoring, and advanced risk assessments. A dynamic new space from Johnson Controls, OpenBlue is how buildings come alive. To read more about OpenBlue, **visit: www.johnsoncontrols.com/OpenBlue**

About Johnson Controls

At Johnson Controls, we transform the environments where people live, work, learn and play. From optimizing building performance to improving safety and enhancing comfort, we drive the outcomes that matter most. We deliver our promise in industries such as healthcare, education, data centers, and manufacturing. With a global team of over 100,000 experts in more than 150 countries and over 130 years of innovation experience, we are the power behind our customers' mission. Our leading portfolio of building technology and solutions includes some of the most trusted names in the industry, such as Tyco®, YORK®, Metasys®, Ruskin®, Titus®, Frick®, PENN®, Sabroe®, Simplex® and Grinnell®.

