The NEW SHAPE of WORK

Protected

Proven

Productive

Healthy buildings are more important than ever.
Your lighting system can help.
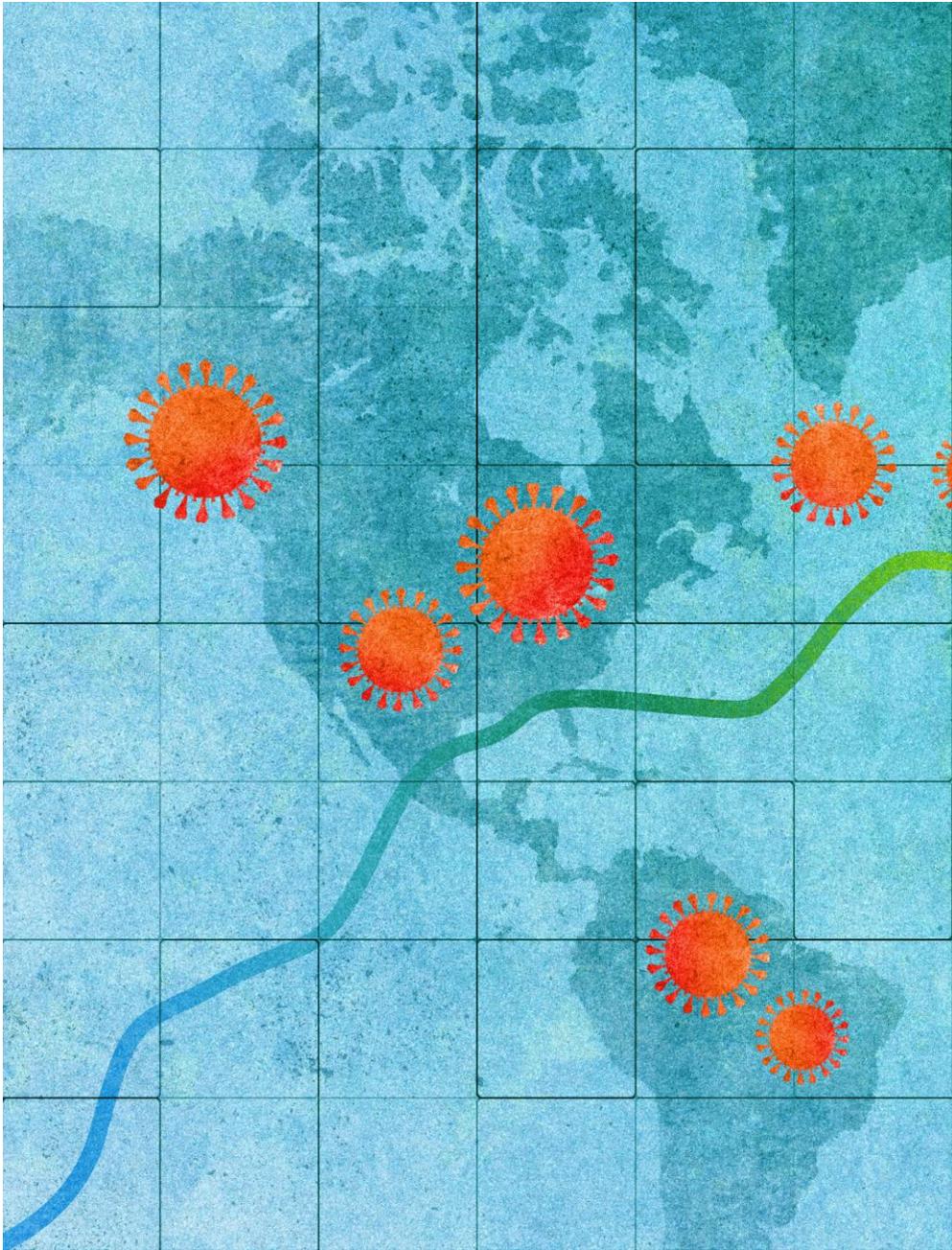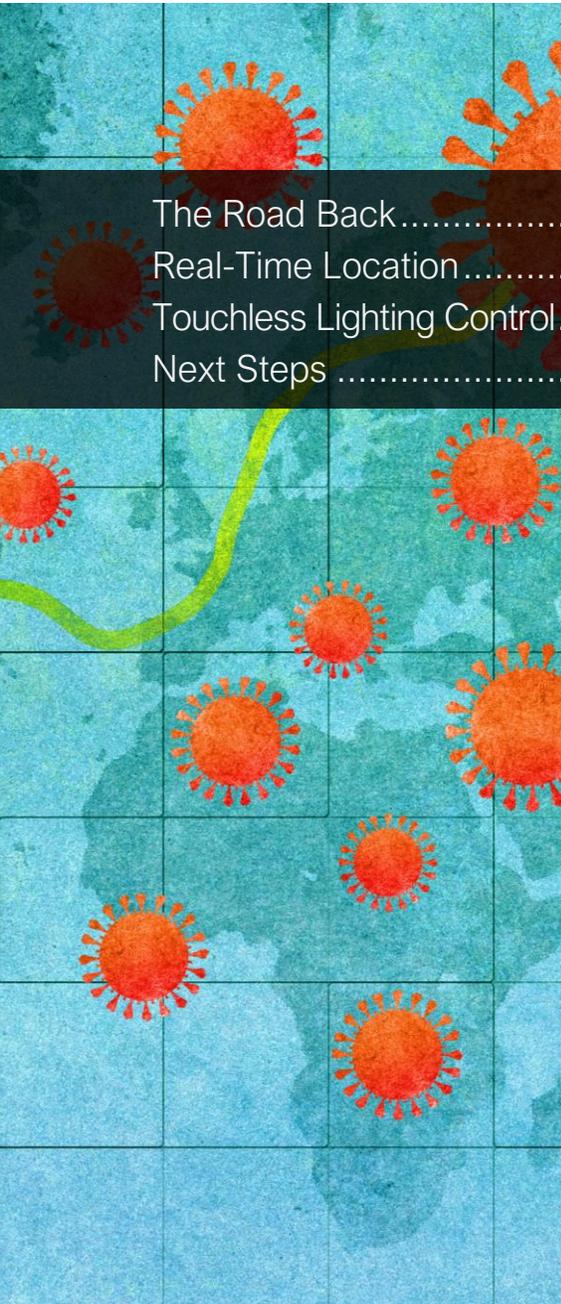
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Contents ❯

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The Road Back

THE CORONAVIRUS PANDEMIC is presenting dramatic new health and safety challenges for office tenants, building managers and developers.

Viruses, including COVID-19, spreads in several ways. These include droplet exposure from coughing and sneezing and through touching one's face after contact with a contaminated surface. The shorter the distance between people and the greater the time in proximity, the higher the risk of person-to-person transmission. For surface transmission, risk goes up with the number of people touching a surface and as the intervals between contact gets shorter.

What follows is a look at the protocols (excluding building access) that companies are implementing as we return to the office.

The first and most obvious one is remote work. The lockdown triggered a massive experiment in working remotely; many companies will extend this arrangement for a segment of their workforce, or even make it permanent.

Working in shifts is another approach being considered. By dividing employees into smaller cohorts that are never in the office concurrently, it is easier to maintain physical distance. Should someone become ill, the spread is limited to a single cohort.

Meetings are being re-envisioned as well, by limiting the head count in collaboration and conference rooms or having some people attend virtually. There are even companies intending to meet outside! Another adaptation that minimizes contact is prominently marked one-way staircases and corridors.

Smaller cohorts mean employees can be positioned so that, in the short term, unoccupied workstations serve to create distance between them. Where proximity is unavoidable, plexiglass shields are being installed or workers are being instructed to minimize the time involved. Finally, attention is being paid to the gap between occupied workstations and communal pathways.

In offices that moved to hot desking/hoteling, companies are switching to assigned spots that cut down on shared workspaces. If sharing is unavoidable, reinforced cleaning and hygiene protocols are coming into effect for high-touch surfaces like keyboards, mice, work surfaces, and phones.

Communal spaces are also getting another look. Single-person access is being used to handle constricted entryways, meaning people wait outside until the space is vacant. Many companies are increasing the distance between lunchroom tables, removing chairs, or installing plexiglass dividers.

Across the country and around the globe, organizations are rising to the challenge.

> " *Savvy business leaders and landlords will begin to leverage healthier indoor spaces as recruitment tools and sources of competitive advantage.*
> *- Macomber and Allen, 2020*

#1 OCCUPANCY CHALLENGE
How to limit the number of occupants in an area?

- Groups of cubicles
- Conference rooms
- Private spaces like washrooms and offices

#2 CONTACT TRACING CHALLENGE
How to trace and monitor contacts of infected employees to prevent additional transmission?

#3 HEALTHY OFFICE CHALLENGE
How to minimize health risks associated with contaminated surfaces and AIQ (Air Indoor Quality)?

#4 HYGIENE/CLEANING CHALLENGE
How to ensure workplace areas are sanitized based on employee traffic and usage levels?

Leverage Your Lighting System

Cooper Lighting Solutions has the technology and skill to help you create a safer and healthier environment. Discover how a truly intelligent lighting system can support your journey to a safer building environment.

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Physical Distancing

THE POST-COVID WORKPLACE is going to need more breathing room. One key strategy for controlling the spread of infectious disease is maintaining a safe distance between people. The best approaches to this challenge will combine clear guidelines, effective communication, and leveraging technology to assess the effectiveness of guidelines and procedures.

On the guidelines and communication front, efforts could run the gamut from one-way hallways and directed routes for navigating the office to visual representations of safe physical distance like those already appearing in grocery stores.

The ability to measure and act on occupancy counts within a space will be central to ensuring workplace distancing guidelines are followed. Where there are closed spaces that accommodate only one person or tight passageways like washrooms, it will be necessary to indicate when the space is being used.

Building on the same principles behind occupancy counting, geo-fencing enables notification when someone (or something) enters or leaves a specific area. This can greatly extend the company-wide awareness of how, when, and by whom each space is being used.

A concept that has gained rapid recognition is contact tracing – the ability to find out who has been in recent contact with a confirmed case of COVID-19. A contact tracing strategy is critical to protecting employees by allowing an organization to respond quickly. Implementing this in an office environment will necessitate a thoughtful balancing of safety and privacy.

It has long been recognized that indoor properties like temperature and airflow have workplace implications that go beyond comfort. As we return to our buildings and offices, however, ambient condition sensing will take on new importance. For example, certain viruses spread more easily when the humidity is low. For this and other reasons, it will be highly advantageous for a company to implement temperature, humidity, and IAQ (Indoor Air Quality) sensing.

Finally, while innovations such as occupancy counts and geo-fence notifications will greatly improve adherence to social distance mandates, we can go further. The wealth of data generated by these technologies can be aggregated and analyzed, revealing hidden trends and patterns in how people and spaces are interacting. The insights gained this way can lead to further improvements in guidelines, communication, and technology.

The Trellix IoT Advantage

TECHNOLOGY CAN HELP organizations measure how effective their social distancing safeguards are in practice, for example by analyzing location data to reveal employee density across the office. A connected lighting system can gather the data to drive this kind of analysis.

Trellix Locate uses integrated IoT sensors to pick up Bluetooth signals from tags and workforce badges and calculate their location in real-time. The solution is composed of the Trellix Bluetooth® enabled tags and badges, WaveLinx IoT sensors (integrated with the luminaire or standalone), Trellix IoT Smart Spaces platform, and Trellix Locate Application.

Using an intuitive Web application approach, Trellix Locate delivers real-time location data so authorized users can pinpoint asset positions, analyze their movement, view asset counts in a space, and get real-time notification based on configurable location rules.

For COVID-19, personal badge locations can ensure occupancy count limits are being respected, with real-time notifications if limits are exceeded. The same data can power historical analysis on space utilization and drive notifications (e.g., blinking light, audible sound) to notify people of the need to move to a larger space.

Our personal badges can power real-time employee counting within a space. These RTLS badges are HID-compatible and can work with standard access card readers.

By leveraging the Bluetooth® technology built into WaveLinx integrated sensors, Trellix Locate gathers the signals emitted by the tags and calculates their location. We offer standalone sensors for spaces that lack LED luminaires with integrated sensors.

The Trellix Locate application and associated services are hosted on our flexible range of Trellix Core appliances (Pro, Enterprise, and Virtual).
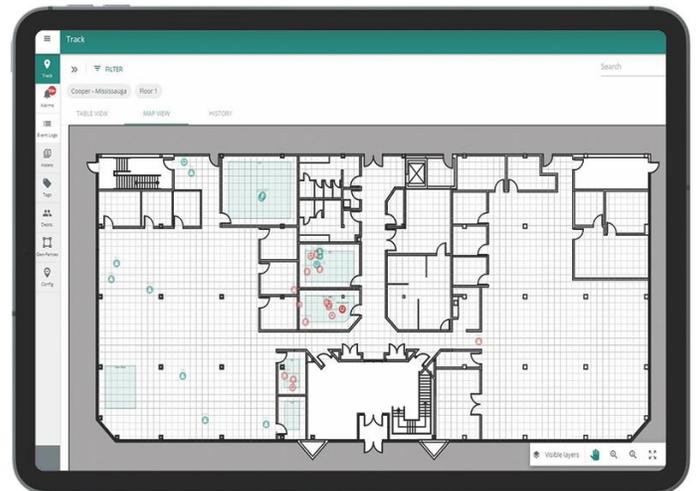
Trellix Locate Floor Map with Real-Time Employee Locations

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Out of Touch (In a Good Way)

THE INDIRECT TRANSMISSION OF DISEASE through contaminated surfaces is a common source of spread. This will require an increased emphasis on cleaning, both in terms of frequency and thoroughness. Companies will be looking for ways to ensure the right things are cleaned at the right time, in which occupancy data and its analysis can play an important role.

Lighting automation has historically been deployed to lower operating costs in buildings and offices. In a world grappling with the workplace implications of COVID-19 and the prospect of it not being the last of its kind, another aspect of automation comes into focus: touchless lighting.

The ability to control lighting without contact is a clear win, eliminating switches and wallplates as an indirect transmission route. Touchless lighting can be implemented by sensing motion, using voice activation, or with a mobile application.

Antimicrobial keypads can also be part of the effort to reduce contamination and the spread of infectious disease.

Ultimately, an intelligent mix of cleaning, touchless control, and antimicrobial keypads will yield the most dramatic results in any effort to contain and eliminate the indirect transmission of disease.

> " *In addition to its circadian resetting properties, light is also a stimulant and can directly enhance alertness and performance.*
> *- Senz (2020)*

Touchless Control

THE FIRST LINE OF DEFENSE against surface contamination is touchless control.

Cooper Lighting Solutions offers a rich portfolio of motion sensors — including line voltage, 0-10V, wireless, and DALI — that can be mounted in various locations. Examples include sensors integrated with a luminaire, integrated within a keypad, as a standalone ceiling sensor, or as a wall-corner keypad.

These sensors turn lights on and off automatically as configured. It should be noted that auto-on behavior may conflict with many local energy codes.

With the WaveLinx Mobile App, employees gain the ability to control the lights within a space. You can change the scene within a room or the light level for a group of fixtures with ever touching a dimmer.

Voice activation provides another way to remove the need for contact. *Cooper turn the lights on!* It really can be as simple as that using WaveLinx Touchscreen with Voice Activation. Give your users control over the light levels in a space with just the sound of the voice. This is a terrific solution for collaboration and conference rooms.
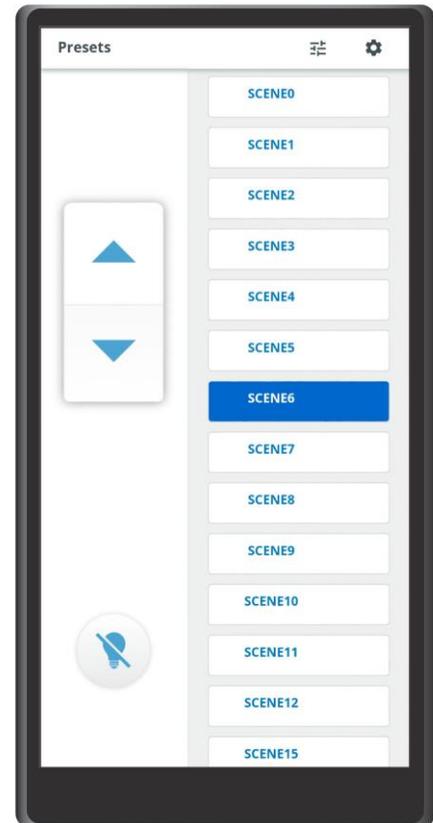
WaveLinx Touchscreen Wall Controller with Voice Activation

Incorporating an antimicrobial additive into high-touch keypads can inhibit 99.9% of the growth of mold, mildew, fungi, and other odor-causing bacteria between normal cleanings.

The combination of regular cleaning and treated keypads on frequently touched devices offers a complete antimicrobial solution.

Using data gathered by Trellix Locate or occupancy sensors, cleaning staff can be directed focus on high use areas, or spaces used by an employee who later confirmed positive with COVID-19.

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The Road Ahead

THE COVID-19 PANDEMIC is accelerating trends that were already underway in how buildings are used. De-densification is one example. Even prior to the pandemic, organizations were reversing their pod densification and open spaces strategies to combat *office plague* – the all-too-common case of a sick individual infecting the coworkers in their pod.

Companies will have to provide workspace seating plans that feature greater physical distance between workers. In the near term, however, many will have to manage their teams with existing layouts. A common strategy for this is rotating shift work, which makes increased distances possible while also limiting any contagion to a single shift. When combined with empowering people to work from home, productivity could be sustained or even improved while curtailing the number of people in the office.

To limit the number of people in various spaces, and especially closed spaces, employers will have to set occupancy limits. They will also need to implement the monitoring and measurement that ensures safety plans are followed. Ideally, this would include notifying the occupants in a space if there is a breach.


Luminaire with integrated sensor with Bluetooth® receiver

Lights blink to indicate space limit has been exceeded

Occupancy Sensors

Light indicating space is occupied

Kiosk showing spaces exceeding occupancy limits

Anti-microbial keypads

Voice-activated touchscreens

Social distancing between employees and workspaces
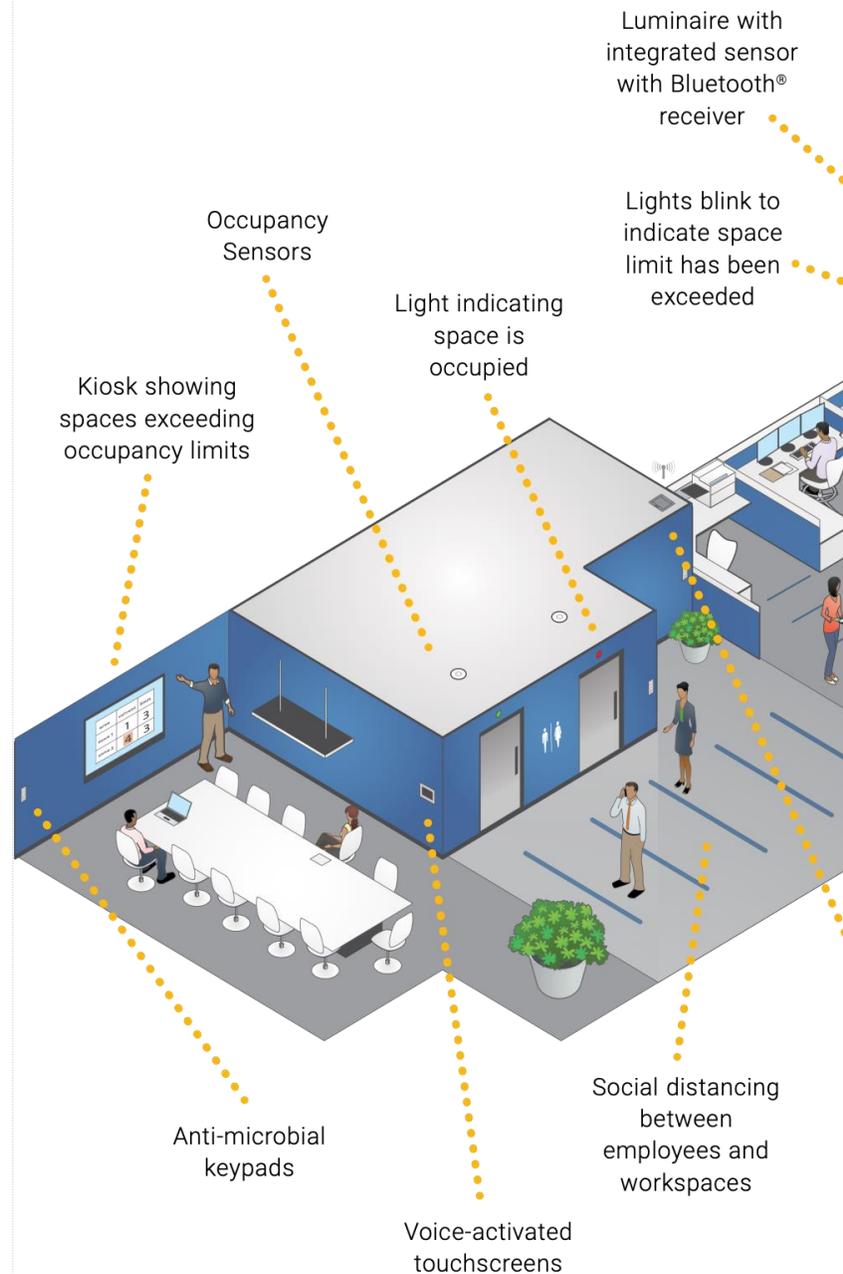
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> " *Smart design can decrease the rate of sickness, alleviate symptoms of illness, and improve mental functions, outlook, and mood.*
> *- Tranel, 2020*

Step by Step

1. RISK Determine locations with heavy traffic, high occupancy rates, or small spaces.

2. STRATEGY Find ways to monitor and manage these risk areas, e.g., occupancy counts or geo-fence alarms.

3. TECHNOLOGY Choose technologies to support your strategies, e.g., real-time location sensing and touchless lighting controls.

4. COMMUNICATION Establish clear and timely methods to communicate with building occupants.

5. MONITORING Find an optimum rhythm that delivers the monitoring and measurements you need.

6. ANALYSIS Analyze the data and then optimize, adapt, and iterate.

Employee with
Trellix Smart badge
for locating

Mobile app
to adjust
lighting

WaveLinx
Wireless Area
Controller
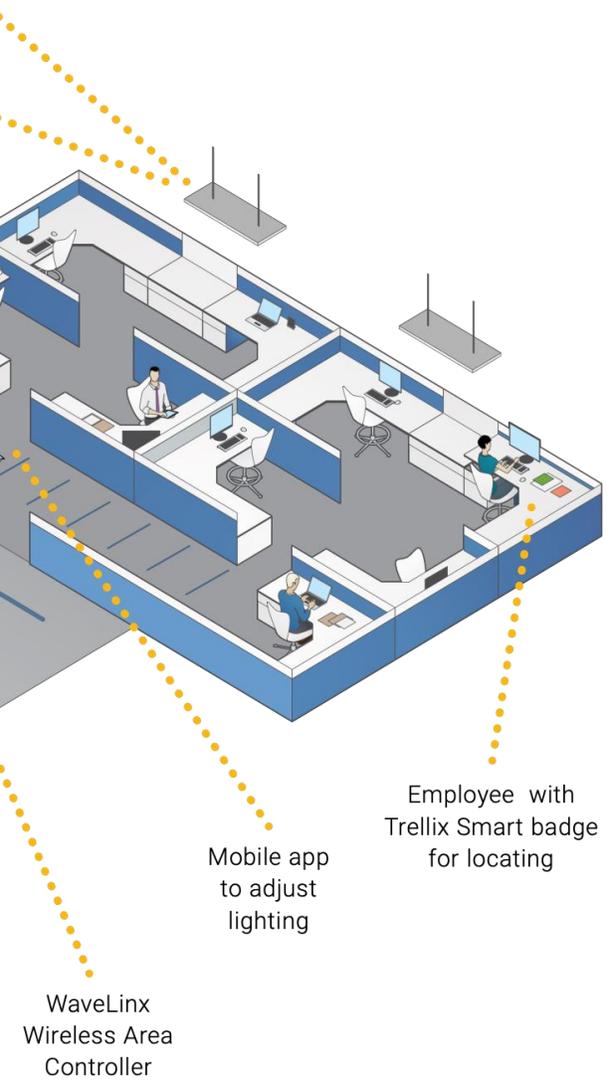
The Power of Connected

Contact us to find out how our connected lighting and real-time location systems can help you get back to work.

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