

IS IT SAFE TO RETURN TO THE OFFICE?





01

THE NEED FOR A HEALTHIER, SAFER AND COMPLIANT BUILDING ENVIRONMENT

As working patterns change, organizations across the globe are re-examining their buildings strategies. While home-working has been necessary at times, many businesses have experienced limitations with their home-based workforces. Workers either lack enterprise-level technology and the secure data access they need or miss out on office-based conversations that facilitate rapid decision-making and foster innovation.

As a result, many organizations are planning, or executing, a phased reopening strategy, and even a full return to the corporate office when local regulations allow. Hotels, restaurants, sports venues and other indoor commercial venues are also on the path to receiving visitors, residents and the public once again.

Naturally, some organizations are taking the opportunity to ask whether they need buildings at all going forward. The reality is, commercial buildings can provide valuable opportunities for people to work more effectively, collaborate and communicate freely, and be more focused and productive, whilst utilizing enterprise-grade technology.

But how do you create a healthier, safer and compliant building environment? And what might the office of the future look like? In this paper, we discuss a tactical approach to creating healthy buildings that keep employees, occupants and visitors safe and well.



The corporate office provides workers with a shared space in which they can build community and culture

CORPORATE HUBS

Public and commercial buildings serve many diverse purposes which are difficult to achieve with distributed workforces solely using online tools and technologies. The corporate office provides workers with a shared space in which they can build community and culture. It's a place where teams can communicate and collaborate in a fluid and face-to-face manner. They can build closer relationships with clients and partners. And they have an environment that is conducive for work, where they can be productive and innovative without the distractions of home.

Changing times require compromises, however. Organizations are having to rethink their existing office models to accommodate new health and safety regulations and rules and keep people appropriately or socially distant and safe. This has major implications for open-plan offices, large meeting rooms, and hot desking, among other things.

RECONFIGURING SPACE

Instead of large open spaces with a high density of workers, there is a need to repurpose space to make it safer for the people using it; have better people flows, reduce bottlenecks, and enable worker distancing.

Among the solutions businesses are exploring are one-way corridors that encourage people flow and social distancing, and prevent employees congregating in the same place. Or desks that are reconfigured so they are distanced appropriately, arranged back to back or in lines, or protected by acrylic sheet dividers so individuals can sit closer together.

Meeting rooms could be used in person by a small, core team, conferencing with any number of virtual attendees, and larger rooms could be broken down into partitioned spaces. Alternatively, teams may look to hold meetings in the open air, a roof garden or at the park, taking advantage of natural ventilation and space.

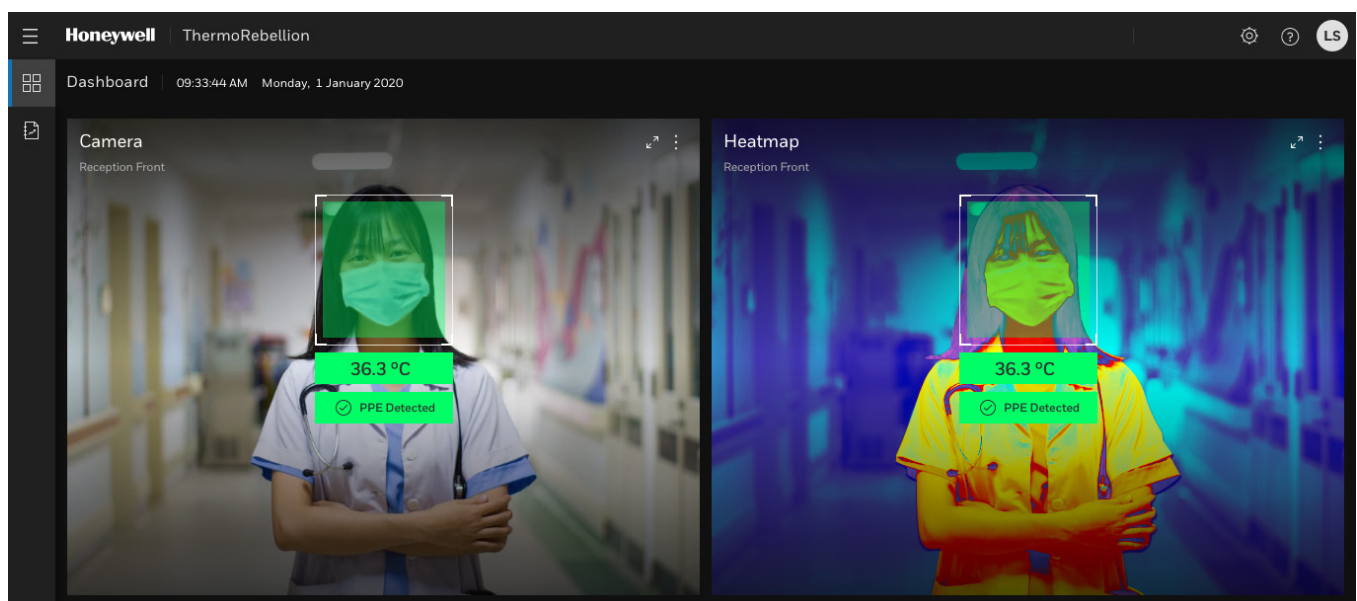
02

CREATING HEALTHY BUILDINGS

Organizations can create a safer commercial or public environment for occupants to return with confidence

Changing the way we use office space is a key aspect of creating healthy buildings but it's only part of the picture. Improving air quality, controlling employee access to rooms and corridors, and managing facilities usage patterns can all play an important part. With the right technology and provision upgrades in place, organizations can create a safer commercial or public environment for occupants to return with confidence.

Having a comprehensive healthy building approach also means that buildings owners can maintain business continuity and serve their occupants and tenants through a strong operational technology environment that enables them to continually operate their facilities safely and efficiently.





Honeywell is a leader in Healthy Buildings solutions for building owners looking to bring people back to buildings

Honeywell is a leader in Healthy Buildings solutions for building owners looking to bring people back to buildings. The company offers integrated solutions to help building owners improve air quality, comply with new regulations and create a healthier and safer building environment.

These can help building owners improve air quality while following changing building guidelines. Being an integrated solution, this means building owners can avoid having to install one-off solutions and individual products from different manufacturers, with their own monitoring and management requirements.

GLOBAL REGULATIONS

Regulations and guidelines vary across the world in what they specifically require from building owners and operators. For example, The World Health Organization has broad guidelines on creating a healthy workplace, and the European Union has a number of different laws that govern in-building worker safety.

There are also industry guidelines from the likes of the American Society of Heating and Air-Conditioning Engineers (ASHRAE), or European HVAC body REHVA, that advise, for example, on the role of HVAC systems in combating the spread of pathogens in indoor environments.

Honeywell's solutions and equipment can assist organizations in meeting these different global requirements, with a high baseline level of safety and security. Additionally, they can be customized further for environments or regions that need greater safety and security.

HONEYWELL HEALTHY BUILDINGS SOLUTIONS



03

ANATOMY OF A HEALTHY BUILDING

Air quality, safety and security controls, and analytics that help to enforce compliance and risk management policies and give visibility to facilities managers, can all play an important role in creating a healthier future-ready building.

These are all key features of Honeywell's integrated systems and equipment, which are based on an open technology architecture that can work alongside existing solutions so buildings can evolve their systems rapidly.

A. CLEARING THE AIR

Air quality is essential to a healthy building, and can impact the health, well-being and productivity of occupants, according to the US EPA. Poor air quality can disrupt business continuity and affect the building itself, including mold growth on surfaces and energy efficiency.

Ventilation is a key aspect of air quality. Proper ventilation control can help to combat pathogen transmission, as well as improve an individual's ability to make decisions, think clearly and be productive for longer periods of time. Headaches and fatigue, along with irritation of the eyes, nose, and throat, are common symptoms of Sick Building Syndrome, a disorder recognized by the World Health Organization, that can adversely affect occupants of buildings with poor indoor air quality.

Controlling relative humidity is also important and can reduce the transmission of certain airborne infectious organisms, as well as maintaining a pleasant office environment. In addition, filtration and air cleaning systems can help reduce pathogens, allergens and other indoor air pollutants and help to create a healthy environment for workers.

Managing temperature levels and pressurization can also help to improve indoor air quality, and certain types of ultraviolet (UV) energy can help inactivate many viral, bacterial and fungal organisms, making them less likely to replicate and potentially cause disease.

The many advantages of good air quality should not be underestimated. It can lay the foundation for a healthy building that provides occupants with the kind of environment that is difficult to emulate in a home-based office, improving the employee experience, and contributing to staff retention.

Security doesn't have to be invasive or disruptive. Modern safety and security systems can create a more frictionless experience

B. SAFE AND SOUND

As workers return to their buildings, and the public to commercial hospitality and entertainment venues, they will want to know that the shared space is both safer and healthier.

Just as travelers have become used to airport security procedures and controls, people will come to expect a higher level of health and safety-related protocols in their buildings going forward. This presents an opportunity for building owners to implement new policies and practices, and integrated security systems can help meet compliance requirements while giving employees and visitors peace of mind.



Security doesn't have to be invasive or disruptive. Modern safety and security systems can create a more frictionless experience for people using the building with features such as touchless access control, which controls building access based on mobile credentials, zero-contact biometrics or facial recognition software.

Buildings and facilities managers can also benefit from other safety innovations such as people flow reporting, which automates access control based on privileges, or people counting, which can monitor the number of people in and out of a building using video analytics.

As well as managing routes and eliminating bottlenecks, access control can also provide a way to manage potential contact tracing, for example by having people pass through mask and thermal temperature screening at entrances.

C. INNOVATIVE ANALYTICS

Data analytics is innovating traditional business processes across-the-board, whether in retail, financial services or manufacturing. It is also transforming building management, giving owners new and more intelligent ways to monitor and maintain safer and healthier environments. Analytics can assist in enforcing occupancy levels and social distancing compliance, regulate facilities usage patterns and identify bottlenecks, whether that translates as too many people congregating in a kitchen or meeting together in the boardroom.

With this in mind, Honeywell's #HealthyBuildings Score analytics provide real-time alerts to building owners and operators, so they can quickly address non-compliance issues or deal with potential exposure-related incidents. It thereby supports business continuity by monitoring the building environment, and occupants' behaviors.

This 24/7 vigilance is important in maintaining a healthier environment at night or weekends, when occupancy may be lower than during office hours, or when high levels of home working are required. At these times, it may not be cost-effective, or healthy to shut down building systems completely. This is where a solution that can use monitoring and analytics to adjust air quality, heating, and other levels for fluctuating capacity, can maintain a healthier environment. The analytics provided via the Honeywell #HealthyBuildings Score also allows for building owners to identify the root cause of a problem faster, thus improving incident response time or identifying potential risk awareness which not only can enhance compliance but also reduce cost.

Using analytics to track compliance with new regulations may also help building owners grow their bottom line by being able to demonstrate to tenants and occupants that a building is safer or may allow them avoid fines or penalties by demonstrating compliance.

Analytics can also be used to communicate building health metrics to occupants via a dashboard, that communicates key factors such as air quality or people flow. This can highlight areas of improvement for building and facilities managers. It can also help reassure building occupants, whether they are enterprise workers, hospitality or entertainment visitors, or sports fans gathering at a public stadium.



The Carolina Panthers stadium will have a custom dashboard that will allow the maintenance crew to identify adjustments as required

04 BUILDINGS OF THE FUTURE

Honeywell is working with the Carolina Panthers to implement such a system at their Bank of America Stadium in Charlotte, North Carolina. The healthy building solution is designed to monitor the stadium building's air quality, focusing on factors such as temperature, carbon dioxide and humidity.

It achieves this by adding software analytics and a sensor network to the stadium's existing building control systems .

In addition, the stadium will have a custom dashboard that will allow the Panthers' maintenance crew to identify adjustments as required. This information will be used to provide air quality updates to employees and visitors in various parts of the venue.

Like with the Carolina Panthers, Honeywell's open platform means it is not necessary for businesses to 'rip and replace' their existing equipment, which can be costly in terms of time and money. This makes it possible to create a healthier environment in an incremental and financially feasible way by building on the HVAC, security and operational systems that are already in place.



CHANGING EXPECTATIONS

The concept of the healthy building is not new, in reality. For many years, architects and buildings managers have designed and equipped built environments that optimize physical, psychological and social health and well-being.

But the expectations we have on our healthy buildings, and the way users interact with them, are changing, and placing an even greater emphasis on health and security. The operational technology and equipment is available today to meet these expectations, with the current climate being an ideal opportunity to upgrade the corporate office or public indoor space, and prepare them for the future.

Moving forward, internal air quality systems will increasingly use analytics technology to analyze and optimize air quality, for example to detect and mitigate high CO2 levels, and protect against the spread of pathogens. Healthy buildings will feature advanced health monitoring, for example temperature scanning and face recognition to identify mask compliance. Access control will aid building security and lower people density, minimizing close person-to-person contact. The continual monitoring of HVAC, energy, cleaning and sanitation will help to maintain a healthy environment.

As organizations return to the workplace and public buildings, there are many healthy building enhancements they can make to their indoor spaces today, resulting in a strong operational technology environment that is ready for tomorrow.

To learn more, visit buildings.honeywell.com