

E-BOOK BY SWITCH AUTOMATION

MANAGING REAL ESTATE IN TIMES OF CRISIS

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In this e-book, we explain why remote building analysis, reporting and control is essential during a global crisis. Receive practical advice on how to use smart building tech to adjust your operations, reducing operating and energy costs while still delivering a safe, comfortable tenant experience for essential workers. Finally, learn how to effectively communicate with your stakeholders before, during and after an emergency.



THE ROLE OF SMART BUILDING TECH IN A CRISIS

Every year seems to bring a new global crisis, highlighting the importance of having a truly resilient risk management strategy in place. Here at Switch, we've been revising our day-to-day processes to be more resilient in the face of local and global crises. We hear that property owners and managers worldwide are doing the same to help offset the impact of each successive economic, climate and health emergency and the resulting financial impact.

Buildings still operating with 'set and forget' automation rigidly accommodate the most common circumstances instead of adjusting dynamically according to occupant demand and their environment. Perhaps this was sensible 30+ years ago, but today this approach is wildly inefficient.

Operational inefficiency is never more apparent than during a worldwide lockdown, as stocks and property value come under pressure and millions face hardship.

Safeguarding your portfolio for the next global crisis

With so many CRE professionals working from home, the value of a robust digital facilities management strategy has never been clearer. Here are the top 3 reasons that smart building tech is crucial when disaster strikes:

Immediate reduction in energy consumption and operating costs

Having full visibility of your portfolio enables you to [benchmark performance](#) and identify opportunities for [performance optimization](#). Does your occupancy data indicate that your buildings are completely empty during a lockdown? With connected systems, you can instantly adjust HVAC, lighting, security and other systems' set points to accommodate new operating procedures and reduce your OPEX costs. Do you have 40 uninhabited sites across North America? No problem. [Use remote control](#) to make real-time changes across numerous properties at once.

If you know that demand for your buildings is lessened during a crisis, there's no reason your organization should have to bear the same operating expenses as if it were 'business as usual.' Your team's response to an emergency should be instantaneous, cutting your organization's overhead, reducing demand on already overwhelmed technicians and helping lessen any financial impact.

Safety for both onsite and remote staff

Remotely controlling your facilities [via a mobile device](#) or an internet browser helps your FM teams remain productive and safe while working from home so that they can monitor, analyze, control and report on your portfolio's performance even when normal operations have come to a halt.



Events and Control Functionality in the Switch Mobile App

Smart building tech also integrates with your security systems and occupant sensors to monitor who's coming and going. This helps ensure the safety of these environments for essential workers, even when your security staff has to stay at home.

Protect your brand

Failing to react during a crisis and leaving your facilities running while they remain empty can be detrimental to your brand. While heating and cooling are essentially invisible, [leaving the lights on](#) while buildings sit unoccupied sends a message of carelessness and demonstrates an obvious lack of operational agility. This is particularly true as millions face hardship and unemployment. Adjusting your facilities publicly demonstrates to surrounding communities and even your own employees that your brand is conscientious, efficient and sustainability-oriented.

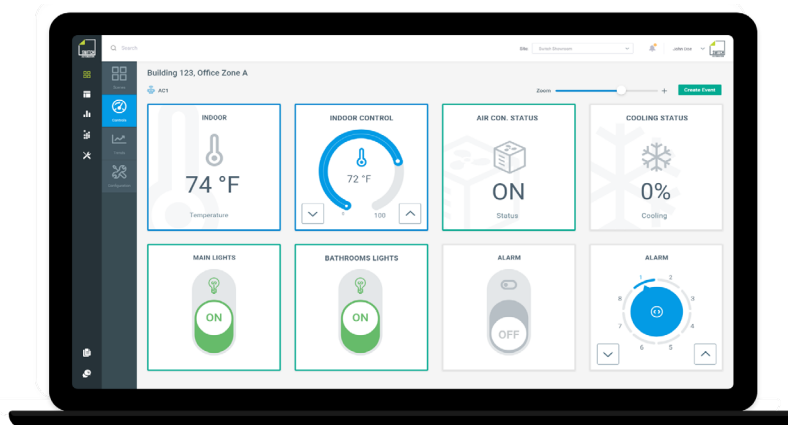
It's now crucial that real estate organizations prepare for the next global crisis to reduce the financial impact of diminished property value and cancelled leases. With the right digital facilities management strategy, property managers can make agile adjustments to their systems, reducing operating and energy costs while still delivering a safe, comfortable tenant experience for essential workers.



HOW TO ADJUST UNOCCUPIED BUILDINGS REMOTELY

Remote control is essential at a time when entire commercial buildings stand empty. Here are 10 practical and agile steps to adapt your building operations for sites that have reduced or no occupancy:

- I Clearly identify the changes needed to building operations, designating areas that are closed vs. operating, or areas that contain sensitive materials that need to be maintained at specific temperatures. Ideally this list is shared with everyone on your team.
- I Verify that outdoor air dampers are closed or operating as needed.
- I Make sure your HVAC systems and lighting are turned off or set back to the largest degree that is appropriate.



Switch Platform Control Functionality

- I To maintain the integrity of your equipment, exercise your equipment every week. Just as emergency generators are routinely ran in non-emergencies to verify they will operate when needed, consider operations at various intervals for building equipment (for example modulate dampers and valves weekly, or run fans and pumps bi-weekly).

- | Adjust central air and hydronic plants to cycle on with at least 5 zones out of setpoint. Many buildings have a high-need zone, in which the air handling units and respective hydronic systems will quickly cycle on to meet this one need. Even with reduced setpoints, this high-need zone will likely trigger operation. When unoccupied, these needs are less critical, so increasing the number of zones that need heating or cooling before system operation should reduce cycling and energy consumption.
- | With reduced setpoints and milder temperatures approaching, many climate zones economizers can save even more energy. Verify that your airside and waterside economizer controls are working properly.
- | Verify the necessary changes have been made.
- | Use Alerts to notify your team if operational changes have drifted.
- | Consider controlling your buildings remotely with a sophisticated smart building platform, if the needed changes haven't been made.
- | Decide which repairs can be safely attended to while your buildings are empty or less busy. Track any repair or maintenance activities, whether they're taking place now or in the future and be sure to tag all the relevant parties to keep your organization's teams aligned.



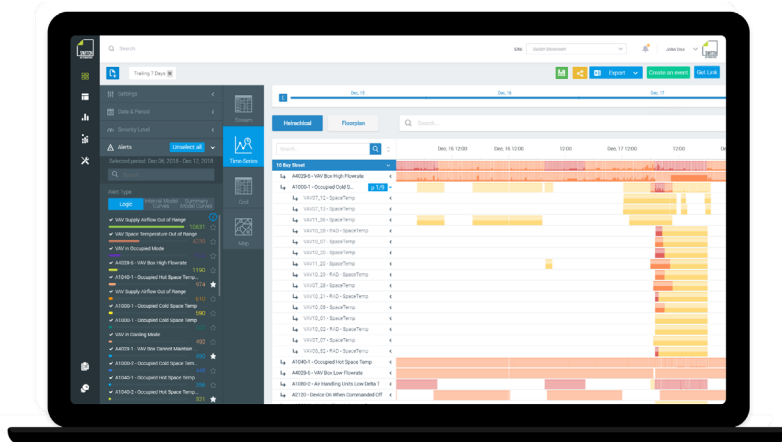
ADJUSTING OCCUPIED BUILDINGS REMOTELY

Certain buildings such as hospitals, grocery stores and pharmacies are in greater demand than ever. It's crucial that essential workers are kept as safe and comfortable as possible while they carry out their vital roles.

For buildings that are still occupied during a lockdown, here are some recommendations to consider:

- | Increase outdoor air ventilation (use caution in polluted areas) and run ventilating equipment 24/7 to help provide air dilution throughout the day. This may mean disabling demand-controlled ventilation (DCV) in occupied areas so ventilation isn't decreased with DCV operation ([ASHRAE](#)).
- | Increase air filtration to MERV-13 or higher; or use portable room air cleaners with HEPA filters. For central air filtration, consider the tradeoffs between increased filtration and the resulting reduced airflow.
- | Encourage water filling stations, instead of water fountain use.
- | Maintain relative humidity between 40 and 60% (while considering point humidification in arid climates). In humid climates, mold formation is shown to start at 70% RH.
- | Verify that relative humidity readings stay within this range during occupied hours and ensure you receive alerts if humidification / dehumidification systems perform improperly.
- | [Add UV disinfection](#) for critical surfaces and internal equipment within an AHU (coils, filter racks).
- | Track and manage the changes you've made. When it comes time to revert back to more standard operating procedures, you'll have a clear record of all your modifications for vendors, stakeholders and tenants.

- Utilize alerts to let you know when your building is not performing as intended, in the new occupied mode.



Alerts Analysis identifies underperforming facilities and sites.

- Please keep in mind that while HVAC control is a contributing factor to maintaining a safer operating facility in these times, the strongest measures to stop the spread of infection relate to social distancing, surface disinfection and other [basic CDC guidelines](#).



COMMUNICATING WITH YOUR STAKEHOLDERS

Adjusting your building operations and encouraging your staff to work from home requires flexible and strategic planning. The process of reopening your commercial properties is equally challenging and is largely dependent on the strength of your corporate communications.

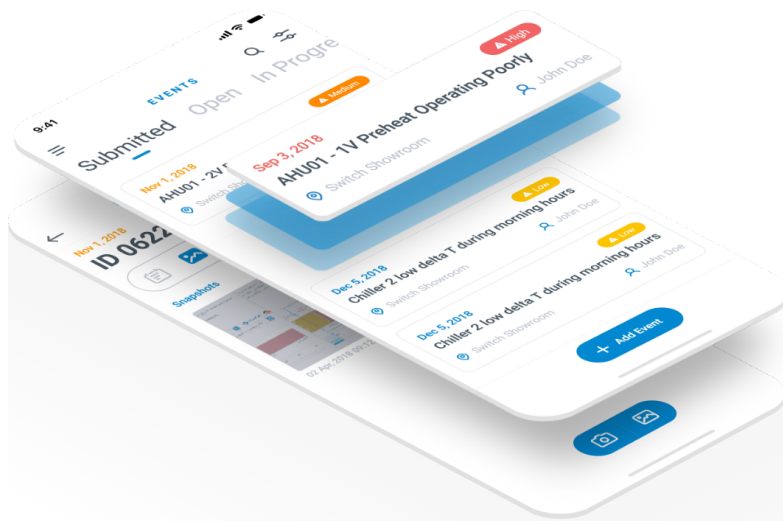
Once you know when and how staff and customers should start to utilize their commercial spaces again, you will need to communicate these exact policies so that your they feel secure and trust in your brand remains strong. It's essential to use building performance data to demonstrate transparency and provide a rationale for changes in policy. Here are 5 tips for using smart building technology to communicate next steps:

- I Your occupants or managers are probably curious about site operations and asking questions like 'how many people are currently occupying my floor?,' 'when was the last time it was cleaned, and how often?' or 'how much outside air is being brought in?' Utilize standardized metrics on building usage, lighting systems, HVAC and more and create dynamic reports to update your staff and customers.
- I [Identify patterns in your building performance data](#) to pinpoint the sites and equipment experiencing issues in real-time. A lockdown is the perfect time to audit and refine your Alerts to ensure the right notifications are going to the right people with the correct 'low', 'medium' or 'high' severity and next steps. This will ensure additional operational efficiency moving forward.



The Performance Score Dashboard gives an immediate overview of site or portfolio.

- | Assign tasks to specific users with clear priorities and due dates to support ongoing projects or work orders. A portfolio-wide project management tool enables you to delegate actionable projects, clearly indicating the responsible party, status and next steps to ensure that each team member is fully aware of their role. We also recommend conducting a weekly meeting with your site teams to review the status of each task and keep team accountability high.
- | A smart building app gives your team access to portfolio data wherever they are, as well as the ability to communicate about and resolve issues in real-time. Ensure that your operations staff have downloaded the app and are comfortable using it to monitor, update or resolve issues even when away from their laptops.



Events Functionality in the Switch Mobile App.

- | Work with your marketing team to create a case study detailing your handling of the operational pivot, the results you've driven to date and the key findings that you want to action moving forward. This is an excellent opportunity to demonstrate your organization's efficiency and flexibility during a crisis both internally and externally. Leverage data to lend additional precision and credibility to your case study.

Timing is everything – because smart building technology creates new value and efficiency that compounds over time, the big industry winners and losers are being established right now. Digitization is only going to accelerate for the most competitive CRE organizations. In other words, the companies that can absorb the financial impact of an emergency and capitalize upon the eventual market upturn are the ones that will truly flourish.



About Switch

Switch Automation is a global real estate software company that helps property owners and facility managers reduce operating costs, improve energy efficiency and deliver exceptional occupant satisfaction. Our comprehensive smart building platform integrates with traditional building systems as well as Internet of Things (IoT) technologies to analyze, automate and control assets in real-time. We serve enterprise customers and partners in a variety of industries including financial services, retail, grocery, commercial real estate and more. Learn how Switch Automation creates technology to bring people and planet to the center of building operations at www.switchautomation.com.

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