

#### **OPTIMIZING HEALTHCARE OPERATIONS**

How building technologies can help drive better patient outcomes



# **ENHANCING HEALTHCARE EFFICIENTLY**

New technologies are attracting interest from healthcare organizations across North America to ease the strain and pressures of the current healthcare status. It's important that these systems are not viewed in isolation. Solutions must be fully integrated to provide the most benefit to patients and healthcare facilities, and each system has a role to play - including digital building technologies.

It's no secret that the healthcare sector is facing an extreme amount of demand and pressure on resources.

The inefficiencies in the healthcare systems that lead to these problems can be attributed to several factors, including legacy systems, siloed data and manual processes. As such, healthcare facilities in the US are turning to new technologies to treat patients more efficiently and manage key hospital processes, such as bed management and ambulance routing, more effectively.

For example, healthcare leaders have been calling for adoption of surgical robots as means of treating patients more efficiently and in turn reducing waiting times.1 Surgical robotics are one piece of that puzzle, but it's essential we understand that there is no 'magic bullet' - it's crucial to look at technology in the healthcare system holistically.



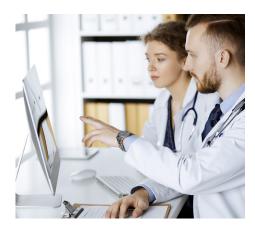
<sup>1.</sup> The Times, Robot surgery can cut into NHS waiting lists, say doctors, Kat Lay, February 12 2023

#### INVESTING IN HEALTHCARE TECH

Investments in the latest technology should not be made in isolation. There needs to be integration between healthcare technologies to tackle the challenges the system is currently facing, and this integration extends from medical equipment to bed management systems and even building technologies.

A Building Management System (BMS) is an integral part of most hospitals' site management strategies. BMS deployments can be used for various purposes such as to monitor and control temperature and humidity levels in hospital wards, ensuring that patients are comfortable and reducing the risk of infections.

However, it's when we integrate a BMS with other digital technologies that we see greater benefits for healthcare operations and patient outcomes by giving healthcare providers a complete view of their operations.



#### AN INTEGRATED SOLUTION

One simple example of an integration is a bed management system and electronic patient records (EPRs). By having a shared view into a BMS, separate technologies can provide real-time data on patient occupancy, enabling facility managers to optimize room usage and reduce waiting times. This isn't a far cry from the way many managers already use their BMS, but the integration unlocks more value.

More ambitiously, a holistic digital asset strategy could involve leveraging ambulance and city data. With the integration of building, city, and hospital data, the healthcare providers could be better able to allocate patients to hospitals and doctors based on factors such as traffic flow and clinician availability.

No small feat, but it's one approach that can bring substantial benefits. As such, it is imperative that these core building systems are implemented that operate under a single facilities management strategy, and as part of a cohesive technology plan.

At the heart of a holistic digital plan is the BMS. Crucially, the BMS must be able to communicate with the other software, systems and devices across the healthcare facility to ensure a reliable, open flow of information. Open protocol-based BMS, such as Alerton's Ascent Control Module, can deliver this unimpeded communication between systems to give healthcare organizations a single point of access with a comprehensive view of facility operations.





## A SYSTEM DESIGNED TO ENABLE HEALTHCARE PROVIDERS

This enables healthcare providers to identify inefficiencies, optimize resource allocation and improve patient outcomes – all while simultaneously establishing a system that is less admin-intensive for practitioners.

Broadly, the benefits of digital healthcare technologies are well known: surgical robotics can complete surgeries faster and more effectively with reduced patient recovery times; digitalizing administrative processes helps reduce overworking practitioners and reduces the risk of errors; using an intelligent BMS can provide automatic control of environmental conditions to keep infection risks low.

Individually, these technologies only go part way to addressing challenges on the scale that the healthcare industry is currently facing with waiting times and patient volumes. Together, the benefits are magnified. As healthcare systems face increasing demand and pressure on resources, a digital healthcare strategy is essential to ensure that patients receive the highest quality of care possible.



### **ABOUT ALERTON CONTROL SYSTEMS**

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