

#### Healthcare

## Welcome to Johnson Controls

We work to build the future you want



Every day, we transform the places and spaces where people live, work, learn and play.

From optimizing building performance to improving safety and enhancing comfort, we are here to power your mission, making your goals become reality.



Johnson Controls provides a continuum of care to meet every need of your healthcare facilities and power the outcomes that matter most.

We continue to be a cornerstone of health infrastructure. 83% of the hospitals in North America partner with Johnson Controls, ensuring their healing environments are safe, comfortable and sustainable.



We combine our deep industry experience with digital innovation and building expertise to power your mission.







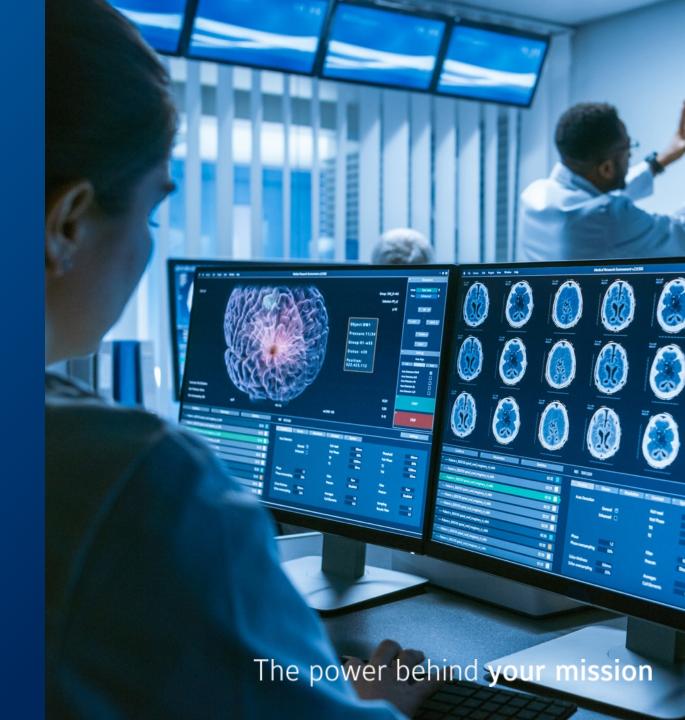


Improved energy efficiency

\$ Increased revenue impact

Enhanced occupant experiences

We have the blueprints to incorporate leading industry expertise into your project.



#### **The Johnson Controls difference**

### End-to-end capabilities

We partner with you across your facility's lifecycle – design, financing, construction, maintenance and management.

### Depth of experience

We are world leaders in building technology and solutions, bringing to every project, big and small, proven expertise earned over more than 130 years.

### Global footprint

With a presence in more than 150 countries, we deliver solutions worldwide to ensure you meet your goals, no matter where you operate.

### Full integration capabilities

With a technology portfolio that integrates every aspect of a building from security systems to energy management to HVACR we continuously exceed customer expectations.

### Trusted partner programs

We amplify our own capabilities by partnering with other industry leaders, working together seamlessly to provide you with even more effective solutions.

### Continuous innovation

We push digital technology forward every day, delivering to customers innovations such as Al-enabled security solutions that ensure optimal system operations.

### Impactful sustainability

Increased energy efficiency, reduced water usage and a commitment to transparency are just a few of our award-winning sustainability efforts.

### Center of excellence

We have a global network of 1600+ engineering experts that support customers to drive quality, efficiency, and profitable growth.

#### A better patient experience

Ensuring patient comfort and creating the best possible environment for healing are critical to the success of any healthcare facility.

Balancing patient satisfaction with efficiency goals and budget constraints can be a challenge. We help by providing:

- Real-time locating systems
- Healthcare communications
- Wayfinding and parking solutions

Our patient-centric approach creates healing environments that put the patient in control and streamlines the entire health experience.



#### **Smart facility operation**

By leveraging innovation through the Internet of Things (IoT) and connected technologies we have helped create more smart hospitals than any other company.

We provide modern healthcare facilities solutions for buildings, staff and patients:

- 24/7 monitoring and integration telecom
- Voice over Internet Protocol (VoIP) and digital communications
- Unified view of data across all buildings on your healthcare campus

The result is a smarter healthcare facility that is more comfortable, more efficient and more productive.



#### **Increased safety and security**

Creating strong healing environments that ensure the well-being of everyone in your healthcare facility.

Patient experience and staff productivity relies on systems and technology. We provide industryleading solutions in:

- Temperature monitoring for critical environments including laboratories, operating theatres and pharmaceutical storage
- Security and fire safety systems
- Optimized water and wastewater utilities
- Smarter, energy-saving interior and exterior lighting
- IT systems protection

We can help you monitor and respond to potential threats to the safe, reliable operation of your facility.



### Operational and energy efficiency excellence

Developing healthcare facilities that are resilient and operationally efficient is a top priority.

As healthcare and technology evolve, the pressure to implement "smart" facilities increases. We partner with you to prioritize and find solutions for:

- Deferred maintenance
- Modernizing
- Infrastructure replacement
- Mitigating risk
- Managing resources
- Access to innovative funding options

We help transform healthcare facilities by solving your biggest challenges today while anticipating the technologies you'll need to build a better tomorrow.



#### Helping patients heal and doctors cure

### Increase patient capacity

- Conversion of regular patient rooms
- to negative pressure isolation units
- Conversion of unused infrastructure to isolation rooms
- Increase bed count in existing isolation rooms
- Quick-ship and Quick-build capabilities for HVAC equipment to help quickly mobilize facilities
- Rental equipment

#### Enhance communications

- Deploy temporary wireless Nurse
- Call System
- Expand temporary network (wired/wireless)
- Install Command and Control Center
- Expand building, business and clinical system installation for hospital infrastructure
- Deploy Real Time Location Services (RTLS) for equipment tracking

#### Maximize safety for staff and patients

- With a presence in more than 150 countries, we deliver solutions worldwide to ensure you meet your goals, no matter where you operate.
- Access controls and video surveillance in the Cloud to enable remote monitoring
- Building systems installation for temporary external screening and patient intake structures
- Thermal video cameras to assess temperature of those entering sites for symptoms
- Cloud-based visitor management for issuing touchless credentials
- Panic buttons and badges for staff
- Remote monitoring and diagnostics of fire panels through TrueSite Workstation

# Provide operations & maintenance to your building and technology systems

- Prioritizing service response for
- critical healthcare facilities
- Adhering to safety measures prescribed
- by the hospital and local government
- Servicing HVAC, fire, security,
- life safety and technology



Johnson Controls Solutions and Capabilities for Healthcare

### COVID-19 Crisis Response

Johnson Controls is committed to serving the healthcare community during the COVID-19 crisis. We have the global experience, national workforce and healthcare expertise to quickly expand hospital capacity and enhance caregiver response for COVID-19.





## Johnson Controls Solutions and Capabilities for Healthcare

#### We were on the front lines in Wuhan installing systems in eight days

Our solutions have been successfully implemented in record time by healthcare facilities in China, like Wuhan Taikang Tongji Hospital.

- In the first 12 hours, the team was mobilized, safety plans and guidelines established to protect the Johnson Controls workforce
- In the next 20 hours, the team arrived and started the construction plan
- In the next 72 hours, the shelter hospital was rebuilt rapidly, and the safety assurance system and network communication system of the whole hospital was deployed and operational
- In the following 72 hours, 860 critical beds were equipped with critical Medical Intercom/Nurse Call systems

#### We continue to provide urgent COVID-19 Healthcare solutions

- Streamlining visitor and new patient entry for COVID-19 screening and protecting it with fire alarm in 10 days
- Providing emergency HVAC equipment in less than 24 hours for triage units
- Providing space analysis and infrastructure modifications to provide more isolation rooms
- Re-purposing standard patient rooms to isolation rooms
- Converting internal rooms to infectious controls rooms
- Re-opening closed hospitals
- Creating external triage spaces
- Working with healthcare partners to open new construction sites early
- Addressing fire & life safety and enhanced security requirements
- Providing technology resources and expertise to support urgent clinical capacity expansion and network infrastructure modifications or additions

Help doctors cure and patients heal by transforming your entire operation to work effectively and efficiently.

**Building Automation & Controls** 

**HVAC Equipment** 

**Fire Suppression** 

**Fire Detection** 

Security

**Industrial Refrigeration** 

**Retail Solutions** 



Consultation | Solution Design | Installation | Service | System Integration



HVAC equipment

Energy storage

Fire detection & fire suppression

Building services & parts

ighting & energy retrofits



Operational intelligence &



Hospital waste program



Technology infrastructure



Central plant optimization



Performance infrastructure

Building-wide system





Healthcare communications





#### Challenge

Ng Teng Fong Hospital in Singapore adjoined the Jurong Community Hospital. Their mission was to create a sustainable urban medical center that was:

- Flexible
- Modular
- Patient-centered from the facilities to the medical process to the emergency room
- Singapore BCA Green Mark certified

#### **Solutions**

The hospital integrated traditional building systems, medical care systems, and medical information management systems to optimize management and maintenance processes.

Solutions designed for environmental sustainability, balancing:

- Infrastructure
- Water and energy systems
- Landscape features

#### Results

Shortened response time to Code Blue activation (3 x increase in survival rate of patients with cardiac arrest).

- 68 cubic meters of water saved each year
- Close to \$4M in energy savings
- Green Mark Platinum Award from the Singapore Building Authority
- Seamless integration of different medical functional areas across three towers
- Single user interface for different users

When you partner with Johnson Controls, we treat your mission as our own. We put our deep expertise, leading technology and world-class products to work for you, never resting until you achieve your goals.

Whether your mission is to heal, teach, create or connect, Johnson Controls can help you achieve it.

Learn more when you visit us

www.johnsoncontrols.com/industries/healthcare

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We provide the next generation of smart building technology for these industries:

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**Schools** 



**Smart Cities** 



Sports & Entertainment



**Data Centers** 



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Healthcare



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