

Powering the sport & entertainment venues of the future



The power behind **your mission**





Smarter, safer and more sustainable fan experiences.

Sporting events and concerts bring families, friends and even strangers together, who connect through shared loyalties, passions, and experiences. They share those experiences in the venues that Johnson Controls helps to create. Today, the sports and entertainment industry is embracing those connections and uses technology to take the fan experience to even greater heights.

Creating this elevated experience begins with designing a smarter, more connected environment for your fans and your staff. Johnson Controls leverages the latest technology, products, services, expertise and process to deliver a venue that is optimized for its fans' enjoyment and safety, driving revenue generation and performance along the way.

End-to-end capabilities

We partner with you across your facility's lifecycle – design, finance, build, maintain, manage, retrofit and replace.

Partnering for success

We amplify our own capabilities by partnering with other technology leaders to seamlessly deliver world-class solutions that will differentiate your venue and delight your fans.

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.

Technology innovation

We push digital technology forward every day, delivering innovations that provide optimal building performance.

Global footprint

We deliver local service and solutions to meet your goals in over 150 countries around the world.

Impactful sustainability

We take sustainability seriously. We run our own operations sustainably and we make sure you have the products and services that ensure you can too.



Ready to work with us?

Johnson Controls has a vast network around the world – including in your community. Our representatives serve our customers every day with dedication and commitment. Contact us to find one in your area.
www.johnsoncontrols.com



A great fan experience starts with a great venue

Live sports and entertainment experiences begin with arenas that are safe, secure, comfortable, and connected—and we've been delivering those benefits for more than a century. But today's fans want more. They want to connect with their teams and players, their favorite performers, and other fans.

Make those connections even stronger with a smart, connected venue that seamlessly integrates the digital infrastructure with the physical structure to deliver the social experience that will keep fans coming back for more.

Advanced Analytics Make Your Arena Smarter

Today, the sports and entertainment industry embraces technology to make fan experiences richer and more enjoyable. We look at more than sight lines, seat width, and concessions. We help venues integrate technologies to give tech-savvy fans and event-goers new ways to connect to their passions and share their experiences.

We link consumer technologies like web services, point-of-sales systems, digital signage, and concessions with data gathered at fan touchpoints to help you build new businesses, unlock new revenue streams, and capture operational efficiencies. We design future-ready networks with the bandwidth, connectivity, capacity and speed that allows fans to connect quickly and reliably, and provides a backbone that will accommodate new technologies.

Sustainable Operations Help Save Money and the Environment

The drive to energy efficiency and sustainability continues to gather momentum, and we are here to help make your facility as green as you want it to be. For new construction as well as technology retrofits, implementing practical and measurable strategies and solutions aimed at achieving high performance of the venue provides fans and staff with a healthy, green and optimized building. LED lighting and highly efficient water and energy use, along with conservation strategies will lead to significant operational savings over the long-term lifespan of the venue.

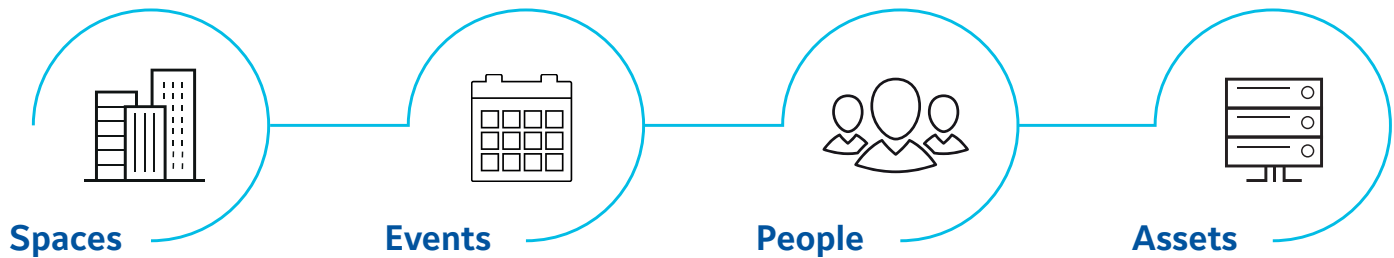
Safety Has Become a High-tech Function

When large volumes of guests enter a venue, safety is always a concern; it is your responsibility to deliver a safe and secure environment for entertainment. Using the latest in security and life safety solutions, spaces can be safely monitored through access controls, video surveillance, weapons detection and fire suppression. The addition of digital offerings which sit on top of existing access control and video management systems, harness the power of the cloud to make the security operations staff more effective than ever. Johnson Controls helps you protect your fans and facilities without missing a beat.



We power your digital transformation

By converging previously fragmented technology systems on a standards-based, secured and resilient network infrastructure, you are empowered to make data-driven decisions that optimize your sports and entertainment facility and create an enhanced experience for your fans.



We combine the most advanced digital innovation, thought leadership, and unparalleled expertise with that of our ecosystem partners to power our customers' mission. By integrating technologies, data platforms, applications, core building systems, and smart edge devices, you can optimize building performance, safety and comfort, create unique experiences for fans, enhance business productivity and drive energy efficiency:

A more connected fan experience, with everything from on-demand video streaming of instant replays to apps that let fans order food or locate the shortest restroom lines.

Wi-Fi and high-capacity DAS networks providing robust, uninterrupted coverage, live data streaming on demand and an unforgettable event experience.

Efficient operations through data-driven decision making, using information gathered from a variety of building systems and technologies.

A safer environment for fans to gather, using the latest AI technology to rapidly monitor video surveillance footage for potential threats.

Increased revenue generation through streamlined, mobile-enabled sales.

IoT Company of the Year

Johnson Controls was named IoT Company of the Year by the independent organization, *IoT Breakthrough*. The award recognizes global innovators, leaders and visionaries in IoT, and we were recognized as the leading company in the IoT industry for driving digital transformation through our broad portfolio of vertical markets and digital solutions.





Powering digital innovation for a state-of-the-art sports and entertainment complex

Fiserv Forum

Challenge

Fiserv Forum wanted to build an arena that is the gold standard for a sports and entertainment facility while also driving additional development and community growth throughout the region. They needed a holistic, integrated technology solution that could create a connected, safe and comfortable environment while promoting highly efficient operations.

Solutions

- Wi-Fi and high-capacity DAS networks to deliver uninterrupted connectivity for up to 18,000 fans, with internet speed reaching 20GB/second.
- Enhanced digital signage with an in-house video production studio supported by the audio/video infrastructure and broadcast cabling plant.
- Access controls for advanced security, including over 420 monitored or controlled doors and biometric iris and fingerprint scanners for restricted areas.
- An Arena Operations Center, where security teams can monitor over 365 video surveillance cameras.
- Fire alarms integrated with audio visual systems for improved communications during emergencies.
- Three magnetic-drive YORK® chillers to regulate internal temperatures while maintaining energy efficiency.
- The Metasys® building automation system tracks equipment performance, enables predictive analysis and can make real-time adjustments based on event attendance.

Results

A connected venue powered by Johnson Controls that helps achieve:



Increased fan engagement and satisfaction



Increased fan revenue through conveniences and game day experience



Increased operating efficiencies



Better energy efficiency



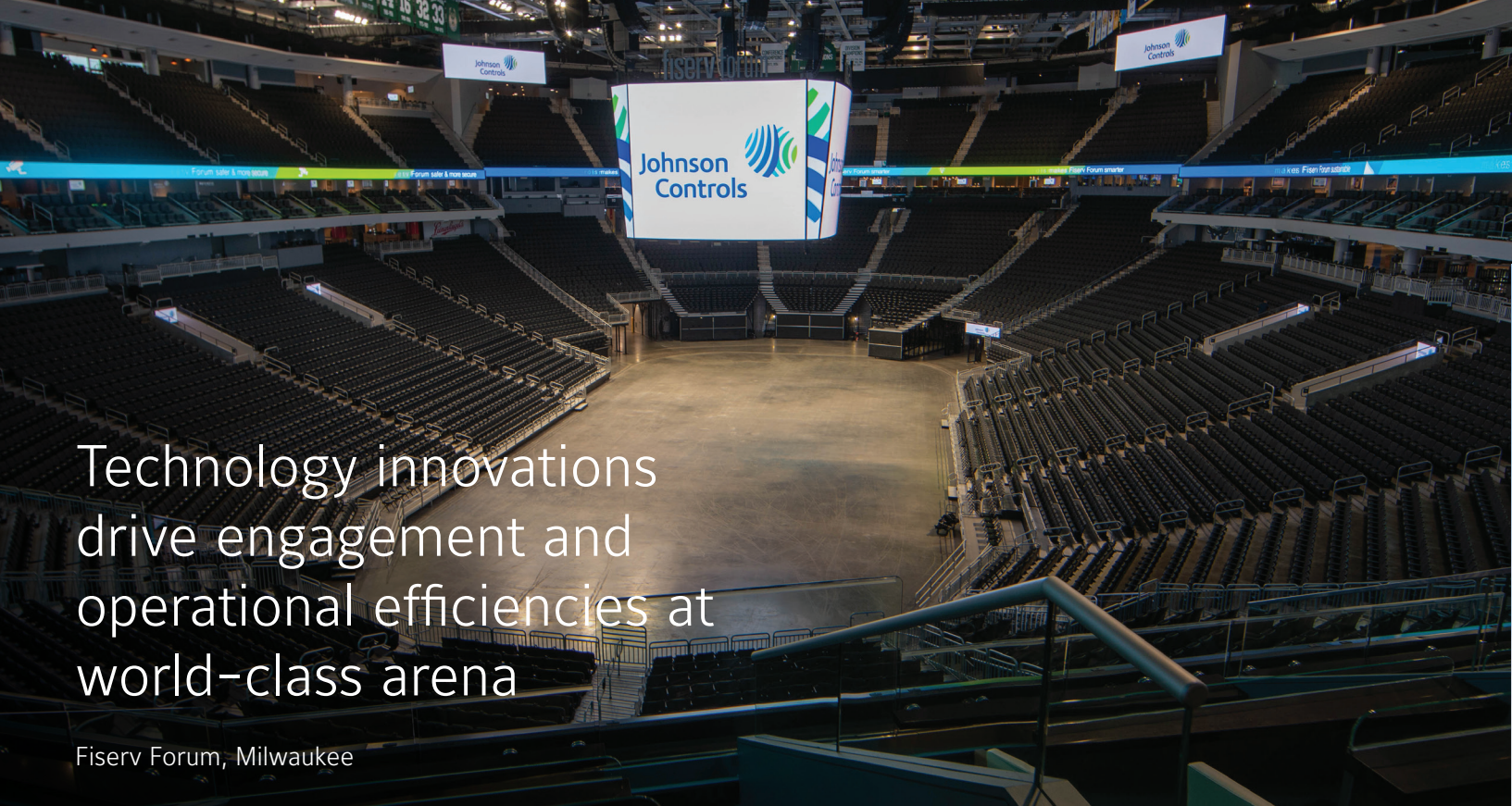
Safe and secure facilities



Increased equipment and system reliability



Increased revenue through sponsorships



Technology innovations drive engagement and operational efficiencies at world-class arena

Fiserv Forum, Milwaukee

The bar has been set very high. Fans no longer need to leave the house to become fully immersed in a game or a concert, now that 55-inch televisions, virtual reality headsets and home theaters are commonplace. It's a challenge that Fiserv Forum and their partner Johnson Controls took very seriously. As the Official "Smart Building" Partner of Fiserv Forum, Johnson Controls had the opportunity to work alongside the Milwaukee Bucks and their partners to create a state-of-the-art venue that has fans lining up to attend sporting events, concerts and more in an environment unlike any other. Johnson Controls was assigned as the single point of responsibility to bring an enterprise-wide perspective to managing the planning, design assist, installation, integration, commissioning and service of technology systems, business applications and supporting infrastructure.

This approach was designed to:

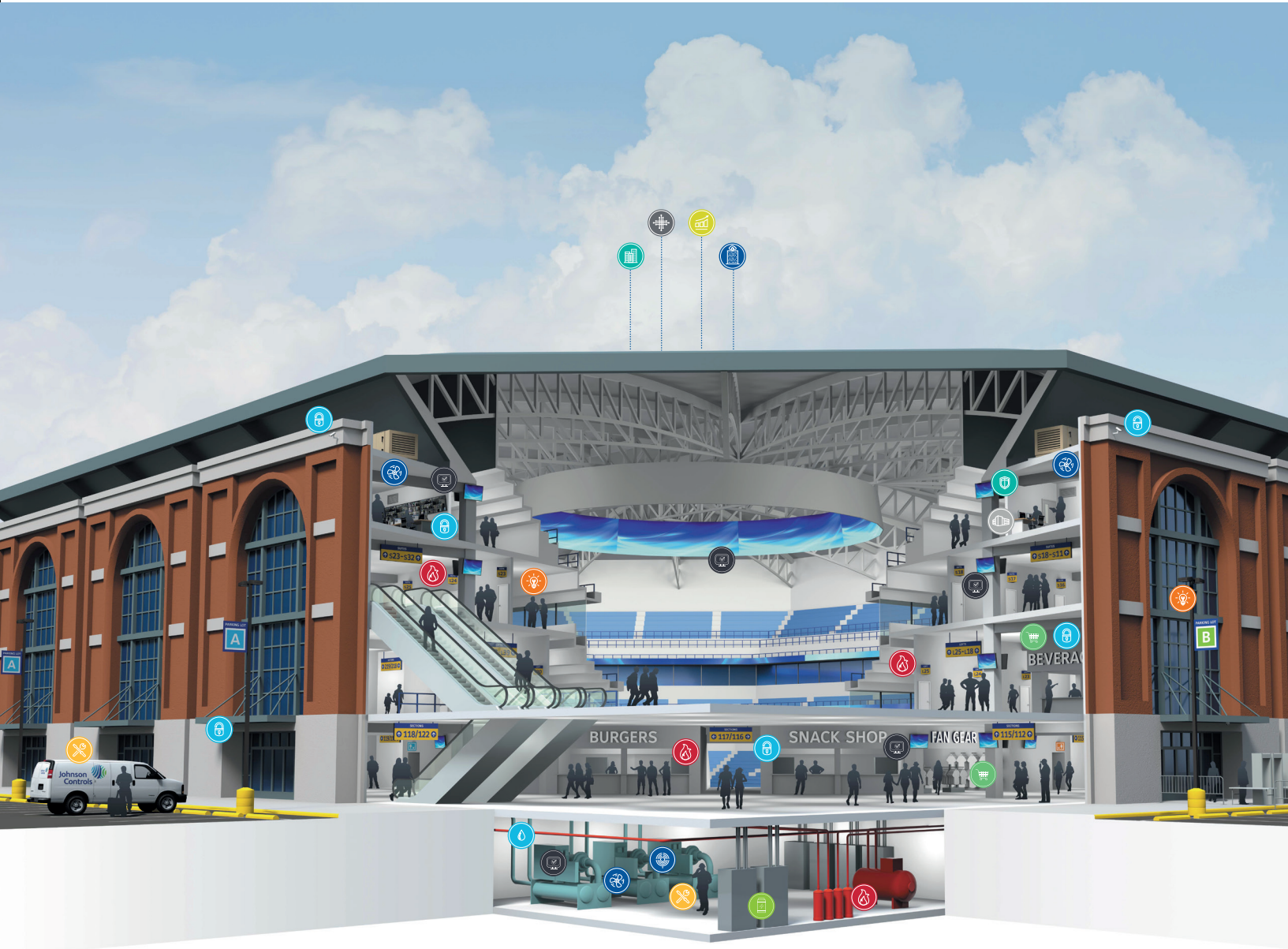
- Ensure the owners' objectives were being met by having early conversations about the best approach to address their desired outcomes for the venue, and by making data-driven decisions about connectivity and interoperability.
- Facilitate collaboration among Johnson Controls' experts, the venue's owner, and the design and construction teams.
- Minimize cost and risk by leveraging Johnson Controls' vast ecosystem of partners to bring proven, repeatable, best-in-class technologies to the project.

Johnson Controls implemented a variety of building technology solutions throughout the facility to enhance the fan experience, improve the building's performance, reduce energy usage and reduce the arena's environmental footprint. The result is an experience that goes beyond immersive.

For example, cameras positioned throughout the space stream video to the video production studio where it can be pushed out in real-time to the major networks or displayed with cutting-edge clarity throughout the venue and on the new center-hung, full HD scoreboard—one of the top scoreboards in size in the NBA. The scoreboard and ribbon board ride on the converged enterprise-grade network, along with speakers surrounding the scoreboard, suspended from the rafters inside the seating bowl, ensuring seamless content management and delivery.



Transform your entire operation to work more effectively and efficiently while staying focused on your core mission: Smarter, Safer, More Sustainable & Connected Venues.



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|  Controls |  Fire detection & fire suppression |  Operational intelligence & loss prevention |  Building-wide system integration |
|  HVAC equipment |  Building services & parts |  Energy storage |  Technology infrastructure improvement |
|  Security |  Lighting & energy retrofits |  Central plant optimization |  Performance infrastructure improvement |
|  Audio visual systems |  Building management systems |  Water system & equipment upgrades |  Digital IoT solutions |
| | |  Retail systems | |

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/sports-and-entertainment

Some of our famous brands



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

Smart Buildings



Smart Cities



Data Centers



Healthcare



Higher Education



Schools



Sports & Entertainment



Industrial



Transportation



The power behind **your mission**

