

OpenBlue Pioneers

Fiserv Forum Powering an NBA championship run with a home-court advantage



Pioneering the gold standard in world-class sports and entertainment venues

When the Milwaukee Bucks needed a larger arena with more amenities befitting a National Basketball Association (NBA) team, its owners and a collective of visionaries acted. They set forth with the goal to transition from the Bradley Center to a new venue via a public-private partnership, setting the future of the team and a dream in motion.

The visionaries wanted to keep Milwaukee competitive by building the gold standard in world-class sports and entertainment venues. Simultaneously, they wanted the \$524 million, 714,000 square-foot, multi-purpose development to drive the city's rebirth.

An icon of revitalization, Fiserv Forum has been the catalyst for Milwaukee's Deer District renaissance, shaping the downtown area into today's vibrant destination – a bustling center of activity designed for living, working and playing. This central hub authentically reflects Milwaukee's heritage and its continual progress, accessibility and a renewed sense of community, connecting neighborhoods and generations for years to come.

To top it off, Fiserv Forum provided the Bucks with a home-court advantage as they brought home their second NBA Championship in 2021, accommodating capacity crowds within the arena and massive crowds outside in the entertainment district.

Supporting the city of Milwaukee's vision

With the Bucks and Johnson Controls calling Milwaukee home, both have been foundational to the city's vision for the district since the beginning of its development.

Engaging early with leadership and other stakeholders on projects of this scale is critical. So, when Johnson Controls became the Wisconsin Center District's technology contractor, it knew it had to build with the end in mind. Johnson Controls brought a holistic, enterprise-wide perspective to managing the planning, design, installation, integration and service of technology systems, business applications and supporting infrastructure. Fiserv Forum and its entertainment plaza, the Bucks training facility and parking complex became seamlessly integrated for a secure, future-proofed tomorrow.

Raising the bar on performance right when it's needed

A lot has changed since Fiserv Forum first opened its doors:

- District-wide growth
- The COVID-19 pandemic
- The 2021 NBA playoffs, finals and championship glory with nearly 85,000 attending fans
- A heightened awareness of sustainability

Through it all, the future-ready network infrastructure, leading-edge equipment, technology and digital solutions produced a flexible technology environment that enabled the district to easily navigate these moments and the changing landscape of entertaining fans.

"We wouldn't have been able to accomplish this without a partnership with Johnson Controls, who helped guide our vision throughout every element of the process," said Peter Feigin, president of the Milwaukee Bucks. "Together, we've built an incredible infrastructure for our district, for the future of the city, and it's only going to continue to grow."

Optimizing facility operations and outcomes through technology

By maximizing project dollars through a coordinated design, implementation and optimization effort, Johnson Controls was able to reduce risk, prioritize technology requirements now and in the future and deliver an environment that augments the in-arena fan experience without sacrificing sustainability. All while working as part of the team that delivered the arena early and under budget.

In recent years, Fiserv Forum has elevated its capabilities, responding to the changing needs for increased indoor air quality, touchless environments and enhanced safety and security due to the effects of COVID-19. Through OpenBlue Healthy Buildings solutions and the Metasys® building automation system, Fiserv Forum progresses the digital transformation of its smart building systems for the arena and district, ensuring a safe, secure and healthy fan experience, second to none.

OpenBlue Healthy Buildings solutions support dynamic smart facilities with connected solutions for healthy places that support people and the planet. Leveraging these solutions, Fiserv Forum ramped up its health focus in the wake of COVID-19.



Focusing on health

Through state-of-the-art innovations from Johnson Controls and its OpenBlue Healthy Buildings solutions, Fiserv Forum is now even better equipped to provide clean air through disinfection, improved ventilation and increased filtration. Also, when essential, an advanced temperature screening technology upgrade for the Bucks and Fiserv Forum staff allowed for touchless temperature checks and strict compliance management upon building entry. Employees and guests can breathe easier knowing Fiserv Forum's technology is running behind the scenes at all times to safeguard their health.

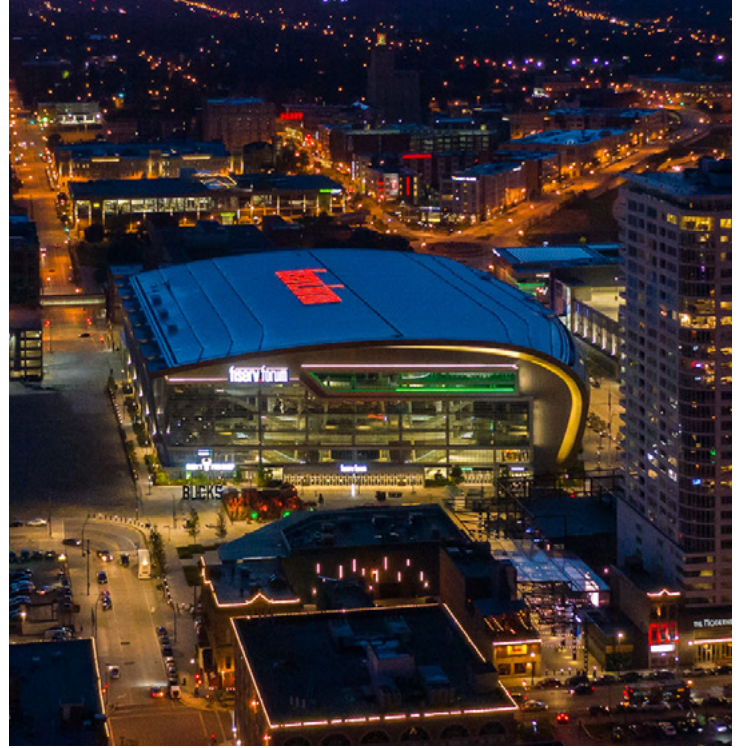
Advancing safety and security

OpenBlue Healthy Buildings solutions also power advanced safety and security for the future-focused arena.

Cybersecurity measures are in place to protect the people, network infrastructure and technology systems within Fiserv Forum against vulnerabilities. Access control is well-defined with the system containing more than 420 monitored or controlled doors. Moreover, varying levels of restricted access are imposed for players, storage, medical and public areas. For example, biometric iris and fingerprint scanners grant access to defined locations for NBA players and certain members of the Bucks staff.

Once inside Fiserv Forum, the safety of players, performers and visitors take position from the Arena Operations Center – the facility's centralized monitoring and communication core.

Being able to house 17,500 people within Fiserv Forum at any given time, keeping close observation is critical. Through the victor Video Management System, security personnel can view guest movement in real time from more than 365 high-definition IP surveillance cameras throughout the arena, as well as from extra-dense 20 megapixel cameras focused on the bowl area where fans sit and player benches are located.



Also, in an emergency, operators have immediate insight into detailed information about critical alarms and game-day systems to ensure a coordinated response with first responders.

- The arena-wide fire alarm and audiovisual system integration signals the ribbon board to display an emergency message while pre-recorded evacuation messages play over the loudspeakers.
- The Arena Operations Center uses the DAS public safety frequency, guaranteeing communication devices transmit in hard-to-reach areas like stairwells, elevators, basements and thick-walled or shielded areas.

"We relied heavily upon what we planned for with our Johnson Controls systems during the playoffs and the finals so we could respond appropriately, providing that information to our public service partners, as well as our security team inside the building," said Adam Stockwell, vice president of security for the Milwaukee Bucks.

Building operators oversee the complete footprint of Fiserv Forum from the Arena Operations Center, ensuring the security of players, talent, staff and attendees at all times, inside and out.

“Digital transformation is one of our main opportunities for continuous improvement, and being powered by Metasys, it gives us a clear vision and path to that transformation.”

Robert Cordova, Chief Technology and Strategy Officer, Milwaukee Bucks

Delivering unforgettable fan experiences in comfort

As the hub of live entertainment in the region, implementing smart building technology was foundational to delivering Fiserv Forum’s guests an exceptional experience in a comfortable environment.

Delivering immersive sights and sounds

- The overall fan experience is heightened by immersive sights and sounds delivered through an in-house video production studio supported by the audio and video infrastructure and broadcast cabling plant coordinated and implemented by Johnson Controls.
- Cameras stream video to the studio, where it can be pushed out to the major networks or displayed throughout the venue and on the full HD scoreboard, one of the top scoreboards in size in the NBA.
- There’s seamless content management and delivery.
- Cisco Vision gives Fiserv Forum operators the ability to customize the color scheme, content and branding of information that is displayed on more than 840 high-definition IPTVs throughout the facility. The displays deliver live feeds, analytics, promotions, advertisements, entertainment and communications – extending the experience for fans and creating revenue-generating opportunities for fan sponsors.
- Innovative handrail antennas provide flexible seating configurations while delivering robust, uninterrupted WiFi coverage without impacting sight lines.
- Live data streaming is available on demand.



Ensuring critical operations and system uptime

Linking Fiserv Forum’s most vital systems, including security, HVAC, fire protection, lighting control and energy management, the Metasys building automation system formulates a highly intelligent and efficient building by controlling and monitoring equipment and system performance.

It provides real-time data that enables facilities managers and leadership to make the most informed decisions on site and on the go about safety and security, critical operations and system uptime, unified by a single mobile-optimized platform. For example, staff can make adjustments based on variables, such as the actual attendance at each event. Also, with Metasys’ predictive analysis, they can identify issues that might otherwise reveal themselves at critical points during an event.

According to Robert Cordova, chief technology and strategy officer of the Milwaukee Bucks, the powerful and centralized digital platform gives the arena operational efficiency and effectiveness gains by feeding the data of many systems into one. Whether crowd intelligence, access control, security or staff forecasting, Metasys provides a clear vision and path to the arena’s continuous improvement initiated by digital transformation.

“Johnson Controls helps our facility management team drive energy efficiency across the site with OpenBlue Healthy Buildings solutions.”

Dennis Williams, General Manager, Fiserv Forum



Strengthening sustainability

Fiserv Forum further advances its efficiency through sustainability, and is leading the charge to transform the sports and entertainment market in sustainable building performance.

Living up to its commitment to reduce its carbon footprint, Fiserv Forum recently secured its standing as a LEED-certified building by the U.S. Green Building Council by achieving LEED Gold certification with a score of 75, making it among the leaders in sports and entertainment venues. Always a sustainability frontrunner, a year after the facility opened, it received an A+ rating as the first sports entertainment venue in Wisconsin to earn a LEED Silver certification.

“We plan to continue to drive forward our mission to reduce the amount of carbon offset by Fiserv Forum,” said Dennis Williams, general manager of Fiserv Forum. “Johnson Controls helps our facility management team drive energy efficiency across the site with OpenBlue Healthy Buildings solutions.”



View our accreditations:

<https://www.fiservforum.com/about/accreditations>

About OpenBlue

OpenBlue is a complete suite of connected solutions that serves industries from workplaces to schools, hospitals to campuses, and beyond. This platform includes tailored, AI-infused service solutions such as remote diagnostics, predictive maintenance, compliance monitoring, advanced risk assessments, and more. A dynamic new space from Johnson Controls, OpenBlue is how buildings come alive.

Winning for generations

Today, Fiserv Forum and the entire Deer District glimmers as a beacon of revival. The engine that drives downtown Milwaukee’s growth, it is also anticipated to become the largest development project ever, and be a facilitator of development throughout the region.

Creating an arena and district that will physically stand for decades requires a digital infrastructure that evolves accordingly. The entire district needs to meet and serve the changing needs of the community, technology and its fans, staff, visitors and area residents well into the future.

Since leveraging Johnson Controls Technology Professional Services methodology to guide the technology life cycle planning and execution for the arena and district, the Milwaukee Bucks have stayed steps ahead, strategically planning for the changing demands of an ever-evolving entertainment hub. And they’ve succeeded, hosting the 2021 championship run that saw 65,000 fans converge on the district and another 17,500 inside the arena as the Milwaukee Bucks brought home the Larry O’Brien NBA Championship Trophy in 2021.

“Our mission is simple. We want to be pioneers. We want to be the innovators, not just in the NBA but in the world of sports entertainment,” said Peter Feigin, president of the Milwaukee Bucks.

They certainly are.



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