

Belden powers Qatar's Al Thumama Stadium with intelligent infrastructure solutions

Al Thumama Stadium boasts the latest and most advanced technology. This ensures fans have an unparalleled experience while watching their favorite teams play.

Case Study



Customer

In 2010, Qatar was announced as the host of the world's most prestigious football tournament, the FIFA World Cup 2022™. After the announcement, Qatar was busy designing and building eight new stadiums, including Al Thumama Stadium. This venue integrates the latest information and broadcast technology to support sustainability and enhance the ultimate fan experience.

The 40,000-seat stadium's design reflects a *gahfiya*, a traditional woven head cap worn by men and boys in the Middle East. Inside, besides the pitch, the venue features an Aspetar Hospital clinic to help football players recover from injuries.

After the tournament, the facility hosted other sporting events.

The task

The Supreme Committee for Delivery & Legacy (SC), responsible for delivering stadiums and infrastructure for Qatar 2022, aimed to deploy the latest technology for the best fan experience. They also prioritized sustainable design and operations, including an energy-efficient data center.

Al Thumama Stadium integrates advanced technology to enhance the fan experience. The SC sought partners with expertise in intelligent passive infrastructure for LANs, WLANs and data centers.

The goal was to make Al Thumama Stadium the only venue in the Middle East with intelligent infrastructure supporting Artificial Intelligence (AI) and the Internet of Things (IoT). Real-time visibility of network ports and fiber links was crucial due to the diverse events hosted at the stadium.

Chosen solutions needed to be easy to install, agile, flexible and scalable to support future technology demands. Belden's intelligent infrastructure solutions met these requirements, ensuring seamless connectivity and optimal performance.

Belden's infrastructure solutions, known for their high performance and reliability, are widely used in the Middle East.



Discovery

Belden, Cluster Security Services and Al Mazrouei - ICAS Qatar have a strong, trusted partnership. They excel in designing, supplying, installing, testing and commissioning cabling systems and data center solutions for intelligent buildings.

Belden's infrastructure solutions, known for their high performance and reliability, are widely used in the Middle East. Belden's advanced RFID-based intelligent cabling system ensures high security, maximum reliability and constant uptime.

Due to their expertise and proven track record, Belden, Al Mazrouei - ICAS and Cluster Security Services were chosen to provide Al Thumama Stadium's intelligent infrastructure. This collaboration ensures the stadium benefits from Belden's complete connection solutions.

Solutions

Cluster Security Services and Belden, in partnership with Arab Engineering Bureau (AEB) and Turner & Townsend, designed networking and data center solutions for Al Thumama Stadium.

Over 520,000 meters of advanced Category 6A cabling and 120,000 meters of fiber cabling were installed to support the stadium's information and broadcast technology. A building management system (BMS) and access control systems (ACS) were also implemented.

Belden's data center solution features a containment system design. Cabinets with perforated doors create separate aisles for hot and cold air. Access control system (ACS) racks, fiber raceways, intelligent power distribution units (PDUs), and environmental sensors and controllers were also deployed.



Al Thumama Stadium's world-class infrastructure proved robust enough to support the demands of the FIFA World Cup™ in 2022. Belden's complete connection solutions brought the entire data infrastructure into alignment, ensuring seamless connectivity and optimal performance.



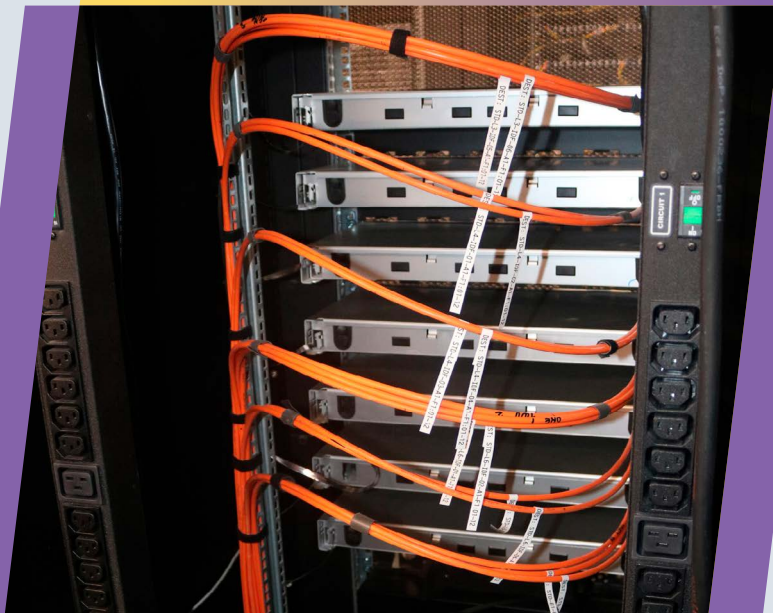
To ensure security and reliability, Belden's PatchPro® Intelligent Patching System was installed. It uses RFID technology for wireless identification of patch cords and real-time monitoring of unintended physical changes to the network infrastructure. Network managers are immediately notified of changes, allowing for quick resolution before problems arise.

Result

Belden's end-to-end solution enabled Qatar's Supreme Committee for Delivery & Legacy to provide top-notch technology and broadcast experiences to fans inside and outside Al Thumama Stadium. The high-performance infrastructure was tested during the FIFA Arab Cup Qatar 2021™ and performed flawlessly.

Similarly, Al Thumama Stadium's world-class infrastructure proved robust enough to support the demands of the FIFA World Cup™ in 2022. Belden's complete connection solutions brought the entire data infrastructure into alignment, ensuring seamless connectivity and optimal performance.



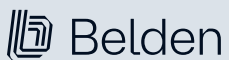


About Belden

Belden Inc. delivers complete connection solutions that unlock untold possibilities for our customers, their customers and the world. We advance ideas and technologies that enable a safer, smarter and more prosperous future. Throughout our 120+ year history we have evolved as a company, but our purpose remains – making connections. By connecting people, information and ideas, we make it possible. We are headquartered in St. Louis and have manufacturing capabilities in North America, Europe, Asia and Africa.

For more information, visit us at:
[belden.com](https://www.belden.com)

follow us on



© 2025 | Belden and its affiliated companies claim and reserves all rights to its graphic images and text, trade names and trademarks, logos, service names, and similar proprietary marks, and any other intellectual property rights associated with this publication. BELDEN® and other distinctive identifiers of Belden and its affiliated companies as used herein are or may be pending or registered or unregistered trademarks of Belden, or its affiliates, in the United States and/or other jurisdictions throughout the world. Belden's trade names, trademarks, logos, service names, and similar proprietary marks shall not be reprinted or displayed without Belden's or its affiliated companies' permission and/or in any form inconsistent with Belden's business interests. Belden reserves the right to demand the discontinuation of any improper use at any time.