

Solutions for AI Data Centers

Solution Brief

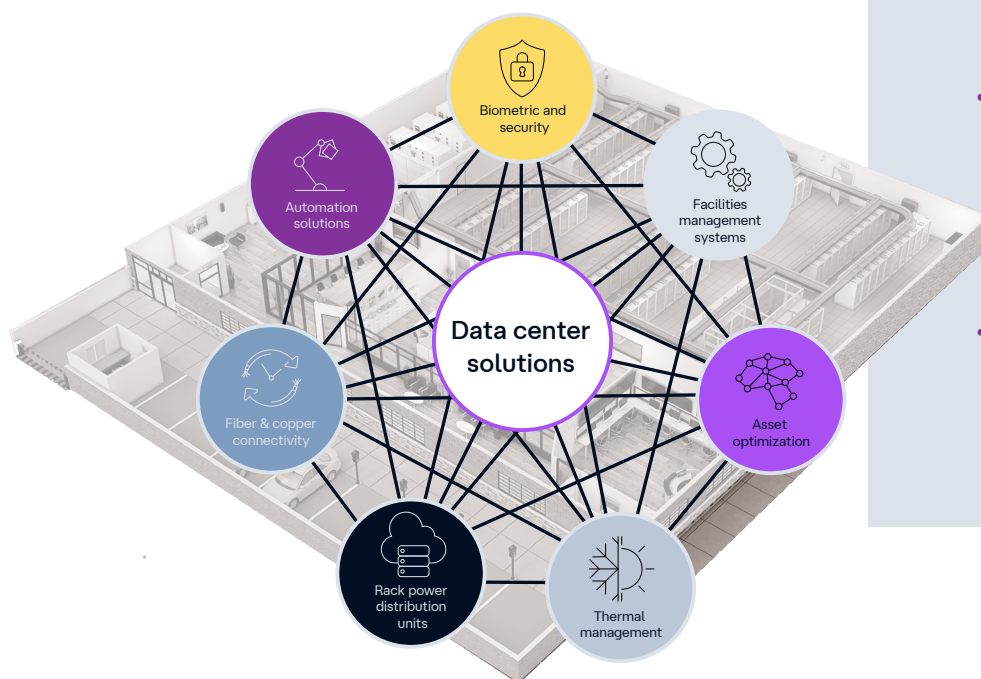


Accelerate your AI Data Center deployment

The future of innovation, connectivity and creativity is powered by generative AI—and AI depends on high-performance, mission-critical data centers.

Three pillars of AI Data Center success

From white space to gray space, today's AI data centers must be built for speed and resilience. Yet, challenges like power constraints and supply chain delays have created bottlenecks in construction. Building these complex environments demands speed, precision and scalability.



Belden's AI Data Center solution focuses on:

- **Speed to market**
Rapid deployment is essential to maintain a competitive edge in a high-demand landscape.
- **Capital and operational efficiency**
Expert design and guidance ensure the right infrastructure is implemented from the start, avoiding costly rework and ensuring long-term performance.
- **Resource optimization**
Preconfigured solutions reduce reliance on skilled labor and simplify installation.

Comprehensive infrastructure solutions for white space and gray space

Belden delivers fully integrated infrastructure solutions that accelerate your data center deployment—helping you go live faster, reduce complexity and maximize ROI.

Our complete solution for secure networking and connectivity across operational networks includes wireline, wireless, cybersecurity, asset management and zero trust architectures.

Our portfolio spans ruggedized solutions from the Hirschmann family to industrial edge gateways, MPLS and wireless systems from ProSoft, macmon, CloudRail and more.



Biometric and security

Enhance both facility and network security through integrated systems that support biometrics, monitoring, surveillance and access control.



Facilities management systems

Streamline building automation for power, cooling and facilities management. These systems enable efficient management, control and predictive maintenance in both standard and challenging environments.



Asset optimization

Track and manage both IT and operational technology (OT) assets with solutions that ensure visibility, regulatory compliance, efficient resource allocation and effective capacity planning.



Thermal management

Maintain optimal thermal conditions with integrated cooling technologies in rack and cabinet systems. Solutions range from traditional air cooling and containment strategies to integrated cabinet heat exchangers and direct-to-chip liquid cooling.



Rack power distribution units (PDUs)

Intelligent PDUs provide real-time metering, monitoring and management. Granular visibility from the unit and power phase down to the outlet level, combined with integrated environmental sensors ensures a reliable operating environment at the rack.



Fiber and copper connectivity

Deploy high-performance fiber and copper infrastructure to support mission-critical data acquisition and transmission, including digital optical monitoring for enhanced visibility and control.



Automation solutions

Implement robust automation and I/O systems that enable seamless integration and efficient management of facility operations.

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 on Belden's data center solutions, visit:

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