



Panduit Unified Operations Center

About Panduit Corporation

Founded in 1955, Panduit is a privately held, leading global manufacturer of high-quality products for wiring and communications applications. Headquartered in Tinley Park, IL, Panduit employs more than 4,000 people across 112 countries.

Panduit manufactures wiring and communications products and works in conjunction with other global industry leaders such as Cisco Systems, IBM, Rockwell, EMC, Oracle, Emerson, Liebert, Johnson Controls Inc., Lutron, and Haworth to develop holistic, integrated customer solutions. Panduit also works with system integrators, distributors, contractors, architects, designers, engineers, and other partners around the world to deliver quality solutions to customers.

Now Panduit is leveraging its 55 years of experience and industry leadership to provide intelligent infrastructure solutions to customers. Panduit's Unified Physical InfrastructureSM (UPI) approach integrates Smart Data Center, enhanced Industrial Automation and innovative Connected Building solutions to help businesses save money, drive efficiency and promote sustainability.

Panduit designed its Unified Operations Center (UOC) to be a living example of the power of the company's UPI approach to unify core business systems and deliver deeper visibility into real-time building operations data. The UOC is a centralized operations center combining network, building and security functions at Panduit's World Headquarters, and is one of the first operations centers of its kind to unify Network Operations Center (NOC) and Security Operations Center (SOC) capabilities in one integrated location.

PANDUIT[®]

building a smarter,
unified business foundation
Connect. Manage. Automate.



Company

Panduit Corp.

Country

United States

Business Challenges

- Align corporate security policies and needs with the company's Unified Physical InfrastructureSM (UPI) approach
- Combine and unify network, building and security operations
- Eliminate the duplication of physical and electronic supporting infrastructure
- Converge and integrate several traditionally disparate systems
- Deliver optimized global network and security support

Panduit Solution

Zone cabling systems; Power over Ethernet systems; Net-Access™ Cabinets, Racks and Cable Management; power connectors; outlet systems; cable management accessories; copper systems; fiber optic systems; grounding systems; identification and labeling systems; installation tools; lockout/tagout, safety and network security solutions; underfloor cable routing; surface raceway systems; cable ties; wiring ducts.

Realizing the Unified Physical Infrastructure Approach

Located within Panduit's New World Headquarters (WHQ) is its Unified Operations Center (UOC). The UOC is a benefit of a Unified Physical InfrastructureSM (UPI) based Connected Building Solution. Panduit's new World Headquarters demonstrates a collaborative effort among Global Real Estate, IT, other internal groups, and external Partners to realize improved cost efficiency, operational efficiency, security, sustainability, and an enhanced experience.

Business Challenges

The new five-story World Headquarters comprises 280,000 square feet of office, conferencing, training, and data center space. The company's Unified Physical InfrastructureSM approach enhances sustainable design features and enables advanced technology installations to create a healthy, efficient work environment. The building is on track to achieve Gold-Level certification from the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Program.

One of the challenges facing Panduit and its architect, Gensler, was to integrate core building systems in order to enable close coordination and improve global information sharing from a central location. The solution: Panduit's unique Unified Operation Center (UOC), which co-locates the world headquarters safety, security, network, and communications operations. This consolidated environment also reduces duplication and redundancy within the physical infrastructure, resulting in a positive return on investment (ROI) in both capital equipment and operational costs.

"The concept of unified operations was instinctive thinking for us – a natural extension of the Unified Physical InfrastructureSM (UPI) approach that shapes our product design and development work, and also defines the design of our new headquarters facility" said Jeff Woodward, Senior Manager, Global EHS & Security.

Strategic Objectives

- Integrate Panduit's WHQ's network and physical security systems enabling global security management from a central location
- Eliminate the typical duplication and isolation of separate operation centers
- Eliminate redundant servers and networking systems

The world headquarters and UOC are important steps in the evolution of Panduit, providing a proof of concept for UPI that demonstrates intelligent design, implementation and management of unified systems and building architecture. The new building reflects Panduit's transformation and commitment to solving customer and industry challenges surrounding business continuity, security, agility, and rising costs.

Unified Physical Infrastructure



communication computing control power security



Panduit integrated its Smart Data Center and UPI-based Connected Building Solutions architecture for mission-critical operations and next-generation building features.

Intelligent connected building architecture bridges key business applications across the building, enabling convergence of physical and logical systems onto a single network. This intelligence drives efficiencies, visibility and control extending the reach of cabling infrastructures to all endpoint devices for seamless integration of building systems (including IP telephony, physical security, wireless connectivity, and digital media).

Panduit's Unified Physical Infrastructure

- Aligns the physical infrastructure to the logical architecture

The most unique feature of the world headquarters is its intelligent, unified and optimized infrastructure that delivers real-time information to provide substantial business benefits.

When planning the new world headquarters, Panduit project leaders employed the UPI-based Connected Building Solution to converge facility and IT systems onto a single network for improved control, communication and management. Among the benefits of this approach are:

- Improved building system management, providing greater visibility and control of critical systems that identify, monitor, and resolve problems before they affect workers, enhancing overall security, availability, and safety
- Converged networks that enable enhanced commissioning and help meet energy performance requirements for LEED Gold certification
- Multi-technology architecture that extends the reach of cabling infrastructures to all endpoint devices, creating seamless integration of building systems including IP telephony, wireless connectivity, digital media, physical security and unified communications
- Converged infrastructure design to reduce initial deployment and maintenance costs throughout the lifecycle of the building
- Flexibility to accommodate changing user needs, from mobility services to environmental controls

The common denominator for converged building systems is the expansive reach of the cabling infrastructure and physical connectivity. Building systems are converged within a common pathway and then terminated within zone enclosures distributed throughout the building. The zone enclosures become network consolidation points, allowing all cables to be managed and patched in a single enclosure.

Business Benefits

Integrates management of the World Headquarters network and physical security systems, enabling Panduit to manage the security of its global facilities from a central location. Allows data to be shared across the spectrum of applications for improved operational awareness and response. The objectives are efficiency and operational cost savings, as well as higher levels of system and organizational performance.

Security Equipment and Installation

\$275,000 HQ SOC and
Software Integration +
\$720,000 Facility

\$995,000 Total Cost

Annual Labor Savings – \$651,000

Simple Payback – 1.53 Years

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The World Headquarters infrastructure features advanced logical systems from Cisco, IBM, EMC, Emerson, Fluke, Haworth, Lutron, Oracle, and Tridium. This is a living demonstration of the company's UPI Technology Partner ecosystem that delivers the ability to reduce infrastructure risks and costs, while increasing agility and sustainability.

The convergence of applications and communications onto a unified IP-based network infrastructure is a common trend among physical infrastructure systems. This means, among other things, that data can be shared across the spectrum of applications for improved operational awareness and response. The objectives are efficiency and operational cost-savings as well as higher levels of system and organizational performance while eliminating redundant servers and networking systems and reducing time investigating false alarms.

“Panduit is realizing this vision of increased building system integration and automation in its Unified Operations Center (UOC), a single location in the new World Headquarters building which combines SOC and NOC functions, enabling Panduit to manage the security of its global facilities from a central location,” said Jack Tison, Panduit Chief Technology Officer. “By integrating management of the network and physical security systems over a UPI-based physical infrastructure, Panduit’s UOC allows data to be shared across a full spectrum of network, building system, and security applications for improved operational awareness and response.”

Panduit Solutions

- Cabling infrastructure and physical connectivity
- Convergence of physical and logical systems onto a single network

The Security Solution Strategy is designed to leverage IP connectivity and modern technology to create a centralized security operations center (SOC) that, as part of the UOC, monitors and responds to alarm events at all of Panduit’s global locations. Proper execution of the strategy results in an immediate response to events through the use of video monitoring for each alarm.

Security personnel respond to emergency events either passively or actively depending on the event. Events requiring active participation by a local representative are handled by mobilizing local fire, police, emergency or management. Moving to converged and IP based systems speeds time-critical evaluation and response for improved workplace safety and network service level agreements.

The Security Solution Strategy included the new world headquarters and all global facilities. This strategy includes infrastructure, software and programming to develop a Security Operations Center at the Headquarters.

Unified Physical Infrastructure



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- Access control and video include:
 - 590 existing Access Readers Domestically
 - 680 new Security Cameras
 - Panduit installed police and fire radios with an internal antenna system and integrated it to Cisco IP Interoperability and Collaboration System (IPICS). This ensures that local firefighters can maintain radio communication from within the five-story headquarters. This also augments remote management to increase communications to Panduit emergency response teams
 - The World Headquarters features the first application of Panduit's PanZone® In-Floor Zone Enclosure supporting the company's Connected Building Zone Architecture Strategy. This solution offers easy accessibility to consolidation points in a raised floor environment, reducing expenses to upgrade locations or reconfigure employee areas

Working with Cisco and Axis Communications for an optimized security solution, Panduit now has the ability to strengthen security policies on a global basis through the deployment of the Cisco Video Surveillance Manager, Cisco Physical Access Control system, Cisco IPICS, Cisco PoE cameras, and Axis pan/tilt/zoom (PTZ) cameras.

Security solutions including access control points, video surveillance, and network surveillance, monitor and immediately respond to alerts, while simultaneously communicating to security/operations personnel to respond depending on the event. This enhances workplace safety and security, while also lowering operational costs.

Business Benefits

Panduit's World Headquarters is a living demonstration of the Panduit Unified Physical InfrastructureSM (UPI) approach, designed to maximize reliability, sustainability, collaboration and operational efficiency. As part of this approach, the Panduit Unified Operations Center provides unified visibility and control of all critical building systems, integrated and aligned under a single, intelligent infrastructure.

UPI-enabled connected building strategies are optimized through an open dialogue between stakeholders and partners at every stage. Panduit, in conjunction with our UPI Partners, offers the industry's most comprehensive and holistic approach to a Unified Physical Infrastructure to help enterprises align, converge and optimize critical building systems – communication, computing, control, power and security – to build a smarter, unified business foundation.



Real-World Solutions to Ensure the Success of Our Customers

With a proven reputation for excellence and technology innovation, a robust ecosystem of global partners and long-term alliances with top industry leaders, Panduit is a valuable, trusted partner offering strategic vision and real-world solutions to ensure the success of our customers.



Innovative Technology Leadership

Panduit is an industry leader in developing innovative technology solutions that meet the rapidly evolving needs of our customers around the world. Our commitment to continued leadership is supported by significant ongoing investment, dedicated manufacturing facilities, strategic technology alliances and collaborative R&D with other industry leaders.



Global Business & Commitment

Panduit's ongoing commitment to excellence and our technology alliances with key industry leaders such as Cisco Systems, EMC, Emerson, and IBM, enables our highly skilled and knowledgeable global sales, systems engineering and technical support teams to engage with critical customer challenges that range from initial problem determination all the way to resolution. Local specialists, trained to global standards and competencies, provide consistent regional support that brings value to local business. Our global value chain, which combines manufacturing, distribution and service, provides prompt responses to customer-related issues, and streamlines procurement and delivery to any global destination.



Best-in-Class Partner Ecosystem

Panduit employs a consultative approach to identify customer needs and engage appropriate partners in a collaborative fashion to serve our customers. Panduit's robust ecosystem of architects, consultants, engineers, designers, systems integrators, contractors and distributors offer a full portfolio of lifecycle services. Our partners are trained on relevant services to Plan & Design, Build & Deploy and Maintain & Operate to deliver predictable and measurable results.



Worldwide Alliances

Panduit has established long-term strategic alliances with top global industry leaders such as Cisco Systems, EMC, HP, IBM, Liebert and Rockwell Automation to develop and integrate innovative, holistic solutions for our customers. We continually invest in relationships and resources for solving our customers' greatest business challenges.



Eco-Sustainability & Global Citizenship

With a long-standing commitment to environmental excellence, Panduit continually develops and implements solutions designed to protect, replenish and restore the world in which we live and operate. This commitment is demonstrated by Panduit's LEED-certified new world headquarters and future sustainable building plans using its own revolutionary Unified Physical InfrastructureSM vision to enable convergence of critical systems for driving energy efficiency.

*Harness the Power of
Your Enterprise Network*

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