



# The Unified Physical Infrastructure<sup>SM</sup> Approach

**PANDUIT**<sup>®</sup>

building a smarter,  
unified business foundation

Connect. Manage. Automate.



## New Challenges Demand New Approaches

### Providing Visionary Solutions to Complex Problems.

Whether you're responsible for a small team, a large group, or an entire organization, thriving in today's dynamic and resource conscious world demands that your enterprise be agile and flexible at all levels. A robust infrastructure is critical to help you manage costs and meet sustainability goals while reliably and cost-effectively addressing challenges across business and technology domains.

#### Business Challenges

- Provide superior business value
- Enhance customer experience
- Improve business agility
- Identify and leverage emerging opportunities
- Reduce deployed capital and operational expense
- Enhance energy efficiency, meet sustainability goals
- Manage risk and complexity
- Enhance public reputation
- Meet complex and changing compliance regulations

#### Technology Challenges

- Keep pace with rapidly changing paradigms
- Drive innovation through the entire infrastructure (applications, logical/physical infrastructure)
- Ensure interoperability of complex infrastructure systems
- Improve efficiency of manufacturing and building systems
- Maintain network availability, scalability and physical security
- Meet power, cooling, space, performance, and speed requirements

# Meeting Business and Technology Challenges

## Your Physical Infrastructure, Your Business Foundation, Your Success.

The physical infrastructure is the foundation on which all enterprise systems operate – power, communication, computing, control and security. Research shows that faults within the physical infrastructure cause a majority of system downtime. Enterprises require a reliable and resilient infrastructure that overcomes current business challenges and can scale to meet future demands.

- To increase efficiencies and agility...
- To stay clear of regulatory challenges...
- To retain and grow your customer base...
- To enhance your green profile...
- To leverage new technologies...

**Your infrastructure must evolve!**

Panduit offers a comprehensive and holistic approach called the Unified Physical Infrastructure or UPI. The UPI approach enables organizations to connect, manage and automate critical systems and drive operational, financial and sustainability advantages, allowing your business to minimize risk, lower cost, and heighten agility and reliability.

Flexible, end-to-end UPI-based solutions help meet business and technology challenges head on for a smarter, unified business foundation.



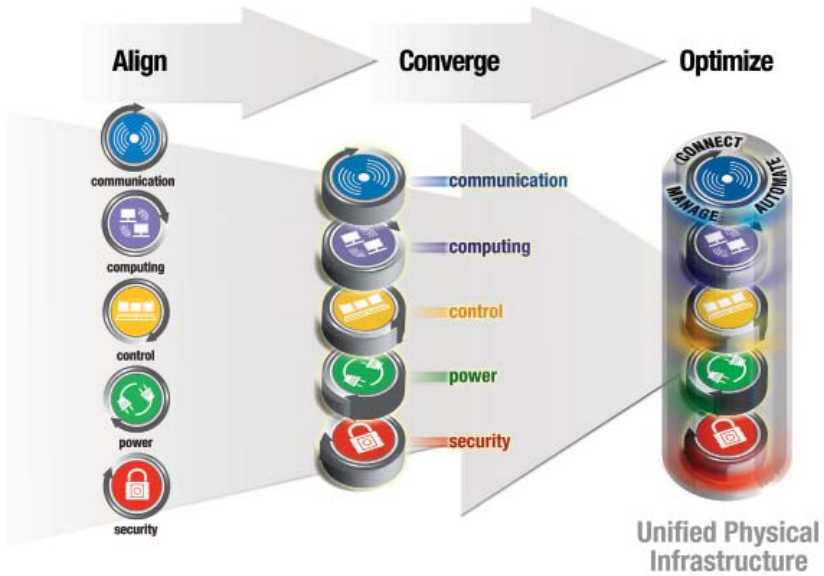
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# Panduit's Unified Physical Infrastructure: A Guiding Approach

## For a Smarter, Unified Business Foundation

The increased demands being placed on your physical infrastructure require the integration of traditionally disparate and proprietary systems. Industry leaders continue to extend and converge their business infrastructure across all core systems — communication, computing, control, power, and security.

The degree of unification across the physical infrastructure can be defined in terms of three levels – Align, Converge, and Optimize. An initial objective is to focus on simple interoperability of critical systems specific to individual enterprise areas (i.e., data centers, building systems, the factory floor). As interoperability becomes more established and sophisticated over time, this objective will expand to address convergence across multiple areas. The approach leads to an optimized Unified Physical Infrastructure that provides substantial benefits across all enterprise areas.



# What is Panduit Doing to Realize UPI Principles?

## We Take an Integrated Approach to...

### Resource Management

Panduit helps organizations realize higher asset utilization from their infrastructure investment by applying UPI principles across people, processes, and systems.

**People.** Panduit's UPI approach calls for a collaborative exchange across organizations, from internal teams such as finance, IT, and facilities to stakeholders across the value chain (architects, engineers, consultants, contractors, and manufacturers).

**Processes.** The holistic UPI approach to infrastructure design drives process efficiencies across the project lifecycle, enabling stakeholders to realize improved operational benefits such as lower total cost of ownership (TCO) and optimized facility management.

**Systems.** Panduit's consultative approach aligns people and processes with UPI principles. This approach enables stakeholders to effectively align and converge the complex array of systems that comprise the Unified Physical Infrastructure.

### Technology Strategy and Offering Portfolio

An effective Technology Strategy in concert with key Alliance Partners transforms and streamlines the infrastructure in three key areas:

**Unification.** Connect and standardize systems to enable holistic management of a portfolio of streamlined, scalable physical infrastructure solutions.

**Instrumentation.** Improve operational processes by bringing all systems under one dashboard to allow deepest visibility into the physical infrastructure and enable best business decisions.

**Integration.** Deploy enterprise resource management and policy-based management applications to enable a more agile, automated approach to managing the unified, instrumented infrastructure.





## Benefits of the UPI Approach

Panduit draws from proven methodologies and global best practices to allow organizations to leverage existing assets and investments and overcome operational challenges to achieve lowest cost of ownership.

**Mitigate Risk** – Efficient physical infrastructure management enables seamless integration to reduce risks which can occur throughout the network.

**Minimize downtime.** Enable faster diagnoses for maintenance and detect the threat of faults before downtime occurs.

**Strengthen security.** Collect network data in a configuration management database (CMDB) to extend real-time intelligence from physical to logical systems.


**Enhance safety.** Protect against damage to human resources and capital assets and contribute toward a safer environment.

**Lower Cost** – Panduit physical infrastructure solutions drive financial advantages to reduce energy and occupancy costs, and help secure competitive advantage.

**Energy savings.** Maximize power and thermal management, reduce high power and cooling costs.

**Conserve resources.** Eliminate redundant infrastructure assets, maximize real estate, reduce carbon footprint.

**Labor efficiencies.** Optimize staffing and enhance worker productivity by aggregating network requirements and reducing time to install.



**Increase Agility** – A high level of integration within the physical infrastructure enables flexibility and improved business agility.

**Reference architectures** intelligently align physical infrastructure systems to logical architectures for consistent deployment of sustainable, scalable IT infrastructures.

**Open standards based framework** enables tangible infrastructure and business process improvements.

**Scalability** to grow as business requirements change can reduce or eliminate the need to replace legacy infrastructure systems.

**Physical Infrastructure Management Software** provides continuous real-time patch field monitoring and visibility into physical layer connectivity to optimize resource use.

**Enhance Sustainability** – UPI-based solution offerings enable organizations to meet sustainability goals by driving resource and energy efficiencies across the physical infrastructure.

**Eliminate redundancy** consolidating infrastructure elements to help maximize real estate utilization and optimize power and cooling efficiency.

**Achieve higher asset utilization** within an improved cost structure by converging building devices and systems to manage energy resources more effectively.

**Integrate Ethernet and control system networks** for improved productivity over process line and automated systems.

**Ensure interoperability – beyond standards.** Reliable, high-performance UPI-based solutions build on – and move beyond – standards-based architectures to ensure performance while addressing cross-functional challenges around power, cooling, space, speed, and security.



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## Panduit's UPI-Based Solutions: A Strategic Business Investment

Panduit's holistic Unified Physical Infrastructure<sup>SM</sup> (UPI) approach offers an innovative platform for strategically overcoming business and technology challenges. Our UPI-based solutions are tailored by industry and customized by application, and are supported by a strong Alliance Partner community to deliver the highest performance and value.

### For Complex Applications

**Data Centers** – Progressive and innovative Data Center Solutions deliver operational flexibility and greater energy and space efficiencies for enhanced business agility. Panduit UPI-based scalable solutions enable the physical infrastructure to withstand multiple logical systems equipment refresh/upgrade cycles.

**Connected Buildings** – Building systems are becoming smarter and more manageable to reduce energy costs, improve climate control, and enhance employee productivity and security. Panduit UPI-based Connected Building Solutions allow stakeholders to develop a property that contributes to sustainability and security initiatives, and achieves greater operational efficiencies.

**Industrial Automation** – The expanded deployment of Ethernet in manufacturing has triggered convergence of disparate network technologies over a single Ethernet-based infrastructure. A well-planned UPI-based infrastructure delivers operational efficiency and enables distributed control systems to be used across manufacturing areas.



## Across Diverse Industries

**Financial Services** – Exponential increases in data traffic push speed and reliability requirements to extreme levels. Progressive and innovative UPI-based infrastructure solutions deliver maximum reliability and performance to support these unique business demands.

**Industrial** – UPI-based solutions deliver resilience against harsh outdoor (frigid cold, intense UV rays, drenching rains, salt spray, or gusty winds) and indoor (high vibration, caustic chemical vapors, wash down, and radiation) environments, providing long-term reliability and reducing repair and replacement.

**Oil and Gas** – UPI-based physical infrastructure solutions enhance the performance of predictive and intelligent process control systems to maximize uptime and safety in difficult and remote terrain while maximizing production and optimizing reliability, availability, and remote monitoring capability.

**Government** – Deployment of UPI-based infrastructure solutions for e-government initiatives helps improve bandwidth, expand access, enhance service, maintain security, and satisfy demand, enabling agencies to adhere to mandates and manage budgets most efficiently.

**Health Care** – Health care regulations and mission critical patient care systems require a fully operational physical infrastructure at all times. A UPI-based physical infrastructure helps organizations achieve reliability, availability, and security goals while supporting the increasing amount of automation and mobility required in medical equipment and processes.

**Wind Energy** – Rapid industry expansion has spurred development of infrastructure solutions that can withstand outdoor environments and can be deployed quickly anywhere around the globe. From turbines to network control centers, end-to-end UPI-based offerings deliver capacity improvements while addressing system complexity.



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## UPI Approach Realized in New Panduit World Headquarters Building

When planning its new World Headquarters Building, Panduit project leaders invested in a UPI-based Connected Building Solution to enable convergence of facility systems onto a single network for improved control, communication, and management. This unified approach to infrastructure architecture across data centers, IT networks, connected buildings, and the factory floor offers advantages to owners, employees, visitors, and guests:

- 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 and safety
- Converged networks that enable enhanced commissioning and help meet energy performance requirements
- 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 and unified communications
- Converged infrastructure design to reduce deployed capital and maintenance costs throughout the lifecycle of the building
- Flexibility to accommodate changing user needs, from mobility services to environmental controls

The new facility enables collaboration through unique design features ranging from open office concepts, shared work spaces, and the deployment of the latest tools. Also, to provide a healthy workplace and minimize our ecological footprint, Panduit achieved Leadership in Energy and Environmental Design (LEED) Gold certification for the building in April 2011, reinforcing our commitment to the environment and realizing significant energy savings.

Unified Physical Infrastructure

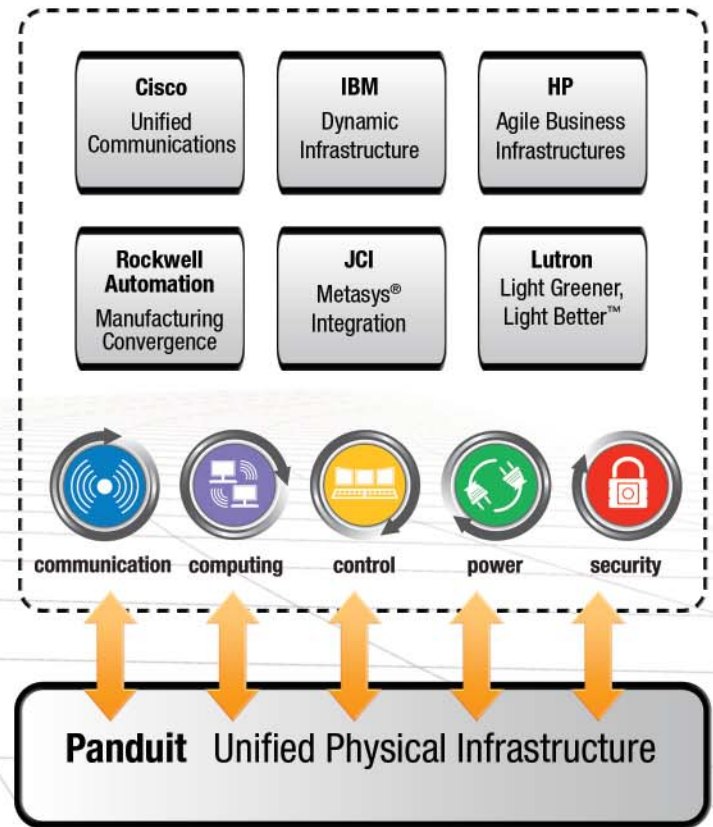


## UPI: The Foundation for Innovation

Panduit is the only vendor in the industry with a tightly integrated portfolio of innovative physical infrastructure solutions. Through established strategic alliances with top global industry leaders such as Cisco Systems, IBM, HP, Rockwell Automation, Johnson Controls, and Lutron, Panduit develops holistic UPI-based solutions for our customers.

We continually invest in relationships and resources to solve our customers' greatest business and technology challenges. Our unique, robust partner ecosystem offers a lifecycle of services for innovative modeling, predictable execution, and operational excellence. This comprehensive approach to infrastructure design, deployment, and management allows benefits to be realized across systems and throughout the entire enterprise.

Ultimately, Panduit helps customers mitigate risk across the physical infrastructure and build a smarter, unified business foundation.



Alignment of UPI with other industry leaders.

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## 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, 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, IBM, 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 Gold certified new world headquarters and future sustainable building plans using its own revolutionary Unified Physical Infrastructure<sup>SM</sup> approach to enable convergence of critical systems for energy efficiency.

*Transform Your  
Physical Infrastructure.*

*Call or visit us online  
we can show you how.*

**Panduit Corp.**  
Worldwide Headquarters  
Tinley Park, IL 60487

[cs@panduit.com](mailto:cs@panduit.com)

**US and Canada: 800.777.3300**

**Europe, Middle East, and Africa:**

**44.208.601.7200**

**Latin America: 52.33.3777.6000**

**Asia Pacific: 65.6305.7575**

[www.panduit.com](http://www.panduit.com)

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