



Zone Architecture Systems

Optimize Industrial Network Deployment throughout the Physical Infrastructure

Reliable and flexible industrial networks are critical for maintaining productivity. Requirements range from the ability to trace production lot quality, to improving factory preventive maintenance schedules, to identification of constraints that decrease production. Protecting these networks from varying environmental conditions such as dusty and dirty to wet and corrosive on the production floor, is of vital importance. Deploying a Zone Architecture enables rapid and consistent transmission of data from corporate networks to equipment on the factory floor, while providing necessary environmental protection.

Benefits of Zone Architecture:

- Significant reduction in network cable requirements
- Flexibility for future factory floor layout changes
- Safe access to network by avoiding arc flash hazards



Panduit's Unified Physical Infrastructure (UPI): A Guiding Vision

A unified approach to physical and logical systems architecture is imperative for solutions to fully address the need for availability, agility, integration, and security.

Panduit has developed the industry's most comprehensive and holistic approach to a Unified Physical Infrastructure and can help enterprises align, converge, and optimize critical systems – communication, computing, control, power, and security – to build a smarter, unified business foundation.

Unified Physical Infrastructure











Zone Architecture Considerations:

As new facilities are built, existing operations are upgraded, and remote locations become more common, companies need robust solutions that will maintain communication and power to the point of consumption.

- Does your factory environment require that enclosures comply with regulatory considerations such as NEMA ratings, IP code, or IEC 60529 ratings?
- How critical is latency/network speed for your factory network?
- Do you have concerns regarding electrical noise affecting your factory network?
- How do you ensure OSHA and Arc Flash compliance for IT and other workers who may need to access network switches?
- How do you protect network connections against unintentional or malicious access?
- Does your factory floor layout change on a regular basis?
- How do you diagnose/troubleshoot network problems in your facility?

Panduit Solutions

Based on the principles of the Unified Physical InfrastructuresM approach, Panduit provides a broad line of zone architecture solutions that can be used to deploy your industrial network in the production environment.

Withstand Environmental Conditions: Protect expensive communication equipment such as switches or servers from dirty conditions, wash down procedures, and unintentional objects where NEMA, IP, and IEC ratings are required.

Industry Standards Compliant: Meet and exceed network communication standards from TIA/EIA, using either copper or fiber based media, with optimized patching, cable management in pre-engineered zone enclosures.

Route and Protect Cables: Protect and minimize data loss while maximizing network speed with proper structural support and grounding, with an overhead grid system that manages large amounts of cable, or small quantity cable runs.

Ensure Physical Network Security: Prevent accidental access and vandalism to the network through the use of physical deterrents such as jack blockouts, lock-ins, and keyed solutions.



Enclosures





Network zone enclosures for industrial environments

- Safely and securely protect network connection points on the factory floor
- Access point enclosures are NEMA 4X, and IP66 rated, and protect against wash-down conditions, airborne contaminants, and corrosive environments
- Save time using pre-engineered patching, wire management, and device mounting solutions
- IP66 rated Industrial Ethernet Enclosures extend the geographic limitations of traditional networks, supporting switch relocation to the factory floor

Fiber Communications





Designed to support today's ever-advancing data requirements

- Extend data transmission over long distances with higher traffic volume and frequency
- · Avoid transmission data loss due to signal noise
- Highest quality OM3 and OM4 laser optimized fiber to support 10 Gb/s applications while maintaining compatibility with existing 50µm multimode systems
- Fast, reliable, and durable field terminations by using Opticam® Connections

Copper Communications





Meet the most demanding industry requirements for data and telecommunication applications

- · Cost effectiveness and simplicity of copper category cable technology
- Broad offering Category 5e, 6 and 6A
- End-to-end channel solutions cable, jack modules, patch panels and patch cords
- Industrial rated components for specialized applications

Data Access Port





Provides a safe and secure means to maintain performance of PLC's, VFDs inside control panels

- Improves worker safety by allowing access to programming by non-arc flash certified personnel reducing costs and increasing operating efficiencies
- Integrated security features prevent the unintentional disruption of service by unauthorized personnel
- Field interchangeable modules to adapt to communications, video, and electrical needs
- Constructed of die cast aluminum base with clear, plastic, impact resistant cover and modular faceplate

Network Security





Secure your network physically

- Blockouts restrict access to jacks while preventing them from being damaged when not in use
- Lock-ins prevent unauthorized removal of cables from computers, IP phones, other networking equipment
- Can be simply installed without interfering with adjacent jack and plugs
- Available for RJ-45 and fiber connectivity (plugs and jacks)

Grounding and Bonding





High quality, visually verifiable and dedicated grounding path

- Provides a solid working foundation to mitigate electrical noise in any panel
- Enclosure ground kit provides optimal cable management by allowing adequate space to route and manage patch cords

Cable Routing





Helps manage cable deployment for large or small volumes of cable runs

- Wyr-Grid™ System routes and manages copper data cables, fiber optic cables, and power cables
- J-Pro[™] J-Hooks provide a means to manage and support up to 115 Category 6A cables.
- Durable and non-metallic, J-Pro[™] Supports are available in various sizes, mounting configurations, and in several color options
- J-Pro™ System's cable tie channel allows users to easily install Tak-Ty® Cable Ties to retain cable bundle

Safety and Facility Identification





Comprehensive line of safety and facility identification products that are designed to assist with compliance of OSHA, Arc Flash and other global safety standards.

- Safety signs and labels offered in a variety of materials, colors, sizes and legends
- · Voltage markers in adhesive and snap-on style
- · Utility tapes in a variety of materials, colors, sizes, and legends

Real-World Solutions to Ensure the Success of Our Customers

As an innovator in new product design, Panduit continually develops and applies the latest technology to our solutions and services – helping our customers solve their unique business challenges. Our global distribution, manufacturing facilities, sales and technical support teams make Panduit solutions readily accessible around the world. With regional specialists and local expertise, Panduit helps our customers meet their schedules and project needs.

Panduit works worldwide with top consultants, designers, integrators, contractors and installers giving you confidence in the development, design, and deployment of your projects. We align ourselves with a network of world-renowned technology alliances that share our commitment to deliver best-in-class solutions, which create competitive advantages for our customers.

From the beginning, we've built a company that is lean and green in its fundamental nature. Our new World Headquarters building will achieved Leadership in Energy and Environmental Design (LEED) Gold certification, demonstrating our continued commitment to solutions that protect, replenish, and restore the world in which we live and operate.



Innovative Technology Leadership



Global Business & Commitment



Best-in-Class Partner Ecosystem



Worldwide Alliances



Eco-Sustainability & Global Citizenship

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