



## Industrial Ethernet Design Services for The Connected Enterprise

When considering a redesign of your industrial network environment, or designing a new infrastructure, you must consider efficiency, security and agility to achieve maximum value over the total life of your investment. Industry trends such as the Internet of Things (IoT) is bringing together people, processes and equipment, from sensors to smart devices to entire Enterprises. Essential to maximizing your value is designing a robust network architecture to deliver secure, adaptable connectivity from plant operations to your business systems. This does not come without challenges. The complexities of designing a network that is optimized for both IT and operations, as well as employing the expertise required to adhere to dynamic industry standards have proven to be difficult.

Rockwell Automation and Panduit take a collaborative approach to helping you design the right network to meet your specific needs today and in the future. Leveraging our knowledge in both the IT and operations technology (OT) environments, this allows for a holistic network architecture design across the plant floor and your Enterprise. A comprehensive design plan can help you build the business case to modernize your network infrastructure to realize the value of IoT.

### Comprehensive Design Services Deliverables

#### Seamless delivery and project management

The Ethernet design services from Rockwell Automation and Panduit lead to a comprehensive logical and physical architecture design plan that will include a detailed evaluation of the current state of your network architecture, including security and future requirements.

#### Logical Network Design

- Functional Requirements
- Bill of Material
- Cable Selection
- Physical Hardware Connectivity
- Access and Distribution Layer Topology
- VLANs
- Addressing schema
- Switch and Network Configuration
- Redundancy
- Remote Access

#### Physical Network Design

- Enterprise, Plant and line requirements
- Environmental evaluation (MICE levels)
- Physical media
- Space planning, pathways and routing
- Control room data center
- Distributed zone enclosure
- Layer 1 physical infrastructure documentation, drawings, bill of materials and installation drawings

“Based on industry surveys, the cost of network downtime we cite is \$5,600/minute, which extrapolates to well over \$300,000/hour”

Andrew Lerner,  
The Cost of Downtime 2014

“A significant portion of network downtime, approximately 80%, is attributed to Physical Layer Connections”

Sage Research

## Rockwell Automation and Panduit Collaboration

The Connected Enterprise consists of industrial operations that are intelligent, optimized, and secure. Central to achieving this is the convergence of information technology (IT) and operations technology (OT) into a single unified architecture to capitalize on operational, business and transactional data for improved enterprise, operations and supply chain performance.

A shared IT and OT infrastructure can bring new challenges across the organizations. It is important to understand and agree upon unique priorities around things like information infrastructure, controls and devices, networks and security. However, a collaborative approach brings opportunities by allowing you to incorporate data from OT assets across the enterprise to deliver performance-critical contextualized information that can be used for real-time decision-making.

Working together and in collaboration with other key partners, like Cisco, we can help you design reliable, future-proof, secure network architectures.



For more information, visit the Rockwell Automation Networks & Security Services webpage:  
<http://www.rockwellautomation.com/go/lit/idc>

Panduit Industrial Automation develops and implements physical infrastructure guidance and best practices that have been used to deploy industrial networking at a number of fortune 500 companies globally. Together with our industry alliances, Rockwell Automation and Cisco, we simplify the design and implementation of networks that deliver equipment optimization and broader risk management. Our application expertise will help you assess network infrastructure current state and future readiness, deliver comprehensive, standards compliant drawings and manage the deployment of industrial physical infrastructures.

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

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