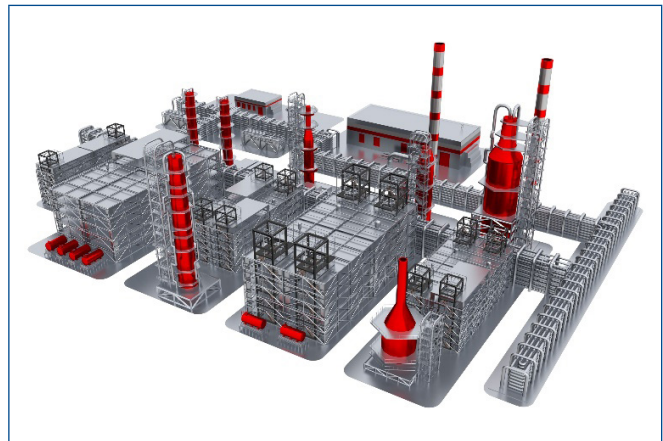


Industrial Ethernet Services

- Simplify DeltaV™ technology selection
- Reduce risk associated with network design and security challenges
- Reduce engineering effort and new device integration time
- Protect system investment with expert assistance



Introduction

Integrating existing devices on Industrial Ethernet networks into DeltaV can be complex. It requires expertise across all aspects of the system. Taking the time to properly understand the entire system has been proven to be a valuable effort for both new system integration and expansion of existing systems. While often overlooked, the integration of PLCs, MCCs, and other third-party IO devices can take significant time during any one of the project phases. To reduce the time it takes to interface into DeltaV, Emerson helps you simplify the integration of third-party IO devices into DeltaV.

Benefits

Simplify DeltaV technology selection: There are multiple DeltaV technologies that leverage the Industrial Ethernet interfaces. Selecting the correct interface takes into consideration all the requirements related to the Industrial Ethernet network as well as the field devices. You choose the technology that best fits your application needs based on network and device assessment reports. Take full control and gain the most benefit by the selecting the right technology over the lifetime of the DeltaV System.

Reduce risk associated with network design and security challenges:

Experts assess network design and address all the security challenges. Your network and the security requirements are reviewed to create a recommendation on the best practices for integration.

Reduce engineering effort and new device integration time:

The Industrial Ethernet Services provide a project-based approach to performing third-party device integration in the shortest amount of time, without tying up valuable engineering resources. Emerson's approach minimizes interruptions to daily plant activities.

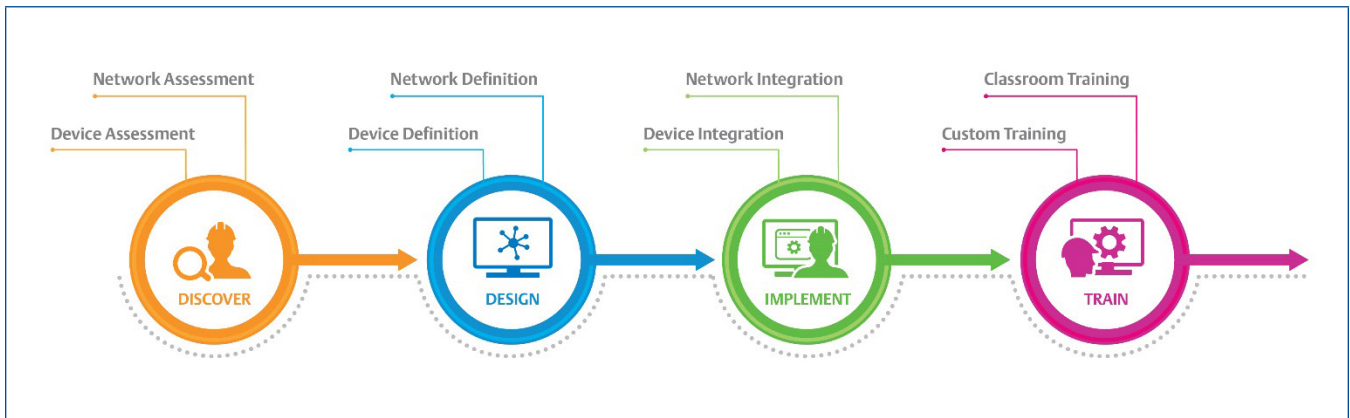
Protect system investment with expert assistance:

Many facilities have limited qualified staff to accomplish third-party device integration as it requires expertise in multiple domains of expertise. Supplement the capability of your existing team with Emerson consultants. Successfully integrate third-party devices and training that can increase your system availability, end-product quality, production yield, material savings or throughput.

Service Description

Trained professionals provide expert planning, custom testing and risk assessment on a system simulated to match your site specifics, ensuring a smooth integration of third-party devices into DeltaV using Industrial Ethernet networks. The Industrial Ethernet Services are designed to efficiently minimize the risk of integrating third party equipment, allowing you the visibility across the whole plant while leveraging the latest DeltaV software technology with confidence.

The Industrial Ethernet Services are provided in four distinct phases.



Discover

Discover captures the system topography and general requirements. The report delivered includes high-level technical considerations, as well as network and device inventory details which impact third-party device integration.

Discover contains two key assessment services:

Device Assessment

- Inventory of the hardware and software requirements
- Understanding of the third-party device datasheet with system architecture
- Review of the required field update rates
- Review of applicable, technical Knowledge Base Articles and release notes for known & resolved issues, as well as new functionality for the device
- Evaluation of potential impact on graphics, databases, and any third-party devices
- Recommendation on best DeltaV technology to meet the requirements

Network Assessment

- Inventory of the hardware and software requirements
- Documentation related to cybersecurity requirements
- Network switching equipment datasheet
- Topology / Redundancy capabilities & requirements
- Review of applicable, technical Knowledge Base Articles and release notes for known & resolved issues, as well as new functionality for the device
- Evaluation of potential impact on graphics, databases, and any third-party devices

Discover requires complete system architecture information, including any third-party documentation related to the third-party field equipment.

Design

Design captures the network architecture and details on the system of devices. This phase identifies the interactions of the device(s) on a network as they relate to the Industrial Ethernet Network communications. The report delivered includes high-level technical considerations, as well as network and device design modification details which impact third-party device integration.

Design contains two key definition services:

Device Definition

- Review of the Device Assessment Report
- Review of the third-party device datasheet with system architecture
- Communications definition with the third-party field device to define the message structure and available communications methods
- Communications development for a device which was not previously integrated, fully documenting the integration procedure within the DeltaV control scheme
- Capacity review to understand the total throughput of the desired field device(s)
- Evaluation of potential impact on graphics, database, and any third-party device configuration
- Creation of technical Knowledge Base Articles to illustrate new functionality for the third-party device

Network Definition

- Review of the Network Assessment Report
- Review of the third-party network datasheet and complete system architecture
- Network definition to define the supporting architecture for all Industrial Ethernet devices currently in use, in addition to the third-party devices being integrated
- Execution of network definition capable of supporting all current Industrial Ethernet devices, in addition to integrated third-party devices
- Review applicability of security on current design modifications
- Evaluate redundancy requirements
- Capacity Review to understand the total throughput of the modified network architecture

- Creation of technical Knowledge Base Articles to illustrate new functionality for the network design

Design requires documentation and third-party equipment related to the specific application of Industrial Ethernet communications.

Implement

Implement assists with advice, direction or recommendations that require consideration of the specific application or configuration of third-party equipment using Industrial Ethernet communications. During this phase the full device(s) configuration is put in place and the network is tested. This is a critical phase of the project, as the documentation established during the detailed design review becomes a guide in understanding field device capabilities, ranging from transfer rates to redundancy testing. An onsite report that is delivered includes details related to site activities, as well as network and device changes made which impact third-party device integration.

Implement includes two key integration services:

Device Integration

- Redundancy testing & documentation
- Full VIM2 integration, Control System FAT
- System implementation integration
- Review of applicable, technical Knowledge Base Articles and release notes for known & resolved issues, as well as new functionality for the device
- Evaluation of potential impact on graphics, databases, and any third-party devices

Network Integration

- Inventory of network hardware and software requirements
- Documentation related to cybersecurity requirements
- Network switching equipment datasheet
- Topology / Redundancy capabilities and requirements
- Review of applicable, technical Knowledge Base Articles and release notes for known & resolved issues, as well as new functionality for the device
- Evaluation of potential impact on graphics, database, and any third-party devices

Implement requires access to site specific data related to the complete configuration of any third-party field equipment.

Train

Train assists with the knowledge necessary to successfully lead Industrial Ethernet projects. Emerson offers two types of training courses to help apply Industrial Ethernet expertise and strengthen competencies in Industrial Ethernet communications. In these courses, instructors use real-world examples to help implement the third-party device integration using DeltaV technology. Realize the full capabilities and achieve understanding of all aspects of DeltaV technology and Industrial Ethernet communications.

Train includes two levels of services:

Custom Training

- On-site within your facilities
- Tailored curriculum
- Incorporates simulated equipment

Classroom Training

- Train at Emerson training center
- Established training program
- Incorporates real equipment with simulated training environment
- Collaboration with other users in the industry facing similar challenges

Train requires a collaborative training needs assessment to get the most out of the Industrial Ethernet training solutions.

Ordering Information

Contact your local Emerson Service Representative for more information or a quote for Emerson's Industrial Ethernet Services.

Emerson

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☎ +41 41 768 6111

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