



Cisco Connected Factory – Network

Building a resilient, scalable and secure manufacturing network

Thanks to the Internet of Things (IoT), real-time visibility and business intelligence are well within your reach. Companies around the world are adopting new plant architectures that take advantage of the pervasive connectivity and actionable data provided by the IoT. By converging factory-based Operational Technologies (OT) with global IT networks, companies are increasing uptime and improving Overall Equipment Effectiveness (OEE) in their production environments.

With the IoT-based Cisco Connected Factory – Network, part of the Cisco Connected Factory portfolio of validated and proven end-to-end network architectures, you gain a 360-degree view of operations. You also gain real-time network diagnostics and troubleshooting.

That means less downtime, higher productivity, greater resiliency, and the agility to respond to rapidly changing customer and market needs.

Benefits

- **Deploy validated, proven network architectures** in your manufacturing environment. Bring together manufacturing industrial automation networks and business systems for real-time flexibility and awareness.
- **Improve network visibility and resiliency** with Cisco® Industrial Network Director software to reduce expensive unplanned downtime. Dramatically reduce the time needed to identify and debug causes of network downtime.
- **Gain awareness of changes in real time** – from the enterprise to the plant floor– through mobile devices, video monitors, and Human-Machine Interfaces (HMIs) that communicate over a converged network.
- **Link real-time information back to the entire supply chain** so each step in the manufacturing value chain, supply through distribution, can quickly respond.
- **Create a secure factory** with end-to-end security built into the network, providing multiple layers of protection.

How it works

One of the biggest game changers driving the convergence of IT-based networks and OT on the factory floor is the use of Industrial Ethernet. With Industrial Ethernet-capable hardware specially built for rugged industrial environments, we make it possible to bring enterprise-class, robust networking power to the plant. And the solution is based on open standards technologies, so it works with a wide range of third-party systems and applications.

With our intelligent industrial automation-aware infrastructure, you can accurately track and analyze where, how, and why network downtime is occurring – the first step toward reducing it. You can also respond quickly to changing conditions on the plant floor, in the supply chain, and in the marketplace. This helps increase efficiency and agility, boost productivity, and cut down on costly downtime across the enterprise.

Next steps

To find out how to get started and for additional information, visit <https://www.cisco.com/go/connectedfactory>.

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Accelerate your ROI

Accelerate your transition to a more secure, reliable, connected factory environment with services that help you plan, build, and manage your industrial automation network. From strategy through execution, Cisco Services help you realize more value from your solution by continually aligning business outcomes to your connected factory business goals. We provide comprehensive consulting services and combine our leading networking expertise with our technology partners' specialized industry expertise to help you get greater value from your business transformation.

The following services cover the complete solution lifecycle:

- Advisory
- Implementation
- Optimization
- Training

Key solution components

Industrial ethernet switches

An important component of Cisco Connected Factory – Network is the scalable, flexible Cisco Industrial Ethernet (IE) portfolio of switches. The IE portfolio features ruggedized design, with top industrial protocol support and validation for Ethernet IP, Profinet and CC-link. With a range of management and deployment tools, these switches provide predictable performance and resiliency.

Switch models include:

- Cisco Industrial Ethernet 1000 Series Switches
- Cisco Industrial Ethernet 2000 Series Switches
- Cisco Industrial Ethernet 3000 Series Switches
- Cisco Industrial Ethernet 4000 Series Switches
- Cisco Industrial Ethernet 5000 Series Switches

LAN switching

In addition to our IE switches, we offer a variety of Cisco Catalyst® access switching and wireless LAN solutions that support Industrial automation applications. These help deliver agile services and applications to manage, secure, and govern your network. These switches allow your network to adapt to and support new application deployments to meet changing business needs.

Strategic partnerships

By partnering with leading suppliers of industrial automation equipment and control systems – leaders like Rockwell Automation – Cisco can deliver the tested and proven integration you need to harness the power of the IoT in your factory.