

Cisco Industrial Networking

The network you know, the scale to take it anywhere

What if you could take your “indoor” network – that you know and trust – anywhere? What if you could securely connect your assets in outdoor or industrial spaces? What if you could manage it all from a single pane of glass? What if there was a simple solution that could do it all? Look no further, because Cisco Industrial Networking helps you do all of that with security, scalability, and agility.

Overview

In today’s world, data governs all aspects of business decision making, helping to improve operational efficiency and productivity across organizations. The implications of the pandemic are driving organization leaders to look to the Internet of Things (IoT) to improve not just efficiency, but also resiliency.

These concerns are accelerating the need for data and the connection of many more devices to the network. Resource-strapped IT departments must enable new deployment scenarios in places that are not traditionally supported such as in parking lots, warehouses, manufacturing floors and more. These spaces are often unheated, dusty, dirty, and wet. Not just any network will do.

Cisco® Industrial Networking is a full line of products with all the capabilities of the Cisco network you know and understand, but purpose-built for outdoor and industrial spaces. It enables you to meet the ever-evolving needs of business and securely connect your assets in any environment. This software-centric, scalable solution arms you with the security, automation, and agility to continuously embrace change and drive innovation at the edge and at scale.

Key benefits

Cisco Industrial Networking enables you to extend your network anywhere, providing:

- **Security:** Manage security with policy-based automation, complete visibility and control, and assurance across all network areas.
- **Scalability:** Leverage Cisco’s software-centric, automated approach to scale.
- **Agility:** Shorten deployment cycles with the Cisco Catalyst® solutions you know. Manage all network devices with the same tools you already own and trust.
- **Flexibility:** Deploy devices that can withstand dust, water, extreme temperatures, and vibration.

As the world becomes more complex, organizations aim to streamline operations and improve safety

The implications of the pandemic are driving IT teams to look to not just for efficiency and productivity, but also for resiliency. In fact, 75% of CFOs say they are accelerating their digitization*.

The rise of digital business, coupled with a global pandemic, results in IT departments doing far more work with fewer resources. Companies struggle to adjust to a “new normal,” where they are forced to streamline operations even as they broaden their capabilities.

IT leaders are asked to expand their “indoor” connectivity of the network to the “outdoor” world of Industrial IoT. For many in IT, this is new and unfamiliar territory. However, even those with Industrial experience find it challenging due to a large number of suppliers, multiple form-factors, and numerous industrial protocols. Beyond the need to connect it all, security becomes imperative because connecting countless new assets in the network increases the threat surface. For IT, this means more time spent managing the network and extending connections at the exact moment in time when they need greater autonomy to innovate new business solutions.

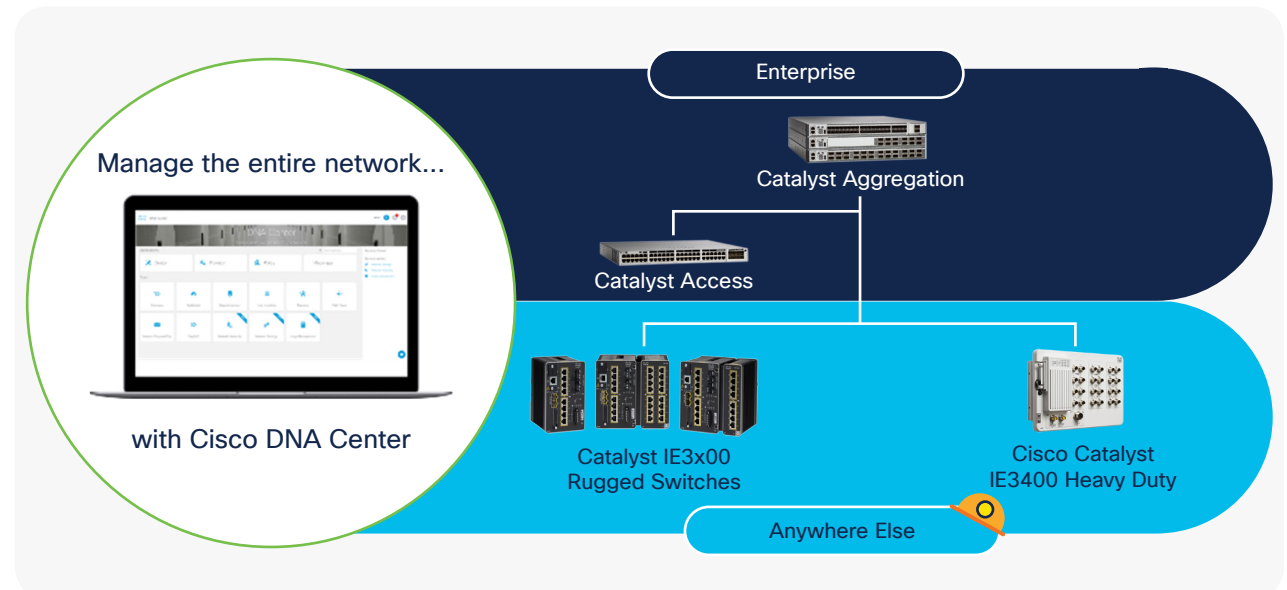
In a world that is becoming more complex, IT leaders need a solution that is streamlined, automated, and extendable – one that leverages the network they already know and trust while providing the automation and security that frees them up to work on the bigger challenges. This will define what the new normal means for their department, their business, and their future.

*Gartner, 2020

The network you know goes anywhere you need it

Cisco Industrial Networking delivers the highly flexible, scalable, software-centric Cisco networking that you know and understand in a full line of ruggedized, industrial-strength switches built for the demands of the harshest environments. It’s the only solution that brings together what you need to seamlessly connect your internal network with your growing network of industrial devices, with industry-leading security for continuous end-to-end protection. Cisco’s policy-based automation provides the visibility and control to manage all network devices using the tools you are comfortable with, so you can shorten deployment cycles and move with confidence and greater agility as conditions change and opportunities arise.

Figure 1. Cisco Industrial Connectivity: Manage your entire network with Cisco DNA Center



The Cisco Industrial Networking advantage

Cisco Industrial Networking is the only solution that allows you to take your network to these outdoor and industrial spaces while providing you with security, scalability, and agility.

Nobody knows networking and security like Cisco: The trusted leader in networking and enterprise security. Our industrial switches provide you with the familiar tools and resources you need to connect, manage, and secure all indoor, outdoor, and industrial assets with confidence.

Connect, manage, and secure all your assets anywhere with confidence

Turn the connections and knowledge you have today into the secure, scalable, and automated network you need to secure a future where opportunity can arise anywhere and everywhere.

Key components



Cisco Catalyst IE3200, IE3300, and IE3400 Rugged Series switches provide full Gigabit Ethernet speeds and advanced features for handling large amounts of real-time data in a modular and optimized design. They are hardened to withstand extreme temperature exposure as well as severe shock and vibration.



Cisco Catalyst IE3400 Heavy Duty Series switches have a robust and innovative feature set and are ideal for the harshest environments, as they are dustproof and waterproof (IP67 rated).



Scale with centralized and consistent policy management across the entire network. Enable intent-based networking all the way to the IoT edge with Cisco DNA Center.

Use cases

Reliable safety and security monitoring

Safety and security systems need the right network foundation to handle large amounts of data in real time. New camera technology (4K, 8K and Point-Tilt-Zoom) drives even more demand for higher bandwidth. When it comes to deploying cameras in non-temperature-controlled, wet, and dusty environments, it is paramount that you find the right switch that can operate and thrive in these areas.

Secure industrial connectivity for warehouses, distribution centers, and operational centers

In order to connect your operational assets, you need a network that is highly available to avoid interruptions in your production. Your network needs to provide high bandwidth upstream so you can manage large amounts of data and make decisions in real time. In addition, you may also need higher bandwidth downstream if you are deploying an access point with Wi-Fi 6.

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