



Cisco Industrial Ethernet 2000 IP67 Series Switch

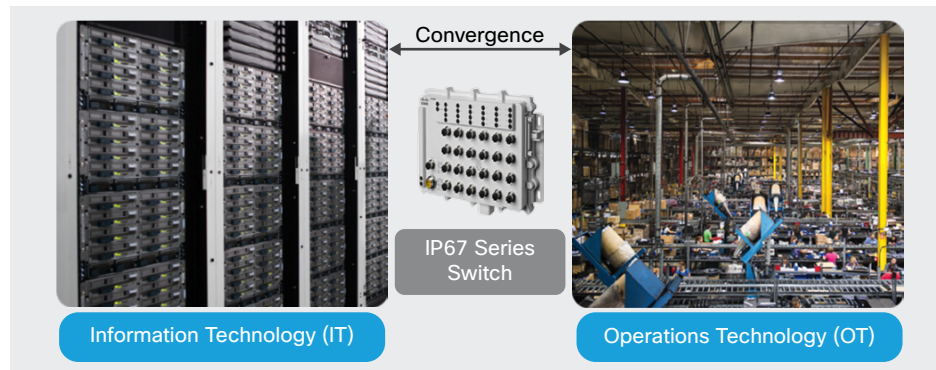
Cisco Switching Leadership, Built for Harsh Industrial Environments and the Internet of Things

The Cisco® Industrial Ethernet (IE) 2000 IP67 Series is Cisco's first ruggedized Ethernet switch that complies with demanding ingress protection 6 and 7 (IP67) industrial standards. As such, it is especially well suited for supporting machine-to-machine (M2M) applications in the growing Internet of Things (IoT) – connected devices, sensors, automobiles, cameras, and other machines that automatically gather data and transmit it to your applications for meaningful display and analysis.

Very often, IoT devices operate in harsh environments with extreme conditions. They might be exposed to temperatures in a smelting furnace or in a mining field located in chilly Siberia, for example. They might have to tolerate extreme dust, as in a cement production plant, and severe vibrations on a train or mining truck.

To properly operate in these extreme environments, networking devices must be specifically designed with highly ruggedized casings that protect the internal components. Specific and tight connectors are needed to avoid any possible water penetration and disconnects due to constant vibrations.

The Cisco Industrial Ethernet (IE) 2000 IP67 Series provides all these characteristics. In addition, Cisco IOS® Software features now extend all the way to the factory floor, rail yard, or other industrial site. So you can finally fulfill the promise of end-to-end smart connectivity – across both information technology (IT) and operations technology (OT) environments – with the network partner you know and trust.



Can You Bring Intelligence to Every Part of Your Network?

There's huge potential in connecting industrial networks to your IT environment. By linking your industrial sensors, robotics, trucks, and other equipment with your enterprise applications, you can know exactly what's happening everywhere in your environment at all times. And you can act on that information.

The potential benefits are enormous: increased productivity, lower energy costs, faster time to market, and more. But to realize them, you need a secure, reliable way to connect all of your assets. And there are still parts of your business where harsh environmental conditions like dust, water, vibration, and extreme temperatures prevent you from using standard Ethernet equipment.

In those areas, you usually need specialized industrial networking equipment, which means using multiple networks and management systems that require custom expertise. So costs are higher, and you can't easily change or update your network. You also still have a divide between your enterprise applications and the operations environment, which prevents you from capitalizing on a fully converged networking environment.

Cisco Network Services Throughout your Converged Environment

The Cisco IE 2000 IP67 Series provides all of the performance, manageability, and security of a Cisco switch in a package designed for the harshest industrial environments. No cabinet is necessary.

Smart Connectivity Everywhere

You can deploy the wall-mountable switch near assembly lines with sparks and particulates. At mining sites with heavy dirt and dust. On trains and trams with heavy vibration. On jet-washed food production lines. Outdoors in the elements.

Industrial-Rated Switching

The platform is classified IP67 under the IP Code (Ingress Protection Rating) which classifies and rates the degree of protection provided against intrusion. Therefore these switches are protected from the ingress of any kind of dust as well as from water immersion under defined conditions of pressure and time.



The switch complies with dozens of safety certifications and industry standards. It supports industrial protocols, such as Common Industrial Protocol (CIP) and the PROFINET v2 standard, so it can be easily integrated with any Ethernet-based industrial equipment and management system. It also supports Precision Timing Protocol (PTP) v2 for demanding synchronized applications.

Built-in Cisco Intelligence

Cisco IOS Software intelligent services make it easy to manage and secure your converged IT/OT network. Among them:

- Multilayer traffic prioritization
- Fast convergence
- Multicast
- Network Address Translation (NAT)
- Automated setup and configuration

Strong Security

The solution supports all of the security features you expect in a Cisco switch, including 802.1x port security, dynamic port-based authentication, encrypted administrative traffic, and centralized authentication.

Supported by Power over Ethernet (PoE)

You can use PoE and PoE+ to direct-connect and power external devices, such as IP cameras, badge readers, IP phones, and wireless access points throughout the plant floor. No need to overhaul your electrical layout if you move your various networked devices around.

Business Benefits

Using Cisco IE 2000 IP67 Series switches to bring smart connectivity to every part of your environment, you can gain:

- **Lower total cost of ownership** through real-time connectivity and analytics that improve efficiency and optimize operations
- **Real-time visibility** to monitor, manage, and react across the whole network, from anywhere

- **Improved uptime, performance, and safety** of industrial systems and equipment
- **Increased IT and operations team efficiency** with a single, standardized platform
- **Increased speed and flexibility** to bring new products to market and adapt the manufacturing network to respond to changing business needs

Why Turn to Cisco?

Cisco makes it easy to capitalize on industrial connectivity and IT-to-operations convergence. We bring industry-leading network and management capabilities to your harshest environments. Cisco provide end-to-end solutions to address every aspect of industrial networking, including plant routing and switching, field networks, embedded networks, and physical security. And all of these solutions integrate with Cisco's traditional wired and wireless networking, security, collaboration, and data center solutions as part of a single, converged platform. No one else offers the breadth of products that Cisco can to collect and act on real-time intelligence from every part of your organization.

Next Steps

For more information about Cisco IE2000 IP67 switches, visit www.cisco.com/go/ie2000.