

Cisco Industrial Router Portfolio



Benefits

- **Reduce downtime and maintain continuous access** to applications and data with highly reliable routers
- **Prioritize mission critical control** from operational networks and allocate network bandwidth using advanced quality-of-service features
- **Lower operational costs** and simplify device deployment and operation with zero-touch configuration; manage, monitor, and update devices remotely
- **Improve security** with unified policy enterprise-wide, secure VPNs, and stateful firewalls, and gain unparalleled visibility and control
- **Improve application performance** by distributing intelligence across the network using Cisco IOx, an open, extensible environment for executing distributed IoT applications
- **Boost operational efficiency and business decisions** by tracking and monitoring equipment, assets, workers, and mission critical processes

Simple, Intelligent, Automated and Secure IoT Connectivity

In San Francisco, an integrated, Internet of Things (IoT)-based network with parking, garage, and roadway sensors reduced parking search time by 43 percent. And parking citations dropped by 23 percent.

On the Aegean Motorway in Greece, IoT sensors deliver real-time traffic and weather information, speeding emergency response and improving safety and travel time.

The Internet of Things is accelerating digital transportation in industries ranging from energy to manufacturing, public safety, and transportation. But to realize the potential of IoT, you need reliable, high-quality, high-speed network connections to collect and transmit data from a multitude of deployed devices.

The Cisco® industrial router portfolio includes a range of compact, ruggedized modular products to build a highly secure, reliable, and scalable IoT infrastructure. These products are certified to meet harsh environmental standards. They support a variety of communications interfaces, such as Ethernet, serial, fiber, cellular, Wi-Fi, Wi-SUN RF mesh, and others.

The Cisco Industrial Router Portfolio

The complete line of industrial routers includes:

Cisco 1000 Series Connected Grid Routers: Rugged routers designed for harsh environments, like those found in the utilities industry. Ideal for integrating multiple applications, such as advanced metering infrastructure (AMI), distribution automation, distributed energy resources (DER), street lighting, and remote workforce automation within a multi-service network.

Cisco 2000 Series Connected Grid Routers: Highly secure, reliable routers for the energy and utilities industries ideal for SCADA monitoring of transmission and distribution systems.

Cisco ASR 903 Aggregation Services Routers: Full-featured, modular, small-footprint, and fully redundant aggregation routers. They offer service flexibility and deliver Layer 2, IP, and Multiprotocol Label Switching (MPLS) transport for advanced Layer 2 VPN, Layer 3 VPN, and multicast services.

Cisco 500 Series WPAN Industrial Routers: Wi-SUN RF Mesh ruggedized routers provide unlicensed 915-MHz, ISM-band wireless personal-area network (WPAN) communications that enables IoT applications, including smart metering, distribution automation, street lighting, and remote supervisory control and data acquisition (SCADA) monitoring.

Cisco 809 Industrial Integrated Services Routers: Very compact cellular (3G and 4G/LTE) industrial routers for remote deployment in various industries. They enable reliable and secure cellular connectivity for remote asset monitoring and machine-to-machine (M2M) applications such as distribution automation, pipeline monitoring, and roadside infrastructure monitoring.

Cisco 819 Integrated Services Routers: Compact, hardened form factor, cellular (3G, WLAN, or 4G options) routers that allow businesses to deploy secure 3G WWAN IoT applications, like ATMs, wireless kiosks, digital signage, and more.

Cisco 829 Industrial Integrated Services Routers: Highly ruggedized compact cellular (3G and 4G LTE with GPS and dual SIM) and WLAN (2.4/5GHz) industrial routers supporting for scalable, reliable, and secure management of IoT applications requiring mobile connectivity such as fleet vehicles and mass transit.

The Cisco IR 829 dual LTE offers multipath LTE and/or WAN backhaul for mission-critical IoT initiatives requiring highly secure data delivery, edge application execution and redundant connectivity.

Capabilities for Rugged, Industrial Settings

We designed the Cisco industrial routers to withstand harsh operating environments and to offer high-performance, secure connectivity of scale. Key features include:

- Design for industrial applications, including extended environmental, shock, vibration, and surge ratings; a complete set of power input options; convection cooling; and DIN rail, 19-inch rack or wall mounting.
- Advanced security such as Dynamic Multipoint VPN, stateful firewall, and access control lists to provide multi-layered security architecture.
- Diverse modular interfaces (Ethernet, T1/E1, 3G and 4G LTE cellular, asynch/synch, serial, and others) for diverse infrastructure needs.
- Advanced quality-of-service (QoS) capabilities to support mission-critical communications, such as command and control.
- Cisco IOx, an open, extensible environment for executing IoT applications at the network edge.
- Simple management and operation using network management tools such as IoT Field Network Director and Industrial Operations Kit.

Next Steps

To learn more about the Cisco industrial router portfolio, visit: www.cisco.com/go/iot.