

Do industrial switches support IPv6



Article Overview

Yes, many industrial switches support IPv6, though support varies by model, hardware capabilities, and software configuration.

Overview of IPv6 in Industrial Networks

Industrial networks are increasingly adopting IPv6 due to the exhaustion of IPv4 addresses and the need for globally unique IPs for thousands of connected devices, including sensors, controllers, and SCADA systems . IPv6 offers benefits such as simplified network design, stateless address auto-configuration (SLAAC), improved multicast, built-in IPsec security, and better scalability for real-time industrial operations .

Layer 2 vs. Layer 3 Switches

- Layer 2 switches: These switches primarily forward packets based on MAC addresses. They can handle IPv6 traffic at the data link layer without special configuration, but they do not perform routing between IPv6 subnets .
- Layer 3 switches: These switches provide routing functionality and must explicitly support IPv6 to forward IPv6 packets efficiently. Many modern industrial L3 switches, such as Cisco Catalyst and Industrial Ethernet series, include hardware-based IPv6 forwarding and do not require additional licenses for IPv6 support .

Examples of Industrial Switch IPv6 Support

- Cisco Industrial Ethernet 4000, 4010, and 5000 series: These switches support IPv6...

Article Content

What is an IPv6 network interface and how does it work with my

To access the switch over an IPv6 network you must first configure it with IPv6 information (IPv6 prefix, prefix length,

IPv6 Basics, News, Guides & Tutorials

IPv6 is the next-generation Internet Protocol address standard. Read on for the basics, case studies, training, and other materials.

What IPv6 Means for IIoT Networking | Industrial Network Switches

What is the Industrial Internet of Things? The Industrial Internet of Things, or IIoT, is a core part of the fourth industrial

Ethernet Switches

Moxa provides a wide range of industrial Ethernet switches that feature industrial-grade reliability, network redundancy, strengthened

Industrial Ethernet Switches

Switches for every industry and every use case Built to endure the demanding conditions of factories, transportation infrastructure,

Industrial Ethernet Switches | Phoenix Contact

The Single Pair Ethernet switch supports the SPE standard 10 BASE-T1L and therefore enables consistent IP-based communication

Industrial Network Products

Our Stratix® 5400 Industrial Ethernet Managed Switches support layer 2 switching and layer 3 routing in a high-performance, all

How to pick the right Industrial Ethernet Switch for critical networks

Why do you need industrial Ethernet switches? Industrial Ethernet switches Ethernet devices designed for harsh industrial

Will my network equipment work with IPv6?

Any ethernet switch should be able to switch IPv6 packets without any difficulty, subject to the following caveats: device management

Guide: Compatibility Requirements for IPv6 Upgrades

Both of these switches support IPv6 in all IOS images, so there is no need for an additional IOS license, either. Like the Cat4500,

Cisco Industrial Ethernet 4000, 4010 and 5000 Switch Software ...

This chapter describes how to configure IPv6 unicast routing on the Cisco Industrial Ethernet Switches, hereafter referred to as

Industrial Ethernet IPv6 in automation technology

IPv6 in a network has far-reaching consequences. Careful planning for conversion, time for testing, and a strategy for how long the

Industrial Ethernet IPv6 in automation technology

2. IPv6 for automation technology The introduction of IPv6 in automation technology is more than just a simple quadrupling of the

Ethernet Switches

As a full-featured Layer 3 switch, the new Stratix 8300 offers static, dynamic, multicast, redundant, IPv6 and policy-based routing and

IPv6 Support

We have added IPv6 support to the default network ("private"). And it is now possible to add IPv6 support for a tenant network too.

Industrial Ethernet Switches - Simple and effective

Our Ethernet switches are designed for use in industrial environments. They are robust, impact-resistant and temperature-resistant.

Contact Us

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