

AgenticOps for Industrial Networks

Empower operations teams to maximize network availability



The uptime imperative

In modern, AI-driven and other highly interconnected operations, losing a network connection is a major problem. When systems go offline, Operations Technology (OT) teams must fix the issue immediately to avoid expensive downtime.

Given the specialized focus of many OT roles, members of these teams have various levels of networking expertise or troubleshooting experience. They may find themselves escalating issues to networking experts, potentially leading to an unacceptably high Mean Time to Resolution (MTTR).

AI troubleshooting for industrial networks helps resolve networking issues, minimizing their impact on operations. It gathers data from the network to identify, troubleshoot, and recommend fixes for any issues it detects. This streamlined approach is critical for OT teams who cannot afford the time required for traditional troubleshooting.

Smarter network diagnostics with AgenticOps

AI troubleshooting for industrial networks is an agentic AI system designed to empower OT teams by simplifying network troubleshooting and monitoring in industrial settings. It acts as a networking expert, guiding users through complex issues with an OT-centric conversational interface.

Its agentic capabilities are proactive and autonomous, and continuously learns from real-world industrial scenarios, improving its ability to anticipate and prevent issues while maintaining human oversight. It significantly simplifies operations for OT teams by translating complex

network addresses into familiar asset names and accurately mapping operational locations to the underlying network topology. Its diagnostics and recommendations are backed by Cisco's extensive experience in complex networking environments.

AI troubleshooting for industrial networks:

- Provides an easy-to-use conversational interface for first responders.
- Performs root-cause analysis of observed issues for rapid resolution.
- Guides OT teams to implement fixes quickly and maximize network availability.

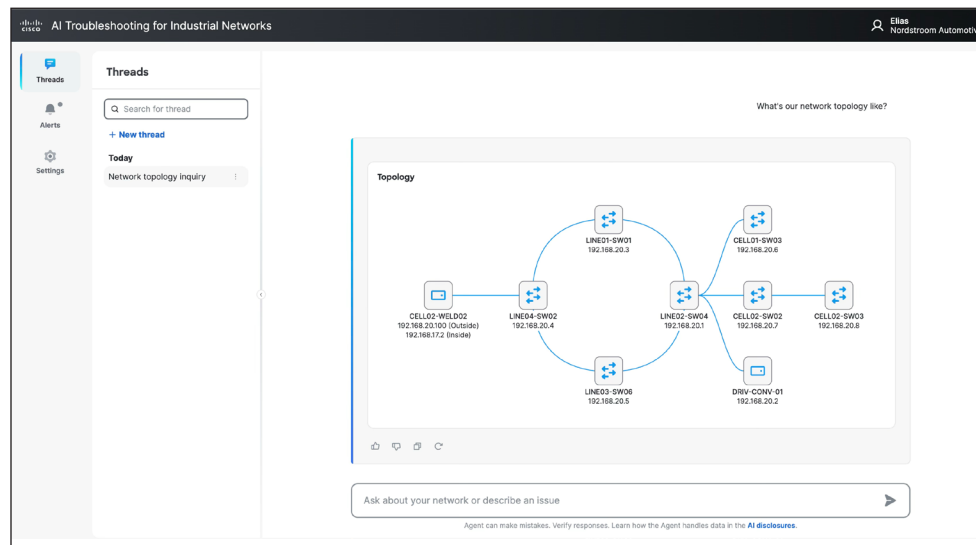


Figure 1. The easy-to-use conversational interface.

Next steps

If you're ready to explore how these advanced solutions can benefit your manufacturing environment, we invite you to view this [short video](#) and schedule a live consulting session with a Cisco industrial expert. Simply fill out this [form](#) to connect with us and discover tailored strategies to accelerate your network troubleshooting and performance with AI.

If you would like to experience the capabilities of AI troubleshooting for industrial networks firsthand, please scan the QR code below to sign up for our alpha program.



How it works

Users interact with the agentic system through simple, natural language prompts, treating it like a knowledgeable networking expert. Using the conversational interface, users may ask for help with specific problems (such as “The PLC in the paint area keeps going down. Why is that?”), or more general network state, (such as “Show me what’s connected to [switch name]” or “What VLANs are configured on [IP address or switch name]?”).

AI troubleshooting for industrial networks is installed locally to securely access your Cisco Industrial Ethernet switches. It uses AI to analyze network data, summarize the results, and provide clear answers on how to fix detected issues.

AI troubleshooting for industrial networks also functions proactively, continuously analyzing telemetry data from networking equipment. Without being prompted, it detects subtle network anomalies and changes in network topology, performing root cause analysis if a deviation signals potential trouble. This allows it to deliver high-fidelity alerts with clear, actionable remediation steps, preventing issues from escalating.

Solution benefits

AI troubleshooting for industrial networks offers significant advantages for manufacturing and similar industrial environments:

- **Maximize operational uptime:** Slash MTTR and keep your operations running smoothly by instantly diagnosing root causes and providing clear, actionable remediation steps.
- **Proactive detection and troubleshooting:** Prevent costly downtime before it happens with continuous monitoring of your network for subtle anomalies and potential threats, enabling your team to resolve issues before they need to escalate.
- **Empower your teams and boost productivity:** Enable your entire OT team to solve network issues quickly and confidently, regardless of their networking skill level, and reduce the need for escalations.
- **Free your networking experts:** Reduce the burden on your networking specialists by AI powered routine diagnostics and troubleshooting, freeing them to focus on strategic initiatives and innovation instead of constant firefighting.