What specific innovations or advancements in IIoT are you most excited about showcasing at Hannover Messe 2024?

Cisco is very proud to showcase our innovations and IIoT advancements at Hannover Messe 2024. Most people know Cisco for our leading enterprise networking products, but we also lead the industrial networking market. Over the past 20 years, we have developed a comprehensive portfolio of industrial switches, routers, and wireless products, and a unified industrial cybersecurity solution. We’re bringing our proven enterprise technologies into the industrial space to enable manufacturers to accelerate innovation by leveraging IT skills, tools, and best practices in factory networks.

At Hannover Messe 2024, we’re demonstrating how manufacturers can benefit from Cisco’s industrial IoT solutions to realize the full potential of Industry 4.0. Cisco is simplifying industrial networking operations, helping to secure industrial assets, and making it easier to implement a data-driven AI strategy.
The Cisco industrial network embeds cybersecurity features that used to require dedicated appliances. Gaining visibility into OT assets and their security posture, automating ISA/IEC 62443 based segmentation, and enabling zero-trust remote access for vendors and contractors are built into the industrial network so manufacturers can easily secure operations at scale.

With a Cisco industrial network, manufacturers can start virtualizing discrete hardware resources on the plant floor. Our advanced networking infrastructure allows factories to leverage software for increased agility, easier maintenance, and cost reduction.

Manufacturers can create a robust foundation for successfully deploying and leveraging AI technologies in their operations, with a high-performance industrial network that allows reliable and secure connectivity to analytical applications.

Cisco’s ultra-reliable and ultra-low latency wireless technologies allow manufacturers to easily deploy and connect autonomous robots and vehicles. They can enjoy the ideal radio coverage and real-time response they need to avoid loss or delay in communications and ensure operations' uptime and safety.

There are five parts to our smart factory innovations:

1. **SECURE OPERATIONS**
   The Cisco industrial network embeds cybersecurity features that used to require dedicated appliances. Gaining visibility into OT assets and their security posture, automating ISA/IEC 62443 based segmentation, and enabling zero-trust remote access for vendors and contractors are built into the industrial network so manufacturers can easily secure operations at scale.

2. **SIMPLIFY NETWORKS**
   With a Cisco industrial network, manufacturers can modify production lines or build new factories more easily. Our comprehensive networking portfolio addresses all use cases and comes with advanced management that helps standardize and automate factory networks.

3. **REDUCE COSTS**
   With a Cisco industrial network, manufacturers can start virtualizing discrete hardware resources on the plant floor. Our advanced networking infrastructure allows factories to leverage software for increased agility, easier maintenance, and cost reduction.

4. **INCREASE MOBILITY**
   Cisco’s ultra-reliable and ultra-low latency wireless technologies allow manufacturers to easily deploy and connect autonomous robots and vehicles. They can enjoy the ideal radio coverage and real-time response they need to avoid loss or delay in communications and ensure operations' uptime and safety.

5. **LEVERAGE DATA**
   Manufacturers can create a robust foundation for successfully deploying and leveraging AI technologies in their operations, with a high-performance industrial network that allows reliable and secure connectivity to analytical applications.
How does your participation in Hannover Messe this year align with the latest trends and challenges in the IIoT landscape?

The solutions we showcase at Hannover Messe address three key trends and associated challenges for manufacturers.

First, manufacturers are looking to simplify and standardize their factory networks and create a blueprint that they can use to build new production lines and new factories. Many factory networks have grown organically by adding networking and security solutions from various vendors over the years. The resulting disparity of devices makes these networks hard to manage and scale. But now it’s time to build for the future. Cisco offers a converged security and network architecture to help standardize factory networks and make it easier to modify and build new production lines and factories.

Second, manufacturers are looking to introduce more software control in their manufacturing processes, leverage real-time process data to make decisions and reduce operating costs. With our secure connectivity from OT networks to enterprise data centers and the cloud, manufacturers can more easily develop and embrace their AI strategies. Our high-performance, resilient network allows manufacturers to replace their discrete hardware resources on the factory floor with virtual machines co-located in a hyper-converged compute and storage infrastructure (HCI). Replacing hardware control systems with software allows faster adjustments and adaptations to production processes and reduces costs.
Finally, manufacturers are deploying autonomous robots and vehicles to increase productivity, quality, and safety while reducing costs. Reliable wireless connectivity that works in the presence of obstacles and RF interference is needed to ensure the real-time response demanded by these applications. Any loss or delay in communications will result in operations downtime and safety issues. Our ultra-reliable and ultra-low latency wireless technologies provide assured dependable connectivity for moving applications and make it easier to reconfigure production lines and adapt to changes in process and market demands faster.

“With our secure connectivity from OT networks to enterprise data centers and the cloud, manufacturers can more easily develop and embrace their AI strategies.”
What overarching message or theme is your company aiming to convey through its presence at Hannover Messe 2024, and how does it reflect the current state of IIoT?

Manufacturers have digitized and automated operations. They are connecting new types of Industrial Internet of Things (IIoT) assets but are struggling to operate and secure the complex networks they have built over the years. Moving beyond pilot projects and implementing IIoT solutions at scale to realize the full potential of Industry 4.0 requires a new approach to industrial networking and security.

At Hannover Messe 2024, Cisco is showing how it is delivering on this vision today with a unified industrial security and networking architecture that simplifies and helps scale deployment, brings seamless mobility, and positions manufacturers to better achieve their Industry 4.0 objectives.

Our solutions allow manufacturers to:

1. ACCOMPLISH SMART MANUFACTURING INITIATIVES WITH A HIGH-PERFORMANCE, RESILIENT NETWORK.

Cisco’s industrial networking solution leverages our proven enterprise-grade technology that IT teams know and love. It helps build a consistent end-to-end architecture, leveraging IT’s existing knowledge and investments.

2. PROTECT THEIR OPERATIONS WITH SECURITY BUILT INTO THE NETWORK.

We help manufacturers eliminate the cost and complexity of managing point security products by embedding advanced OT security as software features in our industrial networking portfolio. The same network that connects industrial assets can provide OT visibility, threat detection, zone segmentation, and secure remote access, eliminating the need for dedicated hardware.

3. DEPLOY RELIABLE, UNINTERRUPTED WIRELESS FOR CRITICAL APPLICATIONS AND GREATER FLEXIBILITY

Our wireless technologies provide reliable connectivity for mobile assets (AGVs, AMRs, tooling) and other critical applications, even in the presence of obstacles and RF interference. Wireless in factories reduce costs and installation times as there is no need for cable installation. It also makes it easier to reconfigure production lines and adapt to changes in process and market demands faster.
Are there any exclusive product launches or demos planned for Hannover Messe, and if so, what makes these offerings stand out? What problems do these solve? Who is the main target audience for your solutions?

At the Cisco Stand F18, Hall 15, we have several demo stations showing how manufacturers can boost innovations and efficiency with a resilient, scalable, and flexible industrial network that only Cisco can deliver.

The smart connected factory demo will show how converging security into the network can simplify deployments. Our demos will also include our extensive mobility solutions that let manufacturers deploy effective mobility solutions. Other demos will highlight numerous ways we are helping our customers achieve their net zero goals.

*For the first time at Hannover Messe, we will feature a fully operational automatic coffee packaging machine to demonstrate the power of a unified security and networking architecture.*

Through software built into our networking equipment, our visitors will be able to experience the power of deep visibility and remote access.

In addition to demos, we will have an in-booth theater with short presentations running throughout the day on key topics of interest, such as cybersecurity, wireless technologies, sustainability, networking, and cloud analytical applications in manufacturing operations.

*Are you planning to attend Hannover Messe? You can find us at Stand F18, Hall 15. Or, be our guest and get your free pass here.*