

Sentryo Relies on Cisco Solutions to Power Deeper Security and Visibility in Manufacturing



Sentryo

Industry
Manufacturing

Location
Lyon, France

Website
www.sentryo.net

Sentryo enables organizations to ensure the availability, resilience and safety of their industrial systems while fighting against cyberattacks. Headquartered in France, the company has a global presence with offices and a network of partners all over the world.

Challenge

One of Sentryo’s key strategic partners is VINCI Energies. VINCI Energies operates through two divisions: Axians is the IT integrator and a Cisco Gold Partner, Actemium is the OT. Active in all of the leading industrial sectors, VINCI Energies designs and implements customized solutions and services for industrial customers, for example, in the automotive industry. These massive manufacturing networks often host hundreds of thousands of components. Gaining insight and control over these huge environment is a major challenge.

Manufacturing environments lack centralized management at the factory floor. These organizations may have devices that have been deployed for ten to twenty years without any configuration control or management control. For global manufacturers, it’s often difficult to deploy the latest software to every parts of the network. They need a fast, easy way to collect information at the edge of the network.

“Our end customers often have very limited visibility into their own networks,” explains Laurent Hausermann, COO of Sentryo. “They know it works, but they don’t know what’s on it, its scale and what’s running on it. It’s a brownfield environment.”

VINCI Energies and Sentryo’s manufacturing customers also face considerable security challenges. In a fast-changing threat landscape, they want to be able to detect new attacks and react as quickly as possible.

“Traditional programmable logic controllers (PLCs) are robust, safe, and great for the factory floor, but they are not secure,” says

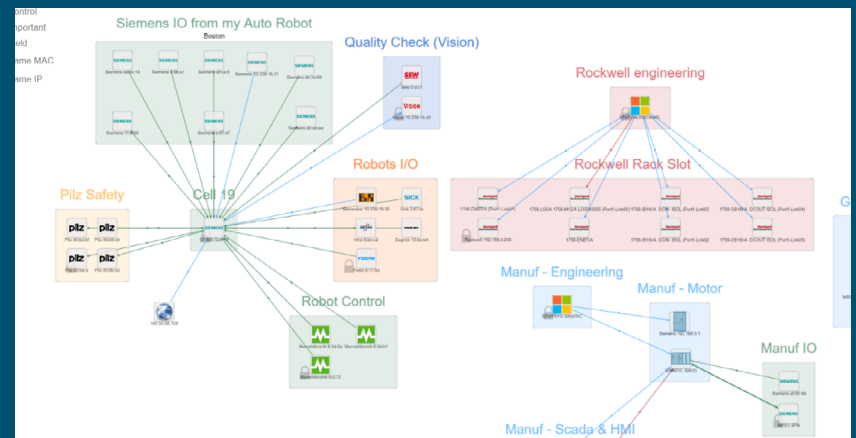
Hausermann. “They don’t support passwords or logging, and once you connect to them, the entire manufacturing network is open. Once inside, an intruder can connect to any device or change any configuration.”

If a security breach occurs in traditional IT networks, companies may suffer lost downtime, damaged reputations and fines. For manufacturing security, the stakes are even higher. A security breach in a manufacturing environment could lead to safety issues or environmental catastrophes.

Solution

To help VINCI Energies respond to cyber threats and meet the specific needs of its industrial customers, Sentryo has developed ICS CyberVision, a unique, innovative network monitoring solution that provides visibility, integrity and security for industrial control systems.

This powerful, proven monitoring and detection solution enables control engineers to maintain the integrity of their control systems the integrity of their systems in order to take advantage of the digital transformation while controlling the risks.



In order to provide a seamless integration at the edge of the control network, Sentryo integrated its ICS Cybervision solution in the Cisco IOx environment, and deploys it on the IE4000 industrial switch device. The result of a year of collaboration and work with Cisco, this flexible solution, adapted specifically for the industrial world, provides visibility, integrity and security directly at the edge of the industrial IoT network.

The Cisco IOx application environment combines IoT application execution at the network edge, secure connectivity with Cisco IOS Software, and powerful services for rapid, reliable integration with Internet of Things (IoT) sensors and the cloud. By bringing application execution capability to the source of IoT data, it lets organizations overcome challenges with high volumes of data and the need for automated, near-real time system responsiveness. Cisco IOx enables application developers to work in the familiar Linux application environment with their choice of languages and programming models with familiar open-source development tools.

“Cisco IOx is a very agile technology, and it was quite easy to port our technology into the IOx Central Application Framework (CAF) and run in the IOx container,” says Hausermann. “It’s lightweight, easy to use, and well-documented for our developers. For customers, it’s a great way to bring more value to their network infrastructure.”

The Sentryo ICS CyberVision solution works in tandem with Cisco DNA Center. This advanced management platform makes it easy to quickly configure and provision thousands of network devices across manufacturing and other enterprise environments.

Cisco DNA Center addresses the demands of digitization, cloud, IoT, and mobility by eliminating IT complexity and protecting against cybersecurity threats, while allowing an IT organization to align the network with business intent by unifying policy, automation, and assurance with integrated security.

“Cisco provides the tools we need to deliver visibility, security and create a platform for Industrie 4.0 manufacturing.”

Laurent Hausermann
COO of Sentryo

Results

Together with Cisco solutions, Sentryo’s software provides the visibility and security that its manufacturing end customers require, with a delivery mechanism that’s easy to scale. Instead of purchasing an industrial PC or running an app at a NOC, and having to backhaul all the data, customers can simply run Sentryo ICS CyberVision on their Cisco IE 4000 at the network edge.

“Our combined solution lets customers collect data in a very efficient way, to provide high-end cybersecurity services,” says Hausermann. “That’s the true value add. Our customers don’t have to add anymore hardware. With a Cisco switch on their network, they have automatic deployment of the new software directly to the network edge.”

Employing a Cisco IOx platform on an industrial switch provides real benefits compared to traditional industrial PC deployments. By distributing software directly to Cisco switches on the network edge, a manufacturing can quickly deploy new features on a global scale.

“Instead of spending months or years to deploy new hardware appliances, they can push the software out in a few days,” says Hausermann. “The process is much faster, you can do it remotely, and you don’t have to spend time and money on manual deployment.”

The solution also provides the insight that manufacturers need to maximize efficiency, streamline management, and minimize risks.

“Improved visibility into the network lets our end customers discover unknown machines and better understand what’s really happening on their network,” says Hausermann. “They might be unaware of a server that’s been connected and is running, creating an impact on their production systems. Our solutions help them mitigate shadow IT initiatives and minimize failures, so they can maximize business continuity.”

To strengthen security, Sentryo’s solution incorporates advanced AI that detects anomalies and suspicious activities. M2M networks tend to have regular, predictable communications, and Sentryo ICS CyberVision employs advanced algorithms to learn these routines and detect anomalies.

“Our solution helps manufacturers detect vulnerability and patch them before bad actors can exploit the weakness,” says Hausermann.

The combined Cisco and Sentryo offering also enables organizations to build a scalable

foundation to accommodate Industrie 4.0 smart manufacturing.

“Cisco provides the tools we need to deliver visibility, security and create a platform for Industrie 4.0 manufacturing,” says Hausermann.

Cisco solutions support all the key cornerstones of Industrie 4.0. With network interoperability, Cisco helps organizations securely connect factory networks and endpoints across the top industrial protocols – across any transport; wired, wireless or cellular. They provide information transparency to enable secure access to data at the machine and sensor level, and duplication of that data for analysis.

Together, Sentryo and Cisco are delivering the insight and peace of mind that today’s manufacturers need to compete in a fast-changing environment.

Learn More

To discover how Cisco solutions can help you bring Digital Transformation to the factory floor and beyond, visit:

<http://www.cisco.com/go/dnacenter>

To learn more about Sentryo, visit:

<http://www.sentryo.net>

Solutions

Switching and Routing

- Cisco Industrial Ethernet 4000 Series Switches

Management

- Cisco DNA Center

OT Cybersecurity

- Sentryo ICS CyberVision

Results

- Implement a foundation for Industrie 4.0 smart manufacturing capabilities
- Extend advanced security to the factory floor to safeguard people, data and the environment
- Enable improved visibility to gain insight into operations, minimize downtime and boost efficiency
- Update software across thousands of machines worldwide in minutes, not weeks or months