

Computer Services

Connecting the factory floor to the enterprise

Telit

To help manufacturers harness the Industrial Internet of Things (IIoT) to optimize operations and increase efficiency, Telit teamed up with Lenovo to build an all-in-one OT-IT Integration Appliance for a plug-and-play IIoT solution based on Lenovo ThinkCentre M90n Nano PCs.



Lenovo

1

Who is Telit?

With over 20 years as a pioneer and leader in enterprise-grade Internet of Things (IoT) products and software, Telit has earned a reputation for solving the toughest challenges in IoT. The company offers a broad range of IoT solutions including high-performance communication modules, global connectivity services that include SIMs and data plans, and cloud and edge software platforms.

Telit's products and solutions, combined with unmatched IoT expertise and developer resources, enable thousands of successful end-to-end IoT solutions around the world. Headquartered in London, UK, the company operates more than 20 sales offices and four R&D centers, and employs around 850 people worldwide.



2

The Challenge

Telit's IoT products and solutions help organizations across a wide range of industries and markets achieve operational efficiencies, improve productivity, and cut costs. As more and more companies look to build smart factories with responsive, adaptive, and connected production lines, the manufacturing sector is a huge potential growth area.

The Industrial Internet of Things (IIoT)—connecting and digitizing assets through the industrial value chain—promises complete operational visibility for real-time decision-making, improved levels of quality and efficiency, and opportunities for new, data-driven services.



With Telit deviceWISE running on Lenovo IIoT gateways, manufacturers can collect data from any machine on the factory floor, enabling real-time decision-making.

Ricardo Buranello, VP & Head of IoT Platforms at Telit, elaborates: “deviceWISE is a powerful edge logic engine that collects, analyzes and visualizes machine data from the plant floor, enables users to integrate machines to databases, IT and cloud systems, and to create dashboards and human-machine-interfaces (HMIs) in just a few clicks, without the need for any custom code.”

deviceWISE can be deployed on-premises or in the cloud and is platform-agnostic, compatible with any type of operating system and cellular gateway. To enable manufacturers to implement their IIoT strategy quickly and easily, Telit aimed to provide an all-in-one, turnkey solution.

Finding the right partner

Telit teamed up with Lenovo to deliver an out-of-the-box solution that combines Lenovo hardware with deviceWISE software in a single package.

The all-in-one solution is based on the Lenovo ThinkCentre M90n Nano with deviceWISE pre-installed and pre-configured. Everything is fully validated and integrated, so the nodes are simple to deploy and easy to scale.

Equipped with up to 8th generation Intel Core vPro processors, the Lenovo ThinkCentre M90n Nano PC is smaller than most paperbacks yet delivers the same compute performance as a regular desktop. “Lenovo ThinkCentre M90n Nano is a strong match for deviceWISE,” says Buranello. “It is compact, durable, and powerful, making it ideal for IIoT at the edge.”

Hardware

Lenovo ThinkCentre M90n Nano

Software

Telit deviceWISE®

3

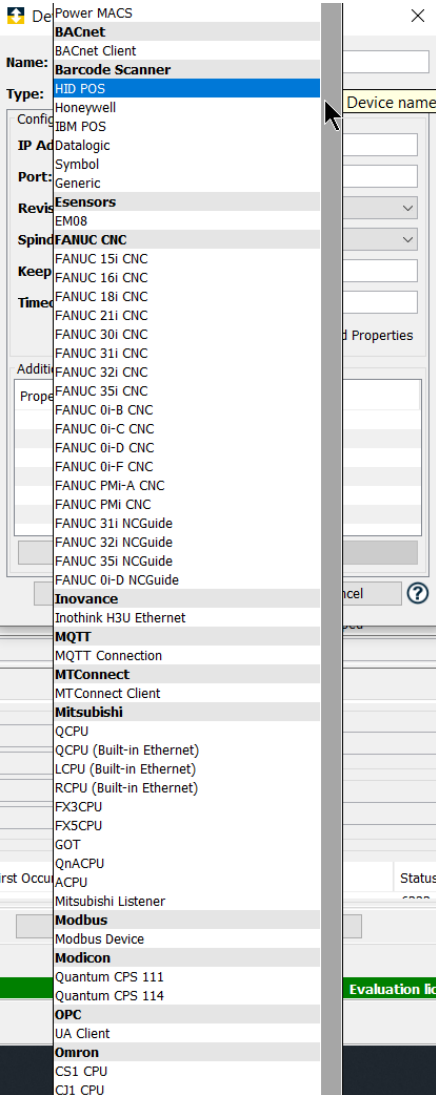
Results

The deviceWISE platform provides edge intelligence for industrial asset management, secure remote access, OT to IT data exchange and processing, and other IIoT applications.

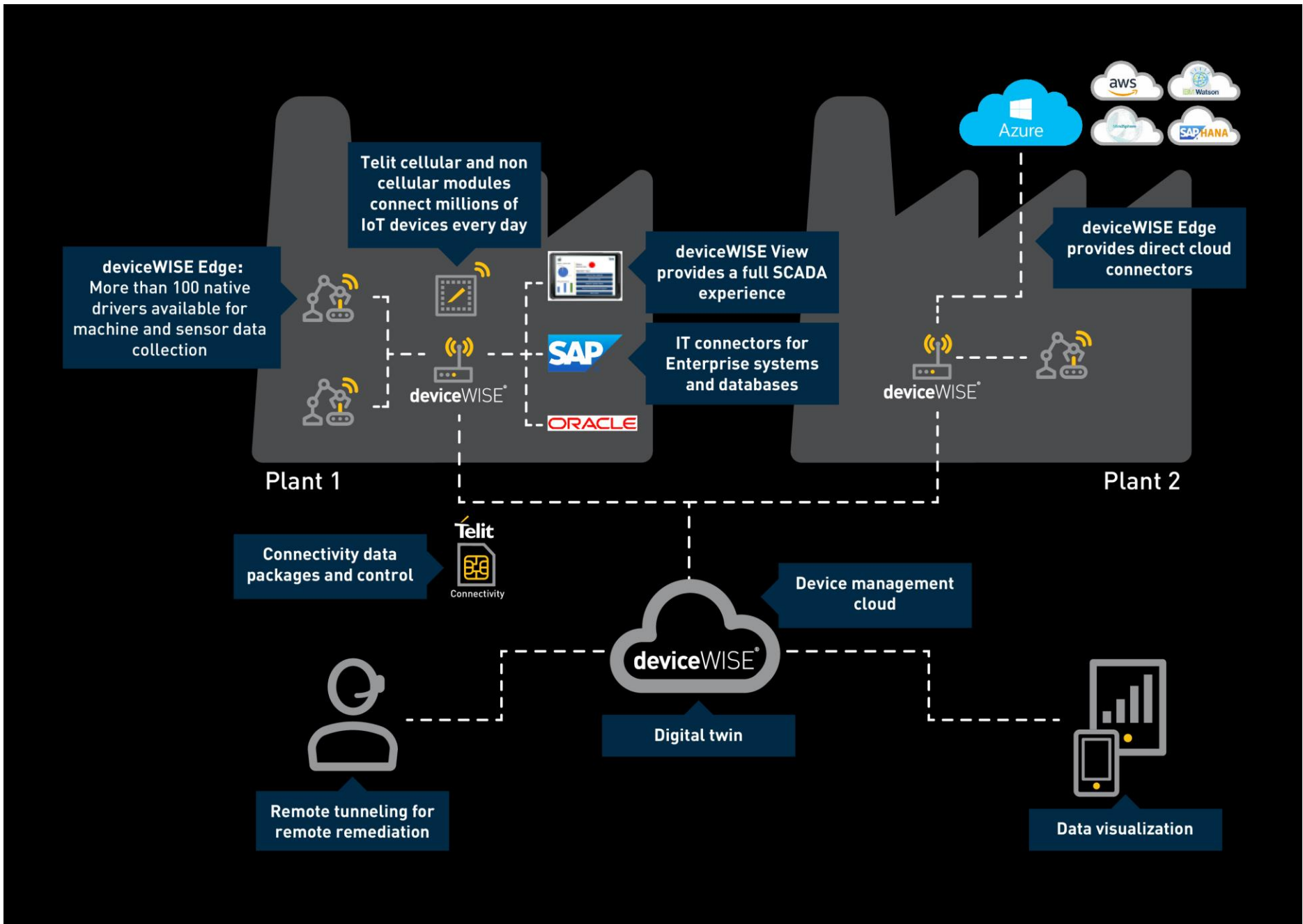
With five USB ports, WLAN, Bluetooth and cellular connectivity, four serial ports, four GigE LAN, 2PoE, and 8GPIO ports the Lenovo ThinkCentre M90n Nano can be connected to almost any factory machinery, even older assets that do not have any embedded communication modules.

- ✓ Smaller than a VHS cassette
- ✓ WLAN and Bluetooth 4.0
- ✓ Starting from 505g

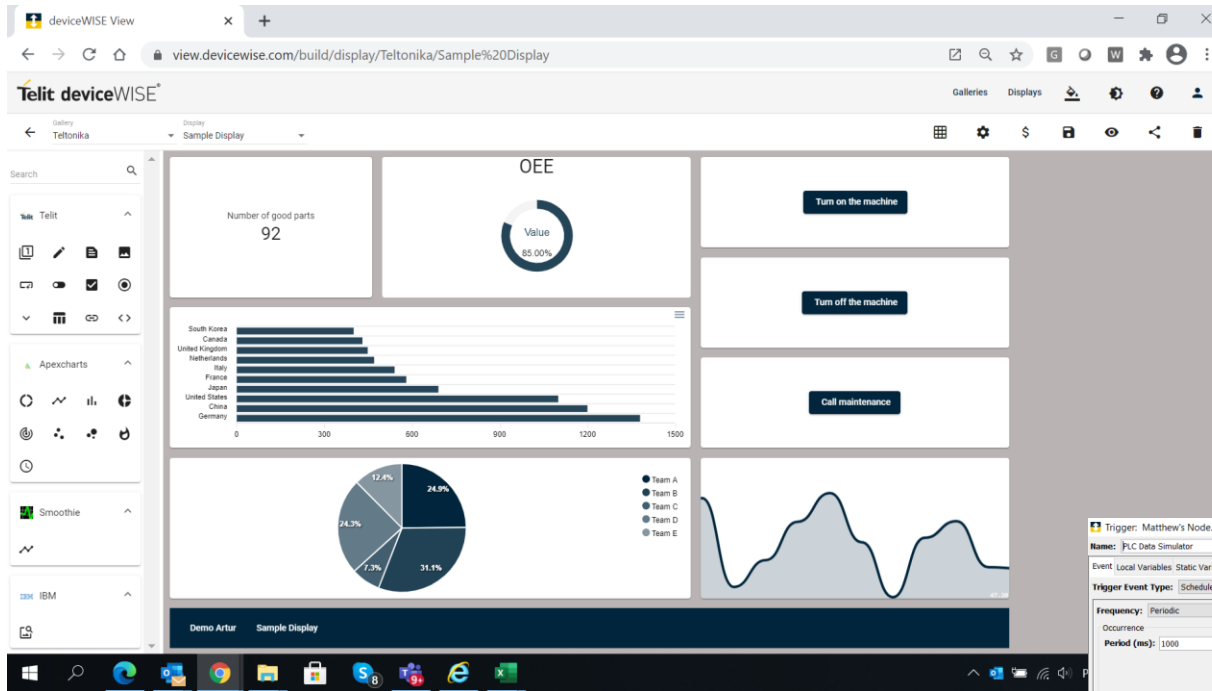
Thanks to hundreds of native drivers, deviceWISE collects data—such as the machine state, error codes, part count, temperature, humidity, and pressure—in real time. This data can be seamlessly mapped to any database and common enterprise applications or external analytics cloud platforms to support operational equipment effectiveness (OEE), preventive and predictive maintenance, and quality control.



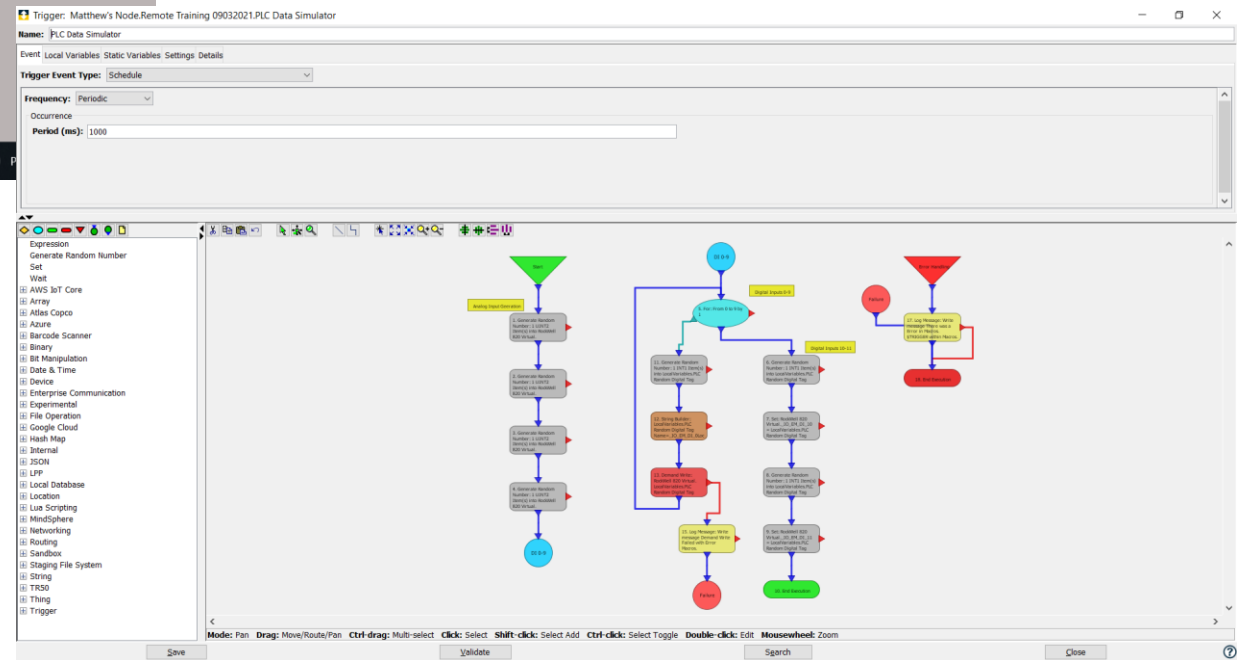
Hundreds of native drivers for machine data collection




Telit deviceWISE solution architecture



Telit deviceWISE dashboard



Drag-and-drop widgets



The all-in-one, plug-and-play nature of the deviceWISE platform enables manufacturers to accelerate IIoT deployments, empowering them to connect the factory floor to the enterprise with speed and ease. And with the Telit deviceWISE View software built in, users can create custom dashboards using drag-and-drop widgets to visualize and analyze data.

“Partnering with Lenovo, we have built an all-in-one solution engineered for quick, easy installation and simple integration with manufacturing machinery,” says Buranello. “The deviceWISE platform reduces the risk and complexity of IIoT projects, and cuts time to market.”

Looking to the future, Telit plans to integrate deviceWISE with other Lenovo edge devices, including the Lenovo ThinkStation P920 Rack 2U workstation and Lenovo ThinkSystem SE350 edge server.



“

“We’re excited to continue working with Lenovo to take the deviceWISE platform to the next level: for example, by enabling computer vision, advanced data analytics, artificial intelligence, and machine learning at the edge. Backed by Lenovo’s solutions, services, and support, we can help manufacturers all over the world reap the rewards of the IIoT.”

Ricardo Buranello

VP & Head of IoT Platforms, Telit

Why **Lenovo**?

“Partnering with Lenovo represents an exciting opportunity to enhance our service offering and meet growing demand for easy-to-deploy IIoT solutions,” says Buranello. “The depth and breadth of the Lenovo portfolio really impressed us. Not only does Lenovo offer everything from small cellular devices to laptops to robust blade servers, but these products are available all over the world with local support and services.

“While there are many choices from Tier2 OEMs, Lenovo’s global scale, reach, and high product quality will help us to bring the deviceWISE platform to more manufacturers worldwide with an assurance of continuity of supply, and the global certifications and local support that our customers demand.”



How do you gain real-time insights into operations on the factory floor?

Accelerating IIoT deployments with
Lenovo edge computing technology.

[Explore Lenovo Edge Solutions](#)