Helping manufacturers securely orchestrate entire edge estates with speed and savings

How Bosch Global Software Technologies and Dell NativeEdge help manufacturers securely manage edge devices across silos, solutions, applications and lifecycle management.

Business needs

Manufacturers grapple with critical challenges in data acquisition and device management due to disparate technology solution stacks at the edge. This hinders operational optimization, hampers security and reduces manufacturing efficiencies.

Solutions at a glance

- Dell NativeEdge

Business results

Optimize operations with a standard framework across diverse edge devices, applications and solutions.

Eliminate operational complexity at scale with centralized management across edge estates.
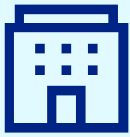
Bolster security with zero-trust principles and real-time prevention, reporting and monitoring.

Speed up application deployment via single-click, remote automation across devices.

DELLTechnologies

Bosch can use its DeviceBridge solution with Dell NativeEdge to optimize data management in manufacturing environments.

Bosch Global Software Technologies GmbH (Bosch) knows that innovation, the foundation of industrial operations, can never rest. The company works with manufacturers and the edge technology that fuels their innovation, providing novel ways to optimize operations and gain efficiencies at scale. To do so effectively, Bosch needed a solution to address the longstanding challenge hindering manufacturing's forward momentum: diverse technology spread across disparate edge devices, applications and solutions.

In sophisticated manufacturing environments, disparate technology silos are the norm. That's because different technologies and edge devices are often tied to specific assets or processes on the manufacturing floor. Bosch sought a solution that could seamlessly connect these diverse pieces and achieve secure, real-time, operation-wide and enterprise-wide optimizations.

Dell NativeEdge can work together with Bosch DeviceBridge and AIShield solutions to answer this challenge. As a result, Bosch's customers can then deploy and manage their edge assets more efficiently, resulting in faster time to value and resource savings.

Gaining consistency by simplifying technology.

Simplicity is the gateway to effectively scaling and managing manufacturing edge devices. Rather than using different management tools for various device types, Dell NativeEdge provides a unified approach to managing the entire edge estate. Using its open platform, Dell NativeEdge can seamlessly work with manufacturing's IT/OT systems. It centralizes edge devices and application deployment and management to enable a consistent experience across devices and applications.

Bosch can use its DeviceBridge solution together with Dell NativeEdge to optimize data management in manufacturing environments. DeviceBridge addresses critical challenges in machine/process data acquisition and management, especially for legacy machines, helping to collect data from diverse devices. With Dell NativeEdge, organizations can deploy applications like DeviceBridge throughout the entire edge estate remotely and securely with a single click.

"DeviceBridge and Dell NativeEdge are an ideal complement to each other. Together, they can help manufacturing edge customers optimize technology investments and gain operational efficiencies," shares Tobias Grocholl, Strategic Innovations Manager, Bosch Global Software Technologies GmbH.

Securing diverse manufacturing environments.

The diversity of devices used throughout manufacturing operations also increases security vulnerabilities. Dell NativeEdge helps secure edge applications, their deployment and the entire edge estate with zero trust enabling technologies. To embody zero trust principles, Dell NativeEdge incorporates technologies like Secured Component Verification (SCV), Secure Supply Chain assurance processes and Trusted Platform Modules (TPM) to secure the hardware with integrated cryptographic keys.

Bosch AIShield, a comprehensive artificial intelligence (AI) security solution, can work in conjunction with Dell NativeEdge to form an end-to-end security environment. AIShield evaluates artificial intelligence/machine learning (AI/ML) models to identify and address edge vulnerabilities, safeguarding AI/ML assets against adversarial threats. When combined, Dell NativeEdge and AIShield can comprise a full-blown security solution.

"Because Dell NativeEdge identifies and addresses potential risks, it provides customers with the capabilities for real-time prevention while Bosch AIShield safeguards AI models. This is a great example of securing edge applications and the edge estate with zero trust technologies," says Grocholl.

Both DeviceBridge and AIShield can be included in the Dell NativeEdge application catalog. When Dell NativeEdge securely onboards a new edge device, the deployment rules can automatically install DeviceBridge or AIShield as part of the secure device onboarding and zero-touch provisioning process.

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Driving innovation forward.

For almost two decades, Bosch and Dell have collaborated to design solutions that help manufacturing customers improve outcomes. With joint Bosch and Dell solutions, customers can deploy and manage assets more efficiently. For example, lifecycle management is much easier with Dell NativeEdge. As soon as new software releases are ready, they are available in the Dell NativeEdge application catalog, and devices update automatically through Dell NativeEdge. Capabilities like these enable manufacturers to gain speed, increase efficiency and bring strategic innovations forward, building better outcomes and a stronger future.

Dell NativeEdge is also driving innovations within Bosch's own operations. That's because Dell NativeEdge's powerful capabilities help orchestrate the application deployment process across the entire edge estate while also comprehensively managing application lifecycles. For Bosch, this translates into faster time to value and saves valuable resources. Most importantly, these newfound capabilities help Bosch innovate faster.

"For a long time, we sought an automated application orchestration and lifecycle management solution. Dell NativeEdge meets that need. Its capabilities help us innovate faster," states Grocholl. "We're absolutely thrilled to be partnering with Dell Technologies and delivering value to both our manufacturing customers and our own business."

Advancing manufacturing.

Bosch is committed to helping manufacturing customers as they evolve and using Dell NativeEdge capabilities to do so. "Dell NativeEdge gives us peace of mind. Customers can deploy applications-- securely and remotely--across the edge estate with a single click," says Grocholl.

"Dell NativeEdge empowers us to deliver a streamlined and consistent experience to our customers in the orchestration, deployment, and lifecycle management of critical applications like DeviceBridge and AIShield," continues Grocholl. "Consequently, customers can deploy and manage their edge assets more efficiently, securely and remotely at scale, resulting in speed and resource savings."

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