

Dell NativeEdge for Manufacturing

Accelerate manufacturing outcomes with AI

The manufacturing industry is harnessing the power of AI at the edge. Technology can help drive better efficiency, flexibility, and resolve challenges at the manufacturing edge such as real-time analysis and insights, siloed technology deployments, scaling capabilities across edge locations, managing a vast number of heterogenous devices and security of data & assets. These challenges impact the adoption of smart manufacturing initiatives and impede outcomes.

As organizations drive towards smart manufacturing transformation, they must take an innovative technology approach to simplify their smart factory initiatives.

Presenting the **Dell NativeEdge for Manufacturing**, a full stack, end-to-end solution for manufacturing edge that addresses some of the persistent challenges in the smart manufacturing. This edge operations software platform securely scales edge management to streamline desired smart manufacturing outcomes.

Reimagine edge operations

Dell NativeEdge centralizes deployment and management of edge infrastructure and applications on the factory floor using blueprint-driven automation. It also implements zero-trust security framework. This enables rapid scaling and customization while maintaining robust security.



Simplify edge operations at scale

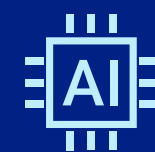


Optimize for AI at the edge

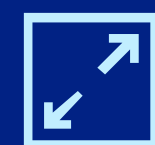


Protect your edge estate

Solution Highlights



Expanded AI capabilities derived from key ISV partners



Unmatched scalability using automation



Broad edge ecosystem of partners



Resilient edge protection with zero-trust security



Comprehensive Connectivity and Choice with ISV Partners

PTC, Litmus & Ignition Software

The partners enable IT / OT convergence with better data collection and provide a flexible platform for SCADA, MES, and HMI, providing customers a diverse range of options for their operational needs.

XMPro for Digital Twin

Highlighting the inclusion of XMPro for creating Digital Twins, enabling advanced simulation, analysis, and process optimization. They now leverage more sophisticated AI modeling and GenAI to develop their Digital Twin models.

Palo Alto for IT/OT Cybersecurity

Palo Alto Networks enhances zero-trust security for connected manufacturing, delivering advanced protection and improved OT/IT resilience to keep operations secure and resilient against evolving threats.

Cognex for Computer Vision

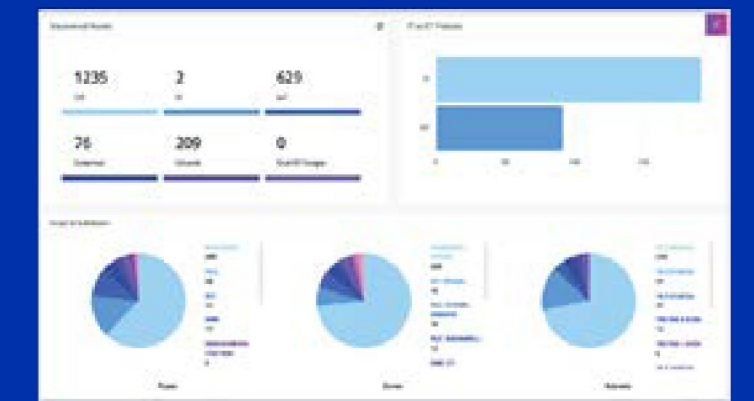
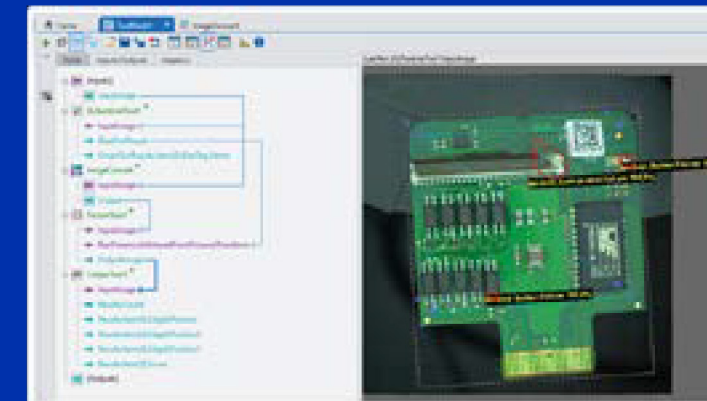
Customers can use Cognex for advanced computer vision capabilities. Cognex now supports edge learning and machine vision applications on their industrial cameras, thereby making these capabilities more streamlined & efficient.

AI-Driven Insights and Operational Excellence

Leveraging AI applications to analyze the collected data, NativeEdge for Manufacturing helps drive actionable insights, enhance predictive maintenance, optimize supply chain management, and ensure stringent quality control, all contributing to operational excellence.

Integrating proven technologies to drive smart manufacturing, Dell NativeEdge for Manufacturing uses edge-hardened, Intel-based Dell PowerEdge Servers (XR4000, XR7620) with the Dell Edge Gateways. These NativeEdge Endpoints enable a scalable unified technology architecture that is validated to run advanced edge and AI applications like Digital Twins, Machine Vision, and more. Efficiently and seamlessly running these use cases contributes to increased productivity on the factory floor through automation, real-time monitoring, and predictive analytics, significantly reducing downtime and operational costs.

To accelerate adoption of Industry 4.0 standards, Dell NativeEdge for Manufacturing brings together the following leading application vendors to enable advanced edge use cases. The blueprints to automatically deploy and manage these vendor applications, anywhere and at once, are readily available in the NativeEdge Catalog.



SCADA S/W for Process Control & Data Management

- A scalable, flexible platform for SCADA, IIoT, MES, and HMI.
- Seamless integration and connectivity across industrial systems
- Automate industrial processes faster



Strengthen industrial cybersecurity

- Fortify edge environments with zero-trust security.
- Seamless IT/OT integration for unified, secure, and efficient operations.
- Advanced cybersecurity solutions tailored for industrial needs.



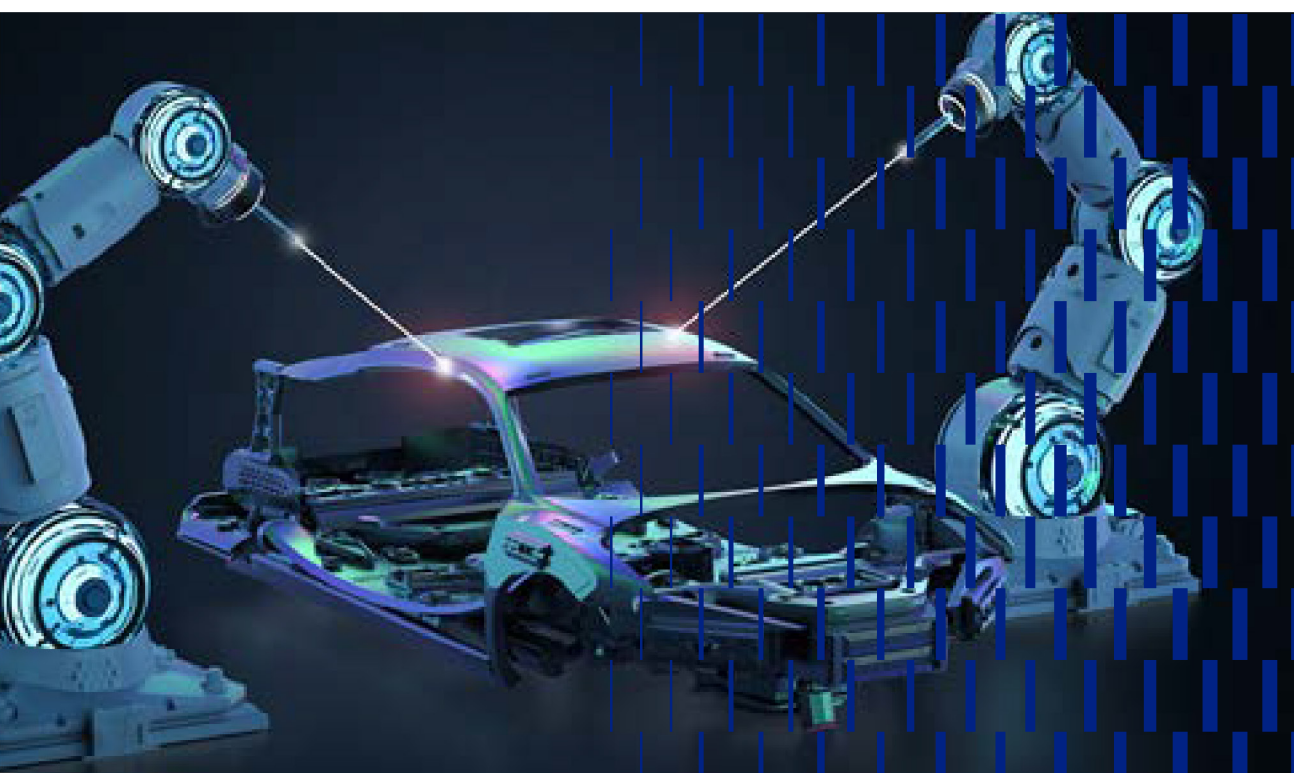
Improve manufacturing quality and performance using advanced machine vision

- Automating complexity with AI-based analyses
- Optimize performance, increase throughput, and control traceability
- Verify assembly and track information



Accelerate operational and situational awareness with a no-code digital twin composition platform

- Intelligent business operations
- Sophisticated AI 3D Modeling & virtual simulation
- Remote monitoring
- Real-time decision support



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