Manufacturers are increasingly investing in edge computing. But, the explosive growth of IoT devices creates new challenges around data management, security, scalability, and real-time performance at the edge. The piecemeal edge initiatives have created hardware and software sprawls across factory floors while limiting the adoption of AI/ML and real-time analytics at the edge. Hence, data-driven and self-optimizing operations remain a distant goal for manufacturers.

The Dell Technologies Manufacturing Edge Solutions is a family of scalable and interoperable solutions to consolidate applications and power real-time insights at the manufacturing edge. It’s a portfolio of standardized solutions to power smart manufacturing with the speed, scalability, and resiliency needed for edge applications. These solutions are built using Dell Technologies APEX Private Cloud and provide a subscription-based flexible consumption model.

**Key Solution Advantages**

**Consolidate for agility and efficiency**
Consolidate applications and reduce the hardware sprawl by hosting all OT/IT applications in secure, centrally managed virtual environments. Operational technicians can monitor the performance of connected devices, processes, systems, and applications from a single pane.

**Keep smart operations resilient, and secure**
Ensure high availability and faster disaster recovery for critical applications with the ruggedized, fail-safe technologies built into the solutions. As edge initiatives scale up, the solutions innately help IT teams to maintain security across the infrastructure, from edge devices to the cloud.

**Gain scale and insights at the speed of business**
Enable compute acceleration, AI/ML applications, low latency storage, high-speed connectivity, and real-time insights at the edge, scaling seamlessly from initial factory pilots to a global rollout. Integration with the Dell EMC Streaming Data Platform enables live business insights by using streaming data directly from the edge when it is most valuable—in real-time.
Power of Partnerships to Solve Edge Challenges

Dell Technologies Manufacturing Edge Solutions are built in collaboration with industry leaders like PTC, VMware, and more with a network of System Integrator partners. They leverage a comprehensive edge ecosystem to address end-to-end manufacturing edge challenges.

Backed by the support and reliability of Dell Technologies, these joint solutions deliver unprecedented stability, security, scalability, and repeatability for all manufacturing edge initiatives.

Making the manufacturing edge easy

Dell Technologies Manufacturing Edge Solutions combine the power of interconnectivity (between IoT, OT, and IT systems), automation, machine learning, and real-time data for edge applications. With these solutions, manufacturing enterprises can:

- Control solution costs as edge applications scale up, using the flexible consumption option
- Modernize technology stack to support AI/ML capabilities and real-time analytics at the edge
- Streamline and automate predictive maintenance, asset monitoring, overall equipment effectiveness, quality assurance, and yield optimization
- Gain efficiencies in operational and IT maintenance by maintaining a global view of operations from a single pane
- Increase ROI by reduced hardware sprawl, improved availability, and faster disaster recovery of applications
- Boost profit margins with real-time insights, predictions, and recommendations that help reduce unplanned downtime and lower maintenance costs

FAST-TRACK SMART MANUFACTURING WITH REAL-TIME INSIGHTS AT THE EDGE