

# DELL TECHNOLOGIES MANUFACTURING EDGE SOLUTIONS

## Scalable, interoperable edge solutions for smart factories

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.

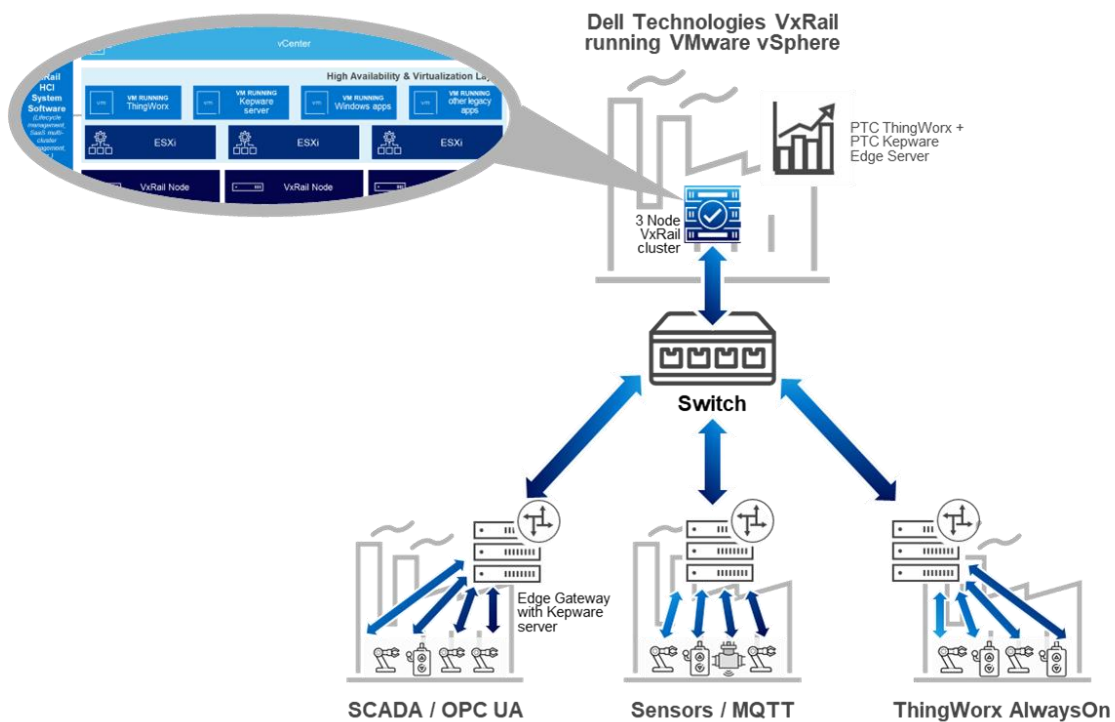
## Power of Partnerships to Solve Edge Challenges

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

## Solution Instance Block

A single instance block of the Dell Technologies Manufacturing Edge Solutions comprises of the following proven technologies to enable resilient and real-time performance for critical edge applications:

- **HCI Infrastructure:** 3-node cluster of Dell EMC VxRail (D&E series) with 50 ICB (Integrated Computational Block)
- **Virtualization:** VMware vSphere (built into VxRail)
- **Application layer:** PTC ThingWorx for manufacturing centric apps
- **Edge device connectivity:** PTC Kepware Server



## Technical Specifications: Dell Technologies Manufacturing Edge Instance Block

### COMPUTE AND MEMORY SPECIFICATIONS

	CPU PER NODE	CORES PER CLUSTER	MEMORY PER CLUSTER
<b>VxRail E series (3-node cluster)</b>	2 x Intel® Xeon® Gold 6238R 2.2 GHz	50 Available*	200GB, 3200MT/S RDIMMS Available*

### STORAGE SPECIFICATIONS

	CACHE	CAPACITY DIVES	BOSS CARD	MICROSDHC/SDXC
<b>VxRail E series (1-node)</b>	2 x 800GB SSD SAS cache drives per node	3 x 3.84TB SSD SATA capacity drives per node	2 x M.2 240GB (RAID 1)	2 x 64GB

### NETWORKING SPECIFICATIONS

	rNDC	LOW PROFILE
<b>VxRail E series (1-node)</b>	2 x 10/25GbE SFP28	2 x 10/25GbE SFP28

### PHYSICAL SPECIFICATIONS

	POWER: AC PSU	DIMENSIONS	WEIGHT	FANS
<b>VxRail E series (1-node)</b>	1100W 100V – 240V AC 1600W 200V – 240V AC	42.8mm/1.68in H 434.0mm/17.09in W 733.82mm/29.61in D	21.9kg/ 48.28lb	8

### SOFTWARE REQUIREMENTS

	AMBIENT OPERATING TEMPERATURE	OPERATING RELATIVE HUMIDITY	OPERATING ALTITUDE WITH NO DERATINGS	HEAT DISSIPATION
<b>VxRail E series (1-node)</b>	10°C to 30°C 50°F to 86°F	10% to 80% (non-condensing)	3048m approx. 10,000 ft	4100 BTU/h

### SOFTWARE REQUIREMENTS

	CORES	MEMORY	STORAGE	OPERATING SYSTEM
<b>PTC ThingWorx</b>	4	16 GB (minimum)	100GB minimum capacity, 10K RPM or SSD	Windows Server 2016, Windows Server 2019 or Red Hat Enterprise Linux 8.2
<b>PTC Kepware Server</b>	2	1GB RAM	530 MB (minimum)	Windows Server 2012, 2012 R2, Windows Server 2016, Windows Server 2019

\* While each Dell EMC VxRail node may have additional cores and memory physically available, the architecture is designed to ensure each subscription provides optimal performance.