SOLUTION BRIEF: Taking HCI to the Edge

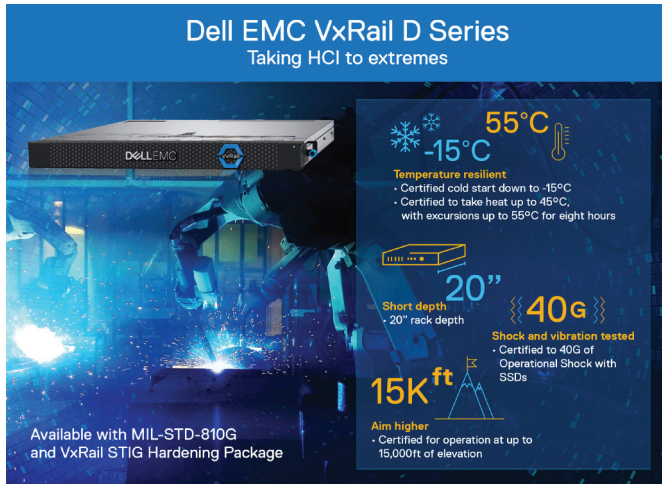# Taking HCI to the Edge: Rugged Efficiency for Federal Teams

Federal teams are managing exponentially more data outside of traditional data centers than ever before, from sources including mobile units, Internet of Things (IoT) devices, machine learning, sensors, and artificial intelligence applications. The goal is to enhance security, avoid technical latency, and enable rapid, data-driven decision making.

The challenge: Operating at the edge, in space-constrained, remote, and sometimes harsh environments without compromising functionality or performance. Agencies and federal systems integrators must ensure equipment is resilient on-the-go – able to support missions in environments with extreme temperatures, excessive dust, or significant vibrations levels. For example, resilient equipment is needed to support military operations, disaster relief efforts, and law enforcement teams.

Systems also need to fit into space much more limited than traditional data centers – in temporary field offices, vehicles, or airplanes and ships.

In these remote environments, the end user is often also the technical support. Systems must be "single click" – easy to operate, manage, and update. Hyperconverged Infrastructure (HCI) offers integrated server/storage technology and provides full lifecycle management and data protection at the edge – replicating the operational efficiency of a traditional data center.

As federal teams consider HCI options, key factors to consider include: compatibility with existing environments, if/how the solution is continuously validated, and ability to meet unique mission requirements – environmental, form factor, performance, and ease of management.

Dell EMC VxRail D Series
Taking HCI to extremes

-15°C · 55°C
Temperature resilient
· Certified cold start down to -15°C
· Certified to take heat up to 45°C, with excursions up to 55°C for eight hours

20"
Short depth
· 20" rack depth

40G
Shock and vibration tested
· Certified to 40G of Operational Shock with SSDs

15Kft
Aim higher
· Certified for operation at up to 15,000ft of elevation

Available with MIL-STD-810G and VxRail STIG Hardening Package

MARS ID: AD# G18000193

NEW RUGGEDIZED PLATFORM BRINGS VXRAIL HCI BENEFITS TO EDGE ENVIRONMENTS

The new Dell EMC VxRail D Series is the first and only ruggedized HCI appliance developed with and optimized for VMware environments. The solution delivers a simple, agile, and importantly – familiar – user experience and integrates seamlessly with existing VMware infrastructure. Users can manage traditional and cloud-native applications across a consistent infrastructure.

TURNKEY EXPERIENCE:
Full stack integration designed with VMware for VMware environments

LIFECYCLE MANAGEMENT:
Rapid, automated single click patching and updating

HIGHLY FLEXIBLE:
Support any HCI use case including short depth, ruggedized options

Portable and highly reliable, the VxRail D Series is temperature resilient, shock and vibration tested, certified for operation at high elevation, and built on a short depth server.

The VxRail D Series is powered by a VMware vSAN built on the short depth Dell PowerEdge XR2 server, a high performance ruggedized server with workload acceleration and faster memory specifically designed to thrive in space-constrained, rugged, and harsh edge environments.

Whether you are managing VDI or mission-critical applications in the field – executing GPS mapping on the go, or analyzing IoT data, the VxRail D Series delivers HCI benefits with a solution purpose built to meet unique federal needs and work environments.

WHY DELL TECHNOLOGIES DESIGN SOLUTIONS

Dell Technologies Design Solutions is a dedicated team of engineers, project managers, trusted partners, and consultants. We partner with OEM customers to design and deploy solutions worldwide with the full breadth of proven technologies, including client, server, storage, and data protection options. Together we can grow your brand, get you to market faster, and reduce costs and complexity – building winning solutions that leverage Dell Technologies' global supply chain, facilities, and logistics.

Learn more about the VxRail D Series HCI benefits, visit: **https://www.delltechnologies.com/en-us/converged-infrastructure/vxrail/index.htm**

Learn more about Dell Technologies Design Solutions, or to talk to a solutions specialist, visit: **https://www.delltechnologies.com/en-us/oem/storage-solutions.htm**