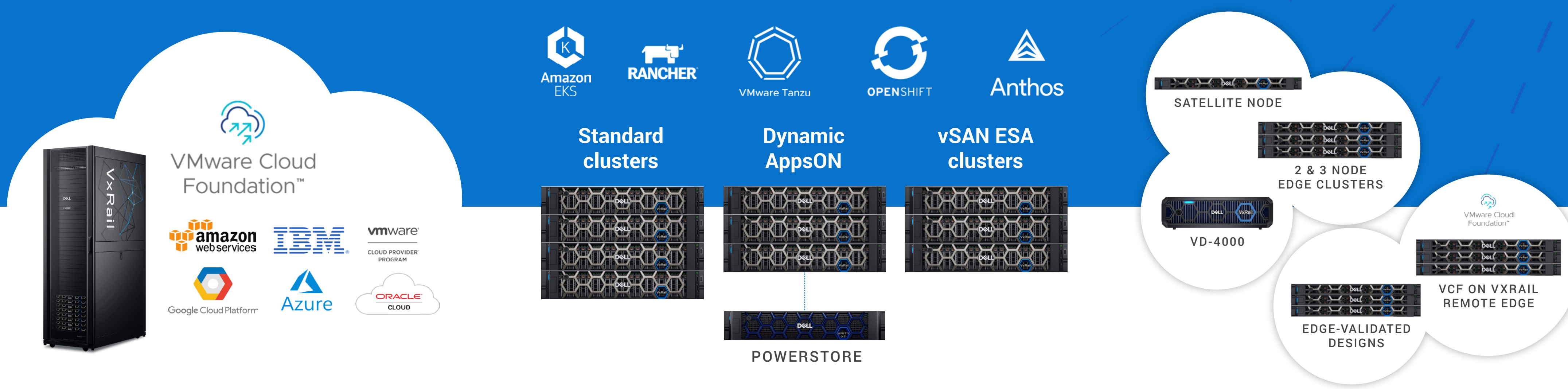DELL Technologies   vmware® by Broadcom   intel®

Future proof your infrastructure for a competitive advantage

Refresh your VxRail to meet modern demands

Modern IT demands streamlined operations, enhanced performance, and cutting-edge innovation, without all the complexity. That's why leading organizations are upgrading to our latest VxRail offerings — the simple route to straightforward modernization. VxRail provides industry-leading innovation and partnerships to create an integrated solution that supports your business across core, edge, and cloud.

Amazon EKS   RANCHER   VMware Tanzu   OPENSHIFT   Anthos

VMware Cloud Foundation™

amazon web services   IBM   vmware CLOUD PROVIDER PROGRAM

Google Cloud Platform   Azure   ORACLE CLOUD

Standard clusters   **Dynamic AppsON**   **vSAN ESA clusters**

POWERSTORE

SATELLITE NODE

2 & 3 NODE EDGE CLUSTERS

VD-4000

VMware Cloud Foundation™

EDGE-VALIDATED DESIGNS   VCF ON VXRAIL REMOTE EDGE

CLOUD
Embrace multicloud platform of choice.

CORE
Modernize your data center.

EDGE
Expand further to the edge.

VXRAIL HCI SYSTEM SOFTWARE AUTOMATED ORCHESTRATION

Dell Technologies and VMware —
Our innovation drives your innovation

Jointly engineered with VMware, Dell VxRail continues to be the HCI solution of choice for customers standardized on the full VMware stack. Dell and VMware have long collaborated to seamlessly integrate cutting-edge innovations into an automated HCI solution that addresses both current and future needs.

CASE STUDY

Flexible performance to meet growing business and customer needs

"VxRail works across our environment and makes it all seamless. It helps us move technology forward and keep up with business demands."

—Top 100 Midwestern US Bank
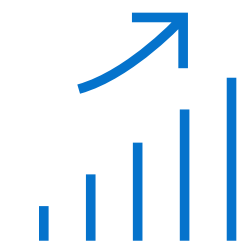
Read Case Study

Advance your IT modernization journey with VxRail

By updating to the latest VxRail portfolio, you'll get unmatched performance and cost-efficiency.

Whether you're extending your data center to the edge, deploying multicloud, or embracing emerging technologies, VxRail enables you to:
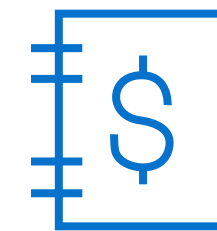
- **Simplify complex IT** through advanced engineering and automation.

- **Ensure operational consistency** with infrastructure and management standardization.

- **Configure and customize** to meet your unique business requirements.

Move confidently with VxRail, co-engineered with VMware, and experience the benefits of our rigorous and continuous testing, validation, and robust support backed by our industry-leading support team and expert services.
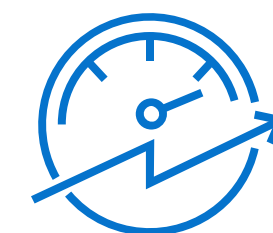
INCREASE PRODUCTIVITY
61% more efficient IT teams.[1]

REDUCE COST
61% lower 5-year cost of operations.[1]

ACCELERATE YOUR RETURN
11 months to payback.[1]

1. IDC Business Value Whitepaper, sponsored by Dell Technologies, VMware, and Intel, "The Business Value of Dell VxRail HCI" July 2023

Expand IT modernization everywhere

Organizations need modern IT infrastructure to extract greater business value from data, eliminate silos, and ultimately foster innovation. Achieving this, however, isn't easy. It requires unified systems that simplify operational complexity, streamline management, and increase efficiencies.
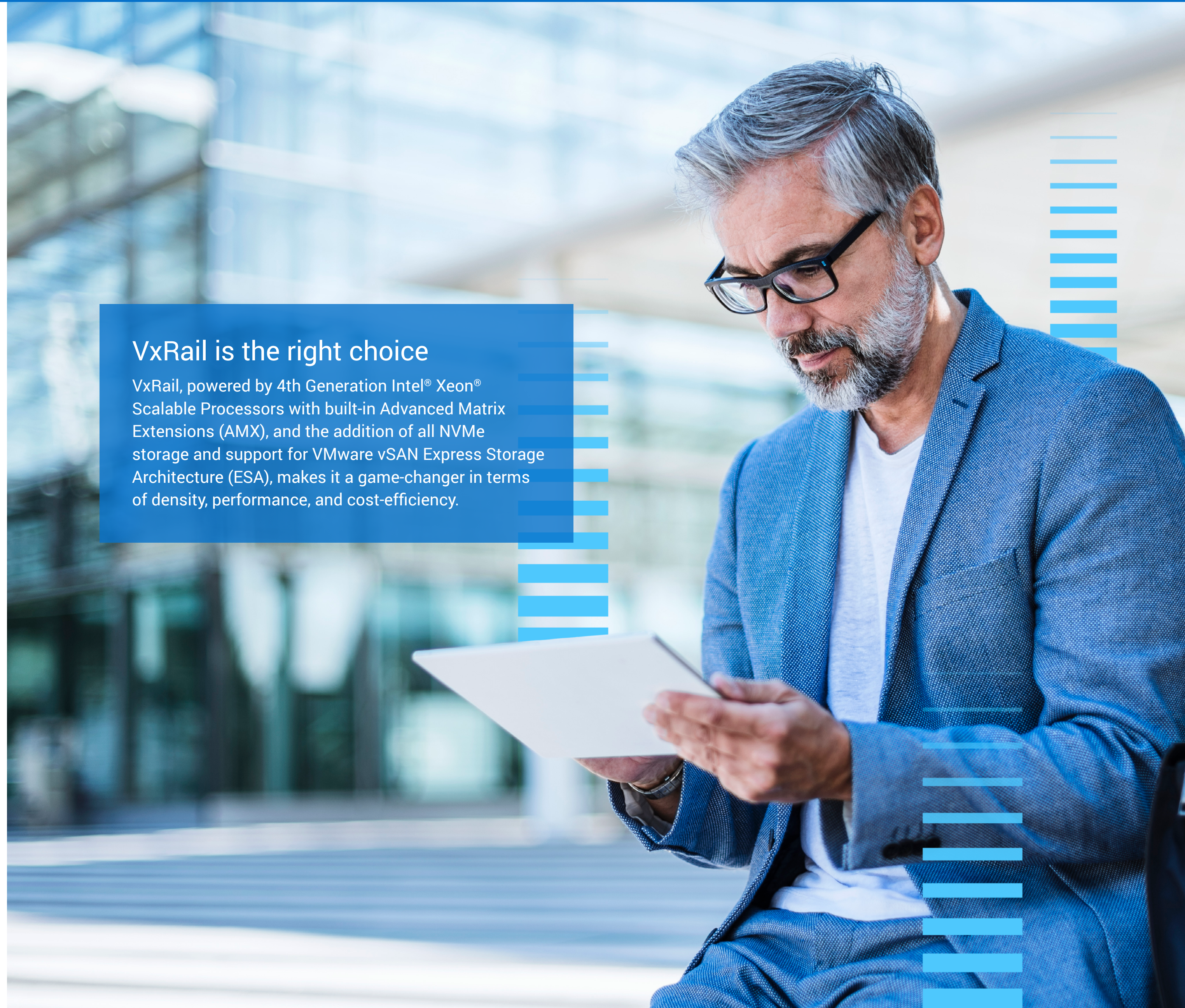
CASE STUDY

IT powers the services that power the community

"Our upgrade to VxRail delivered next-level improvements in IT performance."

—Patrick Messerli, CIO and CISO, Energie Service Biel/Bienne
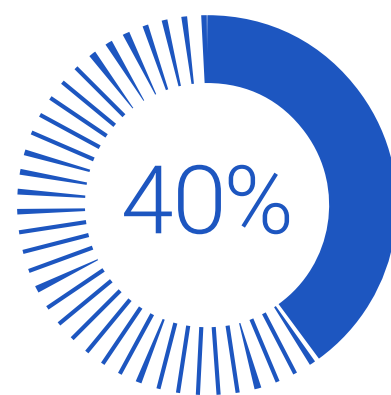
Read Case Study

VxRail is the right choice

VxRail, powered by 4th Generation Intel® Xeon® Scalable Processors with built-in Advanced Matrix Extensions (AMX), and the addition of all NVMe storage and support for VMware vSAN Express Storage Architecture (ESA), makes it a game-changer in terms of density, performance, and cost-efficiency.
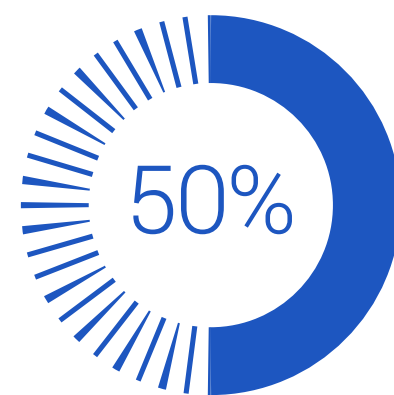
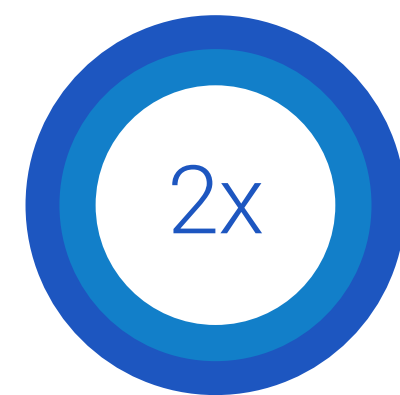## Unmatched performance for complex workload management

Refreshing your VxRail unlocks new possibilities in IT modernization. The new platform offers a 40% increase in cores, 50% faster memory using DDR5, and 2x throughput via PCIe Gen5. These enhancements empower businesses to efficiently manage and process complex workloads, including big data analytics and high-end computational tasks.
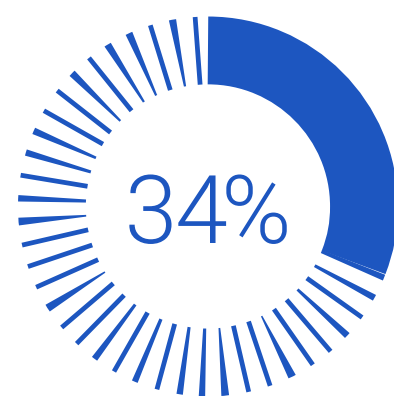
40%
increase in cores

50%
faster memory

2x
throughput

Resource optimization and cost-effective operations

VxRail with high-density NVMe storage and VMware vSAN ESA, empowers organizations to meet their growing data needs by optimizing power and spatial efficiency. There's a perception that systems with all NVMe are costly. The reality is, the optimizations result in capacity and resilience improvements that more than compensates for the initial cost.

— Up to 14% lower cost per TB (raw) and up to 34% lower cost per TBu (usable).[2]

— Up to 3.6x increase in usable storage and a 2.5x increase in VM per host capacity.[2]

34%
lower cost per TBu (useable)
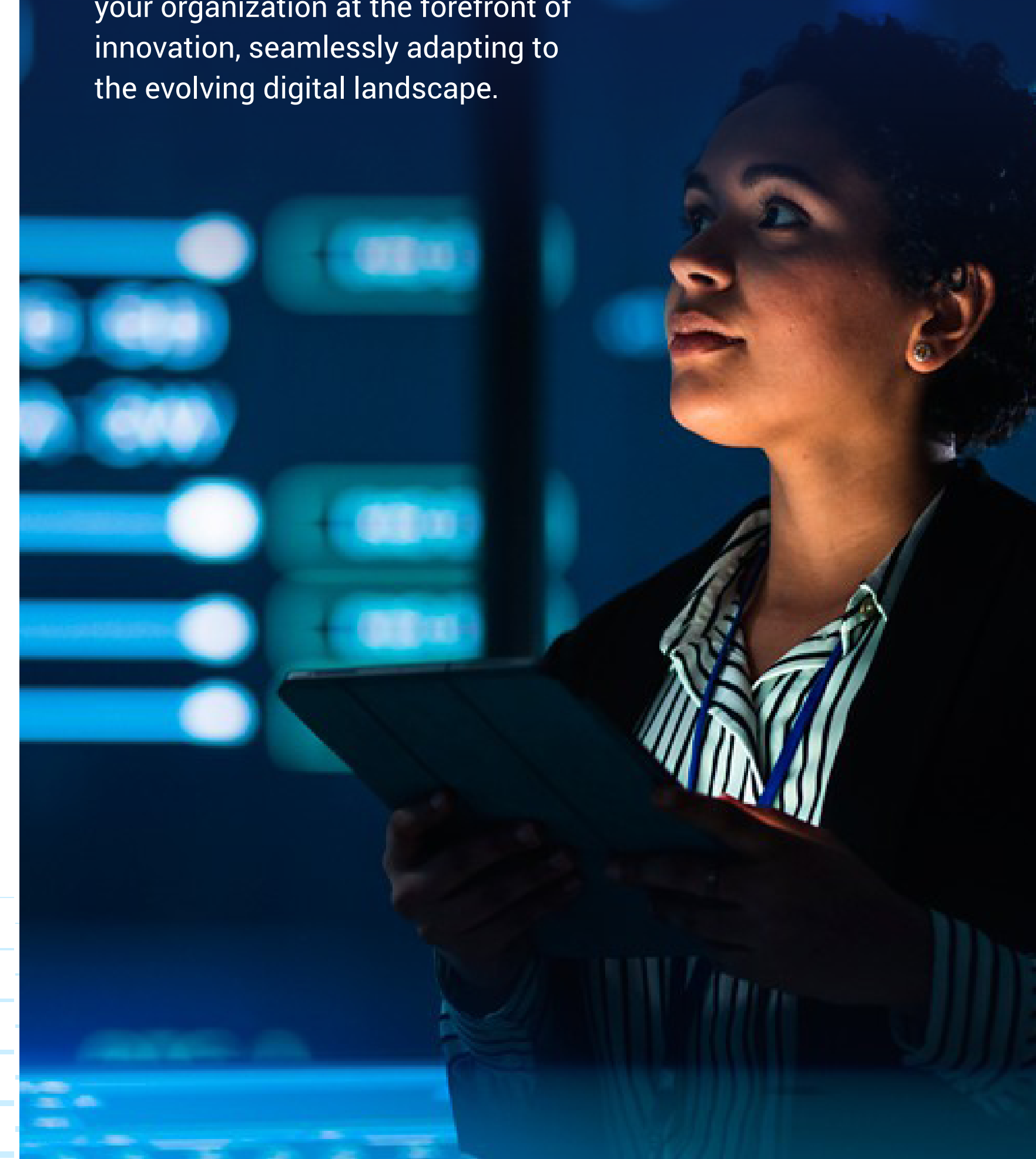
3.6x
increase in useable storage

2.5x
increase in VM per host capacity

Continue to simplify with VxRail

From streamlined multicloud management to accelerated cloud-native operations and cost-effective IT infrastructure, VxRail puts your organization at the forefront of innovation, seamlessly adapting to the evolving digital landscape.

2. Based on internal Dell analysis. VxRail P570F all-flash using RAID1 and VMware vSAN OSA compared to VxRail VP-760 all NVMe using RAID5 and VMware vSAN ESA. Results may vary. December 2023.
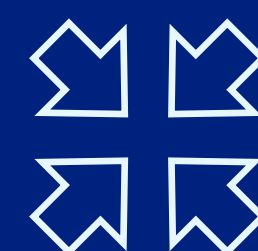
VMware Cloud Foundation on VxRail: Bridging Simplicity and IT Modernization

The VCF on VxRail approach prioritizes simplicity and ease of management, beginning with seamless full stack integration that simplifies control and visibility across both software and hardware layers. This integration ensures a unified VMware environment that remains adaptable for future VMware cloud technologies.

Dell VxRail takes simplicity even further by offering exclusive features and advantages through our proprietary Dell VxRail HCI system software. This unique combination streamlines deployment, provides comprehensive lifecycle management, and establishes essential connections with both upstream and downstream systems. The result is a simplified and user-friendly cloud management experience for both cloud managers and developers, with Dell VxRail serving as the dependable foundation.

KEY FEATURES:

- Full stack integration
- Future proof for VMware Cloud
- Available single-vendor support
- Automated end-to-end lifecycle management
- Deployment flexibility
- Multi-site implementation

FIRST
Hyperconverged system fully integrated with VMware Cloud Foundation SDDC Manager.

ONLY
Jointly engineered HCI system with deep VMware Cloud Foundation integration.

EASIEST
Path to manage, control and deploy for cloud managers and developers alike.

Embrace the AI revolution with VxRail

In an age where Artificial Intelligence (AI) is no longer a distant dream but a practical reality, the challenge lies in its deployment. VxRail is revolutionizing this landscape, making AI not just accessible but a seamless part of your business growth.

AI deployment: The complexity unraveled

Deploying AI often feels like navigating a complex maze. The need for specialized knowledge and infrastructure has long been a barrier. Enter VxRail – the solution that simplifies this complexity. Featuring 4th Generation Intel® Xeon® Scalable Processors with built-in Advanced Matrix Extensions (AMX), VxRail is not just ready for AI workloads – it excels at them.

For IT professionals navigating the complex landscape of AI deployment, VxRail presents a versatile solution ready to support both CPU accelerator-based and GPU-based AI scenarios. VxRail simplifies AI by integrating dedicated built-in accelerators designed specifically for handling matrix operations, which are crucial for AI workloads.

CASE STUDY

Brewing innovation at the edge

"We've improved efficiency, savings, compliance, and sustainability with real-time data analytics and AI inferencing with Dell VxRail. Now we can make real-time changes to our brewing and production processes much faster, if not immediately."
—Adam Little, Manager, Enterprise Security and Compliance, New Belgium Brewing Company

Read Case Study

Support out of the box

The Intel® AMX integration powers VxRail's efficient and simplified approach for environments where AI is part of the workload. Alternatively, for more AI-intensive operations, VxRail's compatibility with GPU-based AI makes it ideal for handling complex, demanding AI tasks. This flexibility empowers IT teams to customize their AI infrastructure to meet their specific needs, allowing VxRail to adapt to various operational demands while maintaining simplicity and efficiency.
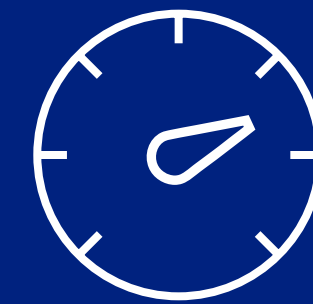
With this technology, VxRail ensures seamless and efficient AI performance across various applications, making AI deployment and management much more accessible for IT teams.

VxRail streamlines AI through collaborative partnerships

VxRail, the first HCI system certified by NVIDIA and co-engineered with VMware, is purpose-built and tested for NVIDIA AI Enterprise workloads. Streamlining deployment and management, VxRail cuts through the complexity of AI infrastructure, optimizing performance with precision.

Dell's Validated Design, in collaboration with VMware, NVIDIA and Intel, integrates seamlessly with VxRail, forming a powerful and user-friendly AI ecosystem. This blend of performance and ease is essential for the smooth deployment and operation of AI applications.

And by leveraging Dell VxRail with Dell Streaming Data Platform, Dell Validated Designs enable real-time analysis for AI-enabled edge innovations, providing secure and scalable architectures optimized for Digital Twins, Computer Vision, Predictive Maintenance, and more from our large partner community.

3. Based on internal Dell analysis. VxRail E660N compared to VE-660. Results may vary. December 2023.

VXRAIL NATIVELY BOOSTS AI WORKLOADS WITH INTEL® AMX
70% of data center inferencing currently happens on Intel Xeon Processors and provides full support for the most popular AI frameworks like TensorFlow, Pytorch, and OpenVINO.

VXRAIL, WITH INTEL® AMX, IMPROVES AI PERFORMANCE
- 3.1x for Image Classification inferencing.[3]
- 3.7x for Natural Language Processing (NLP) inferencing.[3]

TARGET WORKLOADS
- Image recognition
- Natural language processing
- Recommendation systems
- Media processing
- Machine translation

Extend simplified operations to the edge

Many organizations are embracing edge infrastructure solutions to help them optimize their operations and improve their bottom lines. Extending to the edge, however, brings with it a host of complexities, including:
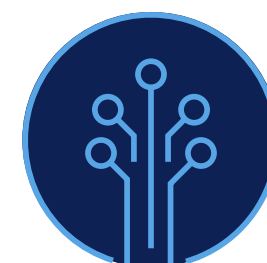
- Disparate infrastructure across sites
- Increasingly large amount of data influx
- Limited onsite support staff
- Low latency performance issues
- Space constraints

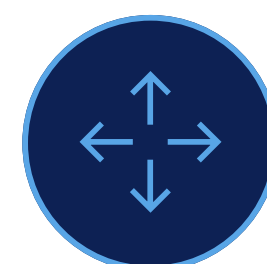## VxRail solves for these challenges and more

VxRail provides a common operating model that extends your data center and cloud deployments to your edge, enabling you to easily and securely deploy applications and analyze data anywhere. Automate LCM, break down silos, and standardize on a common VxRail platform.

Delivers simplified and centralized management for all edge locations, enabling automated, pre-validated upgrades, eliminating the need for local technical staff to manage edge nodes.

Expands intelligence to edge locations via *CloudIQ*, providing new capabilities for assessing infrastructure health, generating AI-driven insights, and anticipating impacts.

Provides a range of flexible edge deployment options, including two- and three-node VxRail clusters, satellite nodes, and edge-validated designs.

CASE STUDY

Real-time data sharing speeds up decisions

"That's really what VxRail and edge are all about for us, is being able to move that data around, use it at the source close to compute, but also push it wherever we may need to act upon it."

—Dave Shwadlenak, Vice President, Information Services, Mercy Ships

Read Case Study

Our smallest VxRail ever – the VD-4000

Experience ongoing edge innovation with the VxRail VD-4000, a rugged platform, with a smaller, purpose-built form factor that extends the operational efficiencies of VxRail to locations previously inaccessible due to unfavorable conditions, low bandwidth, and footprint restrictions.

▬ Rack, stack, or mount on a wall for space-constrained locations.

▬ With integration and support for NVIDIA A2, A30, and L4 GPUs, the VD-4000 is optimized for AI inferencing, AI training, VDI, performance graphics, and multi-workload.

▬ Includes an embedded vSAN witness for a self-contained 2-node vSAN cluster.

▬ Features robust security for securing data center operations to the edge.

REDUCED FOOTPRINT
14" x 12"
The size of a shoebox!

MORE EFFICIENCY
38% less power than a standard 3-node cluster.[4]

MORE FLEXIBILITY
1st embedded vSAN witness.[4]

MORE WORKLOADS
NVIDIA A2 & T4 integrated GPUs with automated LCM.

4. Based on internal testing, VxRail VD-4000 2-node with witness vs VxRail 3-node single socket E660F. Actual results may vary.

Verticals & workloads

Just think of the possibilities

Manufacturing

INTELLIGENT ROBOTS

PREDICTIVE MAINTENANCE

QUALITY CONTROL

DIGITAL TWIN

SMART SUPPLY CHAIN

Retail

INVENTORY TRACKING

LOYALTY PROGRAMS

INTERACTIVE KIOSKS & POS

AR IN RETAIL & E-COMMERCE

SMART DIGITAL SIGNAGE

VISUAL SECURITY

Healthcare

TELEHEALTH

SECURITY

SCHEDULING

PAYMENT SYSTEMS

COMPUTER VISION

No better time to refresh

Technology is evolving and for early adopters of VxRail, the latest VxRail innovation opens a world of possibilities. So, if you're wondering whether now is the time to refresh, the answer is a resounding yes – it's crucial to keeping your business competitive today, and tomorrow.
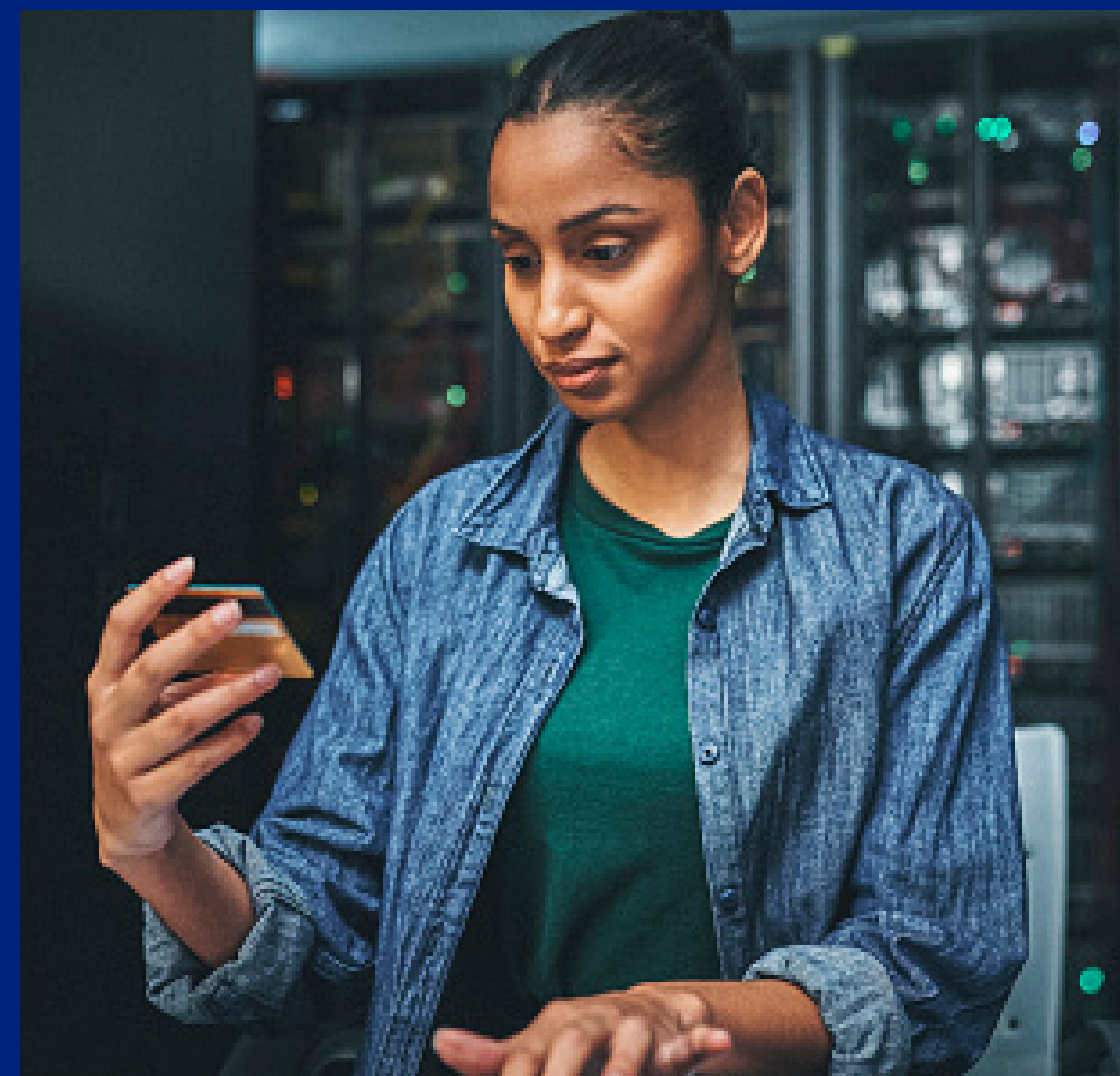
- Enhance organizational agility and adaptability.

- Deliver personalized IT solutions that address your specific business requirements.

- Simplify operations, boost operational efficiency, and lower TCO.

- Future-proof your IT infrastructure to ensure ongoing innovation and modernization.

- Ensure business continuity and fuel growth.

DELLTechnologies
APEX

A modern consumption model for your modern infrastructure

Dell APEX is a flexible, pay-as-you-go model that makes VxRail and a wide range of Dell products more accessible, affordable, and financially manageable. By paying only for the technology you use, Dell APEX aligns and scales seamlessly with your dynamic business needs, provides cost controls, and accommodates budget constraints.

DELL
MANAGED SERVICES

Reduce complexities and achieve business outcomes with Dell Managed Services for VxRail

Easily meet your unique data center management requirements with a complete end-to-end set of services for managing data center environments. Choose from a pre-defined, optimized managed services experience up to the hypervisor or create a customized managed solution, tailored to fit your business requirements.

Embrace the future with VxRail

Run more workloads with fewer nodes, reduce your infrastructure carbon footprint, adapt to market demands seamlessly and watch your efficiency soar, your costs decline, and your possibilities expand.

Learn more about how VxRail can benefit your unique business.
WWW.DELL.COM/VXRAIL

DELLTechnologies **vm**ware® by Broadcom **intel.**