

# Dell NativeEdge: Redefining virtualization excellence

The most advanced and cost-effective solution for virtualized workloads at the edge and in remote branch offices<sup>1</sup>

## Challenges of modernization at the Edge

Virtualization is evolving rapidly, with organizations seeking flexible, efficient, and cost-effective solutions. Many rely on enterprise-grade hardware at the edge, such as hyperconverged infrastructure (HCI) to support a virtualized environment, with high availability and redundancy. However, this approach presents significant challenges such as:

- **High deployment costs** to implement and manage enterprise-class hardware at the edge
- **Manual configuration** of clusters can be time-consuming and error prone
- **Complex license management** of multiple licenses and associated redundancies
- **Increasing license expenses** of virtualization platforms
- **Protecting investments** in the full lifecycle of existing infrastructure to ensure maximum value before transitioning to new solutions

## Introduction

Dell NativeEdge is a full stack, end-to-end edge solution that centralizes the deployment and management of diverse edge infrastructure and applications. NativeEdge enables you to easily manage virtualized and containerized workloads to drive efficiency, scalability, and performance. This solution is the ideal choice for modern organizations seeking to optimize operations and maximize value at the edge.

## Modernize virtualization at the edge with Dell NativeEdge

Dell NativeEdge simplifies deployment and management through zero-touch provisioning, providing a scalable and affordable alternative to traditional virtualization platforms. NativeEdge integrates with existing workflows, ensuring protection of legacy investments and help for organizations focused on modernizing virtualization at the edge. Key features include:

- **Integrated full stack solution:** Combines compute, storage, and networking, supporting VMs and containers for AI automation.
- **Support for Kubernetes, vCenter, and a wide range of infrastructure:** Integrates with Kubernetes, VMware, and existing Dell and third-party infrastructure for efficient management.
- **Flexible architecture:** Operates as single node or multi-node high availability cluster with scalable software-defined storage. Additionally, external storage can be added to support a 3-tier architecture at the edge, when needed<sup>2</sup>.
- **Seamless delivery and management:** Supports Dell and non-Dell hardware with multicloud orchestration.

As organizations are currently re-evaluating their approach to virtualization and HCI, transitioning to Dell NativeEdge enables infrastructure standardization. NativeEdge offers a zero-trust security framework with zero-touch deployment, providing an efficient and secure solution for the management of edge environments. It unifies and simplifies the management of the entire edge estate by combining infrastructure management with application orchestration.

### Streamlined migration

- NativeEdge enables seamless migration of virtual machines (VMs) and workloads from legacy infrastructure to a NativeEdge environment.
- The intuitive user interface facilitates smooth VM migrations from current virtualization environments to NativeEdge.

### Edge infrastructure upgrade

- By modernizing and upgrading your approach to virtualization, you can retire outdated HCI hardware and adopt a modernized edge infrastructure.
- NativeEdge provides the ability to easily manage and orchestrate applications across the entire edge estate.

### Future-ready solution

NativeEdge ensures scalability, efficiency, and enhanced security for workloads and provides you with unified management experience that supports both infrastructure and application orchestration.

## Transitioning to Dell NativeEdge, a seamless approach

Dell NativeEdge enables organizations to connect with existing VMware and Kubernetes infrastructure to modernize edge deployments with minimal disruption, lower total cost of ownership, and establish a scalable system that meets future needs. The transition can start with the deployment of NativeEdge and new workloads at edge and remote branch office (ROBO) locations. NativeEdge provides the world's most adaptable and open edge operations ecosystem<sup>3</sup>, leveraging key features such as:

- **Zero-trust security framework:** NativeEdge enhances virtualized workloads with zero-trust security, allowing devices to be securely onboarded with a zero-touch model by simply plugging them into the network and powering them on.
- **Secure device onboarding:** Protects infrastructure from the start by deploying edge form-factor infrastructure tailored to specific workload requirements, including PowerEdge ruggedized XR-series servers, Precision rack and tower systems, and Edge Gateways and industrial PCs.
- **Clustering capability:** Supports high-availability clustering across diverse edge infrastructures, available for near-edge servers, gateways, and industrial PCs.
  - Quickly deploys a high availability compute cluster in as few as 3 clicks<sup>4</sup>.
  - Efficiently distributes application workloads across clustered devices to optimize performance and resource utilization, ensuring seamless operation even during peak demand.
  - Provides automated application failover and recovery mechanisms to maintain service continuity and minimize downtime in case of device or network failures.
- **Simplified infrastructure and application management:** Provides robust infrastructure management (firmware updates, BIOS, NativeEdge OS updates) and introduces application orchestration capabilities for NativeEdge devices, VMware, and Kubernetes endpoints.

## Benefits of Dell NativeEdge

Dell NativeEdge provides several key benefits over other virtualization platforms, including:

- **Performance:** NativeEdge is optimized for AI and edge computing, ensuring efficient resource utilization and robust performance across a wide range of supported hardware.
- **Scalability:** NativeEdge easily scales to meet growing virtualization needs, accommodating increased workloads and expanding infrastructure without compromising performance.
- **Cost-efficiency:** With competitive pricing and lower total cost of ownership, NativeEdge offers a budget-friendly solution for virtualization, reducing overall expenses.
- **Ease of Use:** Simplified deployment, management, and automation streamlines operations, minimizing the need for extensive training and support.
- **Ease of migrations:** NativeEdge integrates with legacy VMware infrastructure, facilitating smooth transitions to the NativeEdge environment.

These benefits highlight the ability of Dell NativeEdge to deliver a more efficient, scalable, and cost-effective virtualization solution compared to other virtualization platforms.

- **Integration with VMware environments:** NativeEdge effortlessly integrates with VMware environments to deploy applications, monitor VMs and clusters, and manage workloads for both NativeEdge Endpoints and existing VMware environments.
- **Unified management experience:** Offers a single pane of glass for orchestrating applications and lifecycle management, ensuring a secure, efficient, and streamlined approach to edge deployments.

## Conclusion

Dell NativeEdge emerges as the optimal choice for modern virtualization needs, offering unparalleled performance, scalability, cost-efficiency, and ease of use. With its advanced features such as centralized management, advanced security, and seamless integration, NativeEdge stands out as a compelling alternative to traditional virtualization platforms. Its proven success in various industries and comprehensive technical capabilities make it the ideal solution to drive your organization's virtualization strategy forward. By choosing Dell NativeEdge, you can modernize edge deployments with minimal disruption, reduce total cost of ownership, and establish scalable systems for future needs.

1 Based on Dell Technologies internal analysis, May 2025

2 Available in second half of 2025

3 Based on Dell Technologies internal analysis, February 2025

4 Enterprise Strategy Group by TechTarget Technical Validation commissioned by Dell Technologies, "Dell NativeEdge - Edge Operations Software Platform," February 2025. [Full report](#)



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