DELLTechnologies

Dell NativeEdge

Simplify: Accelerate outcomes and centralize operations

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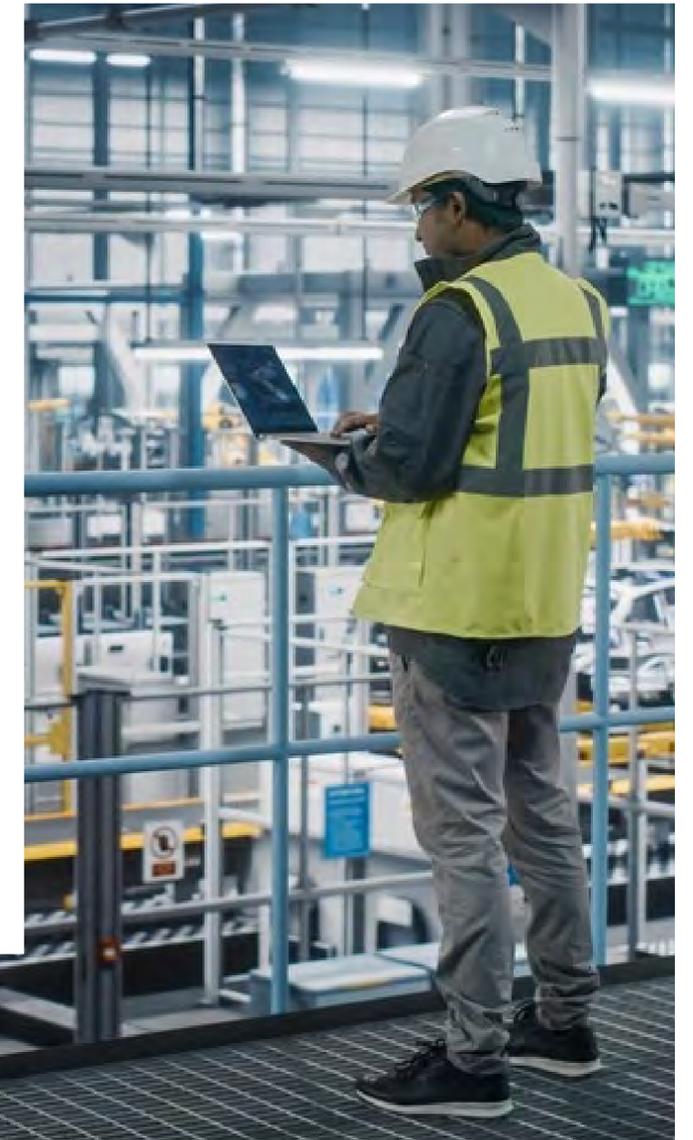# Edge computing and distributed data centers pose unique challenges

Successful organizations must respond to rapidly changing customer preferences and market conditions to remain competitive. This imperative has made AI and real-time insights throughout distributed environments critical to business outcomes. As computing expands across locations to meet the demands of AI, so does the complexity of managing the hardware and software needed to maintain these distributed environments. It is time-consuming to procure the right infrastructure, onboard it quickly, deploy workloads across multiple locations, and ensure ongoing performance of various AI applications and functions at the edge or in distributed data center environments.

Due to the geo-distributed nature of industries such as energy and manufacturing, enterprises often rely on third-party service providers to install and manage infrastructure and applications. It is often complex and expensive to install, configure, and manage these environments. Large enterprises, regardless of industry, face common challenges due to the operational complexities that manifest through use cases such as computer vision and digital twins. By leveraging automation and gaining centralized control, enterprises can remove repetition from distributed operations and reduce errors.

Scaling operations throughout distributed environments is difficult and complex.

Configuring hardware and software across edge and distributed data centers

Managing numerous high-touch applications/ workloads

Operating geographically distributed applications

Deploying multicloud applications/workloads throughout distributed locations
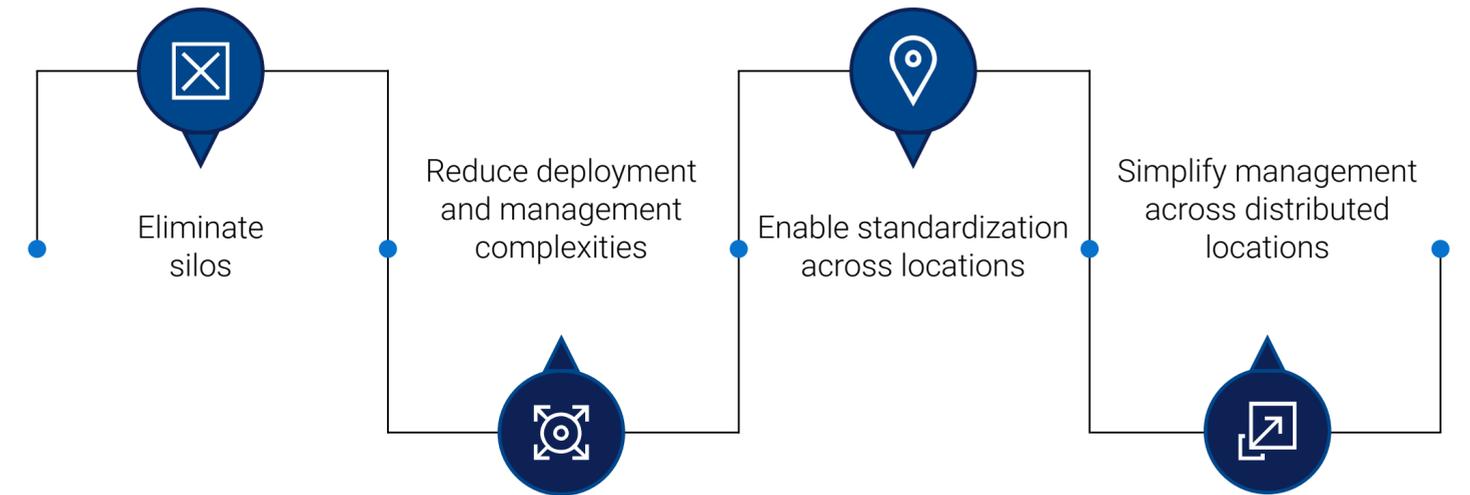
Organizing the sprawl of siloed solutions

Reconciling inflexible legacy OT and closed ecosystems

Resolving challenges of distributed environments

To streamline deployment and operations at scale, enterprises need to:

Eliminate silos

Reduce deployment and management complexities

Enable standardization across locations

Simplify management across distributed locations

Dell NativeEdge

Innovate wherever you operate

A full-stack, end-to-end solution that securely centralizes the deployment, orchestration, and lifecycle management of diverse infrastructure and applications at the edge and across distributed data centers.

Simplify, optimize, and protect edge and distributed data center environments with features such as zero-touch onboarding, zerotrust security, and advanced workload orchestration. NativeEdge leverages a KVM hypervisor and container run-time allowing organizations to deploy and manage both virtual machines (VMs) and containers. It is optimized to orchestrate AI workloads and frameworks, enabling seamless deployment and management of AI-driven applications at the edge and throughout distributed data centers. NativeEdge can also adapt to any hardware environment, supporting a wide range of options in various form factors, from Dell PowerEdge servers to desktops as well as third-party infrastructure.

Dell NativeEdge is purpose-built to address the unique challenges of distributed environments, such as operational complexity, scalability, and security. It's a solution tailored for modern organizations focused on harnessing the power of edge computing while reducing costs and improving efficiency.

Simplify
Accelerate outcomes and centralize operations

Less than
1 minute
to deploy infrastructure and applications[1]

Optimize
Achieve seamless virtualization and scalable AI

Up to
68%
time savings by automating edge application orchestration[1]

Protect
Operate confidently with zero-trust security

Enable the world's
Most Secure
edge operations[2]

[1] Enterprise Strategy Group by TechTarget Technical Validation commissioned by Dell Technologies, "Dell NativeEdge Edge Operations Software Platform,"February 2025.

[2] Based on Dell Technologies Internal analysis, May 2025.

Dell.com/NativeEdge

How do enterprises benefit from a full-stack solution?

Dell NativeEdge is integrated with Dell PowerEdge and client devices, while also offering compatibility with non-Dell hardware. This flexibility enables the secure management and orchestration of applications and infrastructure, regardless of location. Whether deployed in existing edge environments or distributed data centers, NativeEdge empowers organizations to efficiently oversee the entire lifecycle of both infrastructure and applications across diverse edge locations, data centers, clouds, and more.

Dell NativeEdge allows enterprises to simplify and scale the growing portfolio distributed applications. Leveraging a KVM hypervisor and container run-time, NativeEdge enables seamless deployment and orchestration of both virtual machines and container-based workloads.

With NativeEdge, enterprises can efficiently manage the entire lifecycle of AI workloads and applications throughout distributed locations, all while integrating seamlessly with existing deployment pipelines. NativeEdge also extends lifecycle management to infrastructure, including the NativeEdge Operating System which is pre-installed on NativeEdge Endpoints—compute devices designed for compatibility with NativeEdge.

Centralize operations

Enhance security

Adapt to any environment

Optimize for AI

Reduce costs

Simplify Operations at Scale

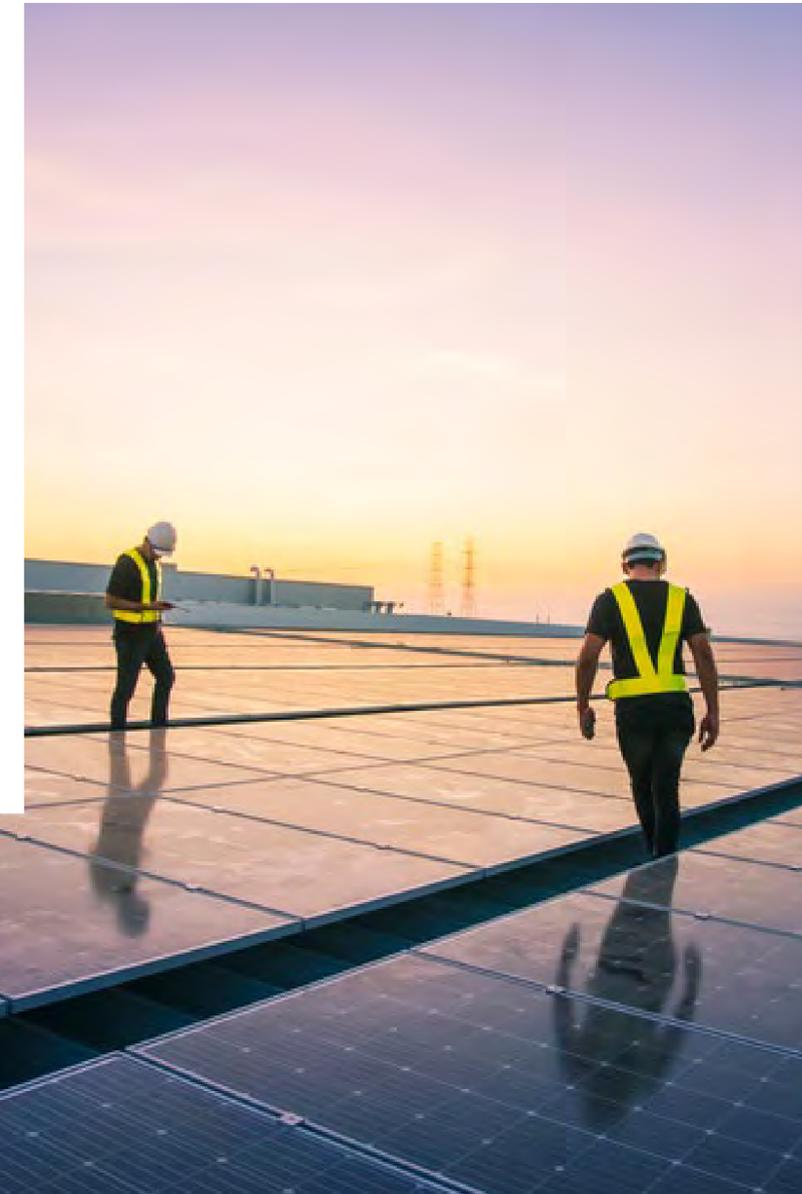Dell NativeEdge addresses the following complexities of managing distributed applications and infrastructure:

Centralized management and orchestration

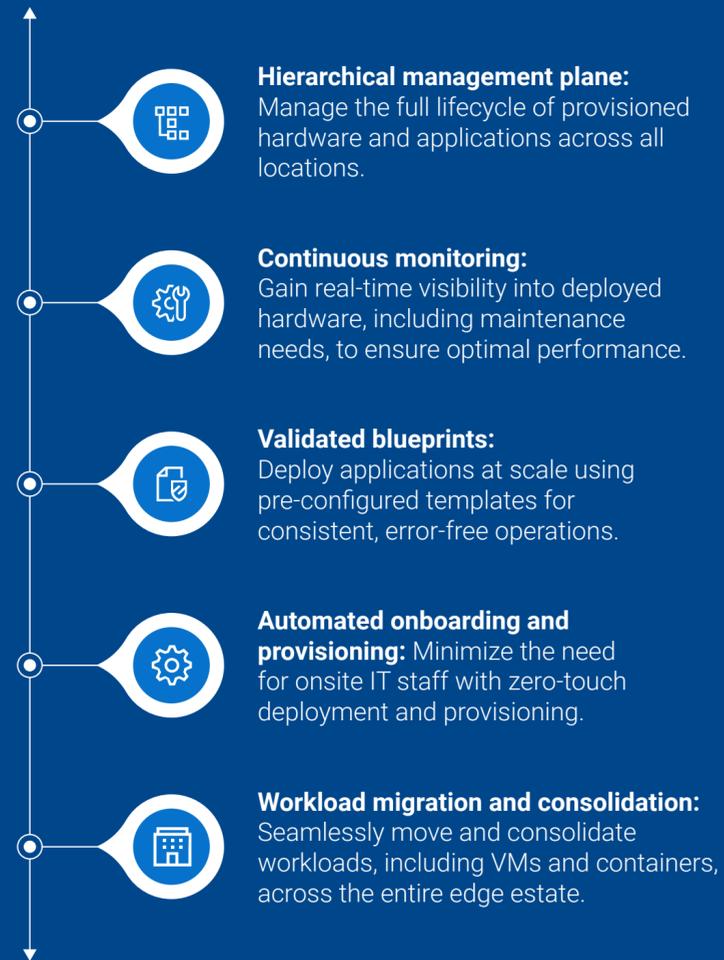Zero-touch deployment

Consistent and automated operations

Centralized management and orchestration

Imagine a manufacturer working to achieve smart factory goals with AI applications. With multiple geo-distributed plants relying on third-party vendors to deploy and configure vertically integrated solutions, the lack of a centralized way to deploy, manage, and monitor these applications may lead to fractured operations and inconsistent visibility into deployed workloads.

Dell NativeEdge solves this complexity by providing a centralized control plane that delivers full visibility and control over hardware and applications running at the edge and in distributed data centers. Instead of managing sites independently, enterprises can streamline operations through a single, unified interface, simplifying the most complex environments.

What does the centralized interface offer?

Hierarchical management plane: Manage the full lifecycle of provisioned hardware and applications across all locations.

Continuous monitoring: Gain real-time visibility into deployed hardware, including maintenance needs, to ensure optimal performance.

Validated blueprints: Deploy applications at scale using pre-configured templates for consistent, error-free operations.

Automated onboarding and provisioning: Minimize the need for onsite IT staff with zero-touch deployment and provisioning.

Workload migration and consolidation: Seamlessly move and consolidate workloads, including VMs and containers, across the entire edge estate.
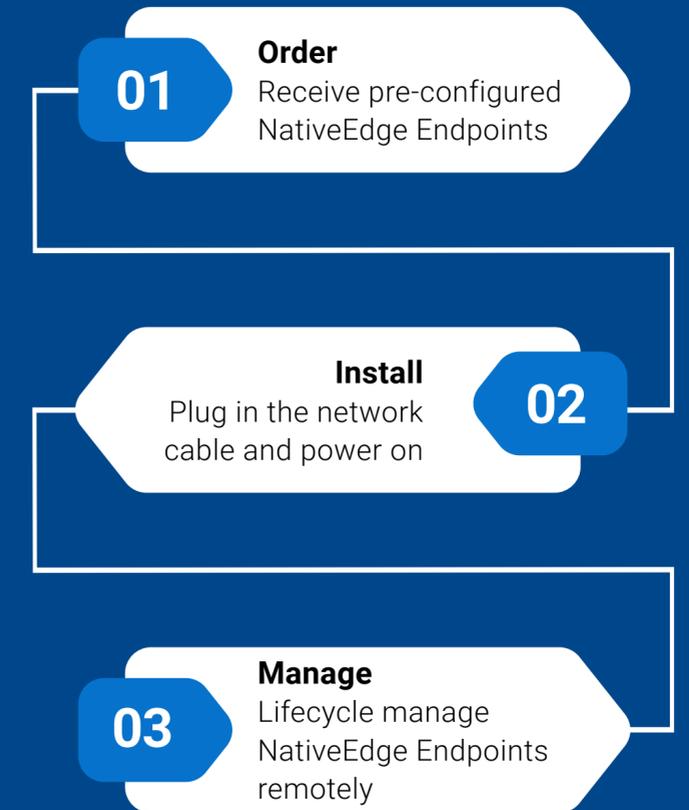
Zero-touch deployment

Dell NativeEdge redefines deployment across distributed sites. NativeEdge Endpoints are compute devices that provide a secure operating environment for applications and workloads, making deployment seamless and efficient.

Once NativeEdge Endpoints are delivered to your edge site or data center, onboarding is effortless. Simply connect power and networking, and the platform automatically performs comprehensive validations to ensure the integrity of the hardware, confirming it hasn't been tampered with. With zero-trust security built in and no IT intervention required, the devices are immediately ready for workload deployment and remote management through a centralized interface.

What is the process of zero-touch deployment?

01 Order
Receive pre-configured NativeEdge Endpoints

02 Install
Plug in the network cable and power on

03 Manage
Lifecycle manage NativeEdge Endpoints remotely

Consistent and automated operations

Maintaining consistent IT operations across global locations is a major challenge. For example, retailers are responsible for managing a variety of systems such as inventory, point-of-sale, digital signage, and loss prevention. These systems are typically handled by service providers, each with their own refresh cycles and management processes. This lack of alignment creates fragmented operations that are difficult to integrate into centralized IT management. As a result, retailers face inefficiencies, slower innovation, and a stagnant customer experience.

Dell NativeEdge solves these challenges by helping enterprises standardize and automate operations. NativeEdge Blueprints simplify the entire application lifecycle, from development and testing to deployment and monitoring. These pre-configured templates ensure applications are deployed and managed consistently across all locations, eliminating errors and streamlining operations.

How do NativeEdge Blueprints enable automated operations?

Consistent deployment: Standardize and rapidly roll out new and updated workloads, including AI, analytics, and IoT.

Automate workflows: Streamline application/workload deployments using pre-configured blueprints
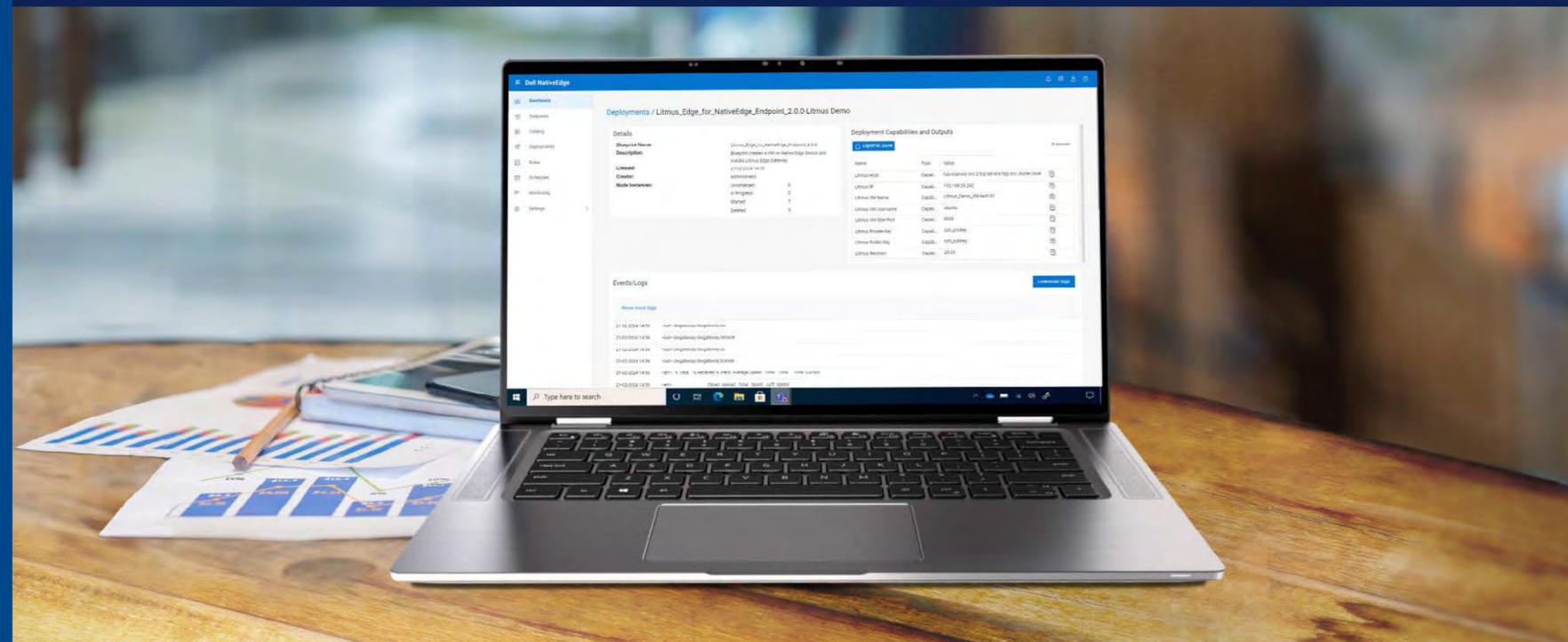
NativeEdge Blueprints describe the underlying run-time needed and the details about how the applications should be configured and deployed. This simplifies the deployment of application workloads across distributed environments.

Simplify edge operations at scale

Eliminate silos, reduce complexities, and enable standardization to manage applications and hardware across distributed environments with Dell NativeEdge.

Innovate wherever you operate

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Learn more about **Dell.com/NativeEdge**