

Dell NativeEdge



Dell Edge Gateways

EGW-3200 EGW-5200



PowerEdge Servers

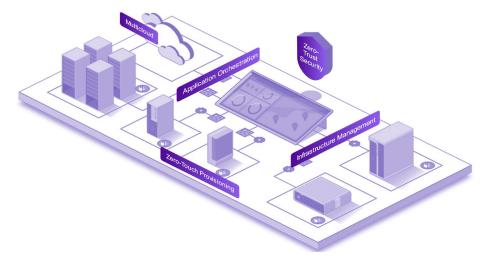
R660, R760 Chassis: XR400r, XR4520z Nodes: XR4510c, XR4520c



OptiPlex
XE4 Small Form Factor

NativeEdge Overview

The NativeEdge operations software platform by Dell Technologies empowers organizations with fleet management and application orchestration capabilities across edge, core data centers, and the cloud. By leveraging NativeEdge, businesses can streamline edge operations, enhance the efficiency of their edge investments, and fortify edge security. This platform offers a comprehensive solution for managing and orchestrating applications, ensuring a seamless and secure edge environment.



Dell NativeEdge: An edge operations software platform

NativeEdge Orchestrator

The orchestrator is a single tier, single tenant software layer, distributed via Helm chart. Aligning with zero-trust principles, it enables the lifecycle management of the endpoint devices, orchestrates the deployment of multiple applications, and allows connections with external repositories. Users can import their applications directly into the platform apps catalogs (public or private), and then publish them out to many devices simultaneously. NativeEdge Orchestrator also allows monitoring, reporting, and telemetry for the endpoint devices, allowing customers to manage endpoints and/or remediate issues.

Secure Device Onboard with FDO

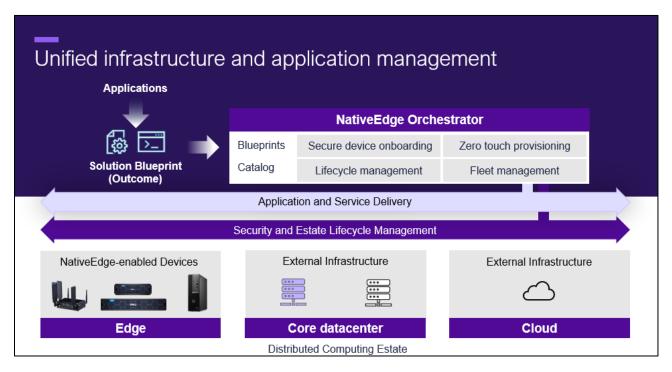
NativeEdge offers a way for customers to easily add Dell NativeEdge-enabled Devices into the NativeEdge Orchestrator with zero-trust security. Devices automatically onboard into the NativeEdge Orchestrator for zero touch deployment across sites. When a customer orders a NativeEdge-enabled Device from Dell Technologies, a voucher known as an ownership voucher is created, and paired, with each device that is ordered. These vouchers are then uploaded automatically from Dell Digital Locker to the NativeEdge orchestrator.

When a customer receives the NativeEdge-enabled Device and powers it on, the ownership voucher is compared to verify the authenticity of a device from manufacturing to deployment in production. If the device is verified, the NativeEdge Orchestrator automatically adds it into the estate and installs the NativeEdge Operating Environment - without the need for specialized technicians. If the NativeEdge-enabled Device has been tampered with in any way during the supply chain or shipping process, as shown by the comparison with the ownership voucher, the device is not added into the Orchestrator.

Secure device onboard (SDO) is based on the Fast Identity Online (FIDO) Alliance specifications for device onboard (FDO). For more information about secure device onboarding, see the Edge Security Essentials: Edge Security and how Dell NativeEdge Can Help white paper.



After SDO, the NativeEdge Orchestrator securely provisions the NativeEdge Operating Environment onto the NativeEdge-enabled Devices. At this point, the device can accept deployment of applications from the NativeEdge Orchestrator.



Fleet Management

The NativeEdge Orchestrator is a comprehensive solution that enables fleet management for customers of all sizes. A centralized platform enables customers to start with a small number of edge devices and grow as the business grows. After NativeEdge-enabled Devices are added to the estate, administrators can perform a wide range of tasks such as inventory management, configuration management, monitoring of alarms and events, servicing and troubleshooting devices, and lifecycle management (such as operating system upgrades or firmware updating the devices).

Application Orchestration

The NativeEdge platform enables users to easily deploy, orchestrate, manage, and monitor applications on NativeEdge-enabled Devices. Users can access existing - and custom - applications on private and public catalogs. This includes catalogs from a variety of vendors through a public catalog available on the platform (for example: OT/ISV, infrastructure vendors). Third-party applications are not included as part of the NativeEdge platform; however, they are offered in partnership through the third-party vendors. The NativeEdge platform provides the necessary tools for easy deployment and integration of applications, allowing faster delivery while reducing complexity and errors.

NativeEdge-enabled Devices

NativeEdge offers a wide range of supported endpoints, with form factors ranging from Dell Edge Gateways, OptiPlex towers, and PowerEdge servers. After the NativeEdge-enabled Device is powered on at the customer site, the Dell NativeEdge Operating System is automatically installed on each endpoint device. This operating system acts as a Linux-based KVM hypervisor, enabling support for VMs on top of each NativeEdge-enabled Device. The devices also have a secure and encrypted communication channel to the NativeEdge Orchestrator using SSL or TLS protocols over HTTPS.

Note: There are three types of NativeEdge-enabled Devices that are currently supported. The list of the NativeEdge-enabled Device types will expand in future releases.



NativeEdge-enabled Devices



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Technologies expert



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