

Al Solution Brief

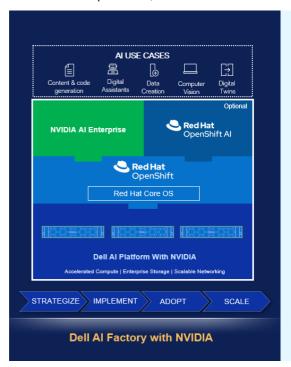
# Operationalize AI Across Enterprise with Red Hat OpenShift and Dell AI Factory with NVIDIA

As AI matures from experimental technology to essential business driver, organizations are eager to turn its promise into real-world results. Yet many face challenges integrating AI into their existing IT environments, managing organizational data, and navigating complex infrastructure and governance requirements. These hurdles can slow progress and make operationalizing AI more difficult than it needs to be.

To address these obstacles, Dell Technologies and Red Hat—trusted partners for over 24 years— have collaborated to bring Red Hat OpenShift Container Management Platform to the Dell Al Factory with NVIDIA. This powerful solution, built on open technologies, is designed to reduce complexity, increase flexibility, and give enterprises everything they need to operationalize Al at scale and drive meaningful business transformation.

#### Solution at a Glance

The solution combines the engineering excellence of three industry leaders—Dell, Red Hat, and NVIDIA—to deliver an optimized, scalable AI infrastructure.



## Simplify AI workflows

Drive consistency with common M&O across traditional and AI deployments Accelerate outcomes with support at every stage from day 0 and beyond

#### Transform business operations

Address a broad range of AI use cases with flexible, adaptable solution

Operationalize AI at scale across your organization on a common platform

## **Embrace AI with confidence**

Enhance security with trusted, on-premises Dell infrastructure foundation

Protect AI workloads with enterprise reliability and controls of Red Hat OpenShift

The foundation is Dell's trusted infrastructure, with AI-optimized PowerEdge servers equipped with NVIDIA GPU accelerators for seamless model training, fine-tuning, and inferencing applications. High-performance networking is powered by NVIDIA Spectrum-X switches and BlueField-3 SuperNICs, ensuring seamless data transfer across environments. At the storage layer, Dell PowerScale delivers the performance and scale needed to manage AI's massive data demands.

Red Hat OpenShift enhances the platform by introducing world-class container management and orchestration, helping organizations extend familiar management experience to AI environments. The flexibility of Red Hat OpenShift empowers enterprises to integrate AI within their existing frameworks without disrupting operations. The NVIDIA AI Enterprise software, an essential part of the solution, provides a comprehensive set of AI and machine learning (ML) tools. For those seeking additional MLOps capabilities, the optional support for Red Hat OpenShift AI offers an open-source suite of tools.

Together, this end-to-end solution eliminates complexity and accelerates time-to-value, allowing enterprises to operationalize AI at scale to transform their business operations

# **Simplify AI Workflows**

Al complexity often poses a barrier to enterprise adoption. Dell's infrastructure, rooted in open standards, combined with Red Hat's enterprise open-source software, simplifies AI deployment and workflows. This fully validated solution removes guesswork, accelerates deployments, and speeds time-to-value. Red Hat OpenShift extends familiar IT management and operations to Al workloads, ensuring simplicity and consistency across environments. The included NVIDIA Al Enterprise software and optional Red Hat OpenShift Al support provide a comprehensive toolset, providing access to a broad range of AI tools and streamlining complex tasks and workflows. Together, the solution empower organizations to operationalize AI efficiently, enabling teams to focus on innovation rather than infrastructure challenges.

# **Transform Business Operations**

Al holds the key to moving beyond experimentation to implementing solutions that transform business outcomes. Built for versatility, this joint platform supports a wide array of use cases across industries and business functions. Whether it's optimizing supply chain operations, accelerating product development, or enabling personalized customer experiences, enterprises

have the foundation to operationalize AI at scale.

By accelerating the transition from proof-of-concept to operational production deployments, the solution empowers businesses to gain value faster. Features like Red Hat OpenShift Advanced Cluster Management (ACM) and Advanced Cluster Security (ACS) make it easier to manage, govern, and safeguard large-scale Al initiatives with consistent processes. Enterprises can spend less time troubleshooting and more time driving measurable, impactful improvements in operations.

### **Embrace AI with Confidence**

With AI enhancing mission-critical processes, trust becomes non-negotiable. That's why the Dell AI Factory with NVIDIA emphasizes security, governance, and reliability at every level. Dell's secure supply chain and zero-trust capabilities mean that organizations can confidently deploy their solutions on a rock-solid foundation.

Red Hat OpenShift further ensures peace of mind by incorporating sophisticated controls and governance mechanisms. The Advanced Cluster Security provided by Red Hat OpenShift protects sensitive applications and datasets from potential threats. OpenShift's high availability features bolster uptime, ensuring that AI workloads remain operational around the clock, even under demanding conditions. Together, these safeguards build a robust framework, giving enterprises the confidence to push boundaries and innovate securely and fearlessly.

# Chart Your AI Future with Dell, Red Hat and NVIDIA

Customer-focused innovation is at the heart of everything we do at Dell Technologies. By bringing Red Hat OpenShift to the Dell AI Factory with NVIDIA, we are enhancing the simplicity, flexibility and security of AI deployments, so you can operationalize AI across your enterprise.

To learn how Dell Technologies and Red Hat can support your Al transformation, connect with your Dell representative today or visit <u>dell.com/redhat</u>.