

Solution Brief

Building AI-Ready Storage Architecture

With Logicalis and Dell PowerStore



Stay ready for the AI era with next-gen storage architecture that is built for AI, the hybrid cloud, and modern workloads.

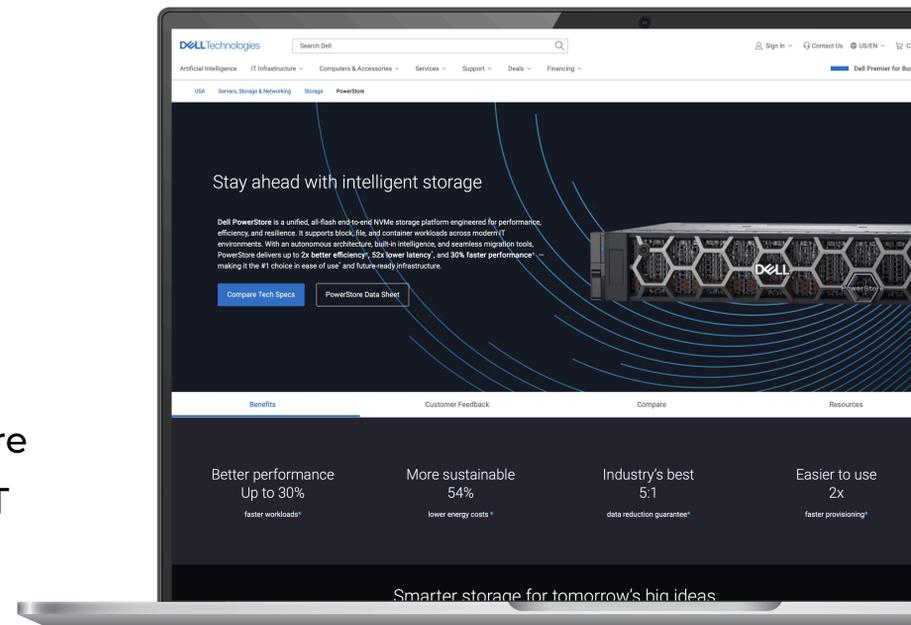
Is Your Storage Ready for the Era of AI?

Organizations entering the AI era are caught between two worlds. On one hand, they're under pressure to deliver increasingly larger, faster data flows to AI infrastructure. On the other, they face rigid demands for data protection, cost control, and operational simplicity.

Legacy storage, however, was created for yesterday's needs, not AI and data-intensive workloads.

That's where solutions like Dell PowerStore come in.

PowerStore is designed for agility, hybrid cloud environments, and AI workloads. It offers a storage foundation that's fast enough for GPU-fed analytics, secure enough for regulated data, and simple enough that any IT team can manage it.



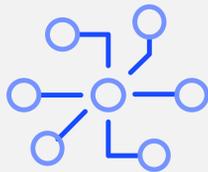
The AI Storage Balancing Act

The pressure on storage infrastructure has never been higher: AI systems demand ultra-fast, latency-sensitive performance for GPU clusters, alongside the steady, predictable throughput that analytics pipelines need. With regulatory compliance demands, ransomware threats, cost pressures, and other challenges, it becomes clear why legacy storage isn't suited for next-gen workloads.

Legacy infrastructure is designed for predictability, not agility¹



Rigid and inflexible



Complex to manage



Disruptive Upgrades



Limited changes

The real problem isn't that organizations don't want to move forward with AI. It's that most storage infrastructure was designed for a different era. Bottlenecks, wasted compute power, and endless optimization can keep teams focused on fighting fires instead of driving the business forward.

1. www.delltechnologies.com/asset/en-us/products/storage/briefs-summaries/powerstore-private-cloud-infographic.pdf

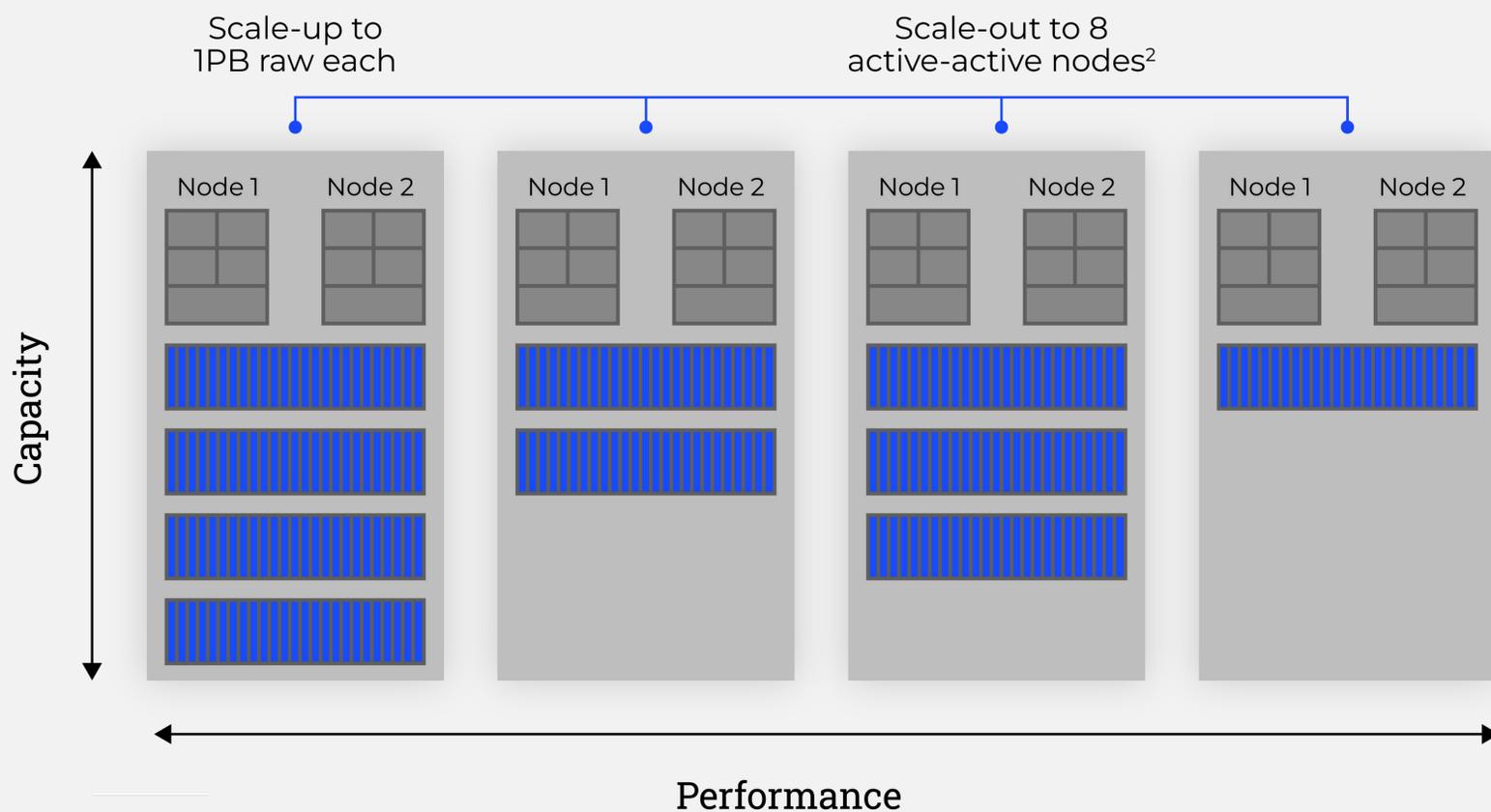
PowerStore's Three Principles of AI Storage

Performance. Protection. Intelligence.

Logicalis and Dell PowerStore address this challenge through **three principles**:

1. Performance Without Compromise, at Enterprise Scale

Built from the ground up for NVMe technology, PowerStore provides the choice of either NVMe TLC or QLC SSDs within the appliance base chassis and expansion enclosures, plus NVMe/TCP and NVMe/FC in the external network. The end-to-end NVMe ecosystem delivers extremely high IOPS and sub-millisecond latency.



Expanding the capabilities of PowerStore configuration is simple and efficient, allowing both performance and capacity to scale independently. Each PowerStore appliance features dual active-active nodes and can grow with single-drive granularity to over 6.1 PBe NVMe capacity. Appliances can be clustered in a federated configuration for increased processing power and capacities exceeding 23 PBe NVMe.

2. Protection Through Design

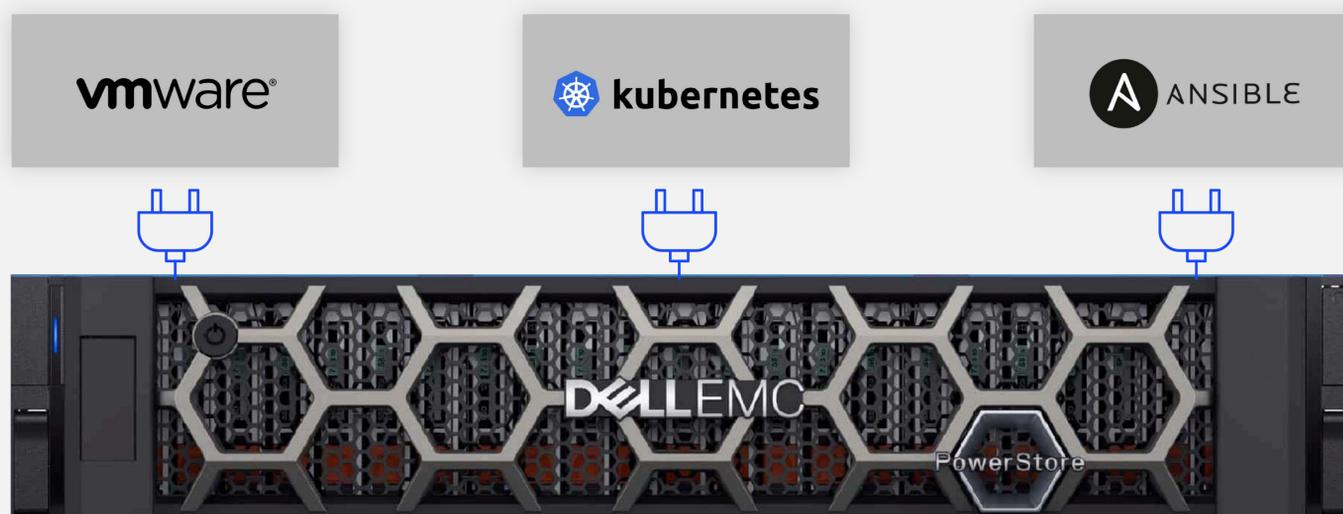
Security is embedded, not bolted on: encryption at rest enabled by default, immutable snapshots that prevent ransomware from corrupting backups, file-level retention policies that meet regulatory mandates without complex manual processes.

PowerStore's patented Dynamic Resiliency Engine (DRE) safeguards business-critical data, leveraging advanced virtualization methods to protect against drive failures. It also stays ahead of evolving cybersecurity threats with capabilities like Secure Snapshots, Data-at-Rest Encryption, Multi-Factor Authentication, File Level Retention (FLR), Hardware Root of Trust, security analytics, and new STIG mode for US Federal/DoD environments.

3. Efficient, Intelligent Storage Management

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Broad plug-in support

Storage systems require constant attention, which is why PowerStore integrates intelligent automation that operates continuously in the background. AI and ML processes eliminate dozens of tedious tasks, and proactive health analytics connect and deliver insights across multiple infrastructure categories. With broad plugin support, integrations with leading infrastructure frameworks, and support for a range of multicloud and hybrid cloud services, PowerStore makes it easy to adapt and stay ready for whatever comes next.



Unified Architecture

Single platform supports diverse workloads: block, enterprise file, and containers.



E2E NVMe

High performance, ultra-low latency. Active/active design, NVMe-over-fabric (TCP and FC).



Adaptable Architecture

All models scale-up/scale-out to 23PB. Single-drive expansion. Flexible, non-disruptive modernization.



High Efficiency

Always-on advanced data reduction delivers real-world data savings, backed by Dell's 5:1 DRR guarantee.



AI-Driven Simplicity

Built-in machine learning, SmartFabric automation, GenAI Assistant.



Cyber Resilience

Designed for .999999% availability and Zero Trust cybersecurity. US DoD APL, MFA, secure snaps, integrated backup, metro replication and more.



Multicloud Ready

VMware Cloud Foundation support, multi cloud backup via PowerProtect DD integration, and validated with AWS Outposts.



DevOps & Automation

Accelerate workflows with REST API, Ansible, Terraform, CSI plug-ins, Kubernetes, and VMware integrations.



Sustainability

Carbon footprint analytics/forecasting, ENERGY STAR® certified, and lower energy costs.



Seamless Migration

Native tools import from any array in just a few clicks.³

Flexible, AI-Ready, Hybrid-Ready

The AI era demands infrastructure that can keep pace with business, and PowerStore delivers exactly that: a storage foundation engineered from the ground up to reliably feed data pipelines with the performance, protection, and governance capabilities modern organizations require. Its end-to-end NVMe architecture eliminates performance bottlenecks, data protection and compliance features safeguard business-critical data, and powerful automation simplifies day-to-day operations.

Build Your AI-Ready Future with Logicalis

Your Expert Partner for Dell PowerStore

Simply purchasing new technology is not enough to unlock its value.

To truly maximize the value of technology investments, organizations need partners with the resources, expertise, and connections to turn technology into innovation, which is why clients turn to Logicalis for guidance and support.

From initial assessments through deployment, management, and more, we help turn PowerStore from a "technology purchase" into a strategic asset that achieves measurable business outcomes: faster AI deployments, improved compute utilization, reduced operational overhead, and compliance confidence.

Most importantly, we free up more of your team's time to focus on business outcomes, instead of the endless treadmill of storage management.

Why Logicalis for PowerStore?

- **Global 24/7 Support:** 24/7 access to storage expertise across APAC, EMEA, and the Americas.
- **Logicalis Infrastructure Expertise:** Operates across 25+ countries with specialized infrastructure teams dedicated to storage, cloud, and hybrid environments.
- **Dell Premier Partnership:** Dell Premier Partner and 2025 North America Rising Star Partner of the Year, with 15+ years of strategic partnership focused on enterprise storage and infrastructure solutions.
- **Digital Fabric Platform:** Proprietary infrastructure platform providing unified visibility and management across your hybrid infrastructure environment, including Dell storage solutions.

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