

Accelerate your most demanding workloads with Dell and Kalray

Essentials

- **Unified Global Namespace**
Simplify managing complex environments with automated data management and workflow efficiency for faster time to AI insights
- **Enhanced Collaboration**
Enable global teams to access and work seamlessly, boosting productivity
- **High-Performance Storage at Scale**
Maximize compute utilization with lightning-fast data access to accelerate results
- **Operational Efficiency**
Leverages existing infrastructure, reducing migration time and reducing costs and downtime

Business challenges

As an enterprise, you're managing diverse and data-intensive workloads, all requiring high-performance storage with fast IOPS and high throughput. This may lead to your data center housing a multitude of storage solutions with varying capabilities and cost points.

To power these demanding workloads you need a data storage strategy that provides optimized performance, seamless scalability, and cost effective unification of disparate data silos. Instantaneous access to your data in the right place at the right time, active archives that efficiently protect your high-performance capacity investment, and robust search features that make it simple to find otherwise hidden datasets are all essential elements of a complete data solution. With Dell Technologies and Kalray, this is all possible.

Complete data strategy solution

Together Dell and Kalray offer an industry leading, cost-effective, and simplified data management and storage solution for high-performance workloads. These joint offers include:

- **Ultra-high performance storage tier**

Seamlessly scale your infrastructure to serve your most demanding workloads including scientific research, complex modelling and more, often deploying HPC Message Passing Interface (MPI) applications that require the highest performance scratch storage. Manage petabytes of data and billions of files under a single global namespace. Kalray's Ngenea features a proven high-performance parallel file-system, running on Dell PowerEdge servers.

- **Contain costs by integrating with existing storage**

Ngenea offers a global view of all data across all data tiers, including

PowerScale and ECS, simplifying data management across tiers without changing your data. This reduces cost by automating the movement of inactive datasets off expensive ultra-high-performance tiers, to Dell PowerScale and ECS. That data can then leverage enterprise-grade capabilities such as further tiering, internally or to the cloud, advanced data protection, and more. Ngenea's data orchestration functionality provides holistic active data management with strong search capabilities regardless of where it's stored: on-premises or in public cloud storage. A single view of all data also extends to the cloud with supported cloud service from AWS, Azure and Google Cloud Platform to support remote teams.

Built on the most trusted infrastructure

Ngenea runs on Dell PowerEdge servers, offering a secure, scalable and flexible parallel file-system solution (Ngenea Data Service). Ngenea's single view of all data unifies PowerScale and ECS into a single data namespace. Both PowerScale and ECS deliver simplicity and performance at any scale, multiprotocol flexibility, federal-grade security, and exceptional efficiency, supported by Dell's Professional Services and support.

Peace of mind with validated designs from Dell and Kalray

Validated designs take the guesswork out of deploying high-performance solutions. Backed by expert support teams and with tested and proven designs, this trusted partnership seamlessly integrates Kalray's Ngenea with new or existing PowerScale and ECS deployments, delivering enterprise-class high-performance computing solutions. Supplemented by Dell's Professional and Managed Services suite, customers enjoy a hassle-free journey from installation to scaling and beyond.

Key industries & use cases

Turn to Dell Technologies and Kalray to support your most demanding HPC, AI, and data intensive workloads in the industries of life sciences, scientific research, geosciences, and corporate HPC. Typical application use cases include:

- Weather simulation
- Molecular modelling
- High frequency trading
- 3-D image analysis
- I/O intensive AI training models
- Any HPC application as part of a mixed workload

Use case: Workload acceleration

Because it can easily manage petabytes of data and billions of files under a single global namespace, NGenea meets the storage requirements of the most data intensive workloads. It leverages the fastest components (NVMe) to feed the most data-hungry compute processors to deliver required performance with low latency. Demanding workloads get what they need without compromise and expanding datasets always have room to grow, either within the high-performance cluster or to cost effective secondary storage .

Use case: Cloud bursting

When on-premises infrastructures reach peak capacity, Ngenea allows organizations to "burst" extra workloads to public cloud services. This is a convenient and cost-effective method to support workloads with fluctuating demand patterns. Public cloud enables organizations to easily scale to meet workload demands, worldwide. Leveraging the scale and flexibility of public cloud enables customers to reduce the need for additional investment in on-premises infrastructure while preventing interruption to business-critical applications caused by sudden workload spikes.

Ngenea enables organizations to automatically transfer data from on-premises storage such as PowerScale into the cloud, without manual data movement, to quickly serve relevant data to compute instances in the cloud.

About Dell Technologies

Dell Technologies has been a leader in the advanced computing space for over a decade, delivering proven products, solutions and expertise. Dell

Technologies has a team of data analytics, HPC, and AI experts dedicated to staying on the cutting edge, testing new technologies and tuning solutions to your applications to help you keep pace with this constantly evolving landscape. Solutions include workstations, servers, networking, storage and services that reduce complexity and enable you to capitalize on the promise of data analytics, HPC and AI. [Click here for more.](#)

About Kalray

Kalray is a technology innovator specializing in software and hardware solutions to accelerate data-intensive workflows in Media & Entertainment, High-Performance Computing, and Artificial Intelligence. Our comprehensive product range features Ngenea, a leading data acceleration platform, as well as accelerated data processing cards for storage and compute.

With Kalray solutions, customers can scale their infrastructures to efficiently meet the performance and capacity needs of data-centric applications, all without being tied to specific data formats or vendors. [Click here for more.](#)

Accelerate and simplify complex workloads



Global View of Data

- Enable PowerScale to become part of a global namespace
- Automated data management across multiple storage solutions
- Simplify complex global infrastructure



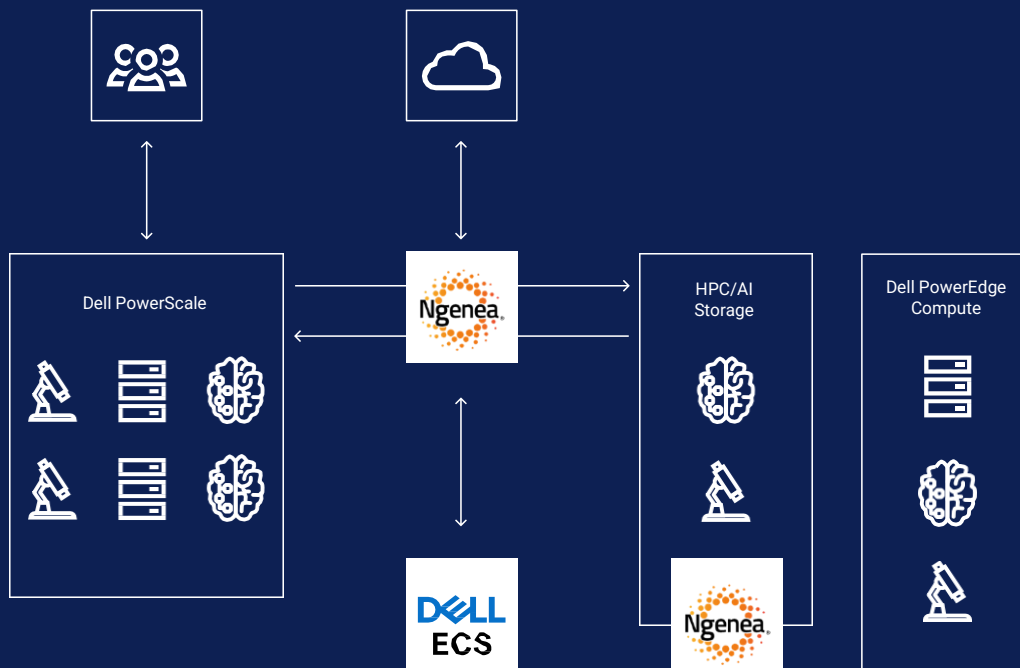
Hybrid Environments

- Cloud capabilities for PowerScale and ECS
- Centralized PowerScale data accessible for remote users
- Global collaboration



Ultra-High Performance Storage Tier

- Support your most demanding workloads
- Easily manage petabytes of data under a single global namespace
- Runs on Dell Technologies servers



¹ Dell is ranked #1 globally in NAS solutions for external OEM storage in IDC WW Quarterly Enterprise Storage Systems Tracker, 2023 Q2 historical release, September 7, 2023. Ranked by Vendor Sales.



Learn more about Dell PowerScale solutions



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