

# Optimize Next-Gen Analytics with Dell EMC PowerStore

In the new digital economy, analytic applications are quickly becoming the backbone of the modern enterprise. As next generation analytics applications show value and become critical, the storage platform they are built on must provide the capabilities needed to keep pace.

## Dell EMC PowerStore

Innovative AppsON capability runs virtualized workloads directly on the storage appliance

Single modern architecture for a wide range of physical, virtual, or container applications

Performance optimized – end-to-end NVMe design and high speed Optane SSD drives

Scale up and scale out – independently add compute and storage

Outstanding efficiency with thin provisioning and 4:1 advanced data reduction

Programmable infrastructure – streamlines IT and DevOps environments

Autonomous appliance – built-in automation and machine learning

Proactive machine analytics – smart monitoring predicts health needs

Support for non-disruptive hardware upgrades

Flexible deployment – modernize the core, edge, and cloud without disruption

Anytime Upgrade – choice, predictability, and investment protection with non-disruptive data-in-place upgrades

The insights gleaned from the data collected and processed from these applications can inform and drive future business and commercial needs. For these next-gen analytics, an application-driven infrastructure engineered to both optimize and consolidate existing and new business use cases for the future is key. The Dell EMC PowerStore™ storage appliance introduces a new era of storage and on-board application support for these next-gen analytics applications.

## A modern analytics solution designed for both performance and ease of management

Dell EMC PowerStore is a new type of storage appliance that utilizes modern technologies like Intel Optane Storage Class Memory (SCM), which can address the high-performance needs of data collection as well as processing at the edge for next-gen analytics. The constant dynamic changes of analytic data coupled with the need to adapt rapidly also require a storage platform built to be simply managed. PowerStore delivers a microservices management answer with a unique capacity for delivering and integrating advanced management capabilities. This modularity enables rapid time-to-market for next-gen analytics and permits maximum deployment flexibility. This intelligent, data-centric and adaptable infrastructure supports diverse data requirements for consolidating analytics data, while also simplifying IT management and operations.

PowerStore combines application and data scaling with ease of management that greatly complements analytics applications needs for scale-up and scale-out deployment models.

## Mission-critical availability and fault tolerant appliance

A modern, streamlined approach to data integration enables you to manage data as a valuable, strategic asset. On the hardware level, PowerStore is designed to be highly available and fault tolerant. It monitors the storage with advanced RAID protection technology which quickly rebuilds the data from a failed drive to avoid data loss.

As data continues to grow, big data has become a critical component in the predictive analytics world. The always-on inline data reduction feature of PowerStore greatly reduces the actual storage used, but still maintains the expected application data availability and protection.

## On-Board Applications Capability – AppsON brings apps closer to the data

PowerStore is highly adaptable, providing the flexibility to host specialized workloads directly on the appliance and modernize infrastructure without disruptions. AppsON brings both storage and onboard compute capabilities together to offer analytics consumption flexibility. Using the built-in hypervisor brings flexible scale for data storage when the workload requires it, while new applications can be provisioned rapidly on the same or on additional appliances in multiple locations. PowerStore seamlessly integrates the VMware ESXi software with two ESXi nodes embedded inside the appliance with direct access to the same storage resources. By eliminating the latency and overhead of the network layer, PowerStore streamlines performance for data-intensive next-gen analytics and simplifies their environment. Integration with VMware vSphere eases management as storage resources plug directly into the virtualization layer. The use of VMware as the on-board application environment results in operations simplicity with support inherently available for any standard VM-based applications.

### Introducing AppsON: Run analytics applications directly on PowerStore



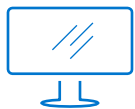
## Secure data protection with ease of mind

With high value data analytic applications, data security is key. PowerStore includes Data at Rest Encryption (D@RE) which utilizes self-encrypting drives and supports array-based self-managed keys. Data is encrypted as it is written to disk using the 256-bit Advanced Encryption Standard (AES). PowerStore D@RE provides this data security while eliminating application overheads, performance penalties, and administrative overhead typically associated with software-based solutions.

PowerStore provides additional data protection with the capability of array-based snapshots. Tightly integrated with VMware vSphere, PowerStore can take vVOL-based VM snapshots directly from the PowerStore manager using a protection policy schedule or manually on-demand. The VM snapshot information can be seen in both PowerStore and in vCenter.

## Business value and future Anytime Upgrade advantage

Next generation analytics are fundamentally changing the way data is used to support the business. The blend of massive amounts of data and technical innovation provides the opportunity for businesses to transform and are the fastest growing storage workloads of today. As the value and scale of this data grows, the need to provide a future-proof platform is critical. PowerStore's adaptable architecture combined with the Anytime Upgrade program allows customers to continuously modernize their infrastructure Dell EMC PowerStore brings IT organizations the ability to support and optimize new applications while delivering consistent performance, reduced capacity costs, and improved software development.



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