



Top Reasons to Choose Dell EMC PowerScale for Oil and Gas

1 | Simplify IT Management for Seismic Archives and Home Directories

Dell EMC PowerScale is a powerful yet simple scale-out NAS solution for oil and gas customers that want to invest in managing their data, not their storage. With a single volume, single file system architecture, PowerScale storage system is simple to install, manage, and scale at virtually any size. With PowerScale, you don't need to add storage administrators as your storage environment grows. One person can now manage petabytes of data, which minimizes operating expenses and allows staff to focus on managing petrotechnical applications and data—not storage.

2 | Deliver PB Scale Capacity for Seismic Archives and Simulations

PowerScale scale-out NAS enables you to scale capacity based on the specific requirements of your business. PowerScale allows you to grow to multi-petabyte scale. And when needed, you can easily increase capacity by adding a node in about a minute or less. With our ability to support 16 TB files, PowerScale will enable organizations to more seamlessly process and manage the large seismic datasets. With Dell EMC ECS, your cluster can grow into exabyte-scale capacity across several oil fields. ECS serves as a secure and affordable on-prem cloud for archival and long-term retention purposes. Using ECS as a cost-effective archive tier, Oil and Gas companies can preserve data retained for compliance, legal or value-creation purposes. PowerScale delivers up to 80% storage utilization. Storage efficiency can be further increased with Dell EMC PowerScale SmartDedupe data deduplication software which enables you to further reduce physical storage required by up to 30 percent. The simplified management of PowerScale combined with our unmatched efficiency helps you to reduce operational costs and capital expenditures.

3 | Improve Business Agility

Dell EMC DataIQ, an unstructured dataset management and insights software, allows oil and gas companies to visualize all data through a single pane of glass, effectively breaking down siloes of trapped data. With a unified file system view of storage solutions, third-party platforms and the cloud, DataIQ delivers unique insights into data usage and storage capacity. DataIQ enables organizations to move data from on-prem storage platforms to the cloud and back again, ensuring projects and users have access to the right data, in the right place, at the right time.

4 | Accelerate Cloud Journey

Oil and gas organizations want to take advantage of efficiency and flexibility of cloud to fuel their business innovation and growth. Dell Technologies has partnered with leading cloud providers to provide a range of cloud storage services that offer performance at scale, efficiency and simplicity of management to enable companies to deploy the most suitable offering with the economics of the cloud. Powered by the unmatched performance, reliability and scalability of Dell EMC PowerScale, oil and gas organizations can efficiently run workloads while reducing risk and maintaining complete control of their data. With our ability to support S3 natively, moving data between on-prem and cloud is now efficient and transparent. The oil & gas industry is making major investments in the Open Subsurface Data Universe (OSDU) forum, an industry consortium to build a cloud native data platform for all upstream data, applications and business workflows. Dell Technologies strives to be the exclusive provider of multi-cloud solution for OSDU. With its variety of multi-cloud deployment models suitable for a huge range of organizations, Dell Technologies is well positioned to help organizations adopt cloud technologies.

5 | Accelerate Analytics for Petrotechnical Workloads

PowerScale all-flash systems combine performance and cost-efficiency with enterprise grade software capabilities that deliver maximum performance for the most demanding applications. The Isilon F800 delivers 250K OPs / sec and 15 GB/sec throughput in 4U rack space to drive a new generation of applications. The PowerScale F200 and NVMe configured PowerScale F600 deliver the performance in a compact 1U form factor to address the growing storage needs. With in-line compression and deduplication, these platforms reduce the storage data needs significantly depending on the workload. PowerScale all-flash systems deliver faster time to results and drive new workloads like Artificial Intelligence, Machine Learning and Deep Learning.

6 | Deploy Secure and Highly Available Simulations and Optimizations

PowerScale is highly resilient and can withstand the loss of up to four nodes or drive failures simultaneously and maintain complete availability of your data. Non-disruptive upgrades and operations minimize the need to schedule downtime for your PowerScale clusters. For fast and efficient data backup, you can schedule snapshots as frequently as needed to meet your specific recovery-point objectives. For disaster recovery protection, Dell EMC PowerScale SyncIQ software provides efficient data replication to local or remote sites.

7 | Reduce Risk and Increase IT Governance

To help you address your security and compliance needs for your petrotechnical data, PowerScale offers a broad range of security options including Dell EMC PowerScale SmartLock software for write once, read many (WORM) protection to prevent accidental or malicious alteration or deletion of data; file system auditing to track which users are accessing specific files; and data at rest encryption (DARE) with self-encrypting drives (SEDs) to protect against drive theft or loss. PowerScale also includes role-based access control (RBAC) capabilities to allow you to create a strict separation between storage administration and users and their file system access. With PowerScale, you can also create access zones to provide secure, isolated storage pools for specific departments within your organization.

8 | Eliminate Data Silos for Interpretation and Modeling

The Exploration and Production data lake provides a single pool of storage to eliminate the data silos in your environment. The multi-protocol access methods that surround the data lake and the enterprise grade features of data protection, data management, security, and performance management make it easy for you to manage all your unstructured data.

9 | Maintain Compatibility with Petrotechnical Workloads

Dell EMC PowerScale runs seamlessly with leading petrotechnical workloads like Schlumberger and Landmark. PowerScale is the ideal platform for reservoir modelling, production optimization, reservoir simulation, interpretation and modelling and seismic processing workloads. In addition, many customers deploy seismic archives, home directories, file shares, security analytics and big data workloads on PowerScale.

10 | Drive Reservoir Modeling and Seismic Processing Workloads

PowerScale includes integrated support for a wide range of industry-standard protocols including NFS, SMB, HTTP, FTP and Hadoop HDFS. These capabilities allow you to provide an efficient and flexible shared petrotechnical storage infrastructure – a scale-out data lake – that can support a wide applications and workloads. With it, you can get more value from your enterprise data assets and enable better information sharing across your organization. You can also leverage native HDFS support for Hadoop analytics to gain new insight and unlock new opportunities for your business while supporting data-driven decision making.



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