Dell Technologies: Your Partner for Next-Generation Sequencing

Dell EMC PowerScale helps life science organizations accelerate clinical discoveries

Dell EMC PowerScale

- **Designed for next generation sequencing:** PowerScale can quickly respond to the workflow changes – data generation, analysis and archive scenarios - and capacity and performance demands making the right storage available for the right data at the right time.

- **Reliable:** The PowerScale portfolio is used by Life Sciences organizations and is backed by knowledgeable SMEs and robust Life Sciences partner portfolio.

- **Ease of management:** PowerScale eliminates the complexities of storage by consolidating all the workflows into a single, scalable volume and simplifying the management of data and letting scientists focus on the science.

- **Smart allocation of resources:** PowerScale supports a wide variety of instrumentation and workloads by taking advantage of multi-protocol support. PowerScale can also leverage ECS or public cloud for compute and storage needs.

Life Sciences Organizations are Data First

Hospitals, research facilities, and pharmaceutical companies have long understood the data first mindset: the idea that genomic data is crucial to your operations and the advancements of science and healthcare. Applications of genomic data for research, drug development, and precision medicine are expanding. Next-generation sequencing (NGS) creates massive amounts of data that must be rapidly analyzed and efficiently stored. As a result, the need for data storage solutions to manage the full lifecycle of genomic data has never been greater.

To respond successfully, a NGS environment requires a reliable, flexible, and easy to manage data storage solution.

Designed for Next Generation Sequencing

Dell EMC PowerScale is a scale-out, network attached storage systems that provides Life Sciences organizations with a simple and proven storage solution responsive to dynamic scientific and business requirements while minimizing the need to re-architect existing infrastructure. PowerScale solutions provide ultra-high storage capacity and processing performance for all scales of genomic data.

A PowerScale storage cluster can accept raw NGS data directly from multiple NGS instruments without hosting additional gateways. The same storage cluster can serve NGS data to a variety of high-performance computing environments such as cloud, Spark, AI/ML, and Hadoop for analysis while ensuring that data storage does not become a bottleneck.

The PowerScale OneFS operating system is simple to operate and manage regardless of capacity. OneFS can quickly expand storage to match changing performance or archive requirements without disrupting on-going NGS operations.
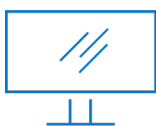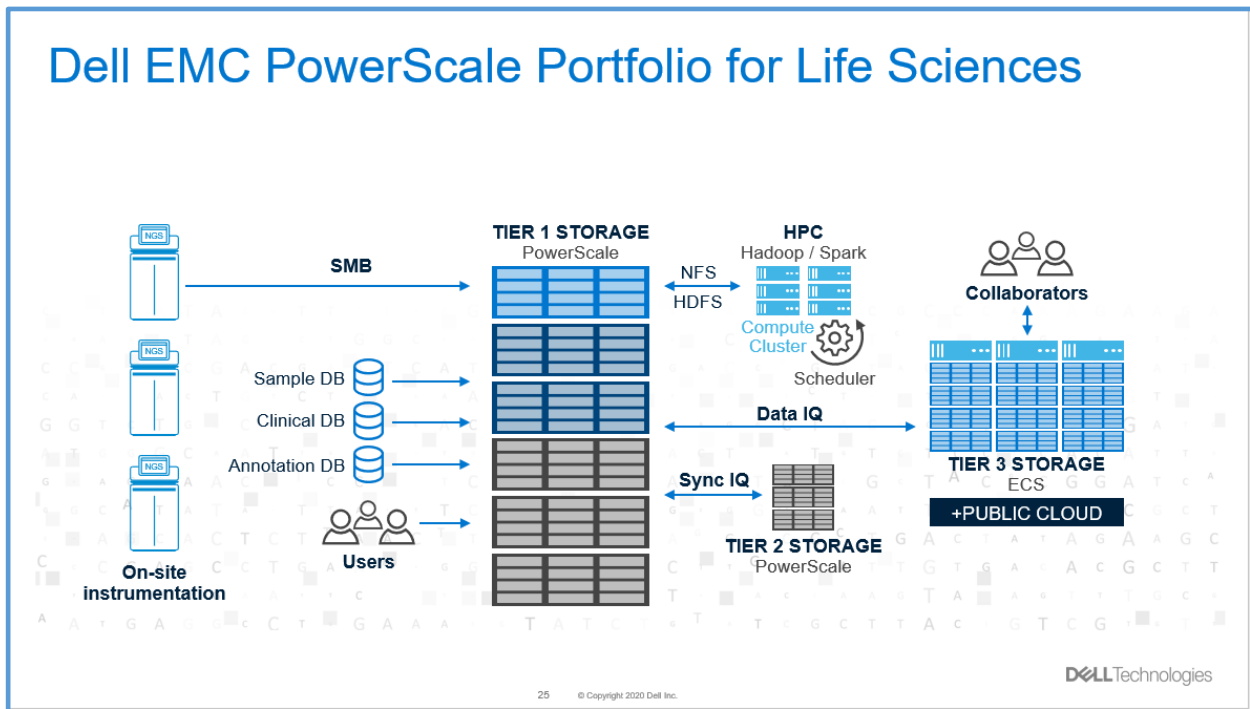
OneFS utilizes policy-based management, making it easy for NGS data and analysis results to be stored or moved to the appropriate node type. With OneFS data can be automatically moved from high-performance all-flash or hybrid storage nodes to cost-effective archive nodes. Policies can also move data from the PowerScale to public clouds or object storage solutions like Dell EMC ECS for long term archiving.

Reliability

Your NGS data is critical to your business and you need to trust that your storage solutions are reliable while being easy to manage. Many Life Sciences IT organizations operate with an aim that sequencing should never stop and the PowerScale portfolio delivers. PowerScale offers the highest level of data protection with the ability to replicate with Dell EMC PowerScale SyncIQ and OneFS' built in functionality to minimize any system down time. Organizations can also take advantage data management tools like DataIQ see all their data in a "single pane of glass" while also being able to move data around their environment and easily sending data to archive.

Partnering with Dell Technologies

Dell Technologies is a trusted partner by many life sciences organizations. The Dell EMC PowerScale portfolio is a tried and true platform that delivers in NGS environments. We have the strategic partnerships with companies like NVIDIA® and Intel® to implement true turn-key solutions that include high performance computing environments that drastically increase the amount of NGS workflows. Trust your data with PowerScale.

Dell EMC PowerScale Portfolio for Life Sciences

Learn More about solutions

Contact a Dell Technologies Expert

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