SOLUTION BRIEF

Cray Scalable Storage Solutions for Life Sciences

Your Trusted Expert is Cray

Cray provides a single point of service and support for multi-vendor storage solutions. With best practices for multi-vendor big data and high performance computing (HPC) solutions, Cray ensures the right expertise is applied to the challenge.

Cray's trusted service model, expertise in HPC applications and commitment to quality offers choice and flexibility – and gets results faster.

Maximum storage scalability is fundamental to life sciences research. Conducting rapid processing and analyzing of data – across any Linux compute cluster – depends on the available I/O and throughput from the underlying storage solution and relies on storage performance scaling in lock-step with computing capabilities.

Built on open systems, Cray's scalable storage solutions address life science's data- and I/O-intensive workflows and get results faster. A single file system can scale large I/O throughput performance to over 1TB/s and usable capacity from terabytes to many petabytes.

Whether it's genomics, structural biology, informatics, drug discovery, materials science or another life sciences field, Cray's expert solutions complement deployed storage investments, offer choice and flexibility, build on open standards and enable scientists to focus on life sciences.

Get Results Faster

Cray scalable storage solutions achieve results through shortened deployment time, predictable system performance, expert design and Cray's commitment to quality and excellence.

Tightly integrated storage systems, in combination with Cray best practices, reduce deployment time and ensure systems perform as advertised. As systems scale performance and capacity, Cray architectures ensure stability and consistency at scale. Through innovation and experience in designing the world's fastest and largest file systems, Cray removes the complexity of managing petascale systems. Additionally, factory-integrated, compact designs save space and power by over 50 percent for petascale systems. At the University of Illinois datacenter for NCAA Blue Waters, Cray reduced the number of required storage racks from 100 to fewer than 40 using Cray Sonexion®.

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Choice of Storage

Select from a range of parallel storage solutions offering flexibility and supporting multiple storage hardware platforms.

Integrated systems

The Cray Sonexion scale-out Lustre storage system comes pre-integrated and scales large I/O performance incrementally from 5GB/s to 1TB/s in a single file system. Additionally, its compact form factor increases density, reducing the total storage hardware infrastructure required for sustaining production-grade, petascale deployments by 50 percent.

Component-based solutions

Component-based solutions, built on your choice of storage, can be pre- or onsite integrated. A strategic long-term partner with DDN and NetApp, Cray has optimized solutions and best practices for DDN and NetApp E-Series storage.

Cray supports a range of configurations (small, medium and large) to address the right combination of performance, capacity and feature function. Configurations can be performance- or capacity-optimized, or balance performance and capacity for sheer scalability.

Custom solutions

Cray's data management platform and services enable data movement, connectivity to third-party archives and HSM systems, systems management and external development tools – tailored to customer-specific requirements. This flexibility is particularly important in life sciences as data movement becomes the bottleneck in workflows.

Workflow Diagram