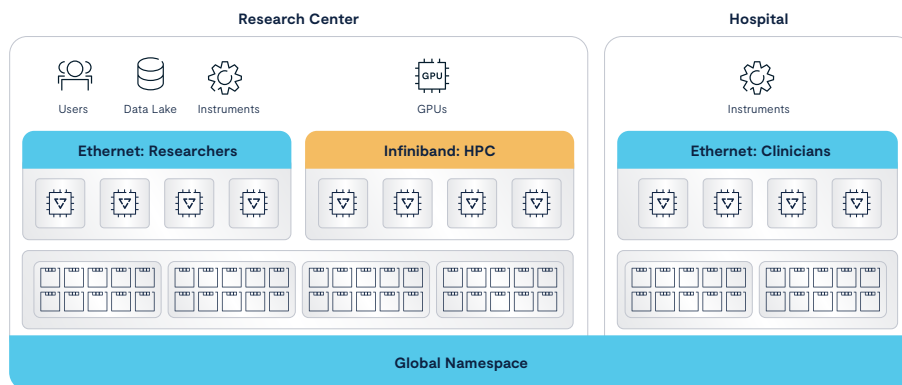


The VAST Data Platform for Healthcare and Life Sciences



Healthcare and life sciences organizations face significant data management hurdles that limit research, patient care, and regulatory compliance. Challenges include data processing bottlenecks, managing complex datasets across silos, collaboration difficulties, and the integration of AI and automation. The growing data from genomic research, medical imaging, and clinical trials further strains infrastructure, limiting timely, actionable insights. These issues delay advancements in personalized medicine, AI-driven diagnostics, and drug discovery.

The VAST Data Platform: Built for Healthcare and Life Sciences



Streamlining Genomic Data Analysis for Personalized Medicine

Genomic research generates massive datasets essential for breakthroughs in personalized medicine, but slow infrastructure and data silos delay analysis, slowing the identification of genetic markers that guide clinical decisions.

The VAST Data Platform accelerates genomic research by consolidating structured (patient records) and unstructured data (genomic sequences) into a unified system. By eliminating data silos and enabling real-time access to datasets, VAST cuts analysis time from days to hours, supporting faster, more accurate clinical decisions and improving patient outcomes. Its exabyte-scale data processing capabilities ensure research teams can work without performance bottlenecks.

Why VAST?



Unified Data Management

Consolidate structured and unstructured data across Infiniband and Ethernet networks for seamless access and faster insights.



Scalability

Easily scale to exabyte-level datasets with high performance as data grows.



AI-Ready Infrastructure

Enable AI-driven workflows and real-time data analysis with integrated GPU accelerated I/O.



Security and Compliance

Ensure HIPAA compliance with AES-256 encryption, tenant-managed keys, and strong data security measures.



Collaboration

Support secure, multi-institution collaboration with a global namespace shared across locations.

Accelerating AI-Driven Drug Discovery

AI is revolutionizing drug discovery by analyzing biological data at speeds traditional systems can't match. However, data from clinical trials and research can overwhelm existing infrastructure, slowing AI model training and analysis.

The VAST Data Platform streamlines the entire drug discovery process, from data ingestion to AI model training, on a high-performance, scalable system. VAST supports file, object, and tabular data formats, eliminating the need for multiple platforms and ensuring AI models access data in real time. With GPU-accelerated data access, such as NVIDIA GPUDirect™ or NFS/RDMA, VAST significantly speeds up drug discovery and the development of new treatments.

Enhancing Cross-Institution Collaboration in Medical Imaging

Collaboration across institutions is essential for advancing AI-driven diagnostics and treatments in medical imaging, but sharing large datasets like CT and MRI scans is often constrained by technical barriers, slowing down research and AI training.

The VAST Data Platform simplifies secure collaboration across multiple institutions and cloud environments through a global namespace. With HIPAA compliance, AES-256 encryption, and immutable snapshots, patient data remains protected and intact throughout the collaboration process, ensuring the security and integrity of sensitive medical information.

Accelerating Life Science Pipelines

Genome Sequencing

Genomic Analysis Tool Kit (GATK) + NVIDIA Parabricks, from NVIDIA AI Enterprise, leverages NVIDIA GPUDirect™ on VAST for 10X performance over non-accelerated pipelines.

Protein Folding

Generative AI workloads such as protein folding accelerated by NVIDIA GPUs benefit from VAST's massively parallel architecture.

Electron Microscopy

High performance multi-protocol support enables ingest from devices over SMB, processing via NVIDIA GPUs, and collaboration over S3, all without the need to copy data to simplify open science pipelines.



Genomics

10x faster whole gene sequencing with NVIDIA Clara



Structural Biology

AlphaFold workloads are over 7x faster compared to a parallel file system



Exabyte Scalability

VAST is the foundation for some of the world's largest biobanks

About VAST

VAST Data is the leading data platform software company bringing businesses into the AI era. By accelerating time-to-insight for workload-intensive applications, the VAST Data Platform delivers scalable performance, simplifies data management and enhances productivity. Launched in 2019, VAST has become the fastest-growing data infrastructure startup in history.

Looking to simplify your data center and unlock insights from all of your data?

Contact us at hello@vastdata.com

Trusted by Industry Leaders

