



Accelerating Life Science Research in the AI Era



Unlocking the Future of Life Sciences Research

The rapid pace of innovation in genomics, personalized medicine, and drug discovery relies on extracting insights from massive datasets. New advancements in artificial intelligence and deep learning such as Large Language Models and Generative AI promise to further accelerate the pace of discovery. These ever growing data sets paired with newer, more demanding AI models are exceeding the scale and performance capabilities of the classic architectures typically deployed for high-performance computing and AI workloads. Limited scalability, lack of enterprise features and complexity are pushing researchers to find new ways to accelerate and streamline AI pipelines

Removing The Barriers To Innovation

NVIDIA and VAST Data are partnering to make AI simple to deploy and operate with superior performance to empower organizations of all sizes. NVIDIA GPUs and networking, integrated with the VAST Data Platform, provide an end-to-end solution that accelerates research, simplifies data management, and bolsters security, enabling life sciences researchers to push boundaries, achieve faster breakthroughs, and propel scientific innovation.

AI-ready Data Fuels Life Sciences Insight

Achieving high performance is just the initial step in optimizing AI for life sciences. Unlike traditional architectures that necessitate separate silos for tasks like ingestion, archiving, and scratch space, the VAST Data Platform makes 100% of data AI-ready. A single high-performance tier with efficiencies that delivers archive economics ensures that GPU's are never waiting for copy tasks to complete and research teams get results faster.

Why VAST & NVIDIA?



Accelerate the pace of discovery

- Accelerated computing combined with high-performance data access across data centers, cloud, and edge
- Optimized AI frameworks and applications from NVIDIA AI Enterprise speed time to market for AI-powered solutions



Scale beyond limits

- Seamlessly scale from NVIDIA DGX BasePOD™ to NVIDIA DGX SuperPOD™
- Exabyte Scalability for the world's largest biobanks, ensuring seamless scalability and accelerated insights



Simplify data pipelines

- NVIDIA Infiniband and Ethernet in a single namespace
- Multi-protocol NFS, GPUDirect™, SMB, and S3

Accelerate Life Science Pipelines



Genome sequencing:

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



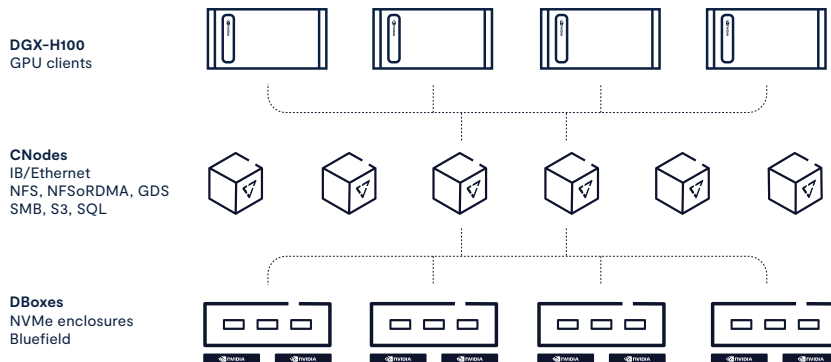
Protein Folding:

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.



VAST Data Platform is the software stack to accelerate insights on NVIDIA optimized infrastructure.

About VAST

VAST Data is the data platform software company leading business into the AI era. Accelerating time-to-insight for workload-intensive applications, the VAST data platform delivers scalable performance, radically simple data management and enhanced productivity. Launched in 2019, VAST is 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

About NVIDIA

NVIDIA offers accelerated computing solutions and the latest software innovations to help researchers and clinicians drive productivity and results.



Scan Here to Read more about how VAST Data and NVIDIA have joined forces to provide proven, replicable, and validated AI solutions that can benefit every organization.

Trusted by Industry Leaders

