

Life Sciences

Solution Brief



Secure, Scalable Storage that Supports Research and Discovery

Nirvanix Meets the Unique Storage Needs of the Life Sciences

The Nirvanix cloud provides a nearly infinitely-scalable tier of storage that is ideal for archiving the immense datasets generated by medical research and drug discovery organizations. You will gain cost-effective storage on demand, jettisoning the need to project future requirements and build out storage infrastructures accordingly. Nirvanix technologies also integrate with leading deduplication and compression technologies like those from Ocarina Networks to further reduce archiving costs. Our Offsite Data Protection helps you address litigation concerns by enabling compliance with such mandates as FDA Regulations, the Prescription Drug Marketing Act, and HIPPA. Moreover, Nirvanix's distributed architecture allows datasets to be consolidated and securely shared among researchers, improving productivity and avoiding the pain of maintaining disparate information silos.

Need a new tier of highly scalable storage to archive datasets for medical research and drug discovery?

Life science research is among today's most data-intensive endeavors. Processes like DNA sequencing, drug design, molecular modeling, and clinical trials rapidly generate immense datasets. Image files for MRIs or cellular analyses can be 100 gigabytes or larger. A single lab might produce as much as 10 terabytes of raw data a day. Additionally, regulatory mandates and litigation concerns demand that data be stored for up to 10 years. Capacity planning is challenging, especially because new projects, technologies, and funding can quickly change the volume of data that must be stored. Moreover, long-term data retention requires complex technology refreshes and data migrations that are difficult to manage.

Nirvanix cloud storage meets the unique demands of the life sciences by providing an extraordinarily scalable storage tier for long-term research data archives. You can economically scale from terabytes to petabytes of very secure storage, ensuring you meet even unanticipated requirements. You conserve IT budgets by paying only for the capacity you need. Projects, labs, or research groups each can have different application namespaces or child accounts to facilitate the sharing and analysis of vast quantities of data, even across continents. Moreover, Nirvanix automatically and seamlessly migrates data to new discs on standard refresh cycles, greatly reducing your IT burden.

Worried about safeguarding your troves of research data?

Research data is the product of costly and painstaking work and must always be safeguarded. Compliance and potential litigation concerns also demand that research data be preserved for many years. Tape, once a viable long-term storage solution, simply cannot meet today's recovery and restoration objectives for vast data troves.

Key Benefits

Future-Proof Storage

Scales cost effectively and immediately for massive datasets

Reduced Complexity

Manage and meet unplanned growth without over-provisioning and burdening IT resources

Better Protection

Safeguard your research and satisfy regulatory requirements with automatic data replication

Secure Sharing

Streamline sharing and collaborations with researchers to improve productivity

Consequently, whereas obtaining sufficient computational power was once the main IT issue for life sciences firms, the key problems emerging now are the cost and complexity of storing, backing up, and archiving datasets while still ensuring their availability.

The Nirvanix Storage Delivery Network automatically integrates offsite data protection capabilities into long-term archives, ensuring the safety of vital research data. You can use Nirvanix's policy-based replication to copy datasets to one or more storage nodes of your geographical preference. In sharp contrast to tape, you will be able to organize and manage your storage at any time and rapidly access data to satisfy all regulatory and legal requirements. Moreover, by turning to the Nirvanix cloud, you will reduce the expense and uncertainties of mirroring data in-house for extended retention periods. You will avoid any guesswork for provisioning as well as purchasing, configuring, testing, and managing solutions that drain IT resources. We even automatically and seamlessly migrate data to new discs on standard refresh cycles.

Do you need to share data for collaborations with other research organizations?

Science is highly collaborative. By sharing their work, researchers build upon the data and ideas of their peers, greatly expediting discoveries and product development. Yet, sharing information among workgroups or institutions is challenging when the data is dispersed across multiple storage silos. Files are difficult to find and, because of access control measures, laborious to retrieve, undermining knowledge construction and the pace of discovery.

The Nirvanix storage cloud features a distributed architecture that allows datasets to be consolidated and shared, regardless of users' locations. You can easily deploy different application namespaces or child accounts that are password protected, permitting secure sharing for different projects, labs, or research groups from a single storage environment. You can use standards-based APIs to rapidly create sharing applications or the Nirvanix CloudNAS to integrate storage with content management applications that support data storage on filers. With Nirvanix, you can leverage every dataset by streamlining the collaborative process that is so essential to good science.



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