KEY BENEFITS



ULTIMATE FLEXIBILITY

Store data where it makes the most sense, traversing sites and hardware architectures, based on explicit policies providing multi-site redundancy



VISIBILITY

Ensure seamless access to all data across site locations



EFFICIENCY AND SIMPLICITY

Automate data placement to optimize capacity and cost controls while meeting performance, availability, and recovery objectives



I have been using DataCore
SANsymphony for years to manage our
storage in our VMware environment.
When I needed help managing the
data in our file storage environment, I
was introduced to their vFilO solution.
Automating many of our manual
archiving tasks and having zero impact
to our users, while providing another
level of data availability was something
I was very excited to implement.

Kent Hansen CIO, Architectural Nexus



Architectural Nexus, founded in 1985, is a highly innovative architectural design firm with offices in Utah and California. The firm is a trusted partner to clients that have very complex/specialized building needs such as hospitals, commercial entities, government organizations, educational institutions and more.

Key to Architectural Nexus' design philosophy are its core values of stewardship and regeneration. In fact, the Architectural Nexus Sacramento office, Arch | Nexus SAC, is one of the most sustainably designed buildings in existence. It is the first certified living building in California, , and one of the few buildings to have achieved LEED Double Platinum certification. It is a net-positive water project; the building is equipped to provide 100% of water from rainwater as well as incorporating many features that reduce water usage. Arch | Nexus SAC has also achieved net-positive energy status by reducing its energy footprint and generating its own energy.

THE CHALLENGE

Architectural Nexus uses Autodesk Revit® 3D Building Information Modeling (BIM) software, which has resulted in a massive explosion of data. The 3D modeling produces design files that are highly detailed and complex (the average file size for an Architectural Nexus project is between 300MB-800MB, with some as large as 3GB), and require a great deal of performance in terms of I/O and memory to operate properly. If the storage capacity of the high-performance computing required for these files is not available, it can easily bring a project to a halt and frustrate users.

The Salt Lake City office is the company headquarters and has a fully resilient architecture, including solar powered backup batteries. Sacramento is a secondary location and does not have the same levels of redundancy. The firm wanted the ability to replicate files from one location to the other so that their engineering staff would always have access to their data if one of the sites went offline. They also wanted file location to be transparent to their staff.

Additionally, with virtual drives that are over 8TB, they were concerned that the amount of time it would take to get the staff up and running the even to of a worst-case situation. The final challenge they were having was the time and effort of doing manual file archiving. In order to reserve enough space on their most expensive primary storage for active projects, their storage administrator would spend hours every month manually archiving files to their lower-cost second tier of storage.

THE SOLUTION

Universal Systems, one of Utah's premier computer system manufacturer and solutions provider, has been a provider to Architectural Nexus for 20 years. Kent Hansen, CIO of Architectural Nexus, explained his availability and archiving challenges to Universal Systems and began to evaluate their options. Architectural Nexus had previously deployed DataCore SANsymphony to provide high-performance data services for their Citrix virtual desktop infrastructure running on VMware vSphere environments. Universal Systems recommended Kent look into DataCore vFiIO, its latest software-defined storage offering for file and object storage.

vFilO acts as a global file system that lets users pool all file shares into a centrally managed global namespace where they can gain unprecedented visibility and control across on-premises and cloud storage. By decoupling storage hardware from the software layer, vFilO gives the ultimate flexibility to control how and where data is stored.

With vFilO, Architectural Nexus can define, via administratordefined Objectives, how many copies of a file they would like to keep and where those files are stored, whether on-premises across different file servers, object storage, in the cloud, or most importantly for them, at a remote location. Utilizing a global namespace across all the file shares, users do not have to worry about where files are physically stored.

Objectives can also be defined that determine when active files (hot data) are automatically moved from the highest tier of storage to secondary tiers of storage. These can be based on attributes such as file age, size, type, and name. As data is migrated, it happens transparently to the user. From their viewpoint the file still exists in its original location. When they access the file in the future, it's automatically brought back to the primary location. When data is archived to on-premises or cloud-based object storage, it is compressed and deduplicated to further reduce the cost of saving data long term. The best part is that the Storage Administrator no longer has to do any manual archiving; vFilO automates this completely.

The other advantage with the automated movement of hot and cold data is for disaster recovery. Instead of one 8 TB virtual drive, the data can be split into smaller drives. For example, there could be a 1TB drive used for the most active (hot) data, and then several 2 or 3 TB drives to store the cooler data. In the event of a need to restore from tape, they could restore the 1TB data immediately to get their staff up and running and then as time permits restore the other virtual drives, dramatically reducing the RTO.

THE BENEFITS

vFilO gives Architectural Nexus the flexibility store their data where it makes the most sense, traversing sites and hardware architectures, based on explicit policies to provide multi-site redundancy. vFilO also gives staff members unprecedented visibility into their files across the entire organization by providing seamless access to all their data, whether it is stored in Sacramento or Salt Lake City. And with vFilO's ability to automate data placement, Architectural Nexus is able to optimize capacity and cost controls while meeting performance, availability, and recovery objectives.

About Architectural Nexus:

Architectural Nexus is a people driven, architectural design firm focused on stewardship, inspiration, and regeneration. We have offices in two locations: Salt Lake City, Utah and Sacramento, California. Our Sacramento office building is the first and only Living Building in California and our Salt Lake City office building is double LEED Platinum.

About Universal Systems, Inc.:

Universal Systems, Inc. started in the PC business in 1989. Since then Universal has evolved into a full-service organization, committed to users of high-quality computer equipment at cost effective prices. Since its beginnings, Universal's revenue has consistently increased each year. From production members to sales representatives, the dedicated professionals at Universal work as a team to make this growth a reality, by providing quality products and the highest level of service to every customer. Universal prides itself on excellent service that lets the customer know they are the top priority. Universal is constantly pushing the envelope in technology as well as service, ensuring clients maintain their leadership role in the ever-changing computer industry. Universal is determined to exceed its present success by not only being your supplier, but by being your partner, and a friend in the industry that can help you meet all your specific needs.

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