

ESG SHOWCASE

DataCore vFilO: NAS Consolidation Means Freedom from Data Silos

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ABSTRACT: File and object data are valuable tools that help organizations gain market insights, improve operations, and fuel revenue growth. However, success in utilizing all of that data depends on consolidating data silos. Replacing an existing infrastructure is often expensive and impractical, but DataCore vFilO software offers an intelligent, powerful option—an alternative, economically appealing way to consolidate and abstract existing storage into a single, efficient, capable ecosystem of readily-searchable unstructured data.

Overview

ESG research shows that only 6% of line-of-business executives view their company's IT group as a competitive facilitator/differentiator for the business, while 25% regard IT as a business inhibitor. Among the executives who believe IT inhibits business success, 43% say it's because workers have difficulty accessing the data that they need for business operations and analysis.¹

This finding means that high volumes of data—especially unstructured data, including irrelevant data—are weighing down organizations. In a modern digital economy, no organization can afford to treat all of its data equally anymore. To support the success of the rest of the business, IT must determine which file and object content requires special treatment (i.e., extra protection or more performance). IT must also identify whether the requirements for special treatment are likely to change over time.

Traditionally, storage practices for files were centered on creating extra copies or deploying excess capacity to accommodate future requirements. At this point, that approach is financially unsustainable. Consider that 44% of the IT organizations surveyed by ESG now store more than 1 PB of data across on- and off-premises environments.² With data volumes that large, maintaining extra copies and running spare infrastructure is going to be unacceptably costly.

Exacerbating the situation is the fact that multiple business units are increasing their demands for data. As a result, competition for precious storage resources is intensifying, and infrastructure spending is increasing. According to ESG research, 45% of NAS storage users expect to accelerate their spending on on-premises NAS systems over the next 24 months. Similarly, 42% of public cloud file storage users expect to increase spending on public cloud file storage infrastructure services over the next 24 months.

Throwing more money at the data-growth problem doesn't have to be the only answer. Modern, software-defined file storage solutions exist that could help organizations handle data according to the data's business relevance. [DataCore](#), for

¹ Source: ESG Master Survey Results, [2019 Technology Spending Intentions Survey](#), March 2019.

² Source: ESG Master Survey Results, [2019 Data Storage Trends](#), November 2019. All ESG research references and charts in this solution showcase have been taken from this master survey results set unless otherwise noted.

example, now offers [vFilo](#), a software-defined storage offering delivering the level of infrastructure flexibility that today's organizations need to consolidate and simplify their vast amount of unstructured data that's widely scattered over multiple silos and different clouds.

Software-defined Technology Is Essential for a Panoramic View

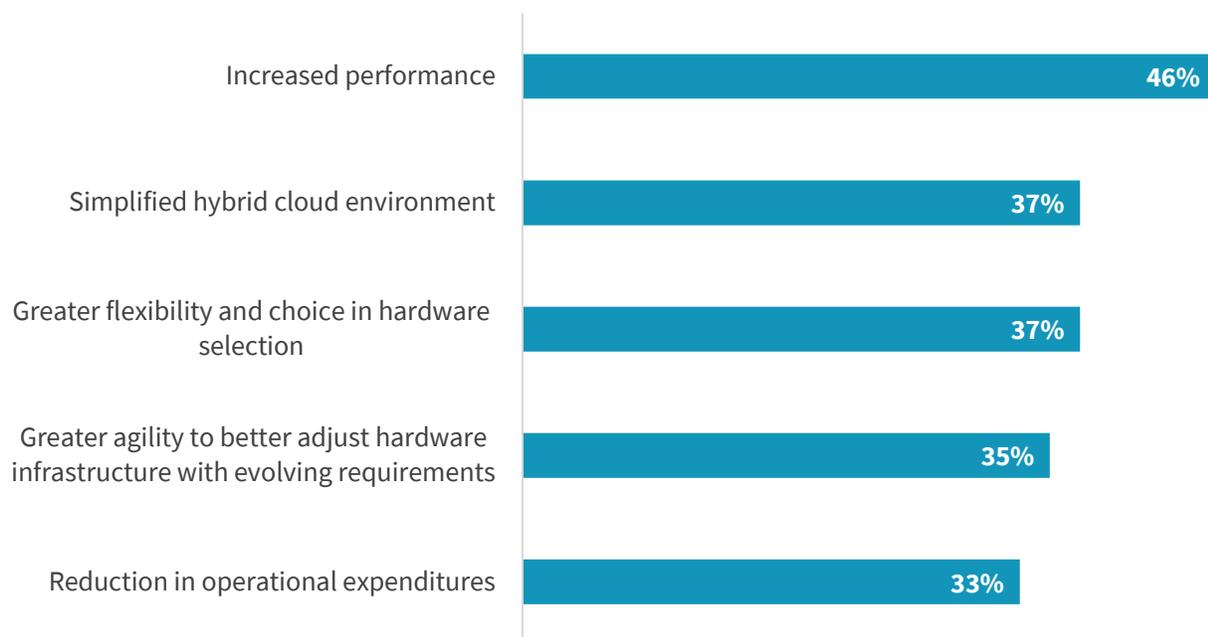
These new solutions arrive at a fortuitous time, as again, traditional systems for storing file-based data are ill-suited to solving consolidation challenges. Yes, traditional NAS boxes are good at managing files stored inside a share, but as data's access and protection requirements evolve, IT may need to move some files from one system to another (e.g., from an onsite array to a public cloud, or from a production environment to a long-term archive). Such movements require manual intervention. And manual intervention becomes very complex and costly. Additionally, when new hardware is introduced, large amounts of file data must be migrated to them—again requiring IT to perform costly, risky, time-consuming manual processes.

Rapid file data growth is an especially big challenge with on-premises storage, according to 25% of the IT decision makers surveyed by ESG. Plus, one in five respondents said that lengthy file storage implementation times and/or discovery, analysis, and reporting of file usage are challenging. And 19% said that management, optimization, and automation of file data placement is difficult. Those organizations would benefit from vFilo.

vFilo is purpose-built to support efforts to consolidate multiple disparate storage environments. Organizations that already use this SDS approach see benefits in improved hybrid cloud management, greater flexibility in hardware choice, and more agility to adjust hardware infrastructure as business needs evolve (see Figure 1). Those improvements translate into reductions in operational costs for managing file storage and incredible visibility and control over precious data.

Figure 1. Top Five Most Common Benefits of Software-defined Storage (SDS)

What benefits has your organization realized—or does it expect to realize—as a result of deploying software-defined storage technology (SDS)? (Percent of respondents, N=334, five responses accepted)



Source: Enterprise Strategy Group

DataCore vFilO—Distributed File and Object Virtualization

DataCore is an IT vendor with a 20-year history of offering SANsymphony, a popular block-based SDS solution. Now DataCore has enhanced its product portfolio with vFilO—distributed file and object storage virtualization software providing a single, consolidated, keyword-searchable namespace across multiple disparate heterogeneous file and object storage systems spanning on- and off-premises environments.

DataCore designed the technology to be easy to deploy and integrate into an existing environment. Like SANsymphony, vFilO can provide performance acceleration, but that is not its primary benefit. Instead, it specializes in placing files and objects on the most performant *or otherwise appropriate* storage resource in accordance with the business relevance of a particular file or object. vFilO assimilates the file data, including the metadata, and it collects information about the performance and availability characteristics of the underlying storage. From there, policy-based definitions determine the proper file movement and data protection strategy for the information.

In this way, vFilO allows organizations to:

- **Consolidate and automate file data management**—vFilO delivers a single global searchable namespace across different systems, technologies, and data centers with the ability to act as a virtualization front-end layer to existing systems or as a storage system itself, which can complement or replace existing systems. The technology then detaches the descriptors, properties, and permissions of each file, separating file access and control from the underlying storage infrastructure. That process means that data can migrate across infrastructure and media types while its accessibility remains consistent. In this manner, a file's data protection, performance, and cost characteristics can adjust automatically over time. vFilO also allows IT admins to exclude some file shares from the automatic management process (for example, database log files or files that have particular performance requirements).
- **View an audit trail of lifecycle migrations of files**—vFilO continuously assesses file storage characteristics, comparing them with business priorities and the infrastructure with regard to its availability needs, its compliance profile, its performance needs, and its cost profile. Traditionally, those tasks were done manually (and sparingly, if they were done at all). But with vFilO these tasks occur automatically, always optimized as the organization's needs dictate.
- **Freely and automatically move data to the right location**—With vFilO, the data is available as files and as objects, retaining the metadata richness and geo-independence of objects while preserving the speed, simplicity, and access mechanisms of files. With the underlying infrastructure abstracted, vFilO moves and load-balances unstructured data across on-premises file and object systems as well as cloud storage. It leverages machine learning (ML) technology to optimize the data placement to achieve multiple objectives, including cost optimization, performance, capacity, availability, and compliance. This level of virtualization also eliminates the downtime traditionally associated with updating hardware generations, introducing new system vendors, or migrating data to the public cloud. In the process, users retain access to archived files as if they never left.

The Bigger Truth

Companies have NAS systems all over the place—hardware-centric devices that make data difficult to migrate and leverage to support the business. It's natural that companies would desire to consolidate those systems, and vFilO is a technology that could prove to be quite useful as an assimilation tool.

Best of all, there's no need to replace everything. A business can modernize its IT environment and finally achieve a unified view, plus gain more control and efficiency via the new "data layer" sitting on top of the hardware. When those old silos

finally disappear, employees will discover they can find whatever information they need by examining and searching what appears to be one big catalog for a large pool of resources.

And for IT, the capacity-balancing capability should have especially strong appeal. With it, file and object data can shuffle around and be balanced for efficiency without IT or anyone needing to deal with silos. Today, too many organizations still perform capacity balancing work manually—putting some files on a different NAS system because the first one started running out of room.

It's time for those days to end. DataCore, with its 20-year history offering SANsymphony, is a vendor in a great position to deliver this new type of solution, one that essentially virtualizes NAS and object systems and even includes keyword search capabilities to help companies use their data to become stronger, more competitive, and more profitable.

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