

Product Brief

Symantec Delivers Scalable Cloud Storage Platform

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Abstract: *Symantec has announced FileStore, a scalable file system designed to enable cloud storage. While well known for its Global Information Management Software, Symantec will need to convince its customers that its multiple years of experience managing the world's largest and most complex storage infrastructures, combined with experience from managing the world's largest online backup environment, qualifies it to deliver a storage solution.*

Overview

The “cloud” is creating a great deal of interest in the IT community. The idea of an on-demand, rapidly scalable, user-configurable IT environment is not new; it has been around for years under the guise of utility computing, dynamic computing, and others—mostly all relegated to the interior of an enterprise’s data center. The cloud concept extends that paradigm for use in conjunction with the internet to offer storage services. One of the best examples of this combination can be found in the online backup space: companies have been offering users, mostly consumer and small businesses, the ability to back up their data over an internet connection for a small monthly fee. The online backup model has seen strong adoption.

Such capabilities changed the dynamics of storage. The overwhelming success of these offerings meant that providers needed massively scalable storage infrastructures that could rapidly adjust to the changing needs of its users. In order to be profitable, organizations had to build solutions with commodity hardware and innovative software (typically file or object-based) that pooled storage as a shared resource, significantly easing the burden of managing large-scale storage environments. Similarly, storage cloud offerings are not going to be built on high-end, monolithic enterprise class storage arrays costing millions of dollars; that model was attempted earlier this decade and it failed. It’s simply not competitive, is difficult to manage, and will not scale. What’s more, in addition to scale, other important characteristics need to be addressed. Most of today’s cloud storage offerings are consumer-grade, ideal for offering mass storage for home users or as a backup target, but commercial-grade users looking at building private clouds or service providers looking to build cloud storage services for commercial users will expect more. This storage needs to be available 24x7, deliver higher levels of performance, and be more secure as cloud providers’ offerings mature and they look to differentiate themselves and address commercial enterprise concerns.

To help enterprise organizations and service providers accelerate their time to deliver cost effective storage services, Symantec announced FileStore, a storage software platform enabling high performance and scalable storage services. Symantec FileStore builds on Symantec’s information management pedigree and includes features required for delivering commercial-grade cloud storage services:

- **Management efficiency:** Symantec is leveraging its rich portfolio of proven Veritas technology, integrated into a single solution that allows users to deploy a highly scalable storage services platform: a single system can scale to support up to 16 storage nodes and 2 PB of storage
- **High availability:** Leveraging Veritas Cluster Server and Veritas Cluster File System enables Symantec FileStore to maintain high levels of availability.
- **Tight integration with other Symantec software solutions:** Symantec FileStore has an industry first: native integration with Veritas NetBackup, Symantec Endpoint Security, and Symantec Enterprise Vault. This will provide users with a complete solution for backup, security, and archiving on multiple tiers of storage.
- **High performance:** Symantec FileStore has achieved the highest SPEC System File Server results in the industry. In addition, Symantec FileStore also provides the capability to create multiple tiers of storage for production, backup, and archive.
- **Low initial and operational cost:** Symantec FileStore is available with entry level configurations in order to keep the upfront costs low. Operational costs will be minimized by utilizing Symantec FileStore functionality,

such as self-deploy and self-configure, and integrated storage tiering to appropriately align application performance requirements with storage costs and functionality

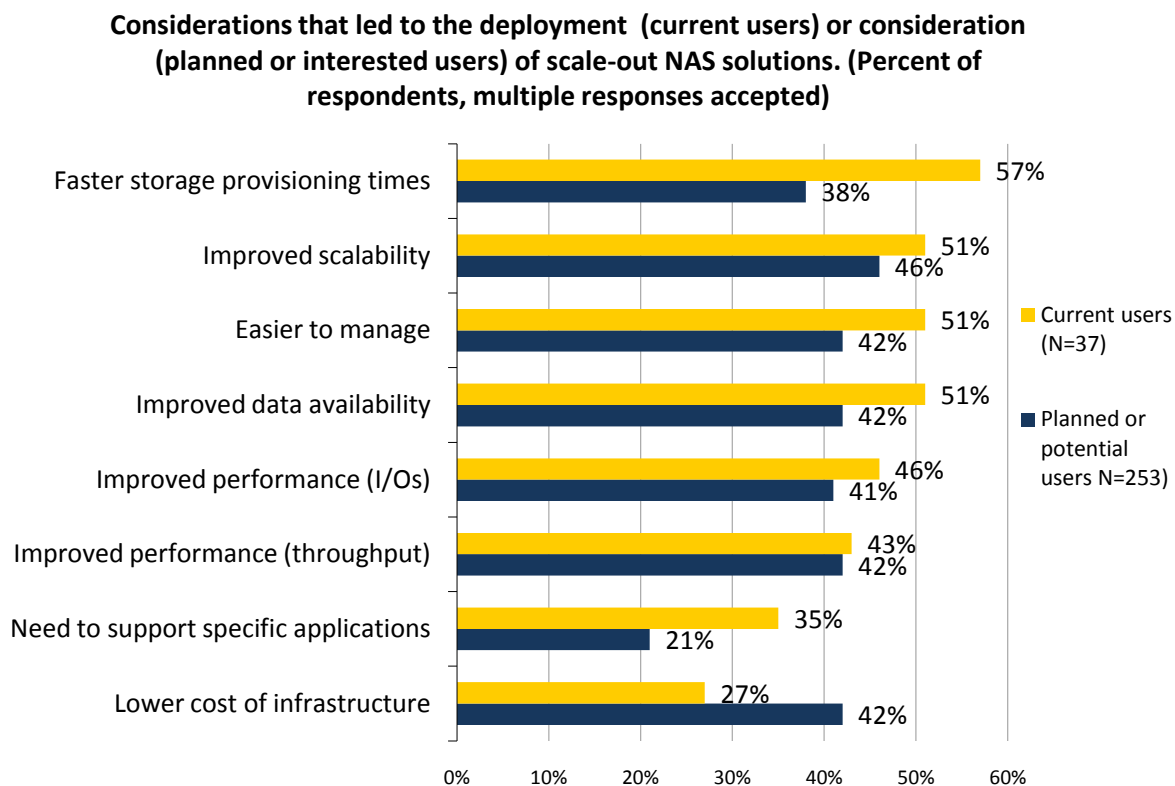
Symantec FileStore is generally available now through Symantec resellers and partners.

Analysis

In order to deliver an effective solution for internal or external “clouds,” a solution’s ability to scale-out is key. There is no way for storage to get to cloud-scale (really big, multi-PB capacity) using a bunch of stove-piped systems and manual storage management tasks (LUN mapping, zoning, cross-mounts). Symantec understands this and has developed Symantec FileStore to meet the requirements of the most demanding users. This solution should be well received because:

- Scale-out NAS is gaining traction.** ESG conducted a survey of North American and Western European storage professionals at enterprise-level organizations (i.e., 1,000 or more employees) and found considerable interest in scale-out NAS solutions.¹ In fact, 11% of respondents indicated their organizations are already using the technology to some degree and another 75% have imminent plans for or interest in deploying it. Among current scale-out NAS users, faster provisioning; improved scalability, availability, and performance; and simplified management were all cited as key considerations in those organizations’ initial implementation decisions (see Figure 1).

Figure 1. Market Drivers for Scale-Out NAS Solutions



Source: Enterprise Strategy Group, 2009.

- The product is well proven.** Despite Symantec having just announced the product, it has already been in use, managing Symantec’s Online Backup Services. This is no small feat: Symantec’s online service is the largest in the world, with over 9 million users and over 40 PB of data. If that is not enough, Symantec has been quietly working with partners in China and Europe and lists as a reference Taobao—China’s version of ebay—where it handles more than 140 million users. Clearly, this is not beta product; it has been proven in

¹ Source: ESG Research Report, *ESG 2008 Enterprise Storage Systems Survey*, November 2008.

some very demanding environments. Service providers should feel confident that the solution has been battle tested and can be turned up quickly in their environment. Enterprises looking to implement private clouds can do so knowing they are not the first to leverage this technology.

- **Symantec is already a trusted Global Information Management partner of enterprises and service providers.** This is not a startup company, nor is this brand new technology. Rather, this is a well respected company offering an evolved version of its existing technology, which is proven to be effective in some of the largest and most complex IT environments in the world. It has a strong record of delivering solutions for storage management, high availability, performance, and security to enterprise customers and service providers. Because of this history, Symantec is able to differentiate its offering by having native integration with its very capable backup and security products. Symantec FileStore should also be relatively easy to install and the learning curve for existing Symantec Storage Foundation and Veritas Cluster Server users should be minimal.

Symantec's "To-do" List

While it sounds like Symantec is well positioned to bring this solution to market, a few things still need to be done in order to guarantee success. Because partners and customers are not used to buying storage solutions from Symantec, it needs to:

- **Get the word out.** Symantec's Veritas File System is probably one of the most widely-deployed information management solutions on the market, but this isn't ubiquitously known. Symantec needs to educate the market about this solution and its benefits. Symantec already has references, so developing some case studies to validate the cost, performance, availability, and security benefits of the solution would help give context in a service provider or enterprise environment. It will also be critical for Symantec to educate its channel partners and OEMs so they can be more productive, more quickly. Symantec has a large install base that it should be able to leverage to drive meetings, proof of concepts, and test environments. Getting all its partners on message will drive awareness and consumption.
- **Develop the appropriate services to help customers understand and consume this technology.** Cloud technology is still relatively new to enterprise data centers and it not just a matter of installing new storage and flipping a switch to get there. Users need to understand where this type of technology can make an immediate impact. Something along the lines of a "cloud impact analysis" that would help users understand which applications in their environment would be appropriate for Symantec FileStore. Ideally, either Symantec or one of its channel partners would deliver these services. Ultimately, it would help end-users accelerate the time to value for this solution.
- **Prepare for increased competition from existing and emerging storage vendors.** Symantec has always had some level of "co-opetition" from most storage vendors, but now it will be directly competing against offerings from EMC (Atmos), IBM (GPFS) and NetApp (GX). However, because this is a new tier of storage for most enterprises and service providers, if Symantec can move quickly and demonstrate value (remember, Symantec's business isn't selling disk drives), it should be able to penetrate the market.

The Bigger Truth

Organizations of all sizes have recognized that the real value of any storage environment is in software functionality, not hardware. It makes sense to decouple the two and allow users to drive even lower commodity pricing for hard disk drives. In order to successfully create a "cloud" offering—public or private, external or internal—the solution must be cost effective. The days of leveraging monolithic arrays for massively scalable storage environments are coming to an end. Symantec can leverage its extensive knowledge in storage management to deliver a solution that further promotes its "no hardware agenda" to enable greater cost savings for end-users.

Though this is the first time Symantec has launched a "storage system," this is not PowerPoint Architecture, but rather an evolution of tried and tested software. In fact, Symantec FileStore already has an impressive track record with Symantec's online service as well as with customers in China and Eastern Europe. For a company not known for "storage



systems,” taking such a conservative approach to bringing the product to market should pay dividends as it has the capability to provide real world references and should ensure that any initial deployment problems have been resolved.

Symantec has a long history of delivering Global Information Management software solutions for large and complex enterprise and service provider environments. In addition to that, and perhaps even more important, it has been using its own software to effectively build and manage what is currently the largest online backup site. This is technology that was developed for and evolved from a real world environment, not a lab. In many cases, users want to know if the vendor is taking its own advice and, in this case, the answer is an emphatic “yes.” Symantec FileStore has been used to manage petabytes of data and support millions of users. It is also tightly integrated with other Symantec products, making it easier to backup, secure, and archive data—all essential for managing large cloud environments. Essentially, users should think of Symantec FileStore as the intersection point of enterprise class storage management capabilities and scale-out commodity based cloud storage pricing.