



SOFTWARE DEFINING SECONDARY STORAGE

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Software Defining Secondary Storage

Secondary storage systems primarily store backup and archive data. These systems often store ten to twenty times the capacity of primary storage systems. Vendors realize the opportunity and are now flooding into the market. Most of the solutions are turnkey hardware and software solutions. The vendors position these solutions as repositories for your existing backup software or as total replacements for them. Surprisingly the market lacks a software-defined alternative when it comes to secondary storage.

The Evolution of Secondary Storage

The precursor to secondary storage is disk backup appliances. Disk backup appliances are typically scale-up and focus on improving the data protection software instead of replacing it. Most vendors heavily promoted their use of deduplication as a means to drive down disk capacity consumption.

Recently, backup software vendors also started delivering backup appliances but unlike the first generation of disk backup appliances, these appliances also integrate the backup software into the same system that stores the backups. The result is a turnkey piece of hardware solely used by a single application.

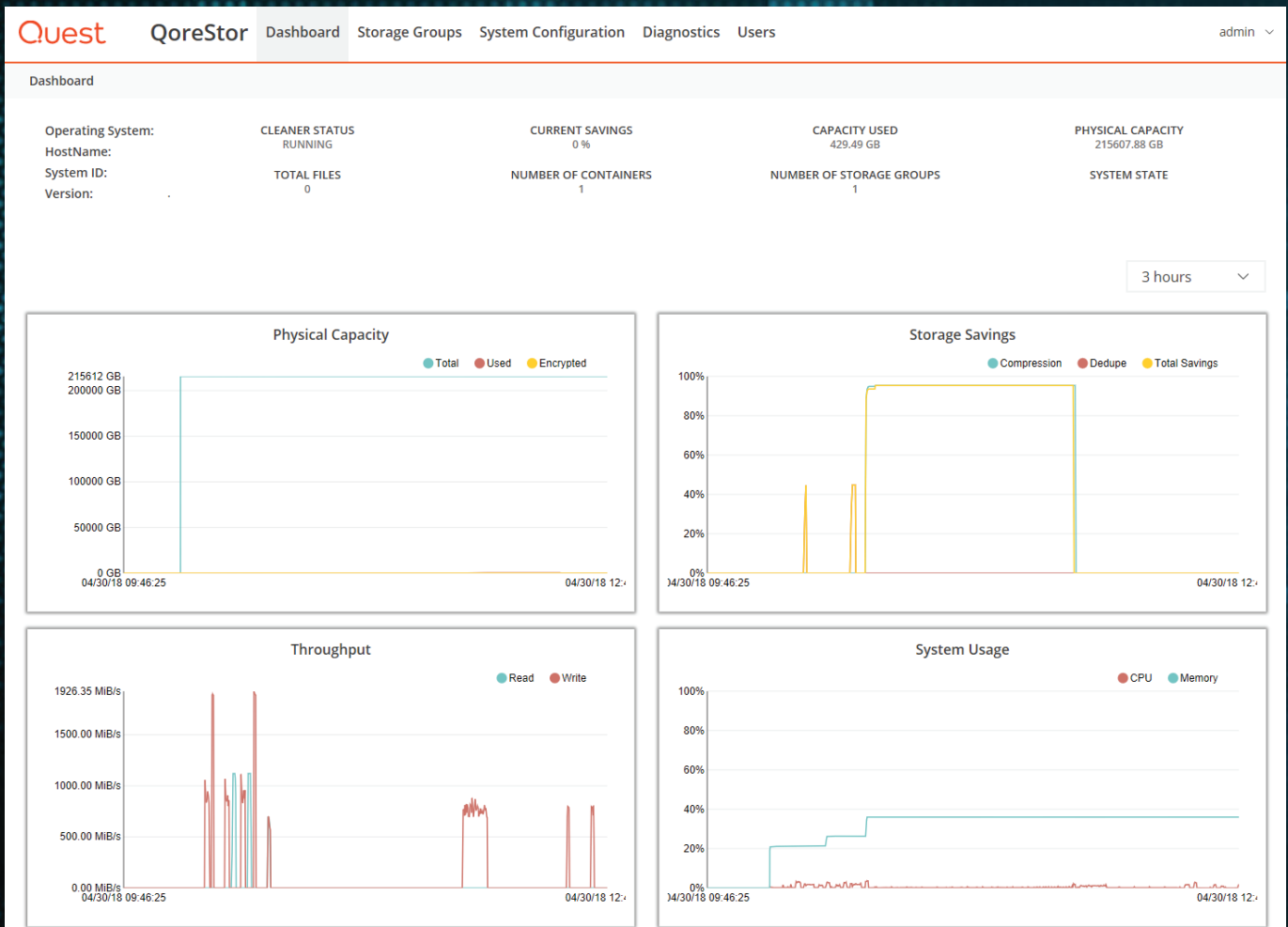
Secondary Storage Systems differ from backup appliances in that they are turnkey hardware designed for both backups and archives. They also use a scale-out architecture. Most though don't try to complement existing backup software solutions. Instead, they propose to replace them. It takes time for backup solutions to fill in all the boxes required for complete coverage so early adopters of these solutions are often forced to run multiple solutions in parallel.

Even though the vendors provide a turnkey solution, they all build their secondary storage systems from commodity hardware. These vendors source their hardware from the same OEMs as their customers.

The Case for Software Defined Secondary Storage
Since the vendors in the space are already using commodity hardware, it makes sense for a software-defined version to emerge. A software-defined secondary storage solution allows organizations to leverage their existing hardware relationships and even to repurpose existing hardware within their environment since performance is less of a concern. A software-only version of secondary storage also opens up the possibility to use cloud storage as a replication target for disaster recovery or long-term data archiving.

About QoreStore

Quest® QoreStor™ is a software-defined secondary storage platform used to accelerate backups, reduce storage requirements and costs through deduplication, and replicate data safely and securely to the cloud for archiving and disaster recovery.



Quest QoreStor – Software Defined Secondary Storage

Quest QoreStor is one of the few Software Defined Secondary Storage solutions on the market. Organizations or service providers can create their own hardware appliances, supplying their servers with storage capacity. They can also run the software as a virtual machine, making deployment in remote offices simpler and less expensive, and because the solution is software-only, it can run in the cloud.

QoreStor can be installed on a single node (or VM) and scale-out to meet the capacity and performance demands of the data center. It supports source-side deduplication and Quest provides optimized SMB and NFS protocols to improve backup up performance while maintaining a high level of compatibility.

The solution is backup software agnostic. It doesn't force the organization into another new backup application.

The robust list of supported applications includes all the major data protection solutions as well as native backup utilities included with applications like MS-SQL.

QoreStor can replicate from any instance to another, it leverages deduplication during the transfers and Quest offers a unique SecureConnect WAN Technology for easier, more secure site interconnects. All data is encrypted both in-flight and at-rest.

The replication instances also include the cloud. QoreStor today supports instantiating instances of itself in both Microsoft Azure and Amazon AWS. IT can leverage the cloud version of QoreStor either as a disaster recovery target or as a location to archive old backup data, limiting the growth of the on-premises data store.



StorageSwiss Take:

The hardware nature of secondary storage solutions is curious. While performance and reliability are essential in these environments, it is not as critical as in production. It seems a natural market for a software solution that can leverage existing hardware and former production hardware. With the replication capabilities, the software solution overcomes the reliability concerns of using older hardware, but because it is software leveraging older hardware, it is significantly less costly to deploy.

For organizations with plenty of servers and storage, organizations with strong relationships with server vendors, or organizations with many remote sites, QoreStor makes a compelling case to be the secondary storage platform of choice.





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The Firm

Storage Switzerland is the leading storage analyst firm focused on the emerging storage categories of memory-based storage (Flash), Big Data, virtualization, and cloud computing. The firm is widely recognized for its blogs, white papers and videos on current approaches such as all-flash arrays, deduplication, SSD's, software-defined storage, backup appliances and storage networking. The name "Storage Switzerland" indicates a pledge to provide neutral analysis of the storage marketplace, rather than focusing on a single vendor approach.

About Our Partner

Quest provides software solutions for the rapidly-changing world of enterprise IT that help simplify the challenges caused by data explosion, cloud expansion, hybrid datacenters, security threats and regulatory requirements. The company is a global provider to 130,000 companies across 100 countries, including 95% of the Fortune 500 and 90% of the Global 1000. Since 1987, Quest has built a portfolio of solutions which now includes database management, data protection, identity and access management, Microsoft platform management and unified endpoint management. With Quest, organizations spend less time on IT administration and more time on business innovation. For more information, visit www.quest.com.

The Analyst

George Crump is the founder of Storage Switzerland, the leading storage analyst firm focused on the subjects of big data, solid state storage, virtualization, cloud computing and data protection. He is widely recognized for his articles, white papers, and videos on such current approaches as all-flash arrays, deduplication, SSDs, software-defined storage, backup appliances, and storage networking. He has over 25 years of experience designing storage solutions for data centers across the U.S.