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Spectra Logic Intros Deep Storage Appliance To Ease Long-Term Archiving [1]

byJoseph F. Kovar [2] on October 14, 2013, 5:22 pm EDT

Tape automation specialist Spectra Logic has introduced a new long-term data management and migration technology that allows low-cost and scalable data archiving to tape and the cloud without concerns about format changes over time.

Spectra Logic's new BlackPearl Deep Storage Appliance supports a new DS3 interface. Designed by the Boulder, Colo.-based storage vendor, DS3 takes advantage of the RESTful interface to manage the data transfer process to new media formats.

Data storage has traditionally focused on looking at the past, but customers are now looking at how to correlate past data to look at the future, said Molly Rector, executive vice president of product management and worldwide marketing for Spectra Logic.

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That requires a new way to store object data in an open file format that will let customers access millions and billions of files as needed, which Spectra Logic is doing with new interfaces including representational state transfer (REST) and Web protocols, Rector said.

"For users in disruptive markets, we really need to change how they store data," she said.

Deep storage, in Spectra Logic's eyes, uses the REST interface to easily migrate bulk data while keeping track of where the data is independent of whichever backup software customers are using, Rector said. It is also about data "persistence," or the ability to store data in a single format that can be accessed, migrated and stored virtually forever, she said.

For that reason, <u>Spectra Logic</u> [4] this month introduced the BlackPearl Deep Storage Appliance, which, when paired with a Spectra Logic tape library, allows data to be stored and managed as if it were on a NAS system for only 9 cents per GB in a 6.4-petabyte system.

Rector said the cost of managing long-term data with BlackPearl is also significantly decreased for smaller implementations. For instance, it could allow 1.9 petabytes of data to be stored and managed for 14 cents per GB.

She compared this to Spectra Logic's nTier Verde, which provides archive-grade NAS disk-based storage at 45 cent per GB for 1.4 petabytes of capacity.

BlackPearl brings the economics of tape to bear on big data and on <u>object storage</u> [5], said Aaron Cardenas, CEO and founder of P1 Technologies, a Hermosa Beach, Calif.-based storage solution provider and Spectra Logic partner.

"The next big thing in storage to look at is how to use tape as a NAS device," Cardenas said. "Spectra Logic is perfect for this."

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Archiving is an immediate use for BlackPearl, P1 Technologies' Cardenas said. "Ultimately, we could see tier-one applications that don't need high-performance response times use BlackPearl," he said.

BlackPearl is a 2U appliance for managing the migration of data to a deep storage environment, Spectra Logic's Rector said.

It uses the DS3 client, based on the Amazon S3 interface, to move objects to BlackPearl, where the data lands on an SSD cache for fast migration. Inside BlackPearl, files are converted to the linear tape file system (LTFS) format, used in LTO tape drives and libraries to prepare them for long-term storage, she said.

By using the LTFS format, data can be stored on tape or in the cloud and be accessed whether customers have a BlackPearl appliance or not, Rector said. It also allows data from LTFS tapes to be migrated to deep storage environments, she said.

For example, customers looking to migrate data from tens of thousands or hundreds of thousands of LTO-5 tapes to LTO-7 can use BlackPearl to automate that migration, she said. BlackPearl can also be set to auto-migrate data from a tape that might be going bad, and it can also be used to handle future migrations to technologies not yet on the market, she said.

In big data environments, Spectra Logic uses the Hadoop distributed copy (DistCp) tool to move objects to BlackPearl and then move them to a tape library. The managed data is transparent to users because Hadoop already uses the S3 protocol, Rector said.

"[BlackPearl] offers the easiest way to move bulk data to the deep storage environment," she said.

Cardenas said he sees BlackPearl as an eventual cloud gateway to a public or private cloud.

"The <u>demise of Nirvanix</u> [6] shows the enterprise is not yet ready for the cloud," he said. "There are a lot of pieces in place for enterprise clouds. But, you bring in the cloud, and you

add complexity and cost and a new layer of security issues. Spectra Logic's BlackPearl will enable enterprises to build their own clouds."

The BlackPearl Deep Storage Appliance is available to beta users and slated for general availability starting in December.

PUBLISHED OCT. 14, 2012