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Neartek VSE 3.0

OVERALL RATINGS

Installation		The system arrives pre-configured, so installation is little more than plugging it in.
Manageability/Functionality		The GUI is intuitive, but VSE is waiting on some useful features.
Operation/Performance		VSE operates identically to a tape library and off-loads compression to a PCI card.
Recoverability		Recovery is simple, but fail-over is manual.
Problem Resolution and Support		Neartek is a responsive, easy-to-work-with vendor.
Interoperability		VSE supports FC and SATA disk from five vendors.
User Level		Requires a storage administrator with an average level of experience.
List Price as Tested	\$46,500	

Scale: 1 flame = poor; 2 flames = fair; 3 flames = satisfactory; 4 flames = very good; 5 flames = excellent

User level: ● = novice; ■ = intermediate; ◆ = advanced; ◆◆ = experts only

PRODUCT SUMMARY

The development engineers at Neartek have been very busy since we first reviewed the VSE product in 2005. In the past year, the company has completely re-architected the product. Gone are the mainframe-oriented legacy features, such as tape stacking. VSE 3.0 is a system that emulates open-systems tape environments to the point of simulating door “opening” and “closing.” If administrators have any doubt about the operation of VSE, they can simply think of how a physical tape library operates, and VSE will act similarly. In 3.0, Neartek reduced (and simplified) its emulation support from numerous devices to the Sun StorEdge L700, LTO-1 and LTO-2. In our original review, we designated VSE as an “expert” system. However, the revamping of VSE yielded a product that is simple to understand and much easier to manage, yet it is designed with data-center-class functionality.

The most distinguishing characteristic of VSE is that it is a software-based solution. Although the company talks about it being an “appliance,” the VSE software is hosted on an off-the-shelf (Intel) Linux server, thereby eliminating reliance on any proprietary hardware. In addition, VSE can access arrays from a variety of vendors, including EMC, IBM, HDS, Sun and Engenio. (IT buyers are advised to check compatibility with their specific system.) The product supports both Fibre Channel (FC) and serial ATA (SATA) disks. System integration is typically performed by Neartek or a qualified reseller/integrator.

Another significant improvement to VSE is that all data movement operations are now controlled by the backup and recovery (B/R) application software. This includes migration of the data from virtual tape to physical tape. Thus, all copies of data will be continuously synchronized, and tape formats will be standardized. Moreover, the company has implemented an On-board Media Server to improve performance when copying data from virtual to physical media.

Because of the architectural simplification and the preconfigured system, installation took only 30 minutes. Configuring the system has been reduced to specifying the number of virtual slots, virtual

drives and associated physical ports with the virtual drives. Configuration involves a six-step process for establishing the storage policy, creating the virtual library and the virtual tape drives, and creating the media. The only difficulty we had was confusion surrounding the conventions for LUN numbering. For example, if the library is LUN 0, then the first drive on the same port would be LUN 1. However, a tape drive on a different port would also be LUN 0. This is a relatively minor issue, but it could be improved with a wizard.

In our tests, the primary server was a single 2.8 Ghz processor. Given that most D2D and VTL systems use dual processors, we were concerned that VSE might be underpowered. However, the system also had an AHA Comtech PCI compression card for off-loading data compression from the CPU and appeared to

About the Review

Diogenes Analytical Laboratories and SearchStorage.com teamed together to create disk-to-disk buyer's guidelines that help IT buyers differentiate between products and select the best candidates for their own situation. For this report, we took 13 different products into the lab and ran them through their paces. We compared products based on ease-of-use, manageability, features/functions and technical support systems. Our opinions are based on the experience of more than a decade of implementing and managing data protection systems.

operate very efficiently. (We did not perform benchmark or scalability tests.)

Because of the re-architecture effort, some of the “fit and finish” elements have not yet caught up to the core product. The product does not yet have automatic failover, system reporting (e.g., thresholds, performance) or alerting (e.g., e-mail, SNMP traps). Alerting, however, is scheduled for a future release.

In addition to adding some of these capabilities, Neartek plans to add disk tiering, data archiving, advanced security and IP tape library support (ACSLs). Although Neartek expects these features to be released by press time, they were not available for us to test. It appears that Neartek’s developers will continue to be as busy as ever.

DIFFERENTIATING FEATURES AND FUNCTIONS

FEATURE/FUNCTION	DESCRIPTION
<i>Heterogeneous disk array support</i>	<i>VSE supports five disk array vendors, including EMC, HP, HDS, Sun and Engenio. Many organization have excess disk capacity that can be leveraged for D2D purposes; it may not be necessary to buy another array as it is with many VTLs.</i>
<i>Hardware data compression with software standby</i>	<i>The server includes a PCI hardware compression card based on Open Source GZIP compression. This reduces the load on the CPU, which reduces TCO two ways: Single processor CPUs may be sufficient and disk consumption is reduced.</i>
<i>Disk Load Balancing</i>	<i>Very few disk-to-disk devices or VTL’s support load balancing as VSE does. Without load balancing, virtual media elements can be placed on disk spindles in a way that can result in disk thrashing.</i>

BUYER GUIDANCE

Kudos:

VSE is a solid, straightforward VTL, and 3.0 represents a major step forward for the product. It is very resource-efficient with storage array flexibility. IT organizations will have little difficulty implementing the product, and storage administrator should adjust to its operation easily.

Caveat:

Neartek could reduce the administrative effort associated with VSE by adding hardware alerts and system reporting.

Who should consider this product:

VSE is a data-center-class VTL product. It would be a good solution for cost-conscious IT organizations looking to leverage excess capacity or the flexibility to support multiple array vendors. The product properly leveraged, we would expect VSE to have a lower TCO than most other VTL units.

ABOUT DIOGENES ANALYTICAL LABORATORIES, INC

Diogenes Analytical Laboratories, Inc. is an independent organization dedicated to helping Information Technology buyers reduce the inherent risk and uncertainty associated with technology purchases. Our goal is to create an informed I.T. consumer and provide the complete information needed to make smart purchase decisions. This report is based on Diogenes Analytical Laboratories' actual lab testing experiences and was not funded, sponsored or commissioned by any vendor. The opinions expressed in this report are those of Diogenes Analytical laboratories, Inc.

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