Success Story

Net2Vault Taps Broader Cloud Services Market with NetApp Storage Encryption

Customer Profile
Net2Vault is a cloud services provider that delivers data storage to NetApp customers. The Gold-level member of the NetApp Partner Program for Service Providers leverages its partnerships with NetApp and SunGard to provide customized, cost-effective services that include remote online data storage, backup and recovery, disaster recovery, and managed services. Headquartered in Beaverton, Oregon, Net2Vault hosts customer data at a secure SunGard SAS70 Type II data center in Scottsdale, Arizona.

The Challenge
Protecting customer data at rest
Net2Vault provides a valuable enterprise-class backup and disaster recovery service to companies focused on reducing costs and enhancing their business continuity plans. Whether customers’ environments are virtualized, use Microsoft® Exchange, have multiple databases, or depend on unique or complex applications to support their daily operations and serve their customers, Net2Vault offers its customers peace of mind in knowing that their data is protected 24/7 through secure, reliable data storage and protection.

Benefits
- Provides new market opportunities through encryption-at-rest capabilities
- Decreased Net2Vault service fees for its customers using NetApp deduplication
- Slashed storage requirements by 50% via NSE and its support for NetApp deduplication

Through Net2Vault backup and recovery services, customer data stored in the Net2Vault cloud is continuously available from inside a customer’s corporate network. The Net2Vault technology seamlessly integrates with the company’s customers’ NetApp storage arrays using NetApp Snapshot™ copies and NetApp SnapMirror® and NetApp SnapVault® data replication.

To maintain the integrity of customer data, Net2Vault establishes a baseline of data at service inception and then provides backup operations, owning the protection and storage of data along with administration and management processes. Net2Vault uses bandwidth-efficient SnapMirror and SnapVault to replicate data from customer data centers to its data warehouse using an encrypted virtual private network (VPN) tunnel to protect customer data in transit.

Customers with intensive regulatory requirements such as those in financial services, healthcare, and government are subject to additional regulations around data protection. In particular, these customers typically need their data to be encrypted at rest—whether

KEY HIGHLIGHTS
Industry
Cloud services

The Challenge
Help customers meet governance, risk, and compliance requirements for data protection that demand protecting confidential customer data from disclosure.

The Solution
Protect customer data at rest with NetApp® Storage Encryption (NSE) on NetApp FAS2040 and FAS3200 series storage systems in the SunGard data center.

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in their own or an online storage provider’s data center—and protected by encryption 24/7, posing a challenge but also a market opportunity for Net2Vault. “Without the capability for on-site storage encryption of customer data, we were regularly missing sales opportunities in a variety of industries,” says Brian Maguire, chief technology officer at Net2Vault.

The service provider needed a strategy for encrypting customer data stored at rest at the SunGard data center while making the data available in its native format to customers. Net2Vault searched for an easy-to-deploy, easy-to-use encryption solution that allowed it to maintain its existing replication processes. The company selected the NetApp Storage Encryption (NSE) implementation of hardware-based full disk encryption to protect customer data at rest without any operational impact on the customer.

**The Solution**

**Transparent storage encryption, visible benefits**
NetApp Storage Encryption protects data at rest on Net2Vault’s NetApp FAS2040 and FAS3200 series storage systems in the SunGard data center. NSE is completely transparent to the NetApp Data ONTAP® 8.x software operating in 7-Mode, eliminating the need for Net2Vault to make changes to its environment to take advantage of NSE. “The implementation of the NetApp Storage Encryption solution went very smoothly, and we were up and running with encrypting customer data at rest in no time,” says Maguire.

The encryption capability is fully automated and file system and network independent, requiring no action from Net2Vault administrators when aggregates, volumes, shares, or LUNS are created, copied using NetApp FlexClone® software, or deleted. Regardless of the storage management process, customer data is always encrypted and protected. NSE supports both NAS and SAN encryption, and is managed from within the NetApp operating system, including encryption key generation that is critical to preventing unauthorized access to the data. Only the NetApp storage system, drive, and key manager have access to the authentication key.

NSE is fully integrated with the SnapMirror and SnapVault backup and recovery functionality, which is used by both Net2Vault and its customers in the backup and recovery service. Net2Vault customers also leverage other NetApp backup and recovery products to support Net2Vault in providing its services.

“We tell our customers that the more NetApp SnapManager® products they use and the more they adhere to NetApp best practices, the better their backup service will be,” notes Maguire. Prior to replicating customer data with SnapMirror and SnapVault, customers create local copies of their data with NetApp Snapshot technology and SnapManager products such as SnapManager for Microsoft Exchange, Microsoft SQL Server® , Microsoft SharePoint®, and Virtual Infrastructure. Net2Vault provides a secure multi-tenant environment for storing customer data using NetApp MultiStore® technology, which enables the company to simplify provisioning, optimize storage resources, and easily migrate customer data when needed.

**Business Benefits**

**Always-on data encryption**

Net2Vault customers in many different industries, as well as software-as-a-service (SaaS) providers who use Net2Vault backup and recovery services to support their own service delivery, benefit from a new level of data protection through NSE at the Net2Vault site. “NetApp Storage Encryption helps our customers meet their governance, risk, and compliance requirements for data protection,” says Maguire. “Through always-on encryption, we protect their...”
confidential data during short-term storage or long-term archival, or when we upgrade or repurpose drives."

Because the NSE capability is transparent to Net2Vault customers, they don’t have to encrypt data at the source before replicating, alter their processes, or move to a different NetApp interface to support the encryption activities. The solution instead offers Net2Vault a simple way to encrypt customer data and free up its customers’ time for other IT management activities. “NetApp Storage Encryption is the only solution that resolves our challenge of encrypting data at rest while allowing us to keep our processes and business model intact,” says Maguire. “There is just no other product on the market like it.”

Net2Vault customers can now meet stringent corporate governance, Health Insurance Portability and Accountability (HIPAA), Payment Card Industry Data Security Standard (PCI), and other requirements. NetApp Storage Encryption addresses specific requirements around encrypting data at rest for additional protection against unauthorized access.

Net2Vault customers optimize their storage environments and consequently reduce their Net2Vault service fees using NetApp compression and deduplication technologies, achieving efficiencies as high as 85%. Alternative host- or appliance-based encryption solutions don’t allow the data to be deduplicated or compressed, which escalates costs for companies needing encryption at rest. However, the full disk encryption technology used by NetApp Storage Encryption is completely transparent to these storage efficiency technologies, allowing Net2Vault to pass the savings on to its customers.

“Net2Vault charges per gigabyte of storage replicated, so when customers leverage deduplication and NetApp Snapshot copies, their efficiency is extensible to Net2Vault,” says Maguire. “Our customers are therefore huge fans of these storage efficiencies because we can reduce our storage requirements by 50% and pass the savings on to them.”

**More disaster recovery for less**

With both Net2Vault and its customers on NetApp storage, customers can completely eliminate their tape infrastructure and associated storage management and costs by taking advantage of automated disk-to-disk backup processes. Notes Maguire, “For less than the cost of backing up to tape, companies can back up to the secure Net2Vault cloud and never have to deal with tape again. They simply subscribe to a couple of on-demand servers and can typically implement their disaster recovery plan, which includes off-site backup, for less money than before. They’re getting significantly more for less, and NetApp helps us provide those benefits to our customers."

Net2Vault backup and recovery services delivered on NetApp storage help customers meet their stringent recovery-time and recovery-point objectives. Replication frequency varies from hourly to every 24 hours, depending on individual customer practices. Net2Vault can perform a full database recovery for a client in less than three hours. For its many customers who are virtualizing their storage environments, recovery times are even shorter.

**Superior service for more customers**

Though Net2Vault previously focused on serving customers needing typical in-flight encryption as part of its backup and recovery services, the company can today meet the more stringent encryption requirements of credit card companies, financial institutions, hospitals, physician practices, retail organizations, and others. "NetApp Storage

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**Figure 1** Net2Vault relies on NetApp Storage Efficiency, Integrated Data Protection, and NetApp Storage Encryption to meet customers’ off-site backup requirements.
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Brian Maguire
Chief Technology Officer, Net2Vault

Encryption is definitely a competitive differentiator for us,” says Maguire. “The last significant objection we faced when marketing our cloud services was the lack of encryption for data-at-rest capabilities. Now we’re positioned to provide backup and recovery services to more NetApp customers, and to better protect their data using NetApp Storage Encryption.”

SOLUTION COMPONENTS

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NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate business breakthroughs. Discover our passion for helping companies around the world go further, faster at www.netapp.com.

Go further, faster®