

NetApp and Fernetix VaultCore simplified key management to fully protect sensitive data

The challenge

Securing data has become exponentially complex as companies continue to migrate all or part of their data into virtual data centers or cloud environments. As a result, security and risk management leaders struggle to support secure access to encrypted data while also meeting data residency, privacy, crypto-agility, compliance, and business needs.

Encryption is regarded as a best practice and, in some cases, a mandated method to protect sensitive data. Encryption may be embedded as a native feature in applications, databases, devices, and storage systems. Strong encryption is vital. But equally important is implementing a system to create, to manage, and to safeguard encryption keys across your entire enterprise. Any security strategy that doesn't include a centralized encryption key management solution is putting sensitive data at risk.

The solution—simplified key management

Fernetix® VaultCore™ helps you overcome these challenges. This simplified solution automates the full encryption-key lifecycle and can support 100 million+ keys for large-scale, distributed enterprise infrastructures through seamless integration with NetApp® ONTAP® data management software—all with little impact on performance. With Fernetix and NetApp together, your encrypted data is reliably available for end users and important workloads.

Fernetix + NetApp

By partnering with Fernetix, NetApp offers a comprehensive storage security portfolio. You get encryption flexibility, increased efficiencies, and reduced risk of data breaches or unauthorized access to stored information. This combined solution delivers a network storage environment that features NetApp ONTAP software with the Fernetix VaultCore Key Management System to accelerate, to simplify, and to future-proof your data infrastructure.

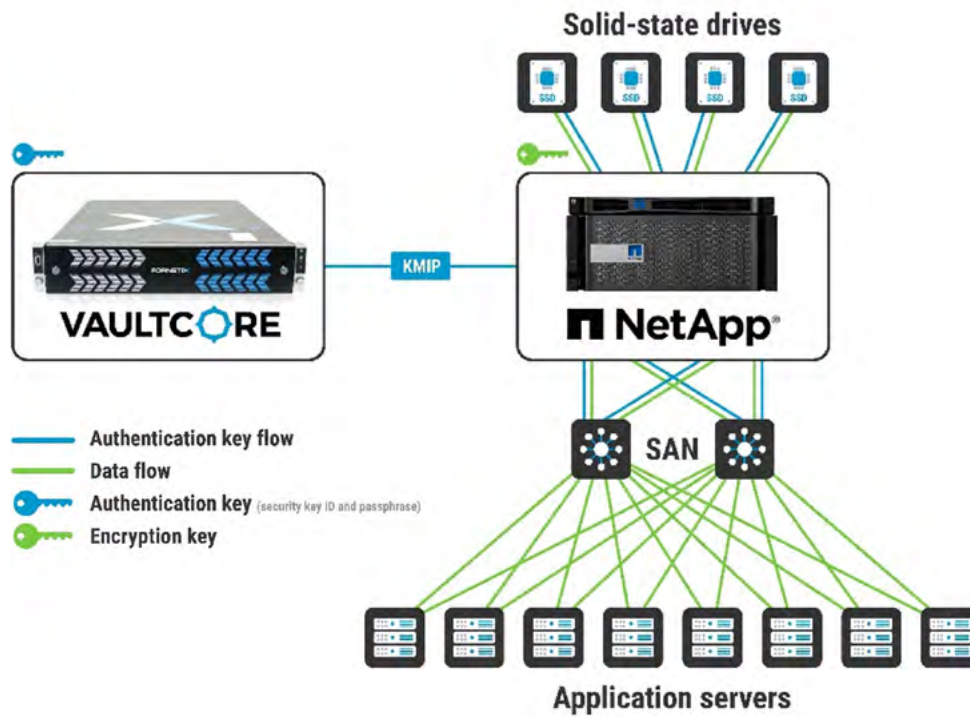
Proven key manager

Fernetix's singular focus is on providing a truly interoperable and flexible key management solution through VaultCore. This solution has been proven in commercial and military sectors around the world.

How it works

It's simple to deploy VaultCore; you can complete the process in less than 10 minutes. After you have configured the solution, the Client KMIP credentials and VaultCore CA certificate are installed in NetApp ONTAP. ONTAP verifies the connection and then begins software- and hardware-based data-at-rest encryption by using the keys that the VaultCore solution secured.

VaultCore is validated and listed on the NetApp Interoperability Matrix Tool.



Secure virtual or physical appliance

Foretix VaultCore is built with interoperability in mind, and you can deploy it as a virtual or a physical appliance. The virtual appliance features provide hardened security, eliminating many risks and threats to your sensitive data. You get:

- Centralized key management and encryption for your virtual environments
- A hardened OS and complete virtual appliance encryption for enhanced key security
- Integration with an external hardware security module (HSM) when necessary to meet higher-level compliance standards such as FIPS 140-2 Level 3 root of trust

Commitment to standards

VaultCore uses KMIP Protocol, Public-Key Cryptography Standard (PKCS) #11, and Common Event Format (CEF) as standards-based approaches for key management, command and control, HSM integration, and security incident event management (SIEM) integration. KMIP and PKCS #11 are technical specifications that are defined by the Organization for the Advancement of Structured Information Standards (OASIS). Both KMIP and PKCS #11 are directly associated with standards from the National Institute of Standards and Technology (NIST).

Interoperability

Foretix technology is driven by the motto “in standards we trust.” This approach provides a strong foundation for extensibility and defines boundaries that affect scalability and security protection to outside systems. VaultCore’s policy engine is a decision point for cryptographic operations that uses the language of known standards as the baseline for policy definition:

- KMIP services through TTLV, HTTPS, JSON, and XML
- Ability to forward KMIP operations to other KMIP-compliant key managers
- Foretix’s Orchestration Gateway for a simple way to integrate with various non-KMIP plug-ins
- PKCS #11 API to communicate with HSMs to establish a root of trust

Scalability

VaultCore has the capacity to process 100 million+ keys while supporting mobile ad hoc networking, tactical communications, and file- or object-level encryption. With VaultCore compositions and schedules, your organization can define complex key management operations in bulk. This capability enables you to orchestrate key management, encryption, network security, and business systems, knowing that keys are safe and will not be lost:

- High availability and full backups use encrypted replication with geo-separated VaultCore appliances so that you don't lose keys.
- You can integrate embedded or network-based HSMs to protect keystores while they're in a high-availability configuration.

Key benefits

Automated full lifecycle key management

- Secure key generation, storage, and backup
- Key distribution, deactivation, revocation, and deletion

Centralized point for command and control

- Granular access and authorization
- Separation of duties
- Policy management

Simple KMIP integration

- Zero network downtime and no loss of keys
- Audit reporting

Scalability to grow with your data infrastructure

- Support for 100 million+ keys with little impact on performance

About Partner

Fornetix, a pioneer in encryption key management, understands that securing data in today's complex environment can seem like an impossible task. VaultCore™, by Fornetix, is a patented solution designed to simplify the encryption key management process across the entire enterprise. VaultCore provides a centralized system to automate the full key lifecycle and enable compliance policy enforcement. Scalable to 100 million + keys for distributed environments including multi-cloud and hyper-converged infrastructures, VaultCore allows you to leverage existing technology investments and take complete ownership of your keys ensuring that critical data is safeguarded no matter where it resides. The Fornetix VaultCore appliance is a FIPS 140-2 Level 2 validated solution (with Certification pending) that employs an HSM for a FIPS 140-2 Level 3 root of trust. For more information, visit www.fornetix.com. #VaultCore

About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. To learn more, visit www.netapp.com

