NetApp and Gemalto SafeNet Virtual KeySecure

Cost-Effective Key Management for Physical and Virtual Environments

Necessity for Secure Sensitive Data

As organizations migrate to virtual data centers and cloud environments, consider the persistent threat of data breaches, and try to stay compliant with regulatory demands such as PCI DSS, HIPAA/HITECH, GDPR, GLBA, and SOX, the need to protect sensitive data has never been greater. To guard against unauthorized use, many organizations now rely on encryption to protect their data. Creating and managing encryption keys in multiple places, including small—and medium—sized installations and remote locations, is an essential part of the process. Many customers are looking for a solution to manage these instances; however, the upfront cost of hardware key management appliances does not fit some budgets. Together, Gemalto and NetApp provide the cost-effective enterprise key management solution needed in physical and virtual environments.

SafeNet Virtual KeySecure

Combat risk with affordable security

Gemalto's SafeNet Virtual KeySecure is a hardened virtual security appliance that provides a more operational and expense friendly alternative to a hardware appliance. By using a virtual key manager instead of a hardware appliance, organizations can scale key management at remote facilities or in cloud infrastructures such as those of VMware and AWS Marketplace.

SafeNet Virtual KeySecure is a virtual solution that provides flexible, secure key management and also helps meet the most stringent security and compliance requirements. Virtual KeySecure provides application data protection and centralized key management for many different solutions including: NetApp® Network Storage Encryption (NSE); NetApp Volume Encryption (NVE) starting in ONTAP 9.3; as well as any other Key Management Interoperability Protocol (KMIP) compliant encryption solutions across stored and archived data, virtual workloads, and application data protection. SafeNet Virtual KeySecure supports FIPS 140-2 Level 1, or Level 3 when integrating with an HSM root of trust. Integration with an HSM provides a link to a FIPS 140-2 Level 3 certified appliance for secure storage and access to master key, a main component of several compliance standards such as PCI-DSS.

Hardened Virtual Appliance

SafeNet Virtual KeySecure includes features that provide hardened security, eliminating many risks and threats to sensitive data. These features include:

> Centralized key management for virtual environments in a virtual security appliance
> Hardened OS and complete virtual appliance encryption for enhanced key security and protection against snapshot attacks
> Hardware root of trust for the appliance master key using supported HSMs
> Accelerated deployments

Proven Key Management

Gemalto is the largest company exclusively focused on the protection of high-value information assets, with an extensive portfolio of solutions that enable security teams to centrally employ defense-in-depth strategies.

> Enterprise key management leader
> High availability to support cloud-scale deployments
> Proven performance profile
> Central management of multiple key types: symmetric, asymmetric, secret data, and X.509 certificates

Gemalto offers customers the flexibility of physical or virtual appliances to meet their business needs. Gemalto is one of the only solutions provider that offers a virtual key management appliance integrated with hardware root of trust that can be used in the public cloud.

Cost Efficient

SafeNet Virtual KeySecure fits many budgets:
> Eliminates the need for additional rack space.
> Support for the OASIS KMIP standard enables increased centralization of encryption key management over time.
> Well suited for opex models as it eliminates the need for upfront payment.

Standards Compatible

SafeNet Virtual KeySecure supports KMIP, allowing customers to consolidate key security policies and protect investments across disparate encryption systems, self-encrypting drives, tape archives, storage area networks, virtual workloads, and more.

> **HSM Integration for Secure Deployments:** SafeNet Virtual KeySecure can reference a master key resident on the HSM as a root of trust for all keys created in the customer's environment. Virtual KeySecure supports Amazon Web Services CloudHSM for subscription-based AWS environments, and SafeNet Luna SA for on-premises deployments

> **Securing Physical and Virtual Storage Environments:** Supports many popular NAS, tape, and backup storage devices from NetApp, IBM, Hitachi Data Systems, Dell EMC, Quantum, and others, HPE, Nutanix, VMware vSAN, and others.

> **Support for Multiple Private/Public Clouds:** SafeNet Virtual KeySecure can support multiple private and public cloud environment: AWS, VMware (including Public Clouds which support VMware), OpenStack, Microsoft Azure, Microsoft Hyper-V, Google, and others.

Key Benefits

Full Lifecycle Key Support
> Automated, policy-driven operations simplify key management across the entire lifecycle, including secure key generation; storage and backup; and key distribution, deactivation, and deletion.

Unified Key Management
> Centralized administration defines granular access, authorization controls, and separation of administrator duties across multiple encryption deployments.

Intelligent Key Sharing
> The solutions deploy in flexible, high-availability configurations across geographically dispersed centers or service provider environments.

Audit Trail
> Centralized management includes detailed logging and audit tracking of all key state changes, administrator access, and policy changes.

SafeNet Virtual KeySecure for NetApp Cloud ONTAP

SafeNet Virtual KeySecure maintains data confidentiality on NetApp Cloud ONTAP through efficient centralized key management, and enforcing customized security policies surrounding data access. This combination of a modern storage infrastructure and SafeNet key management delivers the peace of mind that your data and its encryption keys are protected against unauthorized access, while simultaneously making the most efficient use of your storage investments. With SafeNet KeySecure, administrators can simultaneously manage keys associated with NetApp Storage Encryption (NSE), NetApp Volume Encryption (NVE) starting in ONTAP 9.3, Gemalto's SafeNet Data Protection portfolio, and other KMIP-based encryption solutions.
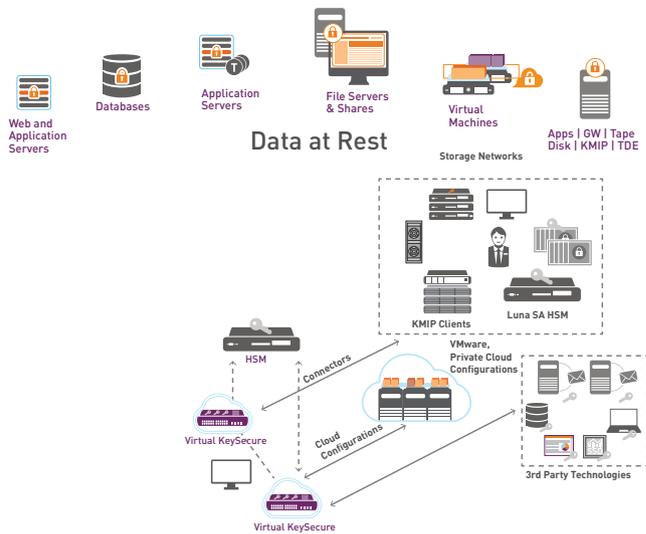

Figure 1: Application data protection and centralized key management across stored data, archive data, virtual workloads.

Summary

SafeNet Virtual KeySecure is the industry's leading platform for the centralized management and security of encryption keys. Encompassing Gemalto and third-party products, SafeNet Virtual KeySecure supports a broad encryption ecosystem for the protection of sensitive data in storage, virtual workloads, and applications across traditional and virtualized data centers and public cloud environments.

About NetApp

Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future.

To learn more visit: www.netapp.com

About Gemalto's SafeNet Identity and Data Protection Solutions

Through its acquisition of SafeNet, Gemalto offers one of the most complete portfolios of enterprise security solutions in the world, enabling its customers to enjoy industry-leading protection of data, digital identities, payments and transactions – from the edge to the core. Gemalto's newly expanded portfolio of SafeNet Identity and Data Protection solutions enables enterprises across many verticals, including major financial institutions and governments, to take a data-centric approach to security by utilizing innovative encryption methods, best-in-class crypto management techniques, and strong authentication and identity management solutions to protect what matters, where it matters. Through these solutions, Gemalto helps organizations achieve compliance with stringent data privacy regulations and ensure that sensitive corporate assets, customer information, and digital transactions are safe from exposure and manipulation in order to protect customer trust in an increasingly digital world.

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