



SOLUTION BRIEF

Gemalto's SafeNet KeySecure for Dell EMC Data Security and Storage Solutions

Overview

Encryption is fundamental to any defense-in-depth strategy whether the goal is compliance or securing sensitive data. Self-encrypting drives are an effective way to deploy encryption in large-scale storage environments. However, as the number of drives increases, so does the number of encryption keys, key stores, and access policies needing management. To cost-effectively support such an environment and bring it into regulatory compliance, enterprise key management must be part of the solution.

Solution

Centralizing the storage of access keys to the self-encrypting drives (SEDs) not only simplifies key management, but also ensures that encrypted data is protected from unauthorized access—even as the size of the encryption deployment grows. Gemalto's SafeNet KeySecure integrates with Dell EMC storage solutions to provide robust, enterprise-scale key management, ensuring that access keys are managed throughout their lifecycle and properly secured with FIPS 140-2 certified hardware.

Gemalto also offers a hardened virtual security appliance that provides organizations with a more operational—and expense friendly alternative to using a hardware appliance.

Gemalto's SafeNet KeySecure and SafeNet Virtual KeySecure with Dell EMC Storage Solutions

Gemalto's SafeNet KeySecure is a key management appliance that integrates with Dell EMC Storage solutions via the Key Management Interoperability Protocol (KMIP) to store and centralize the management of the Authority Credentials (sometimes referred to as the locking, authentication or access keys) for SEDs. Consolidating the policy and key management of servers, databases, and file storage streamlines security administration. Centralized key management improves security by making key surveillance, rotation, and deletion easier, while also separating duties so that no single administrator is responsible for the entire environment. Additionally, unifying and centralizing policy management, logging, and auditing makes information more readily accessible which, in turn, makes demonstrating compliance with data governance requirements simple.

Gemalto's SafeNet Virtual KeySecure allows organizations to utilize a secure virtual appliance to manage keys as well as data encryption, and enforce access control across cloud infrastructures. It also ensures that organizations maintain ownership of their encryption

Benefits

Gemalto's SafeNet KeySecure provides customers with complete control by securing the keys needed to access the Dell EMC storage system. Together, Dell EMC and Gemalto offer a secure, and efficient means of securing data at rest with encryption.

Centralized Management of Access Keys

- Centralize and simplify key management (e.g., escrow, recovery) for Dell EMC data protection and data storage platforms such as DataDomain, Unity, DLM, Compellent SC and XC, VMAX, Mozy, and KMIP-compatible encryption solutions, while improving compliance and auditability.

High-Availability Configurations

- Cluster multiple SafeNet KeySecure appliances to maintain encrypted data availability, even in geographically dispersed data centers.

Hardware or Software Appliance

- SafeNet KeySecure is available as a hardware appliance or hardened virtual security appliance. By utilizing SafeNet KeySecure, organizations benefit from its flexible options for secure and centralized key management – deployed in physical, virtualized infrastructure, and public cloud environments.

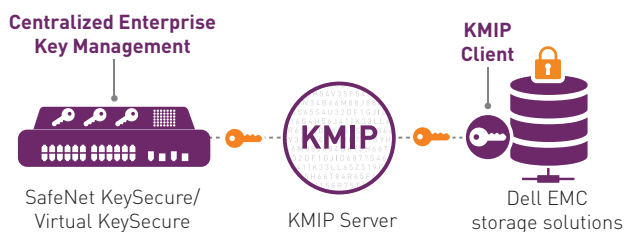
Separation of Duties

- SafeNet KeySecure supports segmented key ownership and management based on individuals or group owners. This approach is perfect for protecting sensitive material against unauthorized access from staff.

keys at all times by hardening the appliance OS and encrypting the entire virtual appliance for enhanced key security and protection against snapshot attacks. SafeNet Virtual KeySecure provides scalable key management and secure encryption at remote facilities or cloud infrastructures such as VMware or AWS Marketplace.

By using a virtual key manager instead of a hardware appliance, organizations can scale key management in private or public cloud infrastructures, and eliminate the cost for additional rack space.

SafeNet KeySecure and SafeNet Virtual KeySecure provide flexible options for secure and centralized key management and help organizations meet security and compliance requirements.



Gemalto SafeNet KeySecure Appliances

The SafeNet KeySecure k460 appliance offers:

Gemalto's SafeNet KeySecure k460 is the highest capacity, highest-performing key manager in the SafeNet KeySecure portfolio. The k460 is ideal for organizations requiring high levels of both scalability and security.

Dell EMC storage solutions using SafeNet KeySecure mitigate the threat of unauthorized access to encrypted data at rest on powered-off disk drives.

The k460 offers:

- > A resilient appliance with redundant hot-swap hard drives and power supplies
- > FIPS 140-2 Level 3-certified security
- > Key management for large environments with a significant number of SEDs, or other devices requiring key storage

The SafeNet KeySecure k250 appliance offers:

Gemalto's SafeNet KeySecure k250 physical appliance is designed for small to medium size businesses requiring strong key management security without the scale and performance capacity offered by the k460.

Since these appliances are FIPS 140-2 Level 1-certified, this option is suitable for organizations subject to fewer regulations concerning their data security.

The k250 offers:

- > FIPS 140-2 Level 1 security
- > Cost-effective key management

The SafeNet Virtual KeySecure k150 offers:

Gemalto's SafeNet k150v, or Virtual KeySecure, is a software-based virtual key manager that is ideal for smaller SED deployments, remote sites or virtualized environments. The k150v provides strong key security, ensuring that customers maintain control of their access keys even as they migrate to the cloud. SafeNet Virtual KeySecure offers the same key storage capacity as the k250 to allow the same level of scalability in virtual environments as a customer would have when deploying an entry on-premise key management option.

The k150v offers:

- > A solution tailored to the needs of virtualized data centers and public cloud environments
- > Cost-effective key management

Installation and Support

To ensure successful deployment, Gemalto's Professional Services team schedules on-site visits to install SafeNet KeySecure and get the customer up and running. In addition, Gemalto offers comprehensive on-going support packages from 1 and 5 year terms that cover mission critical business and operational issues. Throughout SafeNet KeySecure's lifecycle, Gemalto support is committed to ensuring customer satisfaction.

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SafeNet KeySecure Model Comparison

| SafeNet KeySecure / Virtual KeySecure | | | |
|--|-----------|-------------------------------|-------------------------------|
| Features | k460 | k250 | k150v |
| Max Keys | 1,000,000 | 25,000 | 25,000 |
| Max concurrent Clients per Cluster | 1,000,000 | 100 | 100 |
| FIPS 140-2 Support | L3 | L1 L3 with HSM integration | L1 L3 with HSM integration |
| HSM Integration* | Yes | Yes | Yes |
| Supports the SafeNet Data Protection Portfolio** | Yes | Yes | Yes |
| Redundant hot-swap HDs & Power | Yes | No | N/A |
| Gemalto Third-Party Integration Support | | | |
| Mainframe Encryption: PKWARE | | | |
| Big Data: Dataguisse, DataStax, Hadoop, MongoDB, MariaDB, SAP HANA, Cassandra, Couchbase, Hortonworks, Cloudera | | | |
| Analytics: IBM QRadar, HPE ArcSight, Splunk, RSA Security Analytics, Above Security | | | |
| Application Servers: IBM WebSphere, Oracle WebLogic, Microsoft IIS, Apache Tomcat, Red Hat JBoss | | | |
| Backup Solutions: Commvault Simpana, Symantec NetBackup (via NetApp), Dell EMC Data Domain, Mozy | | | |
| Cloud Storage: Amazon Web Services S3, DropBox, Google Cloud Storage, Google Drive, IBM ICDES, Panzura Storage Controller | | | |
| Hyperconvergence: Nutanix, NetApp Cloud ONTAP, NetApp AltaVault, Cisco UCS, Cisco HyperFlex, vSAN | | | |
| Cloud Access Security Brokers: CipherCloud, SkyHigh Networks, Perspecsys (Blue Coat), Hitachi Sepaton VTL, CSC ServiceMesh, Netskope Active Encryption, Vaultive Cloud Data Protection Platform, Elastica (Symantec CASB), Alfresco Open ECM | | | |
| Databases: MS SQL Server (EKM), Oracle (TDE), IBM DB2, Oracle MySQL, Oracle Database, Teradata | | | |
| File and Disk Encryption: PKWARE, IBM, Dell, AWS, Microsoft, LUKS, ViaSat | | | |
| Identity Management: Centrify Privilege Service, Lieberman Software | | | |
| Key Managers: Hadoop KMS, CloudEra Navigator Key Trustee Server, HashiCorp Vault | | | |
| Physical Storage: NetApp NSE, Dell EMC Unity, Dlm, Compellent SC and XC, VMAX, HPE MSL/ESL Tape Libraries, HPE 3Par StoreServ, HPE XP7, Hitachi, SP, Hitachi HUS, Hitachi RAID700, IBM XIV SED, Quantum, Scalar Series(i6000, i500 & i40/80), Viasat, Brocade FS8-18, Huawei Oceanstor, Tintri VMStore, NexentaStor 4.5 | | | |

*Supports key storage in hardware security modules (HSMs) such as Amazon Web Services CloudHSM in a subscription-based AWS environment, and SafeNet Luna HSM, a hardware appliance option that is deployed on-premises in a range of models and configurations.

**Remote encryption within the SafeNet Virtual KeySecure k150v and k450v appliance using the connectors (SafeNet ProtectApp, SafeNet ProtectDB, and SafeNet Tokenization) requires the purchase of SafeNet Crypto Pack. Local encryption, SafeNet ProtectV and SafeNet ProtectFile do not require SafeNet Crypto Pack feature activation.

Conclusion

Encrypting data in the storage environment is critical to ensuring that data is safe in the event of a security breach. Dell EMC and Gemalto combine to offer organizations the ability to secure data through encryption without making the management of the necessary encryption keys and policies unwieldy or difficult.

For more, visit: <https://safenet.gemalto.com/partners/dellemc/>


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