

# Nutanix and Gemalto—Providing Secure, High Assurance Encryption and Key Management

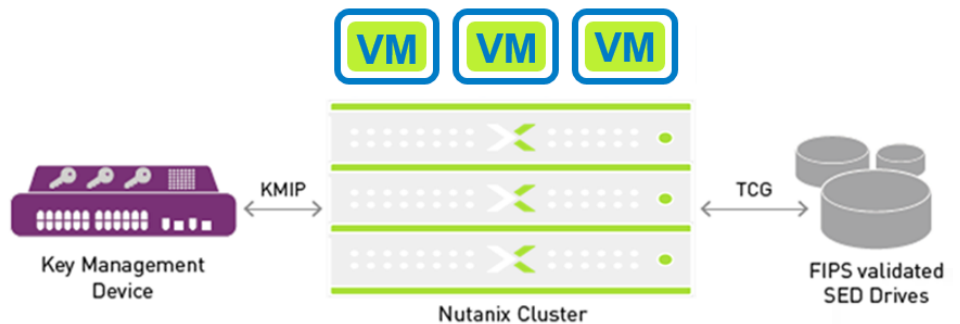
“According to the new Breach Level Index (BLI), •7,125,940 records are compromised every day”

With data breaches and regulatory demands placing increasing pressure on organizations to protect data from exposure, encryption must now be a fundamental part of any defense-in-depth strategy. Yet, according to the Breach Level Index,\* in 2017 only 1% of the 2.6 billion data records compromised in publicly disclosed data breaches was encrypted. Such plain exposure of critical information negatively impacts company brand reputation, customer confidence and share price, not to mention leaves an organization vulnerable to future attack (depending on the type of information accessed). Whether the goal is compliance or ensuring sensitive data is protected in the event of a breach (or both), the definition of a ‘good enough’ defense strategy is different for each organization. Influencing factors include company size, internal IT bench-marks, total relevant industry or government mandated compliance standards (e.g., HIPAA/DFAR/PCI-DSS or GDPR, respectively), and the increasing complexity of an IT infrastructure (e.g. Is it on premise, in the cloud, or hybrid? Does it include various types of operating systems, databases and endpoints?). Together, Nutanix and Gemalto provide a cost-effective and robust encryption and enterprise key management solution to help customers create the most appropriate security solution for their environment.

## INTEGRATION SOLUTION

The Nutanix Enterprise Cloud enables data security by encrypting user and application data to enable FIPS compliance. Gemalto’s SafeNet KeySecure integrates with Nutanix via the Key Management Interoperability Protocol (KMIP) to store encryption keys safely away from the data, and provides robust, enterprise-scale key management, ensuring that encryption keys are managed throughout their lifecycle and properly secured with FIPS 140-2 certified hardware, or hardened virtual appliance. Centralizing key management makes it easier for administrators to account for encryption keys and generate detailed records for auditors and regulators. The joint solution is a secure and efficient means, then, of protecting data, and helping meet data security compliance mandates such as FIPS 140-2, PCI DSS, HIPAA, and GDPR.

Together, Nutanix and Gemalto enable a FIPS-validated Data-at-Rest encryption solution using the SafeNet enterprise key manager combined with hardware or software-based encryption. SafeNet KeySecure integrates via the Key Management Interoperability Protocol (KMIP) to store encryption keys safely away from the data.



## **NUTANIX ENTERPRISE CLOUD**

Nutanix makes datacenter infrastructure and clouds invisible, elevating IT to focus on business applications and services. Its Enterprise Cloud OS software converges private, public and distributed clouds, bringing one-click simplicity and agility to infrastructure and application management. This enables IT to rapidly deliver against business needs at a favorable TCO, while retaining hardware and virtualization technology that best suit their skills.

### **KEY BENEFITS OF NUTANIX ENTERPRISE CLOUD**

- Leading Hyperconverged (HCI) platform – Eliminates storage silos, expensive virtualization technology, and dedicated management.
- Simplified and Consolidated Management
- Cloud-like agility and flexibility

## **GEMALTO'S SAFENET KEYSECURE**

SafeNet KeySecure is an encryption and key management appliance that centralizes the control of an enterprise's disparate encryption solutions. Security administration is streamlined by consolidating the policy and key management of application servers, databases, and file servers. 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 and simplifies the demonstration of compliance with data governance requirements.

Gemalto also offers SafeNet Virtual KeySecure, a virtual key manager that 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 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. 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.

### **KEY BENEFITS OF GEMALTO'S SAFENET KEYSECURE**

#### **Maximum Key Security**

SafeNet KeySecure is available in a FIPS 140-2 Level 1 algorithm-safe and Level 3 tamper-proof hardware appliance. Additionally, SafeNet KeySecure is available as a virtual hardware appliance supported by SafeNet Luna HSMs for hardware key storage.

#### **Separation of Duties**

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

#### **High-Availability Configurations**

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

### Centralized Key Management

SafeNet KeySecure provides customers with complete control by securing the keys needed to access the storage system, and improves compliance and auditability by centralizing and simplifying key management (e.g., escrow, recovery) for various storage platforms and KMIP-compatible encryption solutions.

### Ecosystem Support

Gemalto's support for a broad ecosystem of third-party KMIP compatible encryption solutions also reduces the amount of time, effort and investment administrators need to manage their enterprise's encryption deployment. Where there are more dispersed data repositories (as well as different security concerns within each line of business consuming these repositories), SafeNet KeySecure helps bring all this disparate effort under one umbrella from a policy management viewpoint. By including technology standards such as KMIP, SafeNet KeySecure helps provide a consistent interface to applications and appliances interfacing with the external key management system.

### Hardware or Virtual 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.

### 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

\*as published by Gemalto, <https://blog.gemalto.com/security/2018/04/13/data-breach-stats-for-2017-full-year-results-are-in/>



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