THALES

# Nutanix and Thales Deliver Effective Centralized Key Management Solution

The Problem: Lost, Stolen, or Compromised Data Directly Impacts Your Business

The truth is that for most enterprises today, data is the life of their business, and their most important and valuable asset. Data breaches can have devastating consequences. From loss of customer confidence and damaged reputation, to significant remediation and liability costs, compromised data can, and has put enterprises out of business. Maintaining the security of your data is therefore of utmost importance.

The Challenge: Enabling Robust Security without Affecting Operational Performance

Mechanisms designed to protect the confidentiality and integrity of sensitive data can rob valuable compute cycles to perform encryption and decryption. This can introduce high latencies, or degraded bandwidth and/or IOPS performance. Leveraging data at rest encryption from Nutanix can ensure no adverse impact to system performance. It is important to properly protect and manage the cryptographic keys that enable this process.

NUTANIX™

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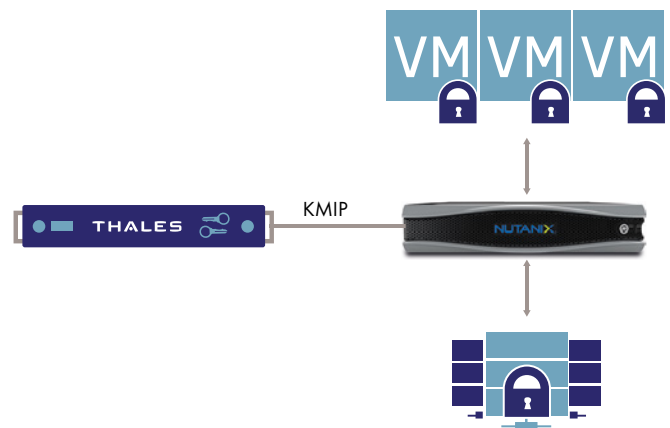
The Solution: Nutanix Enterprise Cloud OS Software and CipherTrust Manager From Thales

The Nutanix Enterprise Cloud OS software provides strong data protection by enabling the encryption of user and application data in compliance with FIPS 140-2 Standards. Data at rest can be encrypted through the use of self-encrypting drives (SED) or via native software-based encryption. When used with CipherTrust Manager, the combined solution provides FIPS certified robust key management and role separation designed to meet the most stringent security requirements. The non-disruptive encryption solution can provide regulated enterprises that need to protect their personally identifiable information (PII) and other sensitive data, with comprehensive, cost-effective data security.

Thales CipherTrust Manager uses certificates to authenticate Nutanix nodes for system level security. Nutanix software generates new encryption keys, which are then uploaded to the CipherTrust Manager appliance. In the event of a power cycle or host reboot, the Nutanix software retrieves the keys from the CipherTrust Manager appliance and uses them to unlock the encrypted volumes. To meet site-specific security policies, keys can be quickly reprogrammed. Additionally, administrators can use the Crypto Erase feature on Nutanix to instantly erase all data on the SED drives while generating a new symmetric encryption key. The security mechanisms are designed to enable compliance with data-at-rest encryption requirements set forth in HIPAA, PCI DSS and SOX standards.

Why Use CipherTrust Manager with Nutanix?

The CipherTrust Manager is a high-availability appliance that centralizes encryption key management for CipherTrust Data Security Products and third-party encryption solutions. The appliance manages key lifecycle tasks including generation, rotation, destruction, import and export.

The CipherTrust Manager additionally enhances key management by providing convenient back-up services and delivering strong separation of duties for increased security. The CipherTrust Manager can be separated into logical entities, or domains, dedicated to unique key management environments, providing additional security and ultimate separation of duties, where no single administrator has access to all domains.

The CipherTrust Manager is available as either a hardware or a virtual appliance. The k470 CM hardware appliance is certified to FIPS 140-2 Level 2 and the k570 CM hardware appliance is equipped with a hardware security module (HSM), is certified to FIPS 140-2 Level 3. The virtual appliance is certified to FIPS 140-2 Level 1.

Benefits of Thales CipherTrust Manager in Nutanix Hyperconverged Infrastructure (HCI)

- Maximized security. Thales CipherTrust Manager centralizes all key management activities, including key signing, role based administration, quorum control, and the backup and distribution of encryption keys enterprise-wide. For sensitive security operations, you can stipulate multiple credential authorization from multiple administrators.
- Resiliency and high availability. Multiple CipherTrust Manager appliances can be clustered for high availability with configuration information replicated
- Simplified Compliance. Save staff time while satisfying compliance mandates with efficient, centralized auditing of key management practices such as FIPS 140-2, PCI-DSS, HIPAA, GDPR.

About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

Nutanix

Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications.

Learn more at www.nutanix.com

> cpl.thalesgroup.com <

Contact us – For all office locations and contact information, please visit cpl.thalesgroup.com/contact-us