DATASHEET

Nutanix AOS Storage Integration with Entrust Cryptographic Security Platform

Solution enables high assurance lifecycle management of keys protecting data at rest, on premises, and across multi-cloud deployments

HIGHLIGHTS

- Centralized lifecycle management and visibility of encryption keys across hybrid and multi-cloud environments
- Policy-driven control and enforcement of key usage
- Integration with Nutanix AOS data-at-rest encryption (DARE)
- Support for open standards-based key management
- Optional nShield HSM integration for hardware-rooted trust

The Problem:

The widespread use of VM clusters processing sensitive information require data-at-rest security across on-premises and cloud-based deployments

As organizations expand virtualized AOS (Acropolis Operating System) environments and adopt multi-cloud strategies, they face a growing volume of cryptographic keys that must be managed securely.

The Challenge:

Managing increasing volumes of keys and keeping data at rest secured to help achieve compliance with regulatory mandates

While encryption of data at rest in virtualized environments is increasingly common, the protection of associated encryption keys often receives less attention. Lack of clear ownership, scalable management policies, and the shortage of skilled resources to manage key lifecycles undermine efforts to protect data at rest. A comprehensive approach to cryptographic key lifecycle management – incorporating automated policy enforcement – is essential to meet evolving regulatory and industry compliance requirements.

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The Solution:

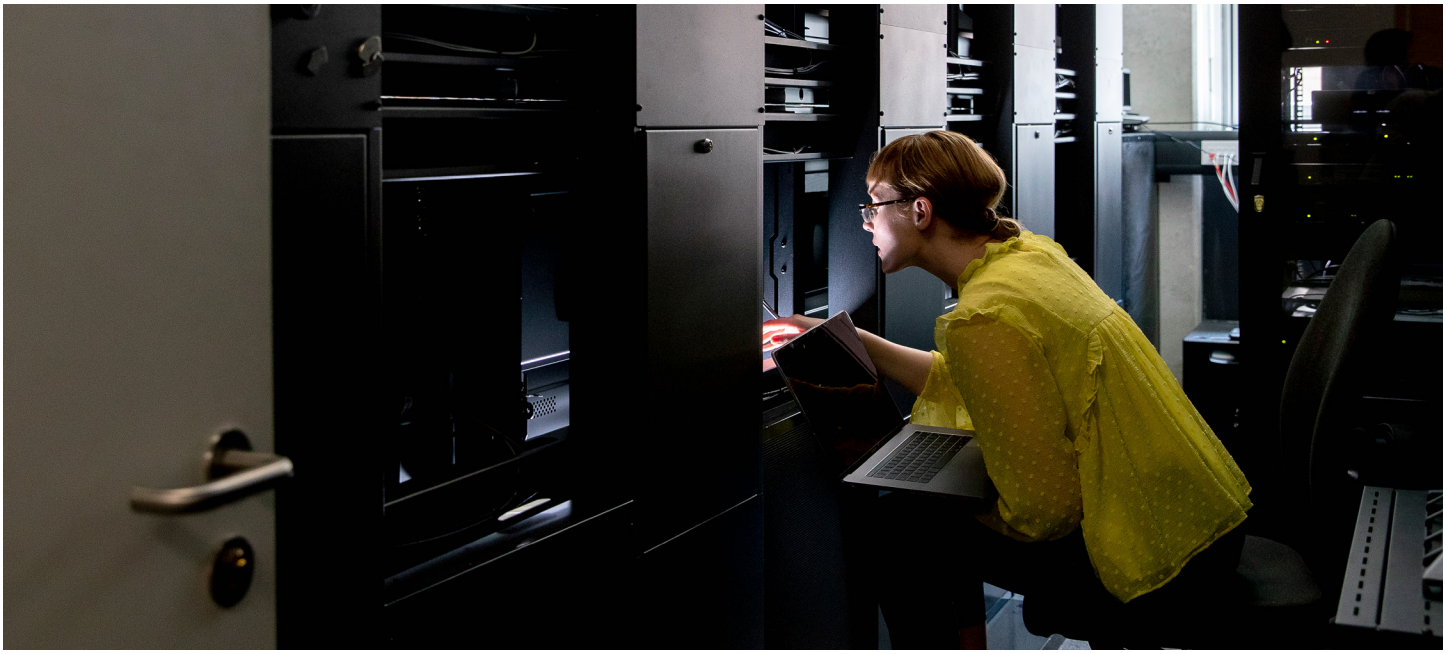
Nutanix AOS Storage integrates with Entrust CSP Key Manager to deliver centralized, policy-driven management of encryption keys protecting data at rest across VM clusters and multi-cloud environments

Nutanix AOS (Acropolis Operating System) Storage is a software-defined storage platform that underpins the Nutanix cloud infrastructure, delivering scalable, high-performance storage services across the entire cluster. It unifies compute and storage into a single distributed architecture, enabling efficient management of virtual machines and containerized workloads while supporting advanced capabilities such as data-at-rest encryption (DARE), policy-based automation, and seamless scalability.

VM clusters are typically deployed in a variety of customer environments requiring different levels of security, including sensitive classified environments. Nutanix AOS data-at-rest encryption for clusters protects data at rest and facilitates compliance with regulatory requirements.

CSP Key Manager centralizes encryption key lifecycle management, enforcing policies, controlling access, and enabling secure key distribution across environments. With optional integration of Entrust nShield HSMs, organizations establish a certified root of trust, ensuring keys are generated, stored, and protected within a tamper-resistant hardware boundary.

Nutanix AOS delivers data-at-rest encryption (DARE) across the entire cluster hosting virtual machines and containerized workloads. Encryption can be implemented using native software-based DARE or self-encrypting drives (SEDs), with all configuration and policy control managed centrally through the Prism interface, ensuring a consistent and unified operational model.



A Closer Look:

Why use Entrust CSP Key Manager with Nutanix Prism Central AOS?

The Entrust CSP Key Manager manages encryption keys across Nutanix cluster and can scale to support increasingly larger deployments. Integration of Entrust platform with Nutanix AOS Storage:

- Manages keys used to encrypt data at rest
- Enforces key use policies by separating security and administrative tasks

Why add Entrust nShield HSMs to the solution?

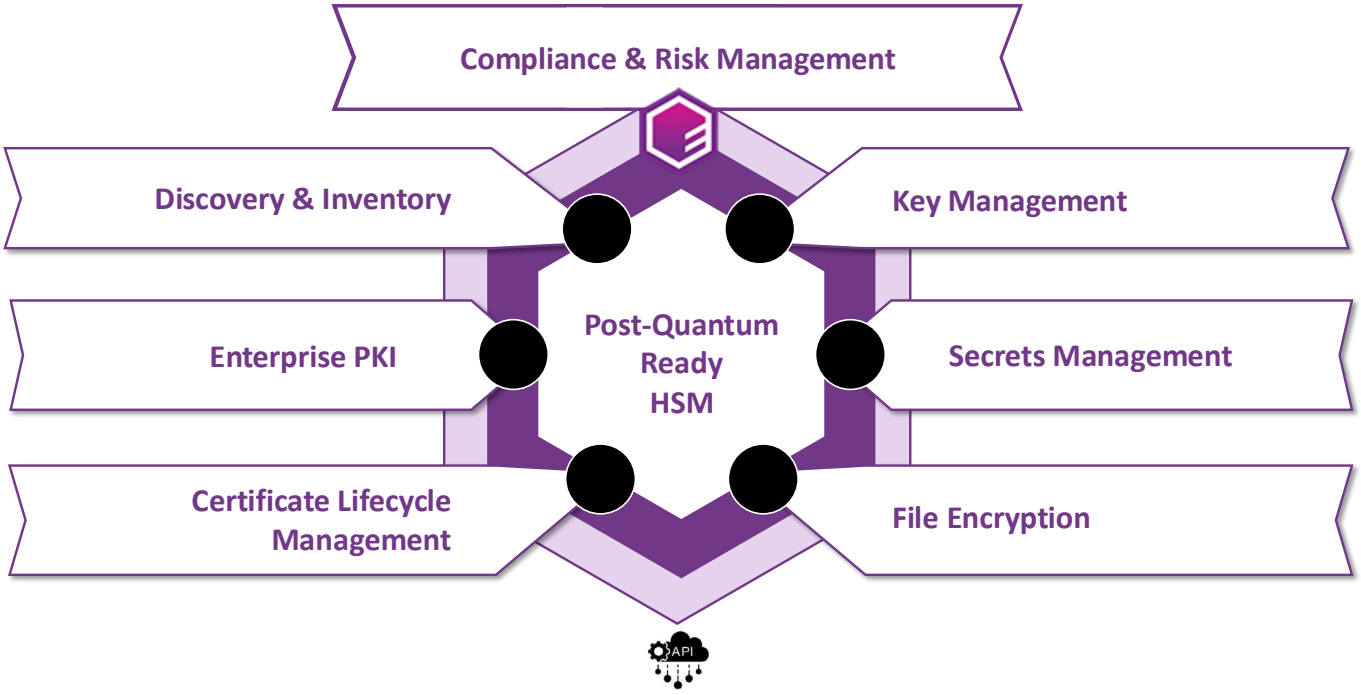
For enhanced security, the combined Nutanix/Entrust CSP Key Management Soluton can integrate with Entrust nShield HSMs to establish a FIPS 140-3 Level 3 and Common Criteria EAL4+ certified root of trust for critical certificates and encryption keys. The option to add a certified nShield HSM enables the combined solution to provide a hardened, tamper-resistant environment for robust certificate and key generation. Using HSMs elevates key protection to a hardware-rooted trust model, reducing exposure to software-based attacks and insider threats. Addition of nShield HSMs to the integrated solution:

- Provides tamper-resistant environment for the generation of high entropy cryptographic keys
- Enforces key use policies with dual controls to ensure no single individual can make changes
- Delivers certified root of trust to facilitate auditing and compliance with security regulations

The integration of Nutanix AOS Storage with Entrust CSP Key Manager and Entrust nShield HSMs ensures key availability by using sophisticated management, storage, and redundancy features to guarantee keys are always accessible to the application when needed.

Cryptographic Security Platform Overview

Entrust's Cryptographic Security Platform is an innovative solution that unifies cryptographic management by combining the rich capabilities to operate PKI, Certificate Lifecycle Management, Key and Secrets Management, and HSMs all from a single, cohesive system. This platform addresses the growing need for comprehensive cryptographic asset management in an increasingly complex digital landscape. By integrating these critical components, the Cryptographic Security Platform offers unparalleled security, compliance, and operational efficiency for organizations dealing with securing an increasing number of machine identities, protecting sensitive data and navigating complex cryptographic requirements.



About Nutanix

Nutanix empowers enterprise customers to use cloud platforms in a simple, flexible, and cost-efficient manner, offering freedom of choice to enable true hybrid and multicloud computing. Nutanix delivers the performance, resilience, and scalability to power all workloads – virtualized, container-based, and bare metal – in customers' clouds of choice. Learn more at nutanix.com

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