

# VMware and Thales Deliver Secure Hyper-Converged Infrastructure Solutions



## The Problem: With growing numbers of digital transformation initiatives, the security of data center infrastructures is increasingly important

As demands on enterprise data centers continue to increase with more digital initiatives being pursued by businesses, hyper-converged infrastructure (HCI) has emerged as a simple, cost-effective solution. However, as these amass large volumes of data across distributed resources, security compliance becomes a critical factor when protecting data at rest in a hyper-converged infrastructure.

## The Challenge: Managing large volumes of cryptographic keys without impacting the performance of the storage infrastructure

Protecting data stored in an encrypted HCI solution requires the management of the keys that lock and unlock the secure data. To ensure seamless operation, standards such as the Key Management Interoperability Protocol (KMIP) facilitate the interface between storage clusters and key managers. Providing a transparent mechanism that protects and manages keys is essential as systems grow and become more demanding of the key manager.

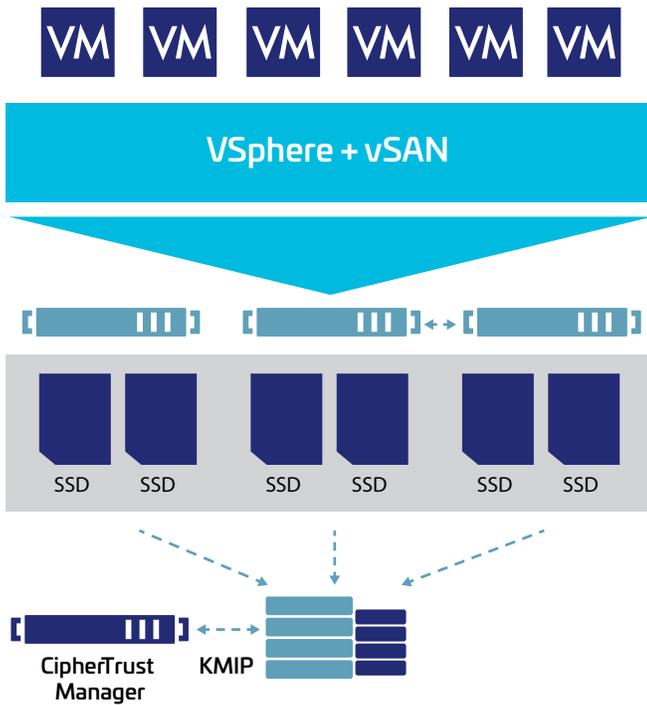
## The Solution: VMware vSan® and Thales CipherTrust Manager

VMware vSAN, is an industry-leading flash-optimized secure storage platform that helps customers evolve to hyper-converged infrastructure (HCI). By pooling together server-attached storage, it provides a highly resilient and encrypted shared datastore suitable for any virtualized workload, including business-critical applications. vSAN lowers IT costs and provides an agile solution ready for future hardware, hybrid cloud offerings, and next-generation applications.

Delivering the industry's first native HCI encryption solution, vSAN can leverage the CipherTrust Manager from Thales to provide the full range of protection for key management and role separation. The combined solution delivers non-disruptive encryption to ensure the security of data at rest in storage clusters. The combination provides a cost-effective and comprehensive solution that meets the most stringent security requirements. The use of software-based data encryption provides the flexibility to be deployed with any supported storage device and a wide range of servers.

The use of VMware vSAN with CipherTrust Manager enables a flexible key management root of trust to match the customer risk profile – from the virtualized infrastructure to a FIPS 140-2 Level 3 physical protected boundary.

CipherTrust Manager is available for sale to the U.S. Federal Government exclusively through Thales Trusted Cyber Technologies.



## VMware

VMware, a global leader in cloud infrastructure and business mobility, helps customers accelerate their digital transformation. VMware enables enterprises to master a software-defined approach to business and IT with VMware Cross-Cloud Architecture™ and solutions for the data center, mobility, and security.

## About Thales Trusted Cyber Technologies

Thales Trusted Cyber Technologies, a business area of Thales Defense & Security, Inc., is a trusted, U.S. provider of cybersecurity solutions dedicated to U.S. Government. We protect the government's most vital data from the core to the cloud to the edge with a unified approach to data protection. Our solutions reduce the risks associated with the most critical attack vectors and address the government's most stringent encryption, key management, and access control requirements.

For more information, visit [www.thalestct.com](http://www.thalestct.com)

## Why use Thales CipherTrust Manager

CipherTrust Manager strengthens and simplifies security by streamlining the management of associated encryption keys. Security keys can be instantly reprogrammed to meet site-specific security policies. Security mechanisms enable compliance with data-at-rest encryption requirements set forth in HIPAA, PCI DSS and SOX standards among others.

The security platform:

- Provides a single, centralized management plane for cryptographic keys and applications
- Offers high availability and standards-based enterprise encryption key management using KMIP
- Centralizes third-party encryption keys and securely stores certificates
- Enables vaulting and an inventory of certificates
- Implements a two-factor authentication mechanism to further safeguard keys and certificates against theft

The consolidation of enterprise encryption key management delivers consistent policy implementation between systems and reduces training and maintenance costs.