



SOLUTION BROCHURE

Entrust KeyControl for VMware Data Encryption

Secure and easy key management for VM and
vSAN encryption



ENTRUST

SECURING A WORLD IN MOTION

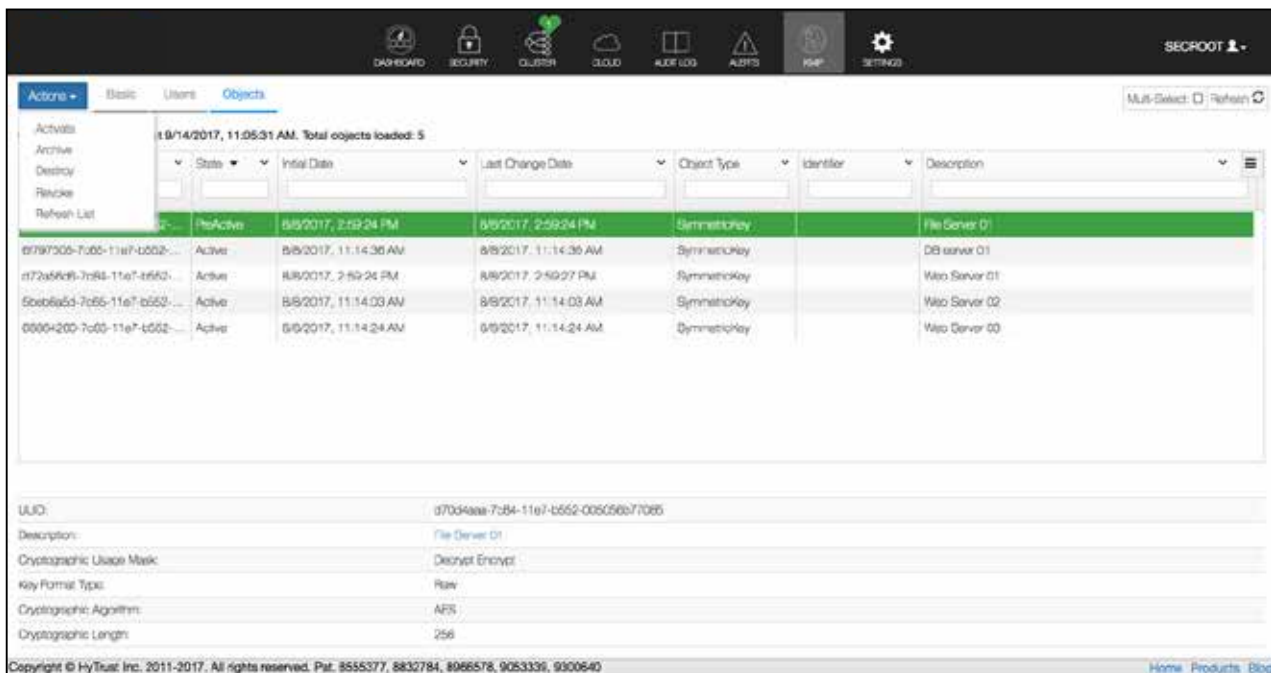
Key management for vSphere and vSAN encryption

Entrust KeyControl streamlines the adoption of VMware vSphere® and vSAN™ encryption through easy and secure key management services. Entrust KeyControl has been designed for enterprise-grade performance.

A pre-integrated, always-on key management server (KMS)

Entrust KeyControl delivers encryption keys as a KMIP server to the requesting VMware KMIP client. Because keys can be issued, revoked, and re-issued – sometimes frequently – the architecture has been built to withstand the demands of enterprise deployments.

- Easy and pre-integrated KMS for vSphere and vSAN
- GUI Admin for easy logging and monitoring
- Built-in, automatic, active-active clustering ensuring always-on KMS to address high availability and disaster recovery use cases



KeyControl

Our KeyControl KMIP solution is fully compatible with VMware, ensuring a smooth experience for customers. Entrust KeyControl delivers encryption keys as a KMIP server to the requesting vCenter KMIP client – delivered as an OVA that installs fast and is quickly configured in VMware vCenter®.

KeyControl includes:

- VMware-approved key management services
- FIPS 140-2 Level 1 validation
- Security hardened software appliance (delivered as an OVA)
- Built-in active-active clustering for DR and HA
- Admin GUI with RESTful APIs for DevOps integration
- Upgradeable to support a wider range of use cases

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...combined with this new [Entrust] offering of key management and VMware's encryption, together... will make life so much easier for IT while meeting all of the security requirements.

MIKE FOLEY, SENIOR TECH MARKETING ARCHITECT VSPHERE
SECURITY, VMWARE



VMware-ready for enterprise deployment

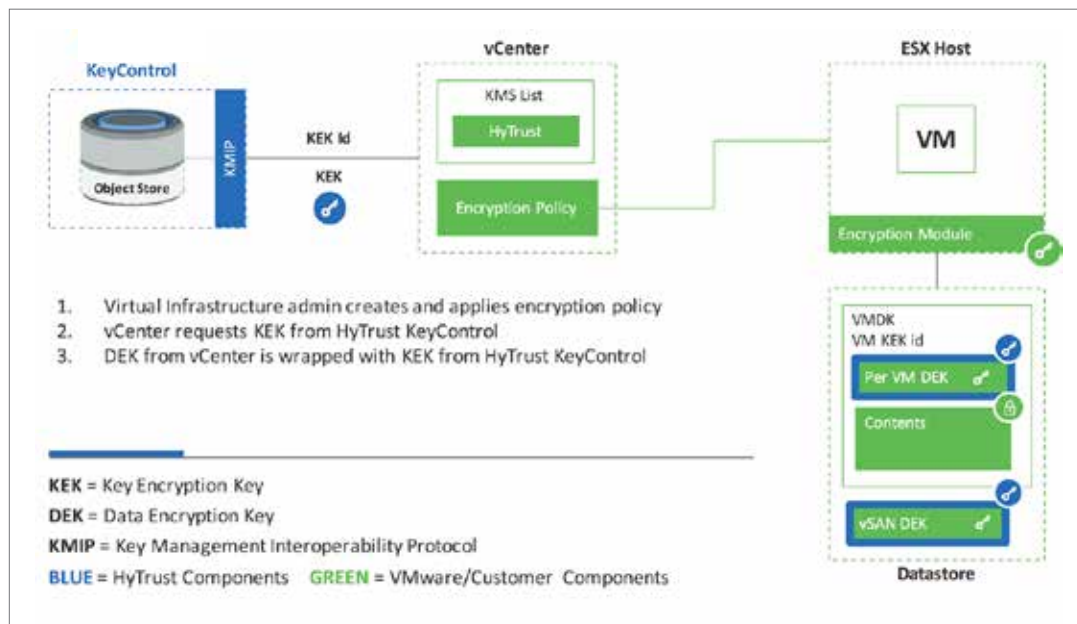
Entrust KeyControl provides a proven and tested model for large-scale key management with the ease of a GUI administrative interface and the flexibility of a RESTful-based API.

How it works

The Entrust KeyControl software is delivered as an OVA, so it is fast and easy to install and connect to vCenter as a KMS.

1. The ESXi™ host (managed by vCenter) generates and uses an internal key (see diagram below), called the data encryption key (DEK), to encrypt virtual machines and disks.
2. The vCenter server then requests a key from Entrust KeyControl. This key, known as the key encryption key (KEK), is then used to encrypt the DEK.
3. The encrypted DEK and KEK IDs are stored in the disk image metadata.
4. When a VM boots up on a ESXi host, or when the vSAN datastore is brought online, that ESXi host will read the KEK ID, and request the vCenter server for the KEK corresponding to that KEK id.
5. vCenter issues a request to Entrust KeyControl for the KEK corresponding to the KEK ID, and delivers the KEK to the ESXi host.
6. The ESXi host then uses the KEK to decrypt the DEK, and then uses the DEK for encryption and decryption.

Architecture View



About VMware

VMware®, a global leader in cloud infrastructure and digital workspace technology, accelerates digital transformation by enabling unprecedented freedom and flexibility in how our customers build and evolve IT environments.

Entrust aims to make private, public, and hybrid cloud infrastructure more trustworthy for enterprises, service providers, and government agencies.

Regulatory compliance: VMware customers can quickly meet regulatory compliance requirements that require encryption.

Brand protection: VMware customers can be assured of mitigation of data breaches leading to brand damage.

Easy operations: VMware administrators can quickly meet security and compliance requirements without operational overhead.



To learn more about Entrust KeyControl, visit [entrust.com](https://www.entrust.com)

[Learn more](#)



ABOUT ENTRUST

Entrust is an innovative leader in identity-centric security solutions, providing an integrated platform of scalable, AI-enabled security offerings. We enable organizations to safeguard their operations, evolve without compromise, and protect their interactions in an interconnected world – so they can transform their businesses with confidence. Entrust supports customers in 150+ countries and works with a global partner network. We are trusted by the world's most trusted organizations.