HYTRUST KEYCONTROL FOR VMWARE DATA ENCRYPTION

Secure and Easy Key Management for VM and vSAN Encryption

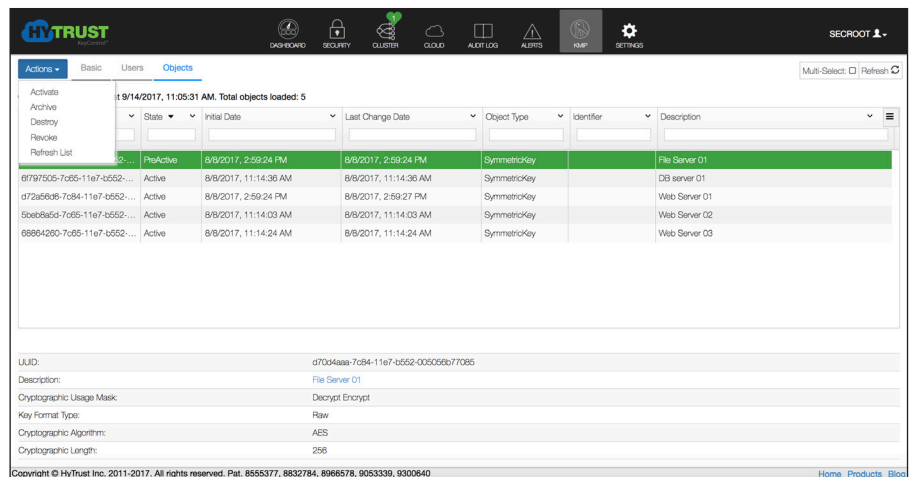### Key Management for vSphere and vSAN Encryption

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

A Pre-Integrated, Always-On KMS

HyTrust 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 of HyTrust KeyControl 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

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"…combined with this new [HyTrust] 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
SR TECH MARKETING ARCHITECT
VSPHERE SECURITY, VMWARE

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.

HYTRUST KEYCONTROL

HyTrust is the only VMware-certified KMIP vendor that VMware has invested in—ensuring a smooth customer experience. HyTrust 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®.

HYTRUST 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

HYTRUST

HyTrust's mission is 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.

See HyTrust Solutions in the VMware Solution Exchange

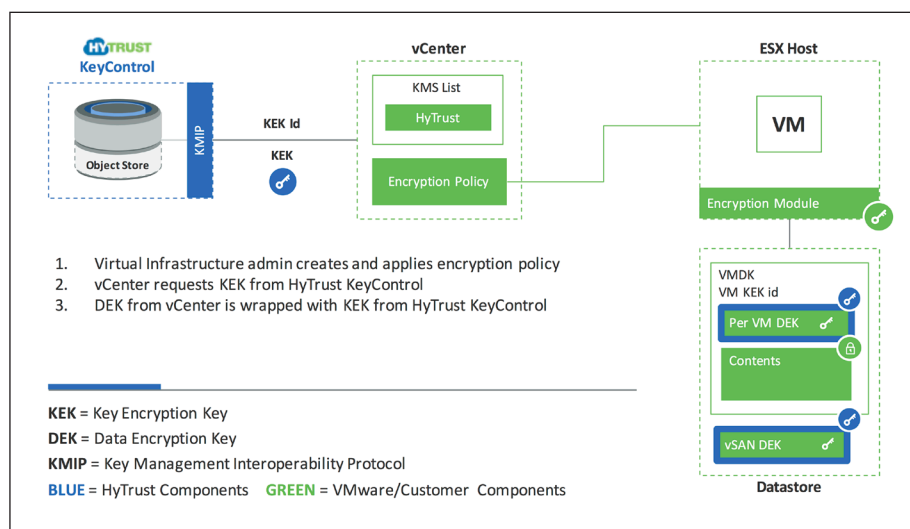https://solutionexchange.vmware.com/store/companies/hytrust-inc

VMware Ready for Enterprise Deployment

HyTrust KeyControl has been certified by VMware and is the only solution to provide 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 HyTrust KeyControl software is delivered as an OVA – so it is fast and easy to install and connect to vCenter as a KMS (key management server).

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 HyTrust KeyControl. This key, known as the key encryption key (KEK), is then used to encrypt the DEK.
3. The encrypted DEK and KEK id 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 HyTrust KeyControl for the KEK corresponding to the KEK id and deliver the KEK to the ESXi host.
6. The ESXi host then uses the KEK to decrypt the DEK and then use DEK for encryption and decryption.

Architecture View

1. Virtual Infrastructure admin creates and applies encryption policy
2. vCenter requests KEK from HyTrust KeyControl
3. DEK from vCenter is wrapped with KEK from HyTrust KeyControl

KEK = Key Encryption Key
DEK = Data Encryption Key
KMIP = Key Management Interoperability Protocol
BLUE = HyTrust Components **GREEN** = VMware/Customer Components

Learn More

To learn how to accelerate vSphere 6.5 VM encryption with HyTrust KeyControl, visit https://www.hytrust.com/products/keycontrol/