

# Alliance Key Manager for vSphere Encryption

## Solution Brief



## Protect VM Images and vSAN with Key Management

Customers large and small have invested in VMware infrastructure to achieve high levels of efficiency, security, and manageability. With the release of vSphere version 6.5, VMware customers can now implement encryption of virtual machine images and virtual disk. Alliance Key Manager is now certified for encryption key management for vSphere and vSAN, and is in use by over 3,000 customers worldwide. Alliance Key Manager for VMware enables enterprises to lower operational costs, meet compliance regulations, and accelerate deployment of mission critical security through a virtualized encryption key manager.



### VMware Technology Alliance Partner

Townsend Security is a VMware Technology Alliance Partner (TAP) and Alliance Key Manager for VMware has achieved VMware Ready status. This designation indicates that after a detailed validation process Alliance Key Manager for VMware has achieved VMware's highest level of endorsement.



### Cost-Effective

Affordable key management solution for any size organization. Leverages current investment in encryption technologies via vendor-neutral solution.

### Compliant

Validated for PCI DSS by Coalfire, a PCI-qualified QSA assessor and independent IT and audit firm.

### Compatible

For use with VMware vSphere version 6.5 or later, and with vSAN version 6.6 and later. OASIS KMIP compliant for VMware.

OASIS KMIP (Key Management Interoperability Protocol) compliant.

### Easy to Use

Ready-to-use client software speeds deployment and reduces IT costs.

### Secure Administration

Protects against key loss through secure and authenticated administration.

### Partner Friendly

Extensive partner program insures successful and compliant results for your end customers.

[www.townsendsecurity.com](http://www.townsendsecurity.com)

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## Alliance Key Manager for vSphere

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Alliance Key Manager supports the required KMIP key management interface to work with vSphere and vSAN encryption. VMware customers can now use Alliance Key Manager to encrypt VMware virtual machines through the vSphere KMS Cluster interface. This provides an additional layer of security to VMware customers with full integration with your vSphere management portal. Support for vSphere encryption of virtual images and virtual disk complements the key manager support for encryption of VMware applications including SQL Server TDE, MongoDB and others. Customers can use the same Alliance Key Manager for VMware instance to protect all of their VMware digital assets.

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## Alliance Key Manager for Applications

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For applications running in VMware, Alliance Key Manager generates symmetric encryption keys for all AES key sizes including 128-bit, 192-bit, and 256-bit encryption keys, and for all RSA key sizes including 1024, 2048, 3072, and 4096 bit keys. Encryption keys are generated using a cryptographically secure pseudo-random number generator (CSPRNG), and are stored in a secure database. All encryption keys are protected by two layers of encryption as well as SHA-256 hash verification to prevent key corruption and key substitution.

Encryption keys can be either expiring or non-expiring to enforce key use policies as defined by the security administrator. Additionally, encryption keys can be created in advance of use and only available at a pre-determined future date. Encryption key management is restricted to the security administrator to enforce Separation of Duties, and all key management activity is logged to the system log audit trail. Any application running in the VMware infrastructure can request encryption keys through a secure and authenticated TLS interface.

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## Alliance Key Manager in AWS and vCloud

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As enterprises adopt Public and Private clouds, they bring their sensitive data with them – customer names, email addresses and other personally identifiable information (PII). While compliance regulations require protecting this

information, encrypting this data has been a challenge for organizations that want the flexibility and security of a native VMware solution. By deploying Alliance Key Manager for VMware as an AWS VMware or vCloud instance, customers can achieve their security and efficiency goals in a cloud environment.

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## On-Device Encryption Service

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Alliance Key Manager supports a NIST-compliant on-device encryption service so that encryption keys never have to leave the device. This is an attractive option for Internet-facing web applications that process sensitive data. When there is more risk of exposure of encryption keys, you can use on-device encryption which never exposes encryption keys in the user application environment.

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## Simplified Central Administration

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An intuitive GUI application allows Security Administrators to easily create and manage encryption keys and access policies on Alliance Key Manager for VMware. All access to security administration is authenticated using SSL/TLS client and server authentication, enabling multiple security administrators to log in and meet compliance regulations for dual control.

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## User and Group Control for Key Access

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Security administrators can enforce user and group level controls over access to encryption keys. Encryption keys can be restricted to a specific list of users, a specific list of groups, or specific users within a group. Alliance Key Manager uses the distinguished name in certificates to enforce user and group controls which reduces administrative time and cost.

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## Sample Code and SDKs

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Binary key retrieval and encryption libraries are provided for all major operating systems to enable rapid deployment of encryption key retrieval or on-device encryption applications. Sample source code is also provided for Java, .NET (C#), PHP, Perl, RPG, COBOL and more.

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## Client Side Applications

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Available at no extra charge, Townsend Security includes ready-to-use security applications for Microsoft SQL Server Transparent Data Encryption (TDE) and Cell Level Encryption, Drupal, and other applications. There are never extra fees for deploying client-side applications.

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## Supported Versions of vSphere

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Alliance Key Manager for VMware supports:

- VMware ESX
- vSphere 6.5 or later
- vSAN 6.6 or later

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## Townsend Security

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Townsend Security creates data privacy solutions that help organizations meet evolving compliance requirements and mitigate the risk of data breaches and cyber-attacks. Companies worldwide trust Townsend Security's NIST and FIPS 140-2 compliant solutions to meet the encryption and key management requirements in PCI DSS, GDPR, HIPAA/HITECH, FISMA, GLBA/FFIEC, SOX, and other regulatory compliance requirements. The company can be reached at [www.townsendsecurity.com](http://www.townsendsecurity.com) or (800) 357-1019.