

CipherTrust Cloud Key Manager



Many infrastructure-, platform-, and software-as-a-service providers offer data-at-rest encryption capabilities with encryption keys managed by the service provider. Meanwhile, many industry or internal data protection mandates, as well as industry best practices as defined by the Cloud Security Alliance, require that keys be stored and managed remote from the cloud service provider and the associated encryption operations. Providers can fulfill these requirements by offering "Bring Your Own Key" (BYOK) services to enable customer control of the keys used to encrypt their data. Customer key control allows for the separation, creation, ownership and control, including revocation, of encryption keys or tenant secrets used to create them.

Leveraging cloud provider BYOK API's, the CipherTrust Cloud Key Manager reduces key management complexity and operational costs by giving customers lifecycle control of encryption keys with centralized management and visibility. The solution can be deployed almost instantly using CipherTrust Cloud Key Manager as a service or can be deployed on-premises to meet more stringent compliance requirements.

Take control of your cloud encryption keys

- Leverage the value of "Bring Your Own Key" services with full-lifecycle cloud encryption key management
- Comply with the most stringent data protection mandates with up to FIPS 140-2 Level 3 validated key origination and storage
- Gain higher IT efficiency with centralized key management across multiple cloud environments
- Freedom to choose as-a-service or on-premises deployment

CipherTrust Cloud Key Manager

Enhanced Security	IT Efficiency
<ul style="list-style-type: none"> • Key control • FIPS 140-2 assurance • Visibility for compliance 	<ul style="list-style-type: none"> • Key lifecycle management • Automated key rotation • Single pane of glass

Multi-Cloud *Bring Your Own Key* Management

The key control imperative

The requirement to protect sensitive data across Infrastructure-, Platform-, and Software-as-a-Service (IaaS, PaaS, and SaaS) has resulted in broader cloud provider encryption offerings. Meanwhile the Cloud Security Alliance and industry analysts state that encryption keys should be held by customers. The challenges of holding keys grow with up to hundreds of master keys per subscription to be secured and managed across multiple clouds. There is also the imperative of knowing how, when, and by whom encryption keys are used. The CipherTrust Cloud Key Manager provides comprehensive key lifecycle management to fulfill requirements for safe, comprehensive key management across multiple clouds.

Supported clouds include:

- Microsoft Azure
- Microsoft Office365
- Microsoft Azure Stack
- Microsoft Azure China and Germany National Clouds
- Amazon Web Services
- Salesforce.com

Strong encryption key security

Customer key control presents requirements for secure key generation and storage. CipherTrust Cloud Key Manager leverages the security of the [Vormetric Data Security Manager](#) or supported hardware security modules (HSMs) to create keys and store them with FIPS 140-2 security. With the requirement for key security mechanisms such as safe storage of cloud backup keys, CipherTrust Cloud Key Manager acts as a key escrow for supported clouds and allows for full key metadata control both during upload and for keys in use.

Enhanced IT efficiency

CipherTrust Cloud Key Manager offers multiple capabilities in support of enhanced IT efficiency:

- Centralized Key Management gives you access to each cloud provider from a single browser window, including across multiple accounts or subscriptions
- Automated key rotation offers IT efficiency and enhanced data security
- Federated login provides a simple mechanism for granting access to key data. Cloud service logins are authenticated and authorized by the service provider – no login database nor AD or LDAP configuration is required
- For workloads that require it, CipherTrust Cloud Key Manager can request creation of *native* cloud provider keys and provide full lifecycle management for them

- With varying key technologies and terminology, CipherTrust Cloud Key Manager presents key operations in the semantics of the cloud provider
- Already created thousands of keys at your cloud provider? CipherTrust Cloud Key Manager will synchronize its database with keys created at the cloud provider

The compliance tools you need

CipherTrust Cloud Key Manager cloud-specific logs and prepackaged reports offer fast compliance reporting. Logs may also be directed to a syslog server or SIEM.

Software as a service

CipherTrust Cloud Key Manager as a service combines the simplicity of a cloud-based solution with the control required for both internal and industry compliance mandates. As-a-Service eliminates the need to architect, deploy and maintain a high-availability cloud key management solution on-premises, with FIPS 140-2 Level 1-certified key generation and storage.

On-premises deployment options

CipherTrust Cloud Key Manager is also available in form factors appropriate for a range of on-premise deployment options with up to FIPS 140-2 Level 3 key security. Virtual appliances are available in the Azure Marketplace and for Amazon Web Services and VMware.

Multi-cloud data security solutions

CipherTrust Cloud Key Manager simplifies the need to hold and manage encryption keys for cloud services, a critical solution for fulfilling industry and organizational data protection mandates. Additional Thales eSecurity multi-cloud security products, including [Bring Your Own Advanced Encryption](#), all with centralized, FIPS-validated key management, enable you to encrypt and control cloud storage to reduce the chance of your sensitive data being leaked.

About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing amount of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

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