

# CipherTrust Cloud Key Manager

## Cloud Encryption Key Lifecycle Management



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.

### Take control of your cloud encryption keys

- Leverage the value of "Bring Your Own Key" services with full-lifecycle cloud encryption key management
- Gain higher IT efficiency with centralized key management across multiple cloud environments, automated key rotation and key expiration management
- Comply with the most stringent data protection mandates with secure key origination

The diagram illustrates the integration of CipherTrust Cloud Key Manager with various cloud providers. The top section, on a light blue background, lists the following providers: Azure, Office 365, Google Cloud, Google Workspace, salesforce, aws, and IBM Cloud. Below these, two white silhouette icons of people are shown. The bottom section, on a grey background, features the CipherTrust Cloud Key Manager logo (a cloud with a key and a circular arrow) and the text "CipherTrust Cloud Key Manager". Below this, four bullet points describe its benefits: Security Team Efficiency, Secure Key Sources, Encryption Key Control, and Compliance & Reporting.

**Azure**      **Office 365**

**Google Cloud**      **Google Workspace**

**salesforce**      **aws**

**IBM Cloud**

**CipherTrust Cloud Key Manager**

- Security Team Efficiency
- Encryption Key Control
- Secure Key Sources
- Compliance & Reporting

## 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 cloud encryption keys should be managed 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. 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 Azure Stack
- Microsoft Azure GovCloud
- Microsoft Azure China
- Microsoft Azure Germany
- Google Cloud Platform
- Google Workspace
- Client-side encryption
- Amazon Web Services (AWS)
- AWS GovCloud
- AWS China
- IBM Cloud
- Salesforce.com
- Salesforce GovCloud Plus
- Salesforce Sandbox

## Enhanced IT efficiency

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

- Centralized cloud key management provides access to each cloud provider from a single browser window, including across multiple accounts or subscriptions
- Unique in the industry, full management of native cloud keys enables multicloud key management even without BYOK
- Automated synchronization ensures that cloud console-specific key operations are reflected in centralized key management
- Automated key rotation including support for expiring keys can ensure compliance while saving up to thousands of valuable hours per year
- With cloud providers using varying key technologies and terminology, CipherTrust Cloud Key Manager presents key operations in the semantics of the cloud provider, saving time and training

## Strong encryption key security

Customer key control presents requirements for secure key generation and storage. CipherTrust Cloud Key Manager leverages the security of the [CipherTrust Manager](#), [Luna Network HSM](#), or the [Vormetric Data Security Manager](#) to create keys with up to FIPS 140-2 Level 3 security. Key source compatibility with clouds and cloud keys varies. Please see the CipherTrust Data Security Platform Data Sheet for details.

## The compliance tools you need

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

## Automation tools for your automation

CipherTrust Cloud Key Manager capabilities are available programmatically using RESTful APIs, enabling the power of centralized cloud encryption management to work with your automation and self-service initiatives. Using the product's graphical user interface provides a foundation for using the APIs.

## Flexible deployment options

CipherTrust Cloud Key Manager is available in multiple form factors to meet any organization's needs. Both CipherTrust Cloud Key Manager and its key sources are available in all-software, cloud-friendly offerings and may be found in several cloud provider marketplaces for fast instantiation. Further, deployment in any cloud is wholly separated from cloud provider access, and, keys can be managed in the cloud in which the solution is deployed as well as any other reachable, supported cloud. For example:

- A key source may be on-premises for compliance
- A CipherTrust Cloud Key Manager instance may be deployed in Amazon Web Services or any other cloud supported for deployment
- From where it is deployed it can manage keys in AWS, Salesforce or Azure or other supported clouds

Many other deployment architectures are available.

## 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 multi-cloud security products, including [Bring Your Own Advanced Encryption](#), all with centralized 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 number 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.