

CipherTrust Transparent Encryption



Challenge: securing sensitive data across changing environments and increasing threats

Safeguarding sensitive data requires much more than just securing a data center's on-premises databases and files. The typical enterprise today uses three or more IaaS or PaaS providers, along with fifty or more SaaS applications, big data environments, container technologies, and their own internal virtual environments and private clouds.

To further complicate the problem, cyber-attacks have grown in sophistication and power. New compliance and regulatory mandates around protection of sensitive information keep on coming, and existing regulations have become more stringent.

Solution: CipherTrust Transparent Encryption

CipherTrust Transparent Encryption delivers data-at-rest encryption with centralized key management, privileged user access control, and detailed data access audit logging that helps organizations meet compliance and best practice requirements for protecting data, wherever it resides. The FIPS 140-2 compliant CipherTrust Transparent Encryption agent resides at the operating file-system or device layer, and encryption and decryption is transparent to all applications that run above it. CipherTrust Transparent Encryption provides rich access controls, which allow organizations to determine who can access data, when they can access it, and what type of access they have.

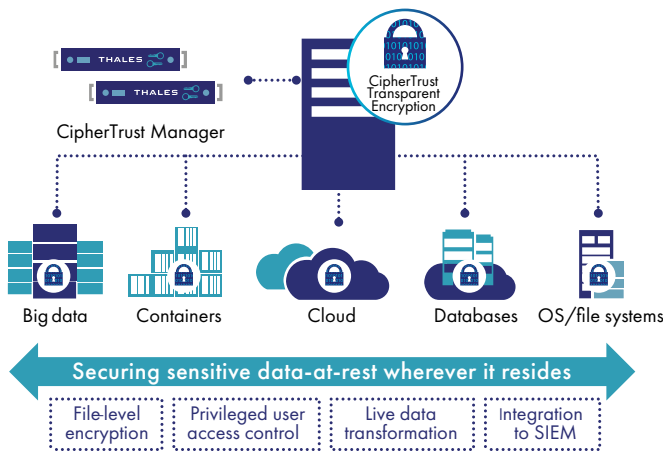
CipherTrust Transparent Encryption is available for sale to the U.S. Federal Government exclusively through Thales Trusted Cyber Technologies.

Securing sensitive data-at-rest wherever it resides

- Meet compliance and best practice requirements for encryption, access control, and data access logging using a proven hardware accelerated encryption solution, that secures files, volumes and linked cloud storage while enabling access control and data access audit logging in physical, virtual, and cloud environments.
- Deployment is simple, scalable and fast with centralized key management, encryption, and access policies that reach across multiple clouds, on-premises, and within big data, and container environments.
- Easily implement privileged user access controls to enable administrators to work as usual but protect against users and groups that are potential threats to data.
- Leverage detailed, actionable security event logs that provide unprecedented insight into file access activities to identify and stop threats faster.
- Broadest platform support in the industry. Protects structured and unstructured data accessed by Linux, AIX and Windows systems, as well as transparent encryption and access control for data residing in S3 buckets.

- Eliminate the downtime required for initial encryption and re-keying operations by adding the Live Data Transformation option. There is no other data encryption solution that offers this unique capability.

CipherTrust Transparent Encryption



Key advantages

Transparent data protection. Continuously enforces file-level encryption that protects against unauthorized access by users and processes and creates detailed data access audit logs of all activities without requiring changes to applications, infrastructure, systems management tasks, or business practices.

Seamless and easy to deploy. CipherTrust Transparent Encryption agents are deployed on servers at the file system or volume-level and support both local disks as well as cloud storage environments, such as Amazon S3 and Azure Files.

Define granular access controls. Apply granular, least-privileged user access policies that protect data from external attacks and misuse by privileged users. Specific policies can be applied by users and groups from systems, LDAP/Active Directory, Hadoop and containers. Controls also include access by process, file type, and other parameters.

High-performance hardware accelerated encryption. CipherTrust Transparent Encryption only employs strong, standard-based encryption protocols, such as the Advanced Encryption Standard (AES) for data encryption and Elliptic Curve Cryptography (ECC) for key exchange. Encryption overhead is minimized using the AES hardware encryption capabilities available in modern CPUs.

Comprehensive security intelligence. Identify and stop threats faster with detailed data access audit logs that not only satisfy compliance requirements, but also enable data security analytics.

In addition, security intelligence logs and reports streamline compliance reporting and speed up threat detection using leading security information and event management (SIEM) systems.

Broadest system and environment support. The agent is available for a broad selection of Windows, Linux, and AIX platforms, and can be used in physical, virtual, cloud, container, and big data environments, regardless of the underlying storage technology.

Advanced security

Zero-downtime data transformation. Live Data Transformation option eliminates the downtime required for initial encryption and scheduled rekeying operations. This patented technology allows for databases or files to be encrypted or re-keyed with a new encryption key while the data is in use without taking applications off-line.

Advanced access controls for big data (Hadoop). When implemented in Hadoop environments, access controls are extended to Hadoop users and groups.

SAP HANA qualified. SAP has qualified CipherTrust Transparent Encryption with HANA v2.0 to deliver data encryption, key management, privileged user access control, and granular file access audit logs.

CipherTrust Transparent Encryption UserSpace. Provides scalable and robust file encryption solution based on Linux FUSE that is not affected by kernel upgrades on Linux servers.

Solution architecture

Deployments consist of CipherTrust Transparent Encryption agents and CipherTrust Manager appliances. Policy and key management is centralized at the CipherTrust Manager. The CipherTrust Manager is available as a FIPS 140-2 level 1, 2 or 3 compliant appliance.

CipherTrust Data Security Platform

CipherTrust Transparent Encryption is part of the CipherTrust Data Security Platform. The CipherTrust platform unifies data discovery, classification, data protection, and provides unprecedented granular access controls, all with centralized key management. This simplifies data security operations, accelerates time to compliance, secures cloud migrations, and reduces risk across your business. You can rely on Thales CipherTrust Data Security Platform to help you discover, protect and control your organization's sensitive data, wherever it resides.

About Thales Trusted Cyber Technologies

Thales Trusted Cyber Technologies, a business area of Thales Defense & Security, Inc., protects the most vital data from the core to the cloud to the field. We serve as a trusted, U.S. based source for cyber security solutions for the U.S. Federal Government. Our solutions enable agencies to deploy a holistic data protection ecosystem where data and cryptographic keys are secured and managed, and access and distribution are controlled. For more information, visit www.thalestct.com