

CipherTrust Transparent Encryption

UserSpace (CTE-U)

The Challenge: Securing sensitive data across changing environments and increasing threats

Safeguarding sensitive data in on-premises data centers, big data and in public or private cloud (IaaS/PaaS) environments transparent to applications can be hard to manage, especially in Linux environments, due to the multiple flavors of Linux and the frequency of OS updates.

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

The Solution: CipherTrust Transparent Encryption UserSpace

CTE-U is a part of the CipherTrust Transparent Encryption suite of products, which provides a robust and scalable file system level encryption and access control solution for Linux servers in the distributed enterprise.

CTE-U works across multiple flavors of Linux OS that makes deploying the solution easy for customers. Traditionally, these efforts required multiple agents to be tested per Linux OS version. CTE-U, eliminates these hurdles using a single installation package across all Linux

OS and OS kernel upgrades without cross-checking compatibility. It provides encryption and access control with centralized key management without changes to infrastructure or applications.

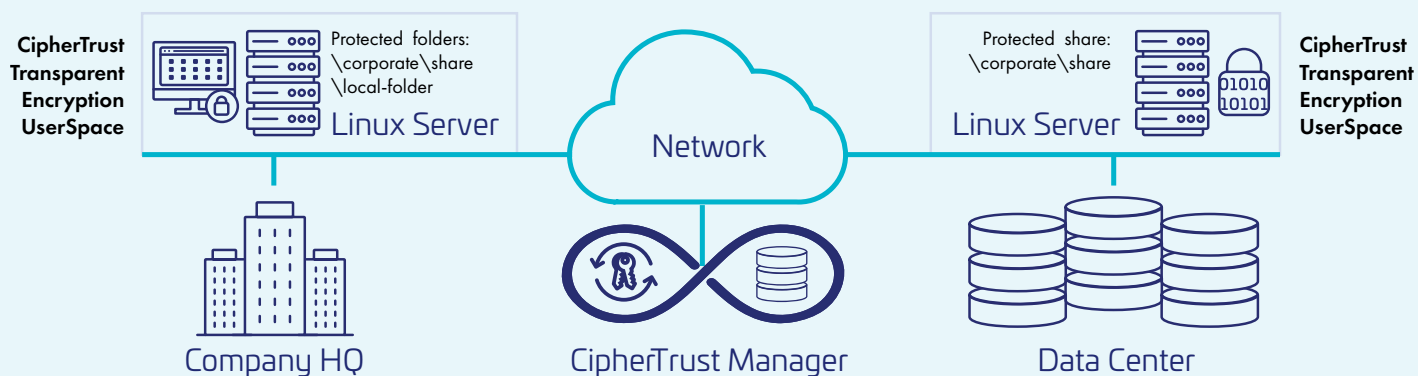
Once deployed, files containing sensitive data are rendered useless in the event of a breach, misuse or hijacking of privileged accounts, physical theft of servers, and other potential threats.

CTE-U works in conjunction with a FIPS 140-2 up to Level 3 compliant CipherTrust Manager, which centralizes encryption key and policy management for the CipherTrust Data Security Platform. CTE-U encrypts sensitive data, such as credit card numbers, personal information, logs, passwords, and more in a broad range of files, including word processing documents, images, database files, archives, and backups.

Once deployed and initiated on a server, CTE-U encrypts and decrypts data in local and mapped network folders at the file system level based on policies – with minimal impact on application performance.

What is UserSpace?

UserSpace refers to all of the code in an operating system that lives outside of the kernel. Most Unix-like operating systems (including Linux) come pre-packaged with all kinds of utilities, programming languages, and graphical tools - these are user space applications.



Product Benefits

Transparent data protection

CTE-U 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

CTE-U agents are deployed on Linux servers at the file system level and are agnostic to Linux kernel patches. Supports continuous Linux server patching without agent changes.

Lower maintenance costs

CTE-U is based on Linux FUSE libraries which allows it to be deployed across different Linux distributions. Not requiring continuous updates allows user to keep administration costs low.

Granular access controls

Specific policies can be applied to protect data from external attacks and misuse by privileged users. Controls also include access by process, file type, and other parameters.

High-performance hardware accelerated encryption

It only employs strong, standard-based encryption protocols, such as the Advanced Encryption Standard (AES) for data encryption. Encryption overhead is minimized using the AES hardware encryption capabilities available in modern CPUs.

Achieve Compliance

CTE-U helps achieve compliance with a variety of regulations that require encryption of data including credit card numbers for PCI-DSS compliance, electronic patient health information (EPHI) for HIPAA, and personally identifiable information (PII) to comply with many regional data privacy regulations.

Features

Transparent, Strong, and Efficient Encryption

- Apply transparent and automated file system-level encryption in physical, virtual, and cloud environments
- Define and enforce granular access control policies

Privileged User Control

- Prevent rogue root administrators from impersonating other users and accessing protected data

Secure Data Archiving and Destruction

- Keep data encrypted and unreadable to server administrators performing back-up and restore tasks
- Ensure all secured, sensitive data is rendered unreadable in the event data destruction is required

Easy Implementation and Management

- Utilize remote, silent automation tools for quick and easy deployment in large and small environments
- Streamline administration with centralized policy and key management in FIPS 140-2 up to Level 3 compliant hardware
- Built-in key rotation capability

Achieve Compliance

- Ensure separation of duties
- Track and audit user access to protected data and keys

Multi-language Support

- Encrypt files and folders written in Arabic, Japanese, Korean and other languages. Encryption and collaboration aren't mutually exclusive across geographies.

CipherTrust Data Security Platform

CipherTrust Transparent Encryption UserSpace is part of the CipherTrust Data Security Platform. The CipherTrust Platform unifies data discovery, classification, data protection, and centralized management for keys and secrets into a single platform. This results in fewer resources dedicated to security operations, ubiquitous compliance controls, and significantly reduced risk across your business.

About Thales

Thales is a global leader in cybersecurity, helping businesses, governments, and the most trusted organizations in the world protect critical applications, sensitive data, identities, and software anywhere, at scale — with the highest ROI. With more than 30,000 customers, including 58% of the Fortune Global 500, our solutions are deployed in 148 countries around the world. Through our innovative services and integrated platforms, Thales helps customers achieve better visibility of risks, defend against cyber threats, close compliance gaps, and deliver trusted digital experiences for billions of consumers every day.