

# CipherTrust Database Protection



An organization's most valuable data assets reside in databases and it is imperative to protect them from the devastating and lasting impact of data breaches. With a growing number of internal and external cyber threats, data protection provides a critical last line of defense, by encrypting sensitive information residing in databases across today's distributed enterprise.

## Protect Sensitive Data in Databases

CipherTrust Database Protection provides transparent column-level encryption of structured sensitive data residing in databases, such as credit card, social security numbers, national ID numbers, passwords, and email addresses.

The solution enables large amounts of sensitive data to be moved in and out of data stores by efficiently encrypting and decrypting specific columns in databases. No changes are required for most applications, and CipherTrust Database Protection can scale to support multiple data centers in on-premises, virtual, and public cloud environments. It is deployed with CipherTrust Manager, a FIPS 140-2 up to Level 3 compliant enterprise key manager that provides centralized key and policy management.

Transparency for database applications is achieved using database views and triggers created and deployed during solution design and deployment.

The product offers encryption on the database server for potentially faster encryption performance, or, encryption can occur in CipherTrust Manager, ensuring that keys never leave the secure enclave. This choice is implemented with a simple configuration change.

## Key Advantages

### Transparent and Secure Column-level Encryption

- Transparently encrypt sensitive column-level data in databases.
- Granular access controls ensure that only authorized users/applications can view protected data
- Prevent database administrators (DBAs) from impersonating other users to access sensitive data

### Flexible Cloud Deployments

- Deploy on-premises, virtual, or in public cloud environments
- Deploy quickly in the cloud with Chef recipes

### Streamline Ongoing Management Activities

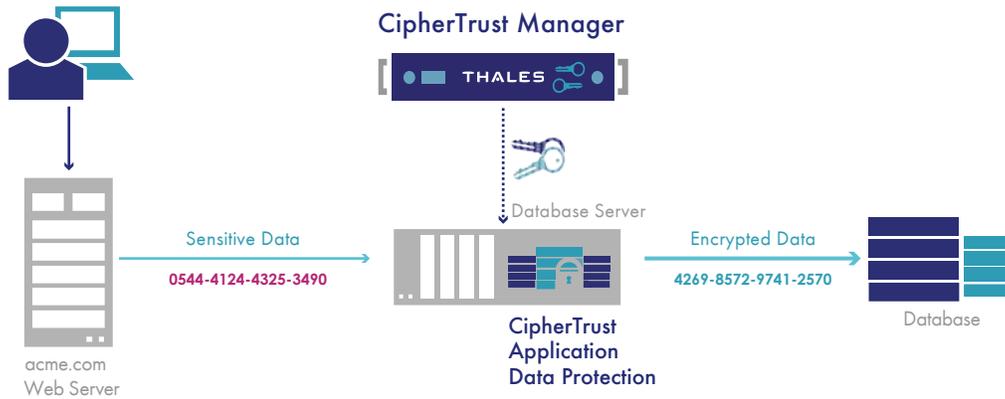
- Built-in, seamless key rotation and data re-keying
- Reduce ongoing costs with centralized key management

### Deliver High Performance

- Perform cryptographic operations locally or offload to CipherTrust Manager to leverage external processing power

### Achieve Compliance

- Meet compliance mandates, such as GDPR, PCI DSS, and HIPAA that require encryption of sensitive data and separation of duties
- Comprehensive auditing and logging capabilities to track access to encrypted data and keys



## Advanced Security with CipherTrust Database Protection

### Efficient Encryption

By focusing on specific database columns, CipherTrust Database Protection encrypts and decrypts data efficiently, in a fraction of the time required for an entire database. Format preserving encryption enables data analytics on encrypted data.

### Secure Collaboration

A security solution is effective only if it both reduces business risks and meets organizational goals. Flexible encryption options with granular access controls enable organizations to avoid all-or-nothing approaches of other encryption solutions.

### Cloud Friendly

CipherTrust Database Protection along with CipherTrust Manager may be deployed in cloud and virtualized environments so organizations can confidently pursue their cloud strategy. Even when data is in the cloud, organizations remain in full control of both their data and their encryption keys.

### Achieve Compliance

CipherTrust Database Protection features comprehensive logging and auditing capabilities to enable organizations to track access to encrypted data and keys. As a result, one can effectively address internal policies and all relevant regulatory mandates, including encrypting personally identifiable information (PII) and other sensitive, confidential data to comply with privacy mandates such as, Payment Card Industry Data Security Standard (PCI DSS) and the Health Insurance Portability and Accountability Act (HIPAA).

## Thales CipherTrust Data Security Platform

CipherTrust Database Protection 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,

## Technical specifications

### Supported Databases

- Oracle
- Microsoft SQL Server
- IBM DB2
- Teradata Database

### Supported Platforms

- Microsoft Windows
- Linux
- Solaris
- HP-UX
- AIX

### Encryption Algorithms

- AES, 3DES, FF3, FF1, RSA, ECC

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

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.

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