

CipherTrust Teradata Protection



Granular data-at-rest security for Teradata Vantage Database

Teradata, a global leader in on-premises and cloud data management systems, provides powerful data analytics for big data environments with Teradata Vantage. It's arguable that the larger the data set, the corresponding larger potential risk to data. To mitigate such potential risks, Teradata is partnered with Thales to integrate various Thales data security products with Teradata Vantage relational database management system (RDBMS).

CipherTrust Teradata Protection is a solution that provides highly granular, non-disruptive, high-performance column-level protection for Teradata Vantage Database.

Strengthened security with minimized disruption and costs

CipherTrust Teradata Protection simplifies the process of securing sensitive columns in Teradata Vantage Database records. The solution also offers NIST-approved format-preserving encryption (FPE) capabilities, so you can encrypt sensitive records without altering their format or field schemas. Not only does this minimize the potential impact of encryption on associated applications and workflows, but it helps you avoid the increased storage requirements associated with conventional encryption approaches.

Convenient integration via user-defined functions

CipherTrust Teradata Protection reduces complexity by integrating with Teradata Vantage as a collection of user-defined functions (UDF) operating in the database engine, controlling data access separate from database users and administrators. Both Cipher Block Chain (CBC) AES and format-preserving encryption (FPE) modes are available. Use of FPE enables dynamic data masking on a per-user basis.

Encryption and decryption controls

A range of options are available during encryption beyond the encrypted modes (AES or FPE) discussed above. Configuration files control such options as

- Partial encryption with keep-left and keep-right specific numbers of characters
- A column may be marked for irreversible encryption
- Data may be specified to be encrypted with Luhn-check compatibility.

During decryption it is possible to

- Add a prefix or suffix to decrypted data
- For FPE encryption, dynamic data masking of decrypted data is available on a per-user basis with column-specific customizable mask characters.

Data access controls

Both coarse and fine data access controls are available

- Permit- or deny lists based on user name applies to any encrypted column
- User-specific access controls may be applied to specific columns as follows:
 - A unique encryption key is assigned by a security administrator to each protected column
 - The security administrator creates an access map between named users and their corresponding columns.

Security for Data Import and Export

With CipherTrust Teradata Protection you can secure the power of Teradata Vantage SQL database Multi-Load and Fast Export utilities. Use of the product with Multi-Load enables protection of specific columns upon import -- the safest and fastest way to protect data. Integration with Fast Export offers powerful and potentially irreversible protection for data from Vantage SQL to be shared with outsiders.

Comprehensive data security platform with centralized key management

CipherTrust Teradata Protection utilizes encryption keys created in [CipherTrust Manager](#), a secure appliance for data protection policy management and key origination and storage. CipherTrust Manager is at the center of the CipherTrust Data Security Platform, which among other products, offers [CipherTrust Transparent Encryption for Teradata](#), another option for protecting data in Teradata Vantage Database.

Learn more

Visit us at cpl.thalesgroup.com to learn how our advanced data security solutions and services deliver trust wherever information is created, shared or stored.

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.