Solution Brief

CipherTrust Field-level Data Encryption

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Building a future we can all trust

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When you need:

- Compliance for data that can be variable length or unstructured at the file layer, database layer or application layer
- Ciphertext that does not look like your data
- Reduced risk of financial penalties if there is a data breach—due to extremely detailed audit records that prove you have done due diligence

The Challenge

Data breaches, ransomware attacks, and accidental exposures are all increasing—and so are the expectations on business leadership. Executives are expected to have meaningful controls across diverse environments without slowing down business operations.

Legacy encryption is fragmented and hard to manage. Keys may be embedded in apps. Security policies vary across cloud and on-premises, and audibility is limited.

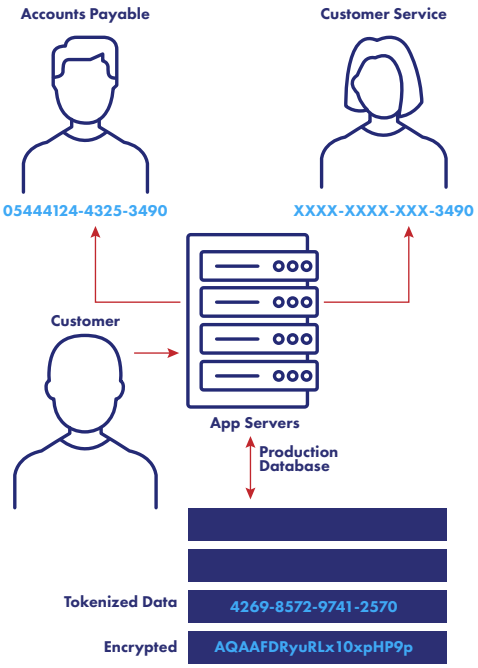
How CipherTrust Encryption Can Help

Thales provides Encryption as part of a unified platform that supports Encryption, Tokenization, Data Masking and Redaction so that you have the right data protection for every type of data you have—regardless of where it resides; in an application or a database, on premises or in the cloud.

CipherTrust Encryption provides solutions that protect data and may alter data format enabling you to:

- Protect customer data even if systems are breached
  - For data in applications or databases in cloud, hybrid, or on-prem environments
- Avoid liability by proving data was protected and access was controlled
  - Sensitive values are replaced with encrypted values
- Deliver end-to-end control
  - Combine Encryption with Dynamic Data Masking, Static Data Masking and Redaction
  - Enable innovation in cloud and analytics environments without increasing risk
  - Use encrypted data for development and test environments
- Centralize control of policies, keys and audit trails
  - Encryption, Tokenization, Data Masking and Redaction on one platform
- Encrypt data at rest, in motion, and in use
- Option to integrate with CipherTrust Manager and a FIPS 140-3 Level 3 HSM
  - Helps you prove due diligence and reduce audit scope

Data Masking policies define whether an encrypted field is returned fully or partially in the clear. In the diagram below, data masking polices enable Accounts Payable staff to access the full credit card number, while Customer Service agents only see the last four digits of a credit card number.



CipherTrust Field-level Encryption Solutions

CipherTrust field-level encryption solutions do not store any sensitive user data, thereby reducing your potential attack surface and risk.

CipherTrust field-level encryption solutions include:

- CipherTrust Batch Data Transformation (BDT) - offers high-performance tokenization and encryption for databases and structured files
- CipherTrust Application Data Protection (CADP) - offers tokenization and encryption for field-level data protection to developers as a simple-to-integrate library
- CipherTrust RESTful Data Protection (CRDP) - offers tokenization and encryption for field-level data protection as a RESTful service
- CipherTrust Data Protection Gateway (DPG) - offers tokenization and encryption for transparent field-level data protection to any RESTful web service or microservice leveraging REST APIs
- CipherTrust Database Protection (CDP) - offers tokenization and encryption for transparent, column level data protection for a wide range of databases.

BDT, CADP, CRDP and DPG support Static Data Masking, Dynamic Data Masking and Redaction.

CipherTrust Data Security Platform

Encryption is part of the CipherTrust Data Security Platform (CDSP), which unifies data discovery, classification and data protection with unprecedented granular access controls and centralized key management. Protecting your sensitive data with CDSP decreases time to compliance, simplifies data security operations and secures cloud migrations and reduces risk across your business. You can rely on the Thales CipherTrust Data Security Platform to help you discover, protect and control your organization's sensitive data, wherever the data resides.

Conclusion

Thales Encryption is scalable, with centralized policies, and used wherever you need it. Thales helps you secure sensitive data—across any system—without management complexity. It gives you the ability to demonstrate accountability when it matters most.

About Thales

Thales is a global leader in cybersecurity, helping the most trusted organizations protect critical applications, data, identities, and software anywhere, at scale. Through Thales' integrated platforms, customers achieve better visibility of risks, defend against cyber threats, close compliance gaps, and deliver trusted digital experiences for billions of consumers every day.