

Solution Brief

# A Secure Foundation of Trusted Data for Financial Services

Transforming Financial Services with Thales and Teradata

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**THALES**  
Building a future we can all trust

**teradata.**

**135B**

Is the forecast spent on public cloud by financial institutions by 2027

**27.7%**

Average annual growth in Big Data spending by financial institutions

**22%**

Have little or no confidence in identifying where their data is stored

Only **15%** have encrypted **80%** or more of their sensitive cloud data

### 2025 Thales Data Threat Report: Financial Services Edition

The days when banking services were limited to 9-to-5 hours at a local branch are now a thing of the past. Today, customers interact with their banks 24/7 through various channels—accessing their sensitive data through ATMs, digital platforms, phone apps, and even AI chatbots. Each external channel was designed to meet specific customer needs; however, as the number of channels has increased, so have the associated complexities. Safeguarding data in Financial Services Institutions (FSIs) has always been a priority, primarily due to the transformations within the industry driven by changing consumer habits and expectations, competitive pressures, and technological advancements.

Internally, the value of data for FSIs also continues to grow. The correct data, technology, and access drives innovation. Advanced analytics allow FSIs to monetize the ever-growing amounts of data. However, the challenge lies in utilizing various platforms and enabling different business areas to derive insights from customer data while maintaining the data secure and private. Thales and Teradata have partnered to assist FSIs in effectively utilizing data. By combining Thales' expertise in security and compliance with Teradata's advanced analytics and AI-driven insights, FSIs can confidently accelerate their digital transformation and monetize data insights while mitigating risks and enhancing customer satisfaction.

## Addressing FSI challenges

FSIs face significant challenges in managing data and security due to increasing regulatory requirements, the rise of cyber threats, and the complexity of hybrid IT environments. Institutions must ensure compliance with stringent regulations such as GDPR, PCI DSS, GLBA, NYDFS, and DORA while handling vast amounts of sensitive customer and transactional data. Cybercriminals target FSIs with sophisticated attacks, including ransomware, phishing, and fraud schemes, making robust security a necessity.

Additionally, FSIs must strike a balance between innovation and robust data protection, encryption, and access controls as they adopt cloud-based and digital-first strategies. Ensuring seamless yet secure customer experiences, mitigating insider threats, and maintaining resilience against data breaches are ongoing concerns

that require advanced analytics, AI-driven threat detection, and centralized security management.

## Building the trusted data foundation starts with Thales and Teradata

Thales and Teradata have a legacy of designing and developing solutions tailored to the specific requirements of the global banking and financial services industry. Thales protects data and ensures regulatory compliance across Teradata Vantage, VantageCloud, and VantageCloud Lake deployments by leveraging best practices and techniques, including encryption, tokenization, and dynamic and static data masking. Together, Thales and Teradata have developed pre-integrated, tested, and certified data protection solutions for our FSI customers. Our solutions are among the most rigorously tested and certified globally.

## Key benefits for FSIs

- **Simplify compliance and lower risk**
  - » Discover and classify data across hybrid IT in alignment with specific regulatory requirements.
  - » Centralize policy enforcement with 360-degree visibility on a single management platform.
  - » Assess data risks by evaluating their severity and likelihood, and address them through policies.
- **Enhance customer journey analytics**
  - » Integrate and harmonize data for accelerated preparation using resource-efficient cloud platforms and in-database analytics.
  - » Support rapid AI innovation through an open and connected ecosystem that favors preferred model training tools and technologies.
  - » Operationalize and scale Trusted AI with robust governance, automated lifecycle management, and Massively Parallel Processing.
- **Accelerate digital transformation**
  - » Protect emerging financial transactions, from mobile payments to blockchain, with hardware-based trust mechanisms.
  - » Safeguard data in multi-cloud environments with BYOK, HYOK,



BYOE, and centralized key management.

- » Enable secure and rapid development of new applications through DevOps protection.

- **Improve service delivery**

- » Use advanced analytics to evaluate and optimize customer service processes.
- » Expedite issue resolution and reduce channel friction to boost customer engagement.
- » Drive cost-effective performance enhancements for scalable and transparent AI solutions.

- **Scale security across enterprise hybrid IT**

- » Centralize management of keys and secrets in hybrid environments.
- » Detect and stop advanced attacks automatically.
- » Protect access to sensitive data with multi-factor authentication (MFA) for both cloud and on-premises systems.

## Data Security Solutions for FSIs:

**Thales CipherTrust Data Security Platform (CDSP)** helps discover, control, protect, and monitor sensitive data, providing granular access controls with centralized key management on a single platform. It is designed to meet the strictest compliance and regulatory requirements in FSIs with Teradata Vantage deployments.

### Key features and benefits of CDSP:

- **CipherTrust Manager (CM):** CM is an industry-leading enterprise key management system that enables FSIs to manage encryption keys centrally, provide granular access control, and enforce consistent security policies. It allows FSIs to securely manage encryption keys outside the cloud environment, enhancing security and control over access to sensitive data.
- **CipherTrust Cloud Key Management (CCKM):** For Teradata Vantage deployments that are hybrid-cloud or multi-cloud, implementing a key management system outside the control of the Cloud Service Provider and within a secure environment is essential to maintaining data sovereignty. Thales CM and CCKM provide centralized key lifecycle management for Bring Your Own Key (BYOK), Hold Your Own Key (HYOK), and cloud-native encryption keys.
- **CipherTrust Transparent Encryption (CTE):** CTE secures sensitive data through file system-level encryption, centralized key management, access controls, and audit logging. It facilitates efficient data-at-rest encryption in Teradata Vantage environments, whether on-premises or in the cloud, ensuring robust security while preserving high performance for big data workloads.
- **CipherTrust Teradata Protection (CTP):** CTP simplifies the security of sensitive data in the columns of Teradata Vantage Database records. It reduces complexity by integrating into a collection of user-defined functions (UDF) within the database engine, managing database access independently from database users and administrators.
- **CipherTrust Database Protection (CDP):** CDP secures sensitive data in Teradata VantageCloud Lake, a scalable, cloud-native analytics and data platform designed for AI/ML-driven insights. It enables FSIs to manage data security and conduct analytics projects on demand while retaining full sovereignty and

control over their encryption keys. It leverages the infrastructure of cloud service providers such as AWS, Azure, and GCP.

**Luna Hardware Security Modules (HSMs):** A Luna HSM serves as a secure root of trust for CM, enabling the creation of a comprehensive data security solution. It protects cryptographic keys and functions as trust anchors, safeguarding the cryptographic infrastructure of some of the most security-conscious FSIs worldwide. HSMs securely manage, process, and store keys within a FIPS-validated tamper-resistant device.

**Additional solutions:** Thales provides other solutions, such as Data Discovery & Classification (DDC), Database Activity Monitoring (DAM), and CipherTrust Secrets Management (CSM), to deliver unmatched data security for FSIs with Teradata Vantage deployments.

## Data-driven decisions for FSIs

### A Modern, Secure Analytics Ecosystem

Teradata empowers FSIs with a modern data and AI ecosystem delivering comprehensive, trusted data solutions built for the demands of FSIs. Teradata's platform accelerates cost savings, enhances customer experiences, ensures regulatory compliance, and mitigates risk through solutions like Customer 360 analytics, AI-powered fraud detection via ClearScape Analytics, and end-to-end governance frameworks for secure data handling. At the heart of this ecosystem, [Teradata VantageCloud](#) provides a unified, cloud-native data and analytics platform enabling seamless orchestration of analytics across departments and regions, all on a foundation of trusted data.

### Financial modeling for an enterprise-wide view of data

The Teradata **Financial Services Data Model (FSDM)** is a comprehensive, flexible blueprint for organizing data. It helps manage information, control risk, navigate the data environment, and identify details that could influence the data management process.

This FSDM works alongside the Teradata [Financial Services Analytic Schemas \(FSAS\)](#) to target two main areas in data architecture: data integration and data analytics. It enables quick deployment of summary dashboards and detailed analytics applications. FSDM and FSAS can be used separately to meet specific needs in the data architecture, or together as part of a broader portfolio to support risk, customer management, and financial management across various lines of business.

## Conclusion

FSIs must strike a balance between innovation and robust data protection, encryption, and access controls as they continue to adopt cloud-based and digital-first strategies. Ensuring seamless yet secure customer experiences remains a pressing concern that requires advanced analytics, AI-driven threat detection, and centralized security management. By addressing key challenges and empowering organizations to innovate securely, Thales and Teradata enable FSIs to streamline operations, enhance customer satisfaction, and uncover new growth opportunities. Our partnership equips FSIs with the technology, security, and insights necessary to foster lasting, meaningful customer relationships.

## About Teradata

At Teradata, we believe that people thrive when empowered with trusted information. We offer the most complete cloud analytics and data platform for AI. By delivering harmonized data and trusted AI, we enable more confident decision-making, unlock faster innovation, and drive the impactful business results organizations need most. See how at [Teradata.com](https://www.teradata.com)

## About Thales

Thales is a global leader in cybersecurity, helping the most trusted companies and organizations around the world protect critical applications, sensitive data, and identities anywhere at scale. 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.