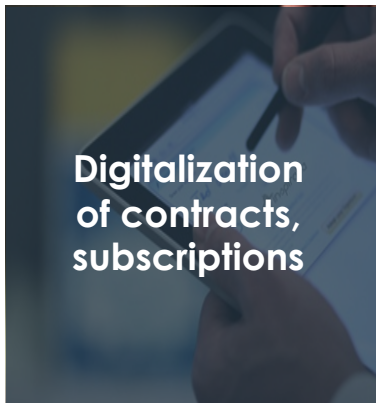
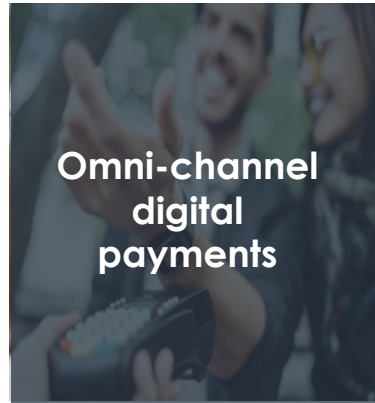


# Win the digital banking race by accelerating digital transformation while reducing costs and risks

eBook



# Financial services drive towards innovation and transformation



The growth of the digital economy has completely changed consumer habits. Consumers have come to expect a hyper-personalized experience that is fast, convenient and secure. It is no different in banking, where digital-only banks are growing rapidly, with several of them already attracting millions of customers per month with an all-digital, low cost experience.

Banks have been quickly adopting technologies to enable secure, remote, multi-device banking transactions; secure digital payments leveraging biometrics, tokens, and context-based security; and even the full digitization of contracts, subscriptions, and consumption of services.

Finally, the pandemic has forced a once unthinkable shift towards remote work and a mostly cashless and contactless payment society. This has resulted in the adaptation of systems for remote access, or a complete migration to the cloud for multiple bank systems.

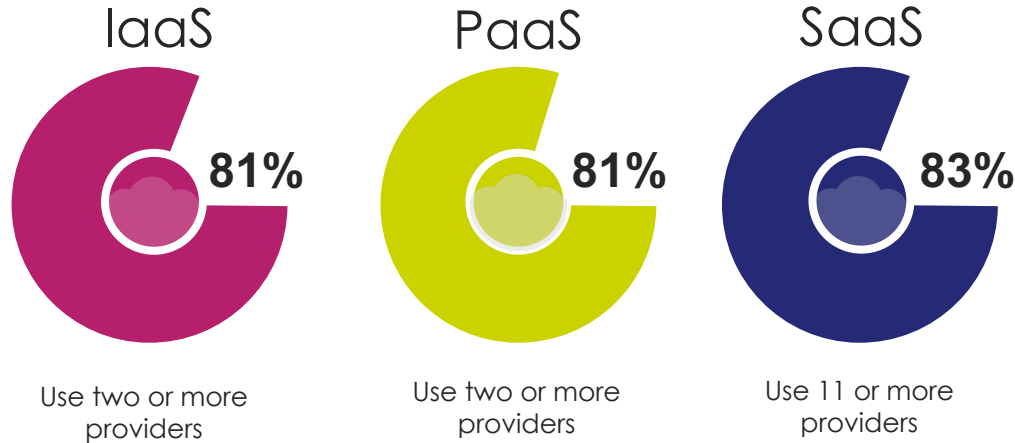
# Banks adapt through massive digital transformation investments

## Banks have been rapidly adopting new technologies and platforms to better serve customers win competitive advantages:

- Adopting hybrid and cloud-based workloads for core banking applications.
- Employing big data, analytics to gather insights and capitalize on consumer behavior.
- Creating secure mobile applications and end to end integration with core banking systems such as eBAM and CRM.
- Adopting new emerging mobile payments, Internet of Things, and 5G
- Putting in place contextual transaction risk analysis (TRA) systems that integrate machine learning and AI.
- Employing modern automated digital certificates and blockchain-based networks for financial transactions.



# Cybersecurity complexity escalates transformation costs



*"Respondents rate complexity as the top perceived barrier to implementing data security"*

The complexity of securing the modern Hybrid IT is growing exponentially. According to the Data Threat Report 2020, produced by IDC for Thales, 81% percent of global respondents are using more than one IaaS vendor, 81% have more than one PaaS vendor, and 83% have more than 11 SaaS applications to manage.

The dramatic speed of change in the enterprise IT infrastructure and the rise in cyberattacks have combined to force IT managers to choose the "faster" or "easier" solution to protect these new systems and platforms.

In most cases this means "bolting on" security point products or use cloud native security to secure new platforms. This means that at the end, IT has to manage multiple security solutions protecting different platforms and different environments. The end result is that executives rate complexity as their top perceived barrier to implementing data security.

# Regulatory complexity escalates risks

The process of digitalization has forced financial institutions to capture ever-increasing amounts of sensitive customer data to make banking easier and to create new desirable financial services for customers.

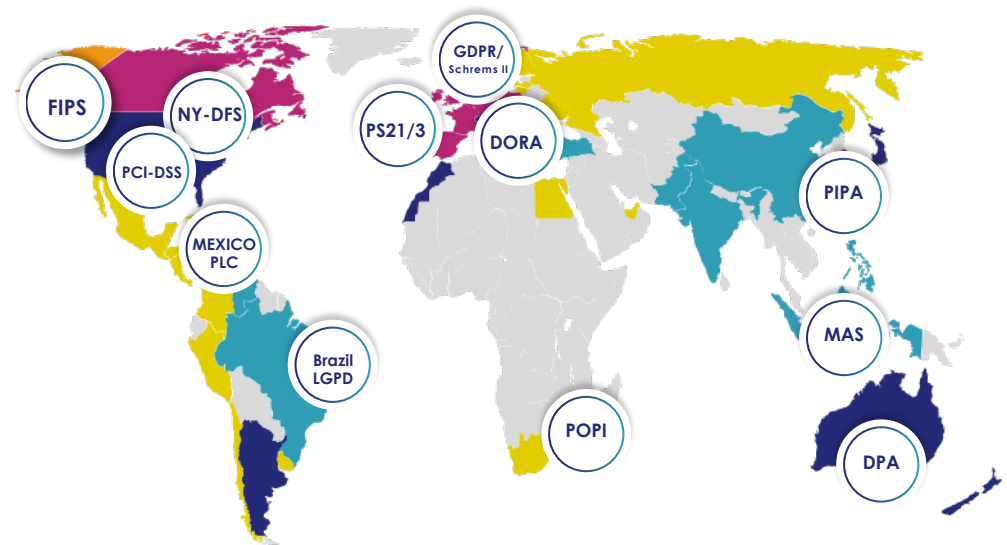
But privacy regulations such as GDPR and financial data security regulations such as PCI, raise the bar for financial institutions, obligating the protection of sensitive personal and financial data, and levying substantial fines for not doing so.

In addition, emerging regulations, such as UK's PS21/3, the EU's DORA, and the US Executive Order on Improving the Nation's Cybersecurity, all focus on improving the overall "operational resilience and cybersecurity" of enterprises and government agencies.

Financial institutions find themselves in a difficult situation. The digital customer experience, openness of modern banking, and flexibility of hybrid IT are essential to their business. Nevertheless, they create vulnerabilities, when it comes to privacy and data protection.

## Expanding # of Regulations on Data Privacy, Operational Resilience

Increased complexity and cost of compliance with regulations negatively impact financial performance



# How Thales Cloud Protection and Licensing can help

Thales enables financial services organizations to reduce risk, complexity, and cost, while strengthening security and accelerating digital transformation.

Strengthen security and control costs



**Automate and streamline data and identity protection** across Hybrid IT

Reduce risk and complexity



**Simplify privacy compliance** with centralized data and identity security governance

Accelerate digital transformation



**Adopt and integrate innovations** faster with a **resilient** framework built with **security by design**

# 1. Challenge: Cost and complexity of data protection across Hybrid IT



aws



Azure



Google Cloud



IBM Cloud

The dramatic rise in **cyberattacks** together with the **dissolution** of the security **perimeter** generate the need for ever more security solutions. With **multiple solutions** protecting **different platforms and environments**, the **costs** and **complexity** of protecting the new Hybrid IT infrastructure **grow exponentially**.

# 1. Solution: Strengthen security and lower cost



aws



Azure



Google Cloud



IBM Cloud

## Automate and streamline data and identity protection across hybrid IT



**Protect** data in multi-cloud environments with **BYOK, HYOK, BYOE, centralized key management.**



**Centralize** access management with **single sign on** to all cloud services.



**Secure** digital identities, applications, and keys with **certified root of trust.**



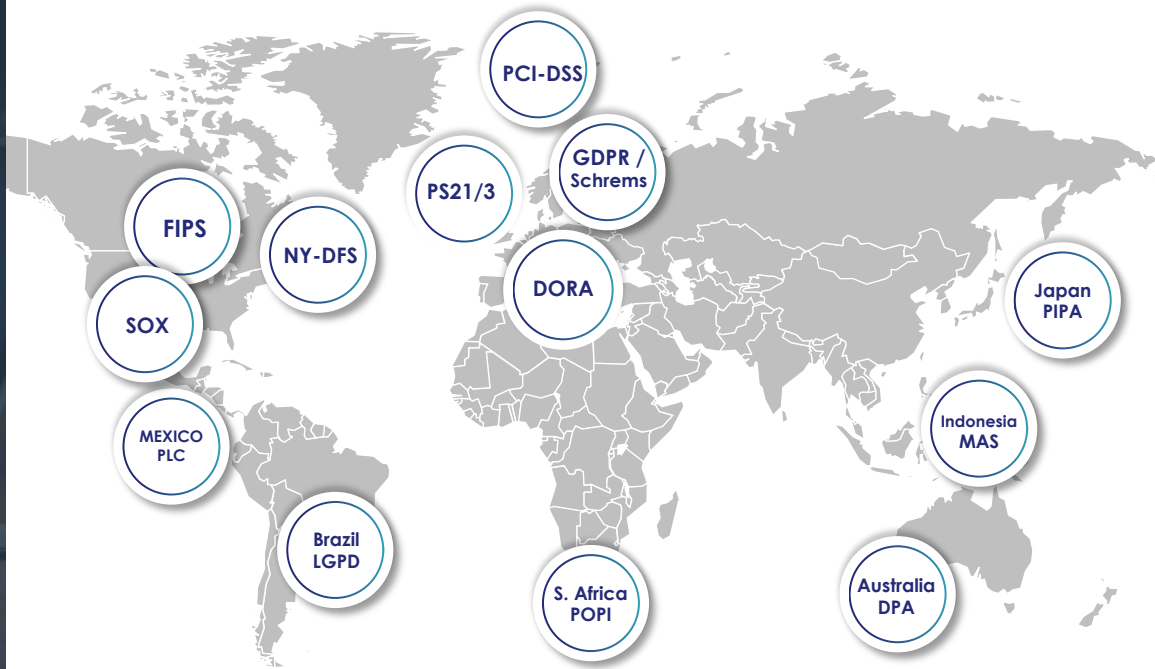
## 2. Challenge: Increased risk of non-compliance with regulations



The **complexity of compliance** with the **myriad of global regulations** and the challenge of protecting data across multiple environments **increase risks and costs.**

**Data security and compliance need to be automated** with policy-based protection for all sensitive data.

### Expanding # of Regulations on Data Privacy, Data Sovereignty and Operational Resilience



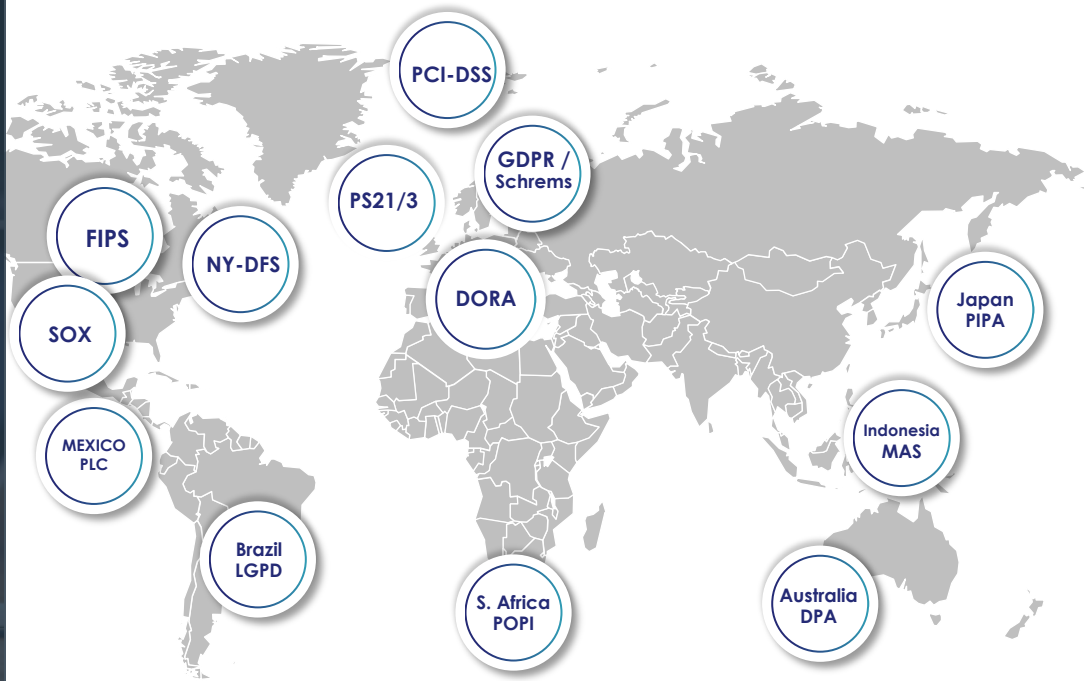
## 2. Solution: Reduce risk and complexity

### Simplify compliance with centralized data and identity security governance

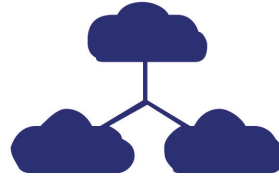
**Discover and classify** data across **hybrid IT** according to sensitivity to **specific** legislation requirements.

**Automate** data **protection** with **centralized** policy-based enforcement from a single pane of glass.

Apply data **privacy** and **sovereignty** rules through granular **data and access security** controls.



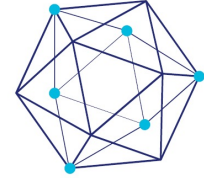
### 3. Challenge: Cybersecurity concerns slowing digital transformation



Multi-cloud



Mobile Payments

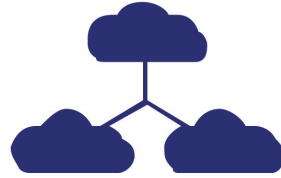


Blockchain



The **insights** from **big data**, the flexibility of **hybrid IT**, the digital **omni-channel** experience, and innovations such as **blockchain** are essential to the future of banking. But every **new technology**, and its integration with **legacy systems**, may create **vulnerabilities** that affect **resiliency**.

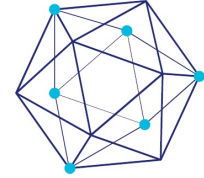
### 3. Solution: Accelerate digital transformation



Multi-cloud



Mobile Payments



Blockchain

Adopt and integrate innovations faster with  
a resilient framework built with security by design



**Minimize** the threat of data breach by **de-identifying** all sensitive data on **all new environments and legacy platforms**.



Adopt a **zero-trust** posture for all environments with **MFA**, intelligent **SSO**, and **centralized access control**.



**Secure all emerging** financial transactions, from **mobile and cloud-based payments** to **blockchain**.

# Thales helps more than 3,000 financial institutions secure their banking and payment services around the world



Thales solutions help organizations **simplify** financial services compliance, **facilitate** security auditing, **protect** their customer's data, and **avoid** data breaches, **ultimately reducing the cost and risk** of **adopting** new technologies and **achieving** competitive advantage.



Thales secures **80%** of the world's POS transactions.



**10** out of **10** top banks work with Thales.



# Large financial institution in Europe

## Centralized security policy control and compliance in the cloud and legacy systems

### Challenge



Enterprise customers demanded **data security best practices** for financial services.

**Complexity of hybrid space** including public cloud, SaaS services and legacy on-prem systems.

**Lack of visibility** and central **control** over security policies.

**Limited technical expertise** for managing **cryptographic** platforms.

### Solution



Thales acted as a **trusted advisor**, **helping create and implement** security policy best practices

**Centralized control** over data **security and access** to sensitive data with Ciphertrust Data Security Platform.

Implemented **centralized pane of glass** for key management in the cloud and on-premises.

**Root of trust on Data Protection on Demand (DPoD)** Luna Cloud HSM.

### Results



**Improved security posture** and compliance, setting best practices for the entire company.

Gained **peace of mind** with solutions that have clear path for **future scalability and integrations support**.

Enabled **cloud key management** for **Azure** and **Office 365**, expanding to **AWS** and planned **Salesforce** and **ServiceNow**.

**Minimized** need to have **in-house crypto management** expertise or infrastructure by leveraging **HSM in the cloud**.

## Improved compliance and simplified data security across Hybrid IT

### Challenge



**Comply** with financial services regulations such as **PCI, FIPS, NYDFS**, and privacy legislation, such as **GDPR** and **CCPA**.

**Complexity** of key management for multiple third-party security platforms and no control over BYOK keys.

**Complexity** of security and data protection in multiple **on-premises** and **cloud** environments.

### Solution



**Centralized** key management for all platforms including **Azure, AWS, Salesforce, NetApp storage encryption, CyberArk**, and third party data center.

**On-premises key management** for all third-party solutions, including TDE and KMIP, on **CipherTrust Manager** with **Luna HSM as root of trust**.

**Ciphertrust Transparent Encryption** for data in all formats across multiple repositories.

### Results



**Accelerated compliance** through centralized data security enforcement across Hybrid IT from a single pane of glass.

**Simplified and highly secure** on-premises key management of multiple **third-party security platforms** and **cloud environments**.

Extend **on-premises data security** and key management to **cloud environments**.

## Secure Open Banking Across the Payment Chain

### Challenge



Treezor is an innovative fintech solution provider **subject to numerous, stringent regulations** from CIPA to PCI DSS.

Needed a **HSM root of trust** integrated with the company's **payment gateway application**.

Required **fast time to market**, flexibility and agility from a business and operational/technical perspective.

### Solution



Tested **SafeNet Data Protection on Demand (DPOD)** with a 30 day free evaluation.

Expanded the service based on Data Protection on Demand's **high availability** solution and committed SLA.

**HSM as a managed service** with **redundancy**, and **backup services included as a standard** part of the 99.95% SLA.

### Results



Thales provided the **essential cloud-based root of trust** that allowed customer to provide services **simply, securely and cost-effectively** across the entire payment chain.

Achieved **fast time-to-market** with **easy deployment** and **zero upfront investment**, **low TCO**, and **flexible** usage-based **pricing**.

**Protected** primary account numbers (**PAN**), as required by **regulations** such as **PCI-DSS**.



## Secure cloud migration with streamlined data protection and compliance

### Challenge



Protect **sensitive** and **confidential** data.

**Securely adopt** multiple cloud providers (IaaS, SaaS).

Comply with **multiple** global and regional **data protection regulations**.

Centralize **security** and **data protection policies** with **visibility** and **access** control of data stored in the cloud.

### Solution



Ciphertrust Transparent **encryption** for data in **all formats** across MS Azure and on-premises repositories.

CCKM cloud key lifecycle manager for **both** MS Azure and Salesforce, using Luna HSMs to **secure** keys.

Centralized policy-based **control** over data security and **access** to sensitive data **minimizing external** and **internal** threats.

### Results



**Streamlined** data protection across **multiple platforms** with "less privileged" access policy for all environments.

Centralized management of multi-vendor keys, **allowing** data security while business areas **take advantage** of cloud services.

**Simplified** compliance with policy-based control and reporting **approved** by internal audit team.

**Maintained** system performance and IT operations processes were **not affected** by the encode/ decode process.

## Improved access management experience and security to hybrid environments

### Challenge



Ensure a **smooth transition** to the cloud with **secure access** to hybrid environments.

Needed to **rapidly expand** support for remote work for 800+ employees given the **pandemic**.

**Secure Access** to their Linux environment for IT team with MFA.

**Remove** hardware token management **complexity** and **move** to a **software token**.

### Solution



Implemented cloud **single sign on** (cloud SSO) with centralized policy-based access management from a **single** pane of glass.

Added **software token MFA** for cloud environments while maintaining **existing MFA** for other applications.

**Expanded** remote work capabilities with **advanced security** to 800+ employees.

### Results



**Simplified access** to hybrid environments such as Windows, Citrix, and Linux with Cloud SSO.

**Improved compliance** through centralized access control with **granular policies**.

**Optimized security** and **customer experience** for remote working conditions.

**Automated** several access management functions and provided path for **future scalability**.

## Secure high volume payment transactions and PCI compliance

### Challenge



Expand existing payment switching network to meet **performance and scalability targets**.

Meet **payments standards** and banking regulations such as **PCI DSS / PCI PIN** and **AusPayNet**.

Expand of processing **volume capability** (transactions per second).

Full **Remote management** capabilities.

### Solution



**payShield HSMs deployed in clusters** within managed service data centers in multiple locations.

**High speed links with Transport Layer Security (TLS)** connecting to diverse cloud environments

**Secure remote management** of the HSM clusters with **payShield Manager**.

### Results



**Increased performance and scalability** with world-class encryption implementation capable of supporting business growth targets.

**Reduced risk** with a **PCI and EMV compliant**, Card Present (CP) and Card Not Present (CNP) payment switching network.

**Reduced cost** with **comprehensive remote administration** and management, including the ability to upgrade performance licenses.

# 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.**





### **Contact us**

For all office locations and contact information,  
please visit [cpl.thalesgroup.com/contact-us](https://cpl.thalesgroup.com/contact-us)

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