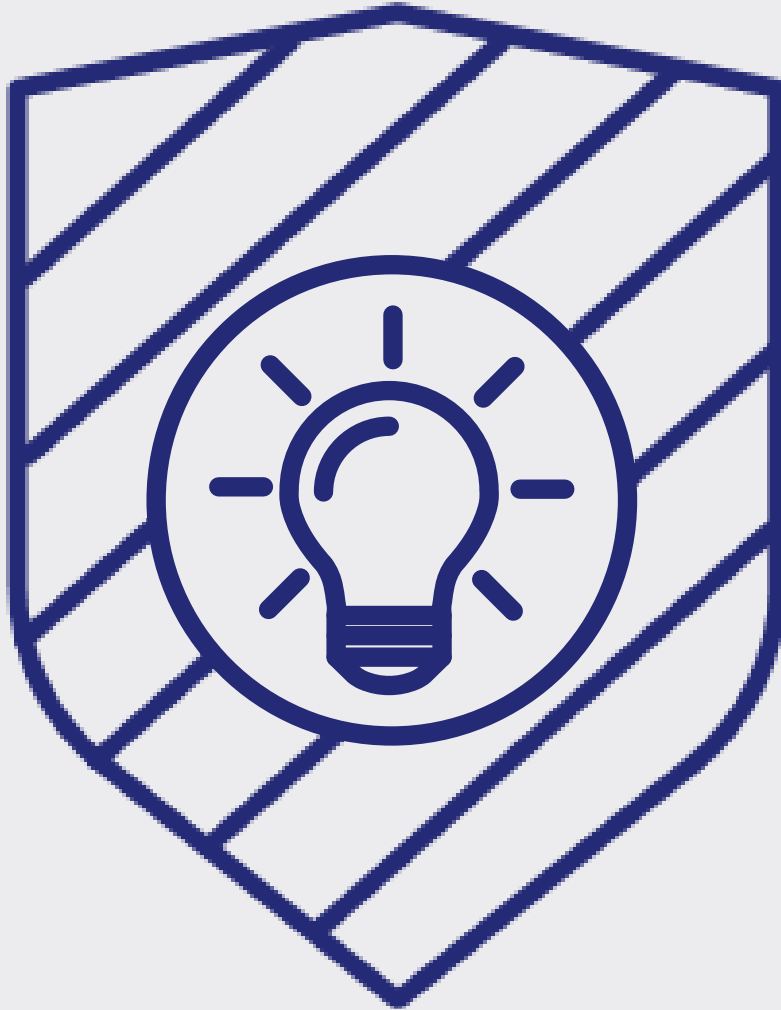


# The Importance of Sovereign Cloud & Key Management and Encryption As-a-Service

**Ari Hakala**  
**Director, Business Development**

Thales Cloud Protection and Licensing  
[www.thalesgroup.com](http://www.thalesgroup.com)





# Agenda

- > Digital Sovereignty
- > Digital Sovereignty & Public Cloud
- > Risk mitigation in the Public Cloud
- > Thales Key Management & Encryption As-a-Service
- > Customer Examples
- > Wrap up



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# Digital Sovereignty

Davos, 2021



## 2021 = Control of ICT technology

“Digital sovereignty

refer to the ability to have

**control over your own digital destiny**

– the data, hardware and software that  
you rely on and create.”

# Digital Sovereignty

Davos, **2025**

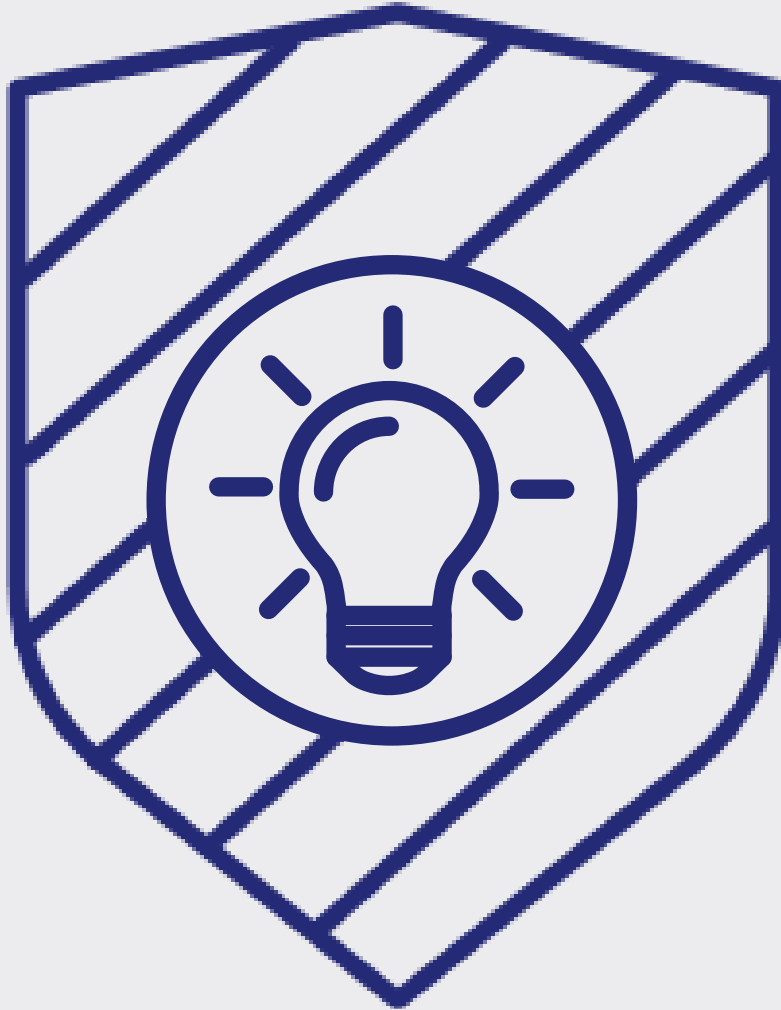


## 2025 = Global Resilience Issue

“Digital sovereignty, **cyber sovereignty, technological sovereignty and data sovereignty**”

refer to the ability to have control over your own digital destiny – the data, hardware and software that you rely on and create.

Digital sovereignty goes **beyond technology** and data regulation to include **fostering entrepreneurship and funding innovation.**”

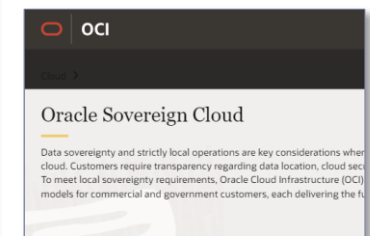
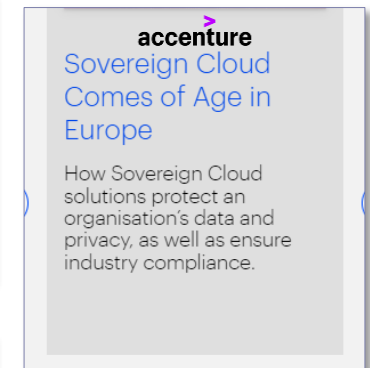
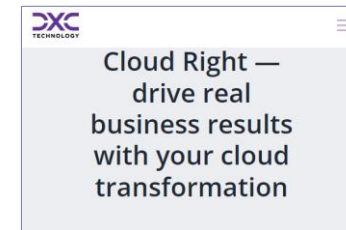


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# Global trend

from “more cloud”  
to “better cloud”



# Digital Sovereignty

... a question of **responsibility**

CLOUD is...

**Somebody else's** computer!!

## Cloud adoption impacts:

- ▶ Loss of **direct control** (outsourcing)
- ▶ Multinational **law enforcement**

Digital Sovereignty is an  
essential part of a good  
cloud adoption  
strategy



## US/EU DATA PRIVACY FRAMEWORK (DPF)



Can you use the DPF as a legal vehicle to legally process personal data in the cloud?

# US-EU Data Privacy Framework

- > Does not apply to US as a country!
- > Applies only to US organisations importing data and who are self-certified
  - Applies to EU citizen / consumer use cases – not intended for B2B scenarios
- > Cloud service providers commit to privacy on “service data”, used by the cloud provider to manage your account with them
  - Do not cover data you process and store using the cloud services



“This Privacy Notice **does not apply to the “content”** processed, stored, or hosted by our customers using AWS Offerings in connection with an AWS account.”  
[aws.amazon.com/privacy/](https://aws.amazon.com/privacy/)



# Shared Responsibility Model in the Public Cloud

Cloud Service Provider

Security **OF** the Cloud

Cloud User

Security **IN** the Cloud

“more than 99% of cloud breaches will have a root cause of a customer misconfiguration or mistake”

*Gartner, Outlook for Cloud Security*



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# Digital Sovereignty – risk mitigation in the public cloud



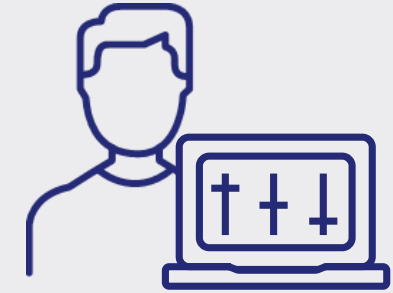
## Data residency

Ability to restrict location and logical access to data



## Sovereign controls

Ability for a cloud user to have controls of their data through technical measures independently to 3<sup>rd</sup> party



## Sovereign ops

Capacity to restrict operations to a domestic player (user itself or regional 3<sup>rd</sup> party)



# Cloud sovereignty: Industry Consensus

## IDC Information Security Controls



### Digital sovereignty trends

- "65% of major enterprises will mandate **data sovereignty controls** from their cloud service providers to adhere to data protection and privacy regulatory requirements"
- "40% of the G2000 will move 10% of their workloads to a **sovereign cloud provider** to address data, technical, and operational requirements."

## Gartner Sovereign Cloud Approaches

**Spectrum of Sovereign Cloud Approaches**

	Global Cloud Service Provider	Global Cloud Service Provider With Domestic Partner	Domestic Cloud Service Provider
<b>Base Safeguards</b>	Global cloud offerings, such as those featured in "Magic Quadrant for Cloud Infrastructure and Platform Services", delivered from in-country or in-region data centers with standard security controls.	Provider enables <b>domestic partner to provide oversight and monitoring</b> to ensure data sovereignty is upheld.	<b>Domestic provider offering cloud service</b> using open source or other cloud software <b>that can be used perpetually</b> .
<b>Advanced Safeguards</b>	<b>Provider adds technologies that shield customer information from the provider</b> , for example, hold your own key (HYOK), privacy-enhancing compute (PEC) technologies and confidential computing technologies (trusted execution environments, enclaves)	<b>Domestic partner runs a separate copy</b> of the global cloud service inside the data centers of the global cloud service provider. The domestic partner has full operational control using the software of the global cloud service provider.	<b>Private (single-tenant) or on-premises instance</b> of above cloud service dedicated to one customer.

### Gartner Sovereign Controls

#### Data-centric security:

- **BYO-KMS**: User-controlled Key Management
- **Encryption**: privacy-enhancing compute (PEC) technologies
- **Confidential computing**: Trusted Exec Environment, enclaves

# Cloud **compliance**: Multiple Regulations - Recurring Patterns



## GDPR

personal data

**Mitigation:**

**Encryption, Key management**



## NIS2

Essential and Important entities

**Mitigation:**

**Encryption, Cryptography, Strong authentication**



## DORA

Financial Entities

**Mitigation:**

**Encryption, key management, authentication**

# Securing Cloud Environments can be Challenging

Organizations with multi-cloud are **struggling to protect their sensitive data.**

While multi-cloud delivers a series of benefits, these can often be offset by a **number of challenges:**



Compliance



Sovereignty



Resiliency



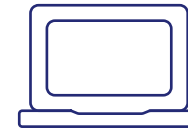
Using the  
right tools



Operational  
inefficiencies



Siloed clouds



Technology



Geopolitical fears

# Sovereignty + Controls + Challenges

## Digital Sovereignty

> World Economic Forum

Davos, 2025



## 2025 = Global Resilience Issue

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THALES

## Cloud & Control (“Sovereignty”)

“more than 99% of cloud breaches will have a root cause of a customer misconfiguration or mistake”

Gartner, Outlook for Cloud Security

“#1 driver for sovereignty: need to ‘future-proof’ the portability of cloud resources”

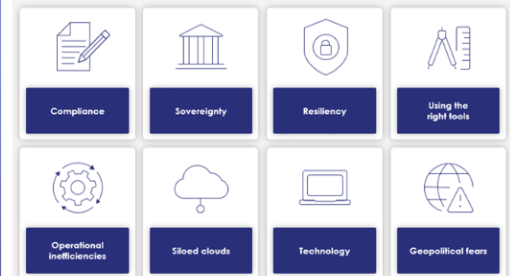
Thales, Cloud Security Study

THALES

## Securing a Modern and Multi-cloud Enterprise can be Challenging

Organizations with multi-cloud are **struggling to protect their sensitive data**.

While multi-cloud delivers a series of benefits, these can often be offset by a **number of challenges**:



THALES

Control your own digital destiny

Secure your data & keys

Overcome complexities



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# Evolving Customer Needs

From On-Premise to Flexible Service Based Security



On-premise

Hybrid

As-a-Service

# What is Data Protection on Demand (DPoD)

## DPoD...

...is a fully Thales managed and operated **as a service** offering providing **Cloud HSM, Encryption Key & Cloud Key Lifecycle Management** and **Encryption** services through a simple to use marketplace

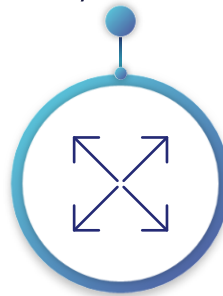
### You control Your keys

Multi-tier / multi-tenant



### As-a-service offer

Scale capacity as needs change



### No upfront investments

OpEx-based, free POC



### No hardware or software to deploy

Service/API provisioning in minutes



### Cloud /environment agnostic

Single panel of glass, app / data portability



# The DPoD Offerings – Platform for Data Protection

## Luna Cloud HSM

**General Purpose HSM** service as a fully Thales **managed** and **hosted** service.

## CipherTrust Data Security Platform as a Service

**Data encryption** and **encryption key management** as a fully Thales **managed** and **hosted** service.

## payShield Cloud HSM

Thales **payShield 10k** payment HSM's provided as a Thales **hosted IaaS service**.

# DPoD Benefits for you



No upfront investments.  
Zero CapEx. Full OpEx  
model with free PoC



Easy Access to Security.  
Ready made platform with  
SLA, HA / DR



Automation & orchestration  
helps service deployment



Centralized  
management



Meet  
compliance mandates  
faster and easier



Scale your consumption as  
needed



Single pane of glass for  
cloud, on-prem, hybrid.  
Cloud Agnostic



Focus on your business,  
not managing security  
hardware and software

# The DPoD Offerings – Platform for Data Protection

## Luna Cloud HSM

General Purpose HSM service as a fully Thales **managed** and **hosted** service.

## CipherTrust Data Security Platform as a Service

**Data encryption** and **encryption key management** as a fully Thales **managed** and **hosted** service.

## payShield Cloud HSM

Thales **payShield 10k** payment HSM's provided as a Thales **hosted IaaS service**.



# CipherTrust Data Security Platform As-a-Service (CDSP aaS)

Based on **Industry Leading** CipherTrust portfolio.



The **same user interface / experience** as with the on-premise CipherTrust Data Security Platform

**Automatic scaling** with High-Availability & Disaster recovery build in



**Flexibility to Grow.** Customer can expand usage as needed based on business requirements

**Future proof.** Thales is responsible for updates / upgrades etc.



Each customers CipherTrust service will be automatically rooted into a **dedicated FIPS certified Luna Cloud HSM service on DPoD**

# CipherTrust Data Security Platform As-a-Service (CDSP aaS)

## Key Management Service

### CipherTrust Cloud Key Management (CCKM)

Control and Manage your multi cloud encryption

### CipherTrust Transparent Encryption (CTE)

Protect your data, wherever it resides

#### Additional subscription services for CTE

- Live Data Transformation (LDT)
- Ransomware Protection (RWP)
- Kubernetes
- UserSpace

CDSPaaS & CTE interactive demo  
[CLICK HERE](#)

# Intro: CipherTrust Data Security Platform (CDSP)

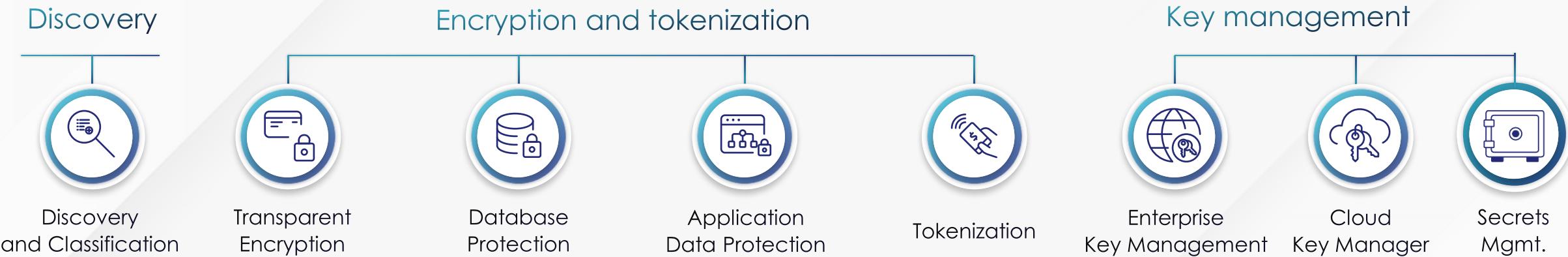
Discover, protect and control your most sensitive data anywhere  
with a unified data security platform

A unified platform to simplify  
data security

Digital transformation security for  
data migrating to cloud, big data,  
and container environments

Centralized policy and key  
management and easily expanded  
to new use cases for low TCO

## Thales CipherTrust Data Security Platform

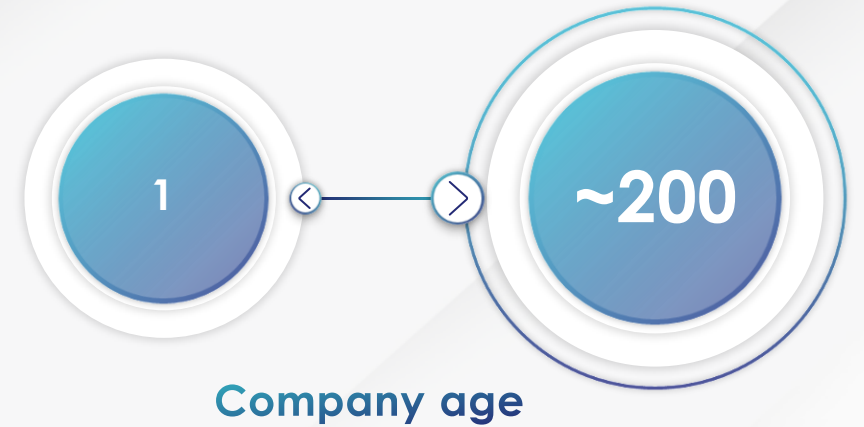
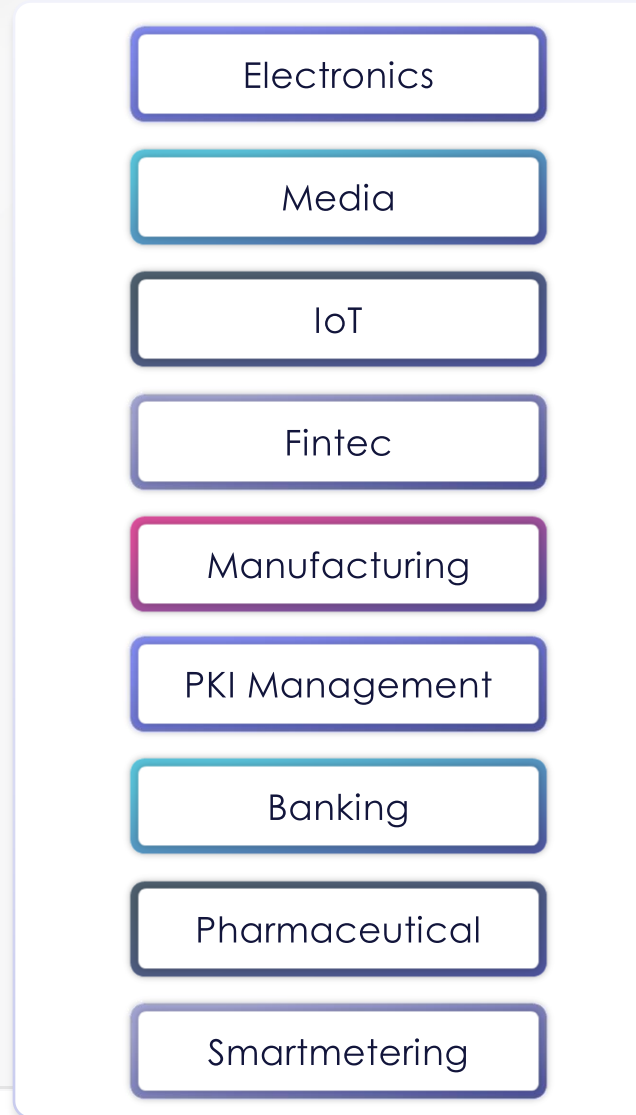
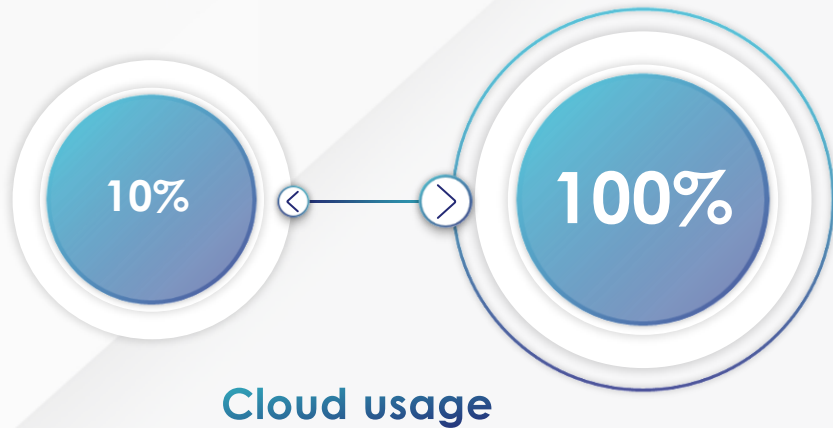




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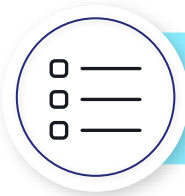
# Snapshot – Current DPoD Customers Globally





# Major Automotive company – Nordics

## Vehicle Identities & Code Authenticity



### Customer need

**Secure communication / identities** to vehicles on the road for **Over-the-Air** updates

Secure **code signing** of the **update software pushed into the vehicles**



### Thales Solution

**Luna Cloud HSM service** as the root of trust  
(for the EJBCA CA in the cloud)



### Customer outcome

**Simplified** quickly deployed **cloud based solution**

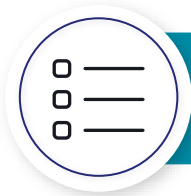
**Predictable costs**

**High level of security** for the PKI environment

# Fintech disruptor for small business payment solutions – Germany



Ease of scaling & expanding into new region



## Customer need

Current **on-prem payShield customer**, but **needed to expand into a new region** (South-America)

**Could not use Europe hosted on-prem HSMs due to latency**



## Thales Solution

**payShield Cloud HSM**

(Noram instance)

**(from PoC – Production)**

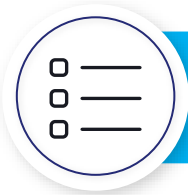


## Customer outcome

A lot **easier and faster expansion** into a new region to **grow their business and serve end users**

# Global automotive component manufacturer

Scherms II compliancy



## Customer need

Customer had the **need to comply with Schrems II for the automotive & geo location data** it collects from its products



## Thales Solution

**CipherTrust Cloud Key Manager as a Service (CCKM aaS)**

For **Google Cloud EKM and AWS XKS**



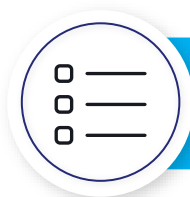
## Customer outcome

**Straightforward PoC process with smooth transition into production**

Supported their initiative to bring **all of their data under “European control”**

# Insurance company

Helping to keep cloud keys under control with limited IT resources



## Customer need

Mandate to secure and keep control of keys in the cloud .

However, they have a small IT staff without experience on operating Key Management systems



## Thales Solution

Customer **mandated** their money laundry **platform provider** to **support AWS XKS** which led to

**CipherTrust Cloud Key Manager as a Service (CCKM aaS)**

For **AWS XKS**



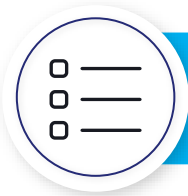
## Customer outcome

**Cloud-based Key Management** enabled **fast and easy deployment** of controls.

**Thales** as a **trusted leading European vendor for key management** supported the decision.

# Passive safety solutions provider

Securing sensitive production data



## Customer need

**Full encryption of sensitive production data**, with the need of **key management** all in **single solution**

Customer **focus on digitalization** and development of **future technologies**



## Thales Solution

**CipherTrust Transparent Encryption (CTE aaS)**



## Customer outcome

**No time or staff to manage on-premise solutions**

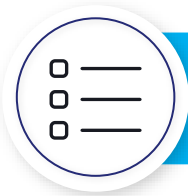
**Customer already had good experience with the Luna Cloud HSM service from DPoD**

# Monsido (Acquia)

Addressing European customer concerns about digital sovereignty



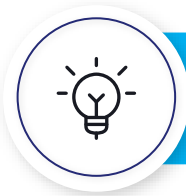
**Case Study**



## Customer need

**Monsido customers concerned**  
over **data sovereignty**

**Secure the Monsido application &**  
related **customer data** in **GCP**



## Thales Solution

**CipherTrust Cloud Key Manager**  
as a Service (CCKM aaS)

For **Google Cloud EKM**



## Customer outcome

**100% support** for their **cloud only**  
approach

**Significant competitive edge** for  
Monsido over **competing**  
**platforms**

# Sovereignty + Controls + Challenges + Solutions

## Thales Data Protection on Demand

### Digital Sovereignty

> World Economic Forum

Davos, 2025



### 2025 = Global Resilience Issue

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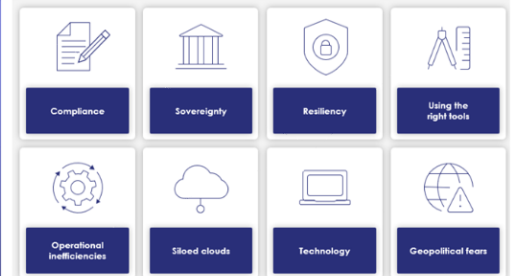
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# See for yourself – Free Trial !

Sign up for Data Protection Marketplace (DPoD)

#1

Select Luna Cloud HSM, CipherTrust or payShield Cloud HSM service

#2

Start testing with full production level capabilities - free of charge

#3

<https://market.dpondemand.io>





# Thank you!