Llaves criptográficas: Los activos más preciados de una empresa

*** Para brindar la oportunidad a entrar a todos los participantes la sesión comenzara a la 1:03pm E.T. Gracias**

Creating Trust in the Digital Society

utimaco®

About us

HQ Location
Aachen, Germany

UTIMACO is a global **platform solution leader** of trusted Cybersecurity and Compliance solutions.

We are driven to take a leading market position by providing uncompromised Cyber Security solutions fulfilling the highest standards.

With responsibility for global customers and citizens we create innovative solutions to protect data, identities and communication networks.

HQ Location
Campbell, USA

70 Mio US$
Revenue FY 19/20

330 highly skilled experts

Founded **1964**
Private company

50+ years in IT and
35+ years in IT-Security

UTIMACO is an international provider of
cyber security & compliance solutions
with headquarters in

UTIMACO Worldwide

Diversity and internationality are the key to our success

HQ Campbell

HQ Aachen

Presence
with **headquarters** in
Aachen, Germany and
Campbell, California

Subsidiaries in:

- Italy
- United Kingdom
- Singapore
- Ashburn, VA

- Customer and partner network in over 90 countries

We protect…

…people and digital identities **against terrorism and cyber crime**

…financial transactions, data in motion & IoT devices **against theft and sabotage – in the cloud and on premise**

Transactions

People & IDs

Investments

Data & Ideas

With proven, future-proof technology, **products and solutions that meet regulation & compliance standards**

…digital economy and digital transformation processes **against theft, abuse and manipulation**

Our portfolio

Information Security

Encryption-based,
high-security solutions

Hardware
Security Modules

Key
Management

Cyber Security & Compliance Solutions

Telecom Solutions

Compliance solutions
for telecommunication
providers

Lawful Interception
Mediation System

Data Retention Suite

Lawful Interception
Test Suite

Creating Trust in the Digital Society

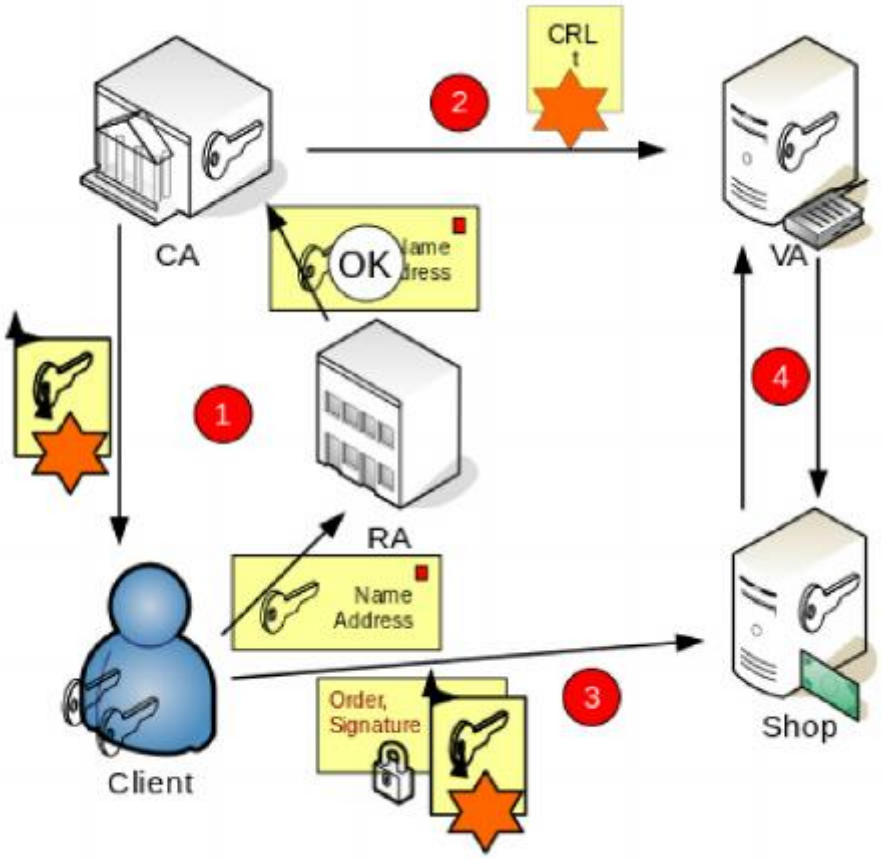
Cryptography and Key Management

Ricardo Trujillo V.

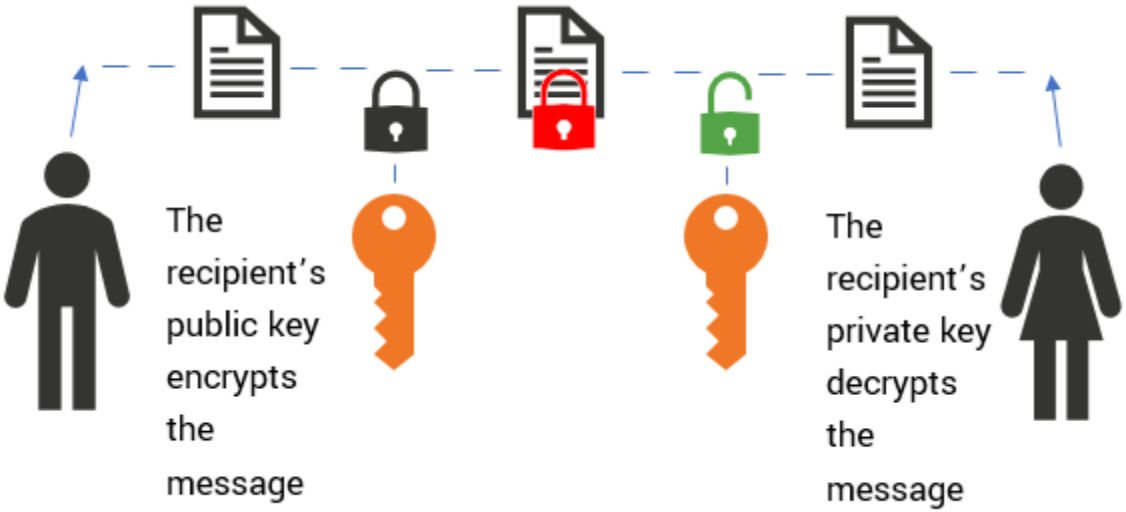
Ricardo.Trujillo@utimaco.com

utimaco®

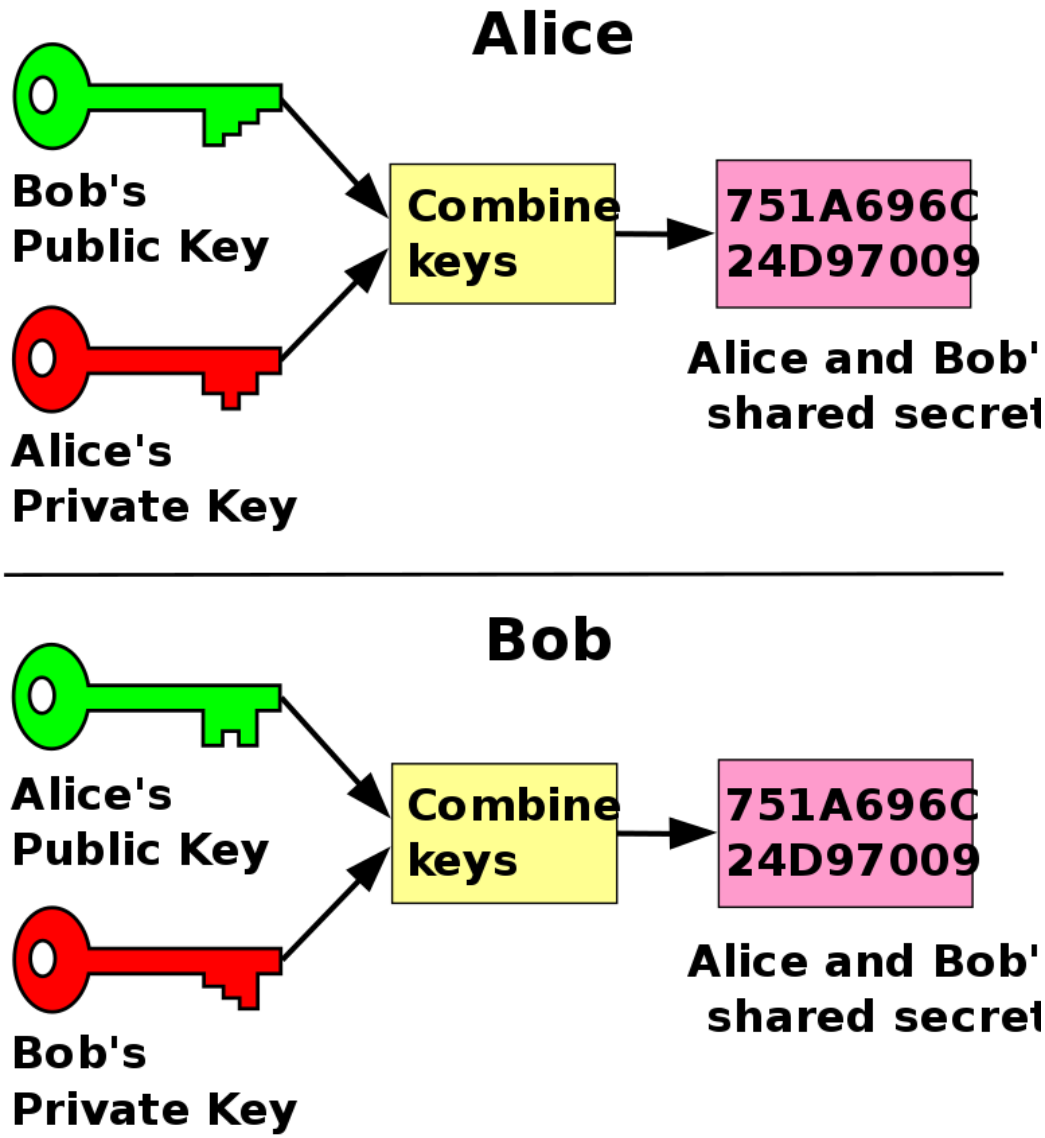
Public Key Infrastructure



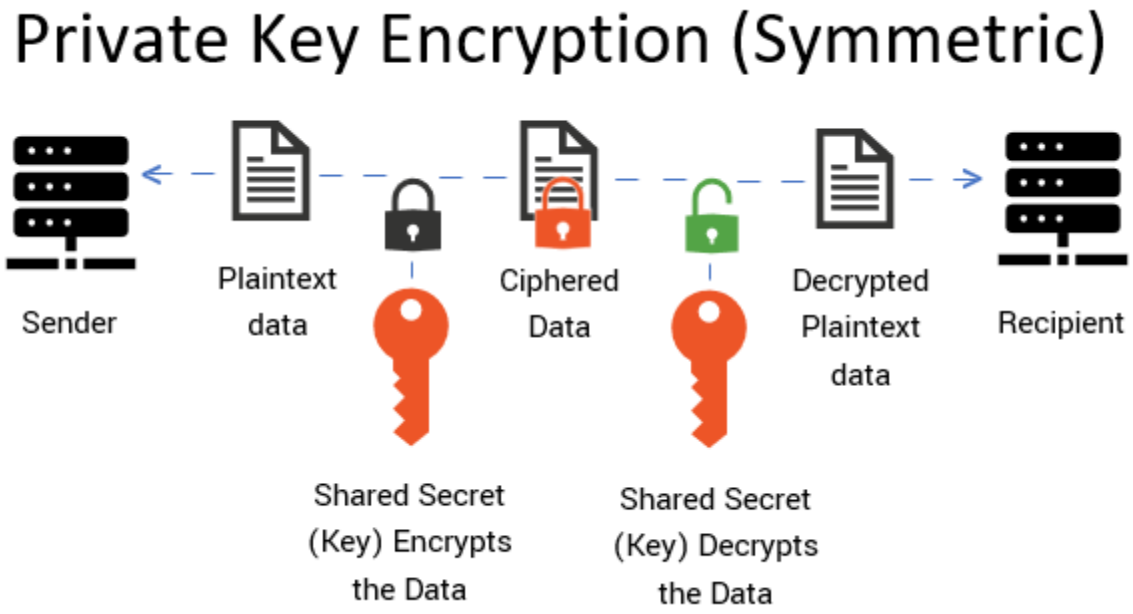
Asymmetric Cryptography



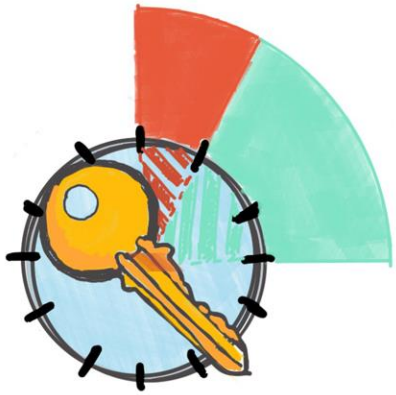
Key Exchange for Secret Key Cryptography



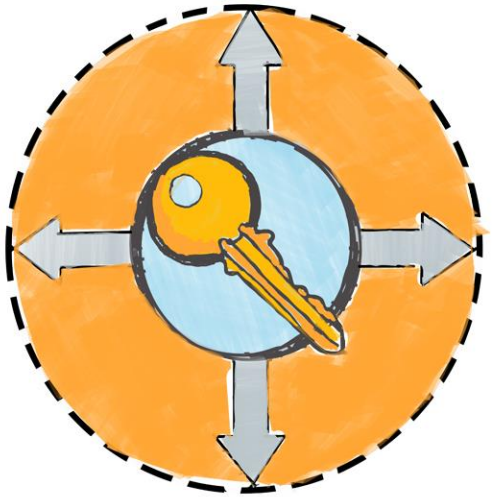
Symmetric Cryptography- Secret Key



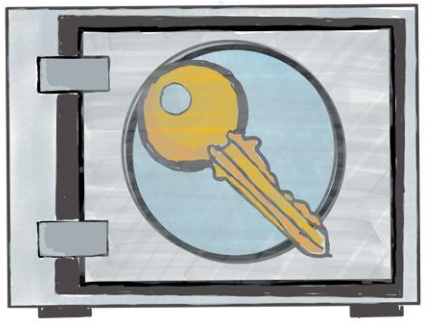
core key management goals



LIFECYCLE



DISTRIBUTION



STORAGE

Key Lifecycle

utimaco®

Generation

Storage

Destruction

Activation

Revocation

Distribution

Expiration

Rotation

Keys, Keys and more Keys

Secret Keys (Not to be Shared)

Shared Keys

TDE

PKI

Remote Key Loading

Key Injection

COMPLIANCE

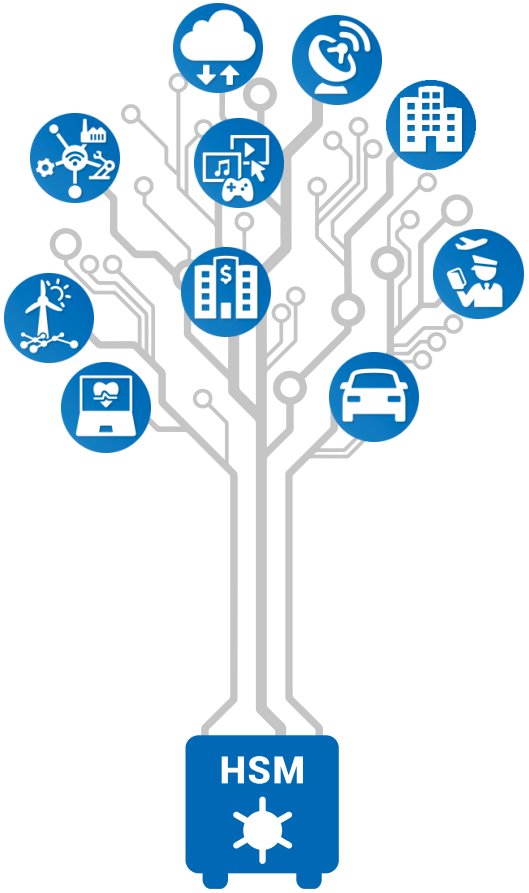
REGULATIONS
STANDARDS
POLICIES
COMPLIANCE
RULES
LAWS
REQUIREMENTS

Encrypting Data Protects it, Right?

- What can go wrong? If you…
  - Lose your Keys → Erase your Data!
  - Expose your Keys → Expose your Data!
  - Store Keys with Data → Intruder says “Thanks! ☺”
  - Don’t Control or Log Access to Keys → Fail next Audit!

Data Retention

The Root of Trust

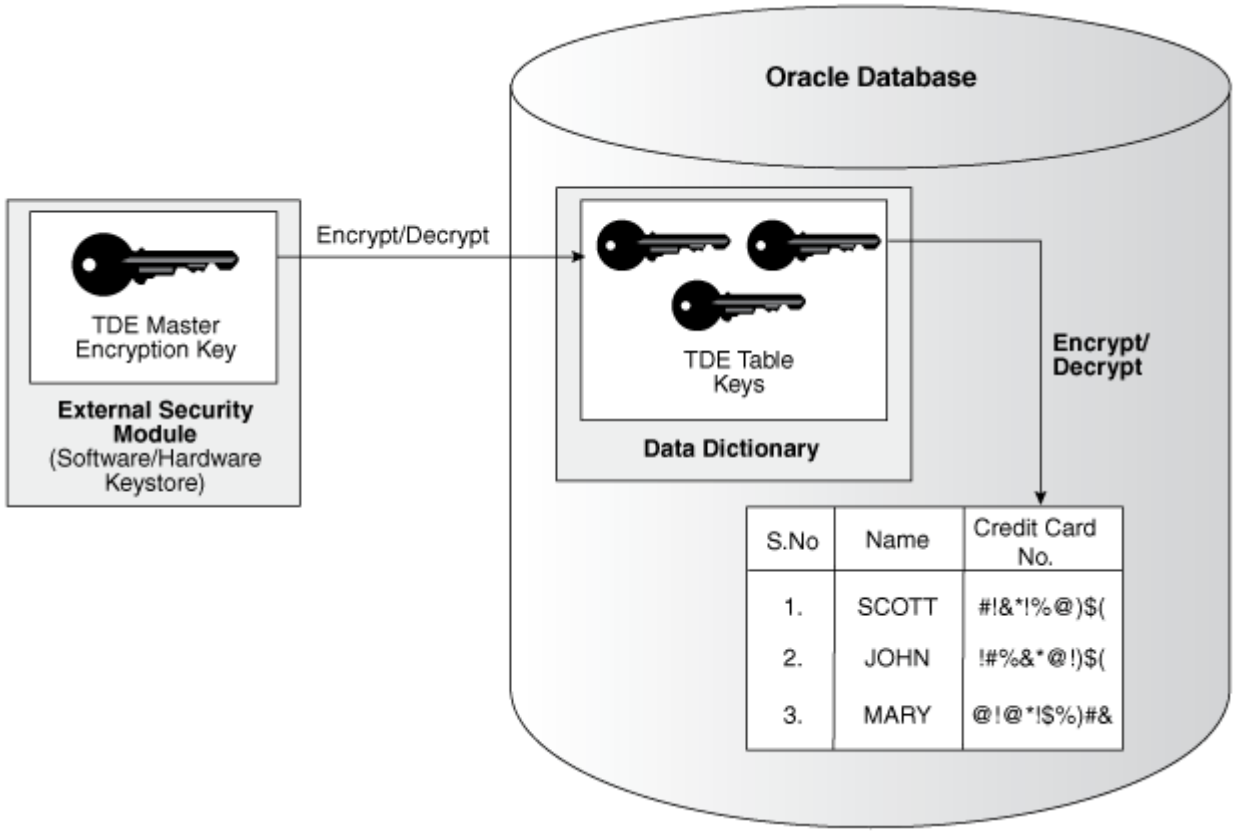


We keep your cryptographic keys safe

Use Cases

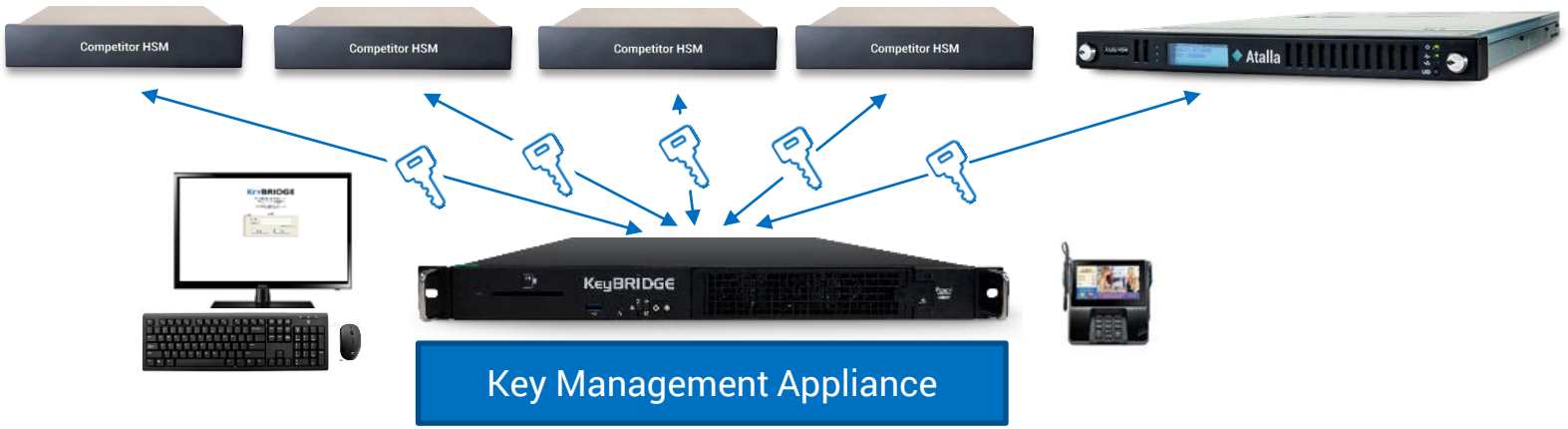
Database Encryption
Conditional Access
Authentification
Random Number Generation
HSM
Signature Creation / Document Signing
Key Injection
PKI
Time Stamping
Code Signing

TDE Database Encryption



UKM (Universal Key Management)

All aspects of HSM Key Management can be addressed via one solution



Features and Certifications

- Centralized Key Management
- FIPS 140-2 Level 3 HSM
- Third Party HSM Integration
- Secure Component Entry
- Component Management
- Cryptogram Management
- User-Definable Key Attributes
- Exportable Key Detail Data

- Secrets Management
- Relationship Management
- Successfully passed PCI PIN, DSS and Interact Audit
- Automated Logging
- Support for Key Bundling (TR-31)
- Support for TR-34

- Symmetric Support to 256 AES
- Asymmetric Support RSA & ECC
- 2-Factor Authentication
- JSON Schema RESTful API
- PIN Mailer Printing
- Automated Backup
- Quick Restore

Unifying Data Protection

Generate and Manage Encryption Keys Securely

- Utimaco's Enterprise Key Management Vision

- Protect Sensitive Data Wherever It Lives

Disk, Tape, SAN, Devices
Cloud, Service Providers
Database, Applications

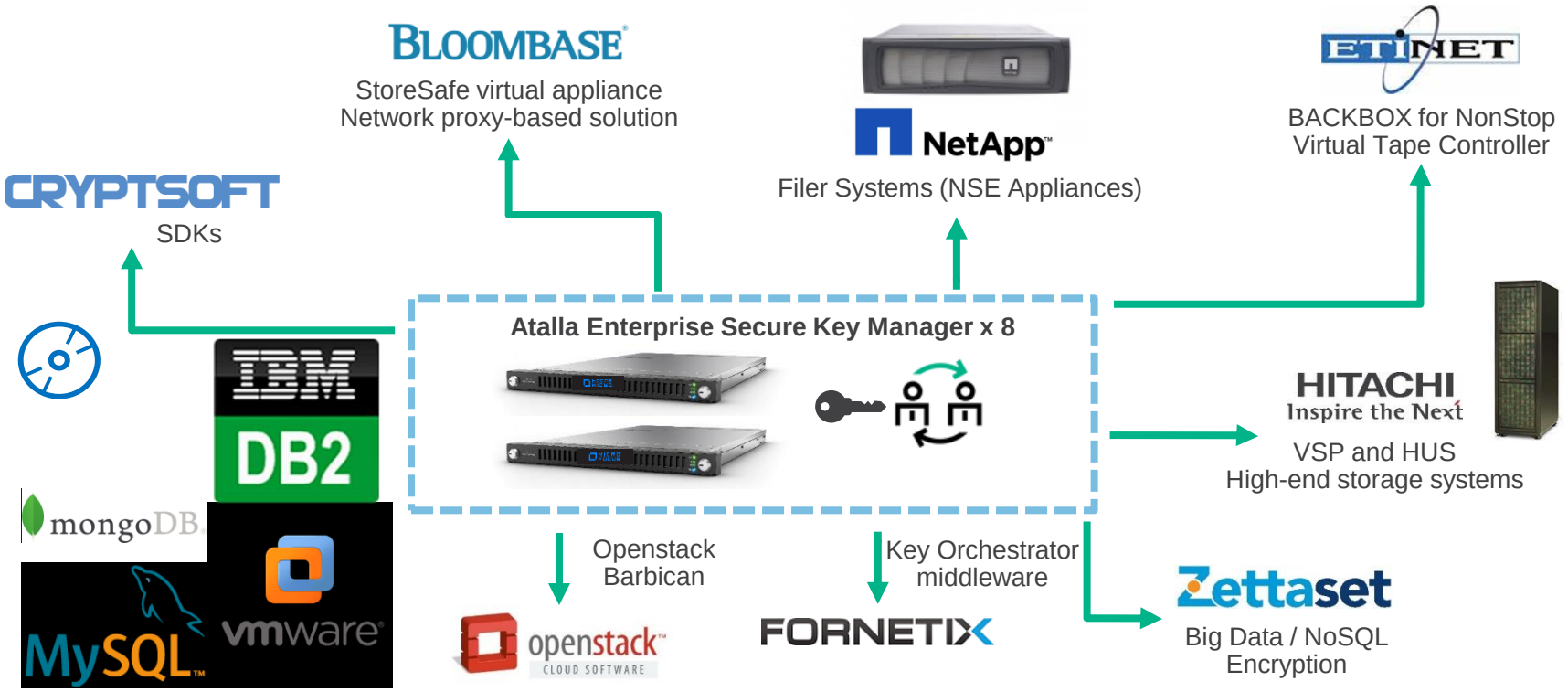
Scaleable, Reliable,
High Availability

- Meet Standards and
- Audit/Compliance

FIPS 140-2 Level 2
PCI-DSS, Data Privacy
HIPAA/HITECH

KMIP Interoperable Integrations

ESKM leads in compliance for application interoperability



HPE Storage Portfolio Integrations

HPE 3PAR StoreServ
(Disk and All-Flash Array)

HPE ProLiant Servers
with built in Secure
Encryption

HPE StoreEver Tape Libraries

HPE StoreOnce Backup

Partner
SDKs

KMIP Clients

OASIS

Enterprise Secure Key Manager x 8

HPE XP7
High End
Storage

Connected MX

Openstack
Barbican

HPE Helion

BackBox
Virtual tape

NonStop
Servers

Thank you

for your attention!

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