# Utimaco's ESKM and BYOK
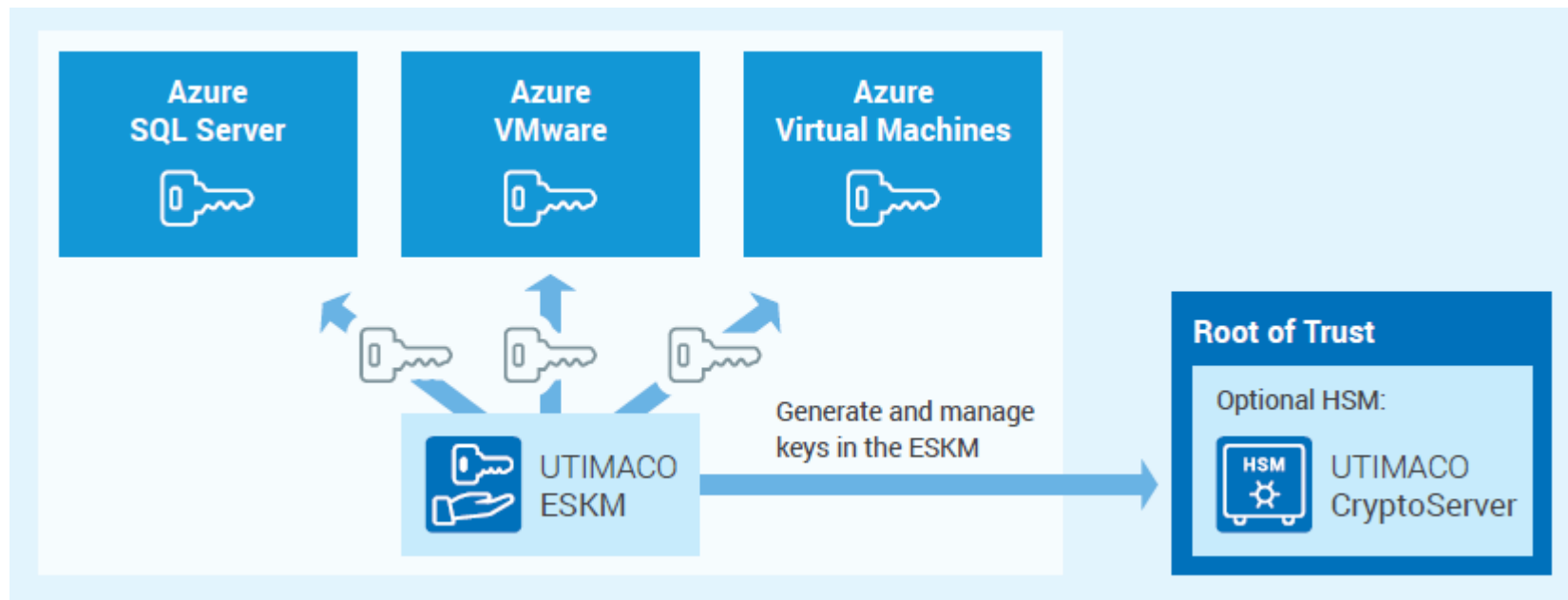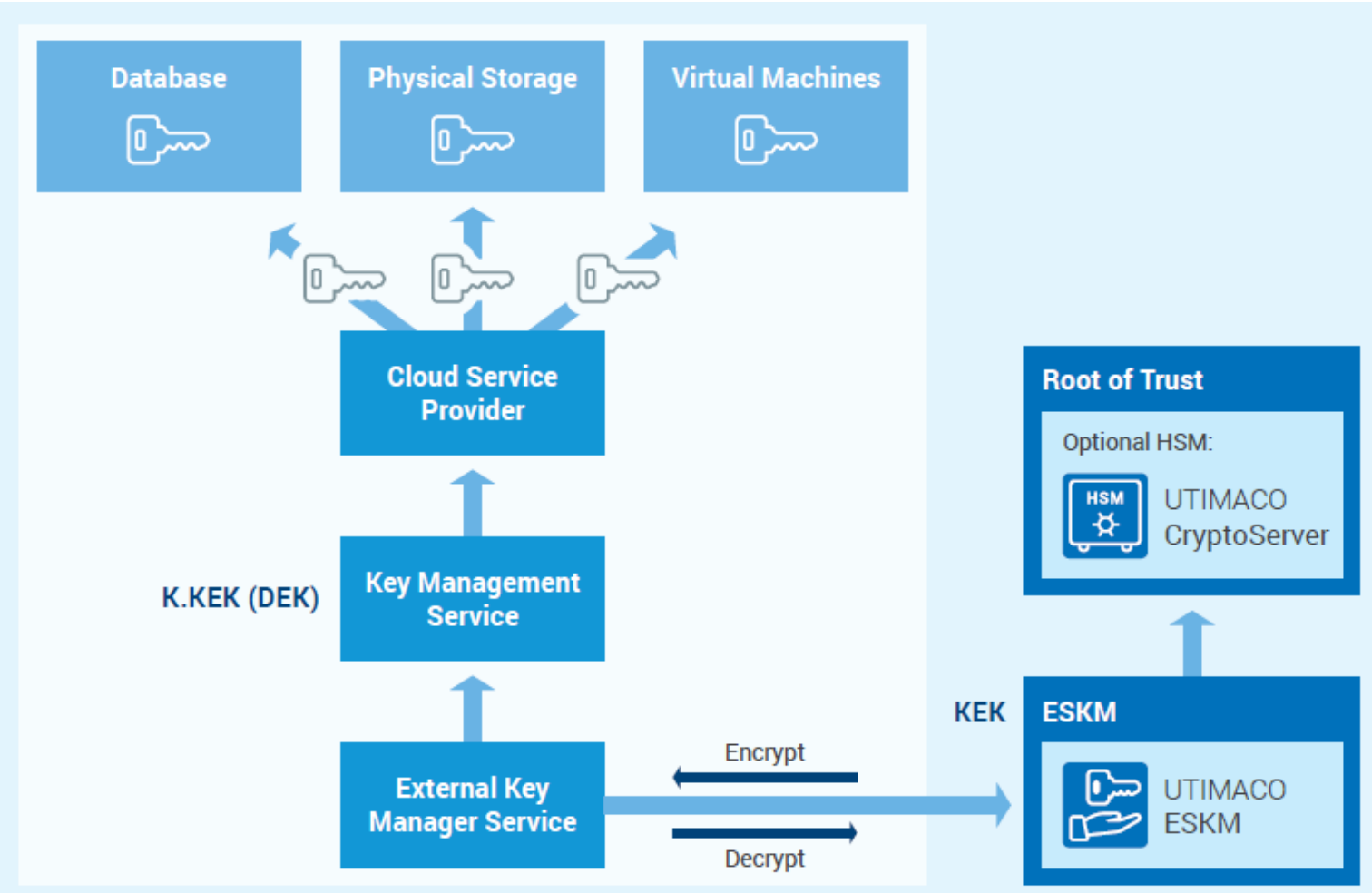
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## A typical multi-cloud BYOK Scenario

With BYOK - Bring Your Own Key - customers can bring their own key and inject it into the cloud instances instead of using one provided by their CSP. This way, customers can maintain control of the cryptographic keys used in the cloud to keep their data secure.

# ESKM and BYOK

## Using an External Key Manager

Some organizations require more control, and for such customers, the BYOK concept can be enhanced further by using an external key manager.

This way, the encryption keys stay with the organization and not with the CSP.

When the CSP needs a key, they will provide a reason for the key access request.

# ESKM Go to Cloud Strategy

## Single Pane of Glass for all Key Management

- Protect on-prem and cloud workloads
- Single pane of glass
- Data Sovereignty
- Highly Available solution
- Simple integration

- Scalability (thousands of nodes, millions of keys)
- REST API for external integrations
- On-Prem and Cloud Deployments
- HSM Protected

# Enterprise Secure Key Manager Models
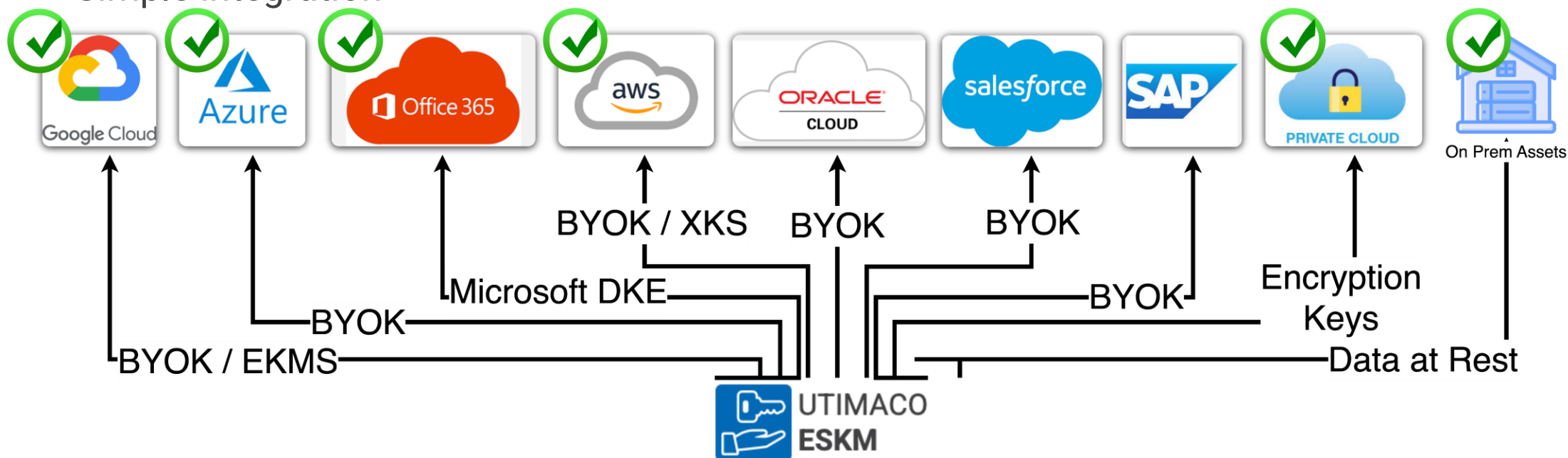
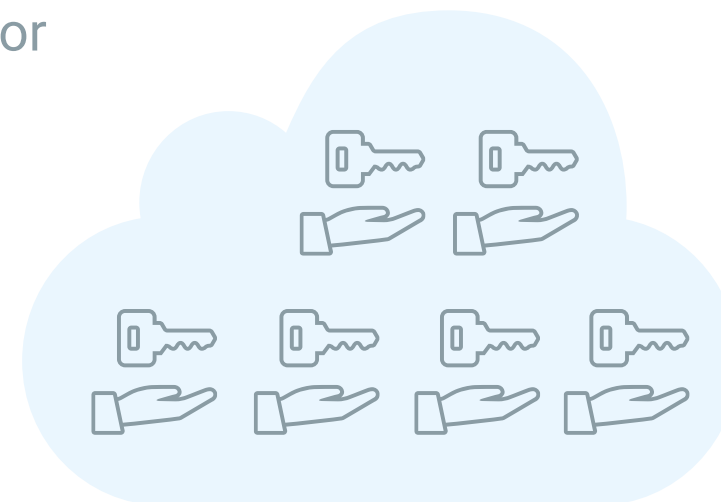

vESKM

ESKM L2

ESKM L3

ESKM L4

**Secrets**

UTIMACO General Purpose Hardware Security Module

# Virtual ESKM

## Packaged as a VM for deployment on your choice of hypervisor

- A key manager that can be **easily deployed and scale within your environment**

- **Simplify management of keys** across the entire lifecycle
  - Secure Key Generation
  - Storage and Backup
  - Key Distribution
  - Key Retrieval
  - Key De-Activation

- **Protect the keys** using HSM as the root of trust

- **Supports all integrations** as supported by the physical appliance

- Deploy on **your choice of hardware**

vESKM Cluster

**Secrets**

UTIMACO General Purpose Hardware Security Module:
CryptoServer LAN V5

# Key Management Protocols

## ESKM Support Industry Standards

**KMIP**
Key Management
Interoperability Protocol

- Simplified encryption management across global organizations
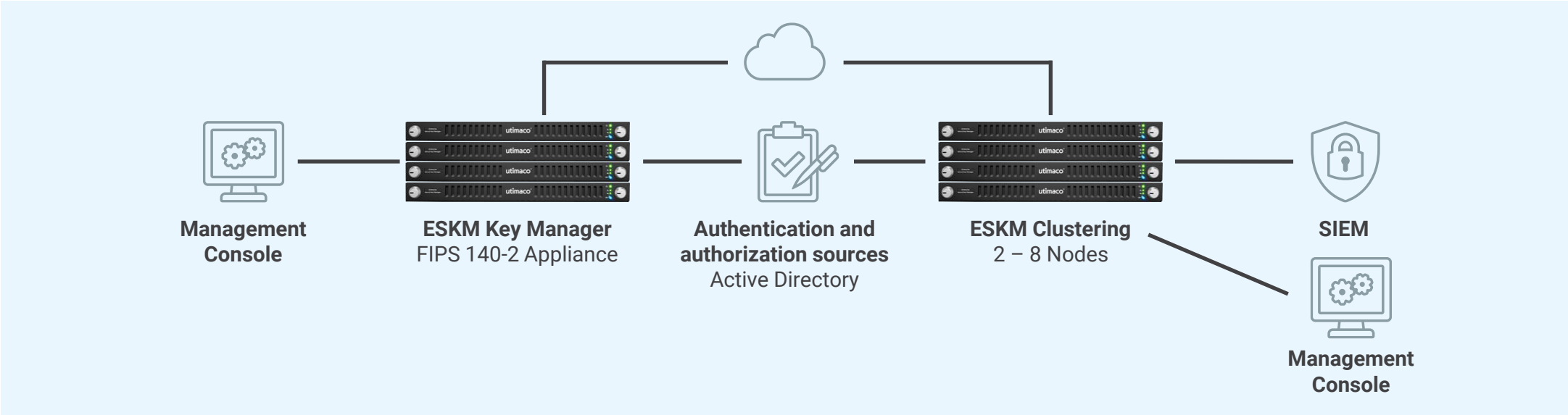- Cross vendor Integration
- Open Standard

**KMS**
Key Management Service

- Flexible with auto-registration support
- Free SDK, XML Based for fast development
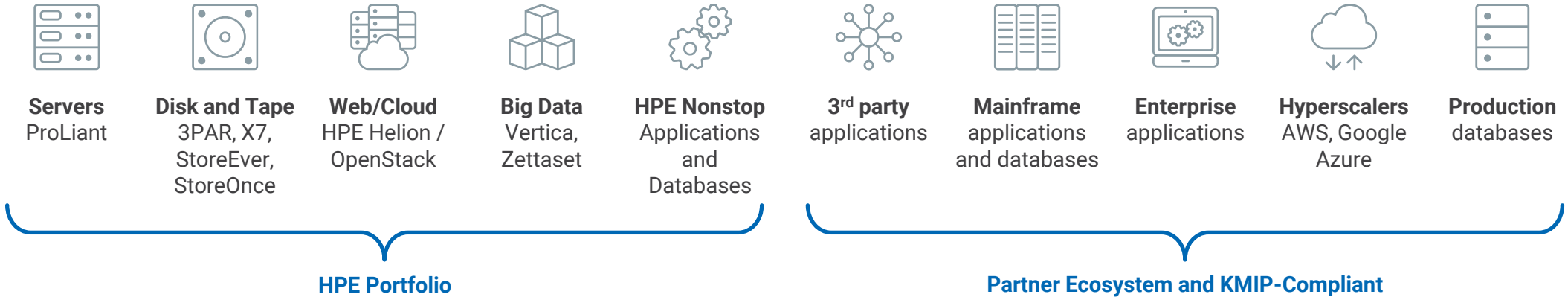- No additional licensing
- Performance oriented

**RESTful**
Key Management Service

- Simplified RESTful interface for key CRUD operations and crypto
- No additional licensing
- Performance oriented

# ESKM Integrations

## Data-at-rest key management



**Management Console**

**ESKM Key Manager**
FIPS 140-2 Appliance

**Authentication and authorization sources**
Active Directory

**ESKM Clustering**
2 – 8 Nodes

**SIEM**

**Management Console**

### Business applications, data stores and processes

**Servers**
ProLiant

**Disk and Tape**
3PAR, X7, StoreEver, StoreOnce

**Web/Cloud**
HPE Helion / OpenStack

**Big Data**
Vertica, Zettaset

**HPE Nonstop**
Applications and Databases

**3rd party** applications

**Mainframe** applications and databases

**Enterprise** applications

**Hyperscalers** AWS, Google Azure

**Production** databases

**HPE Portfolio**

**Partner Ecosystem and KMIP-Compliant**

# ESKM: industry's broadest Key Management portfolio

**utimaco**®

## ESKM leads all others in KMIP compliance and interoperability

- Cryptsoft
- ETI-Net
- Fornetix

- Hitachi Vantara
- NetApp
- OpenStack community

- Project 6 Research
- ZettaSet
- Vmware

- MongoDB
- IBM Db2
- Spectra Logic

- Quantum
- Bloombase
- BDT

- SUSE
- Brocade
- Panasas
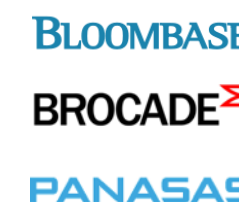
### ESKM KMIP Integrations

### HPE Security and Storage Solutions

- StoreEver Tape Library
- StoreServe 3PAR
- XP
- StoreEver
- StoreOnce

- XP Storage
- NonStop
- Secure Encryption
  (Proliant/smart array controller)
- Helion
  (OpenStack Barbican + HPSE)

- SimpliVity/Hyper Converged
- Nimble
- MF Autonomy
  (Connected MX Backup/Recovery)

**Hewlett Packard Enterprise**

**MICRO FOCUS**®