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Achieving Security and Compliance for SAP HANA in the Cloud

- Enforce strong data encryption on all SAP HANA data and log partitions
- Protect and control access to the SAP HANA Persistence Layer
- Use granular access controls to prevent privileged users and system administrators from accessing unauthorized data
- Facilitate compliance with new and existing data security mandates
- Maintain key and security policy custody on tenant/customer premises

The Problem: Achieving security and compliance for SAP HANA in the public and private cloud

Digital transformation has changed nearly every aspect of the modern enterprise, but data is still a company's most valuable asset. Consequently, mission-critical data must be secured using a combination of encryption, access controls, and robust key management. Used by enterprises both for transactional data operations as well as for real-time analytics, SAP HANA stores and processes sensitive enterprise data. However, traditional data security measures protecting from the perimeter of the data center are no longer sufficient. A much more secure, and best practice approach, is to encrypt mission critical data managed by HANA. This is especially important when HANA is deployed in the cloud or offered as a service.

The Cloud Service Providers (CSP) administrators who manage cloud infrastructure typically have access to the entire solution, including applications and data. Although there may be operational safeguards in place, the potential for insider attacks exists not only from CSP administrators but also from advanced persistent threats (APTs) that use sophisticated, long-term strategies to exploit insiders. In this environment, trust between cloud providers and their customers is no longer enough. Businesses need to know that they, and only they, can access their data. They also need to know that protections are in place to guard against both internal and external threats, including APTs.

The Solution: Data security for SAP HANA with Vormetric Data Security Platform

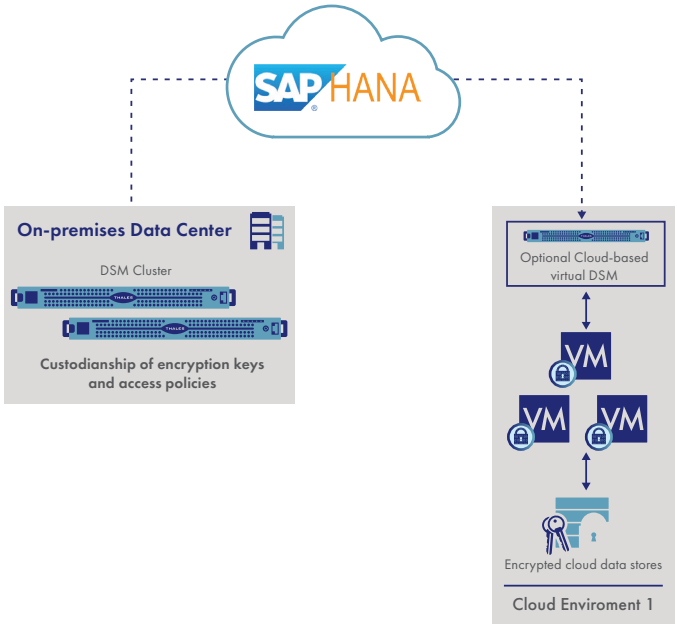
SAP HANA is an in memory, column-oriented relational database management system that can be deployed on-premises or in the cloud. The system lets organizations accelerate processes and deliver business intelligence. By providing a foundation for all data needs, SAP HANA removes the burden of maintaining separate legacy systems.

The Vormetric Data Security Platform from Thales encrypts data and prevents unauthorized data access using encryption technology and key management. Users can create policies to prevent privileged users from accessing the data in HANA whether on-premise or in the cloud. The SAP HANA data volumes and log volumes are protected at the file system level with policies created by a security administrator on the Vormetric Data Security Manager. The Vormetric Transparent Encryption agent also manages the startup, shutdown, and failover of SAP HANA hosts so that data is secured without interruption.

With Vormetric Transparent Encryption, customers can implement granular access controls to prevent privileged users and system administrators from accessing this very valuable persistence layer. In addition, customers with HANA environments deployed and managed by CSPs can control the encryption keys and access policies themselves.

Why Use Vormetric Transparent Encryption with SAP HANA Database?

The Vormetric Transparent Encryption agent runs at the file system or volume level on a server, and encryption and decryption is transparent to all users, applications, databases, and storage subsystems. Vormetric Transparent Encryption minimizes administrative overhead with key and policy management providing a secure and easy method of administering encryption keys. The solution enables organizations deploying SAP to establish consistent best practices for managing the protection of both structured and unstructured data accessed by SAP systems.



Vormetric Transparent Encryption protects data-at-rest with file and volume level encryption, controls access, and provides data access audit logging without having to re-engineer applications, databases, or infrastructures. Advanced High-performance encryption enables customers to:

- Enforce strong data encryption on all SAP HANA data and log partitions
- Use granular access controls to prevent privileged users and system administrators from accessing unauthorized data
- Achieve minimal encryption/access control performance overhead
- Keep keys and security policies with the tenant at customer premises i.e. customer maintains custodianship

The Vormetric Transparent Encryption solution provides policy and encryption key management to deliver scalability, flexibility, and efficiency. When applied to SAP HANA, the solution mitigates the risks of increasingly sophisticated advanced persistent threats. With software installed on servers or virtual machines to enforce data security and compliance policies, deployment is scalable and fast. Other environments supported by Vormetric Transparent Encryption include UNIX, Linux, and Windows. The SAP and Thales solution also supports files located in physical, virtual, and public and private cloud environments. Further, SAP has reviewed and qualified VTE as suitable solution for SAP HANA 2.0 environments.

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.

About SAP

As a market leader, SAP develops enterprise software to manage business operations and customer relations. SAP is at the center of today's business and technology revolution with innovations that help over 350,000 customers worldwide to work more efficiently and use business insight more effectively.

For more detailed technical specifications, please visit www.thalesesecurity.com or www.saphana.com

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