

Thales Ensures Data-Centric Security for Oracle Exadata Cloud@Customer

Thales CipherTrust provides
centralized external encryption
key management

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Organizations need to juggle how to meet evolving data locality, sovereignty, and privacy requirements. Specifically, there is an increasing need to retain sensitive workloads on-premises and demonstrate full data control while still looking for ways to benefit from cloud technologies. As a result, companies are re-evaluating their deployment models and security strategies. Together, both Thales and Oracle can help facilitate digital sovereignty and compliance with their combined offerings that merge the power of high-performance, fully managed data with the strength of the industry's leading external key management solutions.

To help balance performance, cloud scale and data residency requirements, [Oracle's Exadata Cloud@Customer](#) offers customers a hybrid management and deployment model in one solution. While workloads are on-premises, the hardware sourcing and software installation are provided as a fully managed service by Oracle. Additionally, the lifecycle management (daily operations, any patching or upgrades, and ongoing support) is delivered as a cloud service with Oracle Cloud Infrastructure (OCI).

For many large enterprises, sensitive data is stored in Exadata databases. Even if the data is encrypted, companies are still at risk of a data breach – either from internal privileged administrators or external hackers who can access the related keys. Broad key access ultimately compromises data control, which is why regulations can require organizations to store their keys separately from where their data resides, ensure control measures to monitor data access, and provide detailed audit logs.

While Exadata Cloud@Customer enables customers to digitize at scale, Thales CipherTrust Manager offers a data-centric security approach for sensitive workloads that satisfies these regulatory mandates to secure data, ensure data controls, and demonstrate proof of control.

Thales Enterprise Key Management

Thales [CipherTrust Application Key Management](#) allows customers to securely store their Oracle TDE encryption keys externally from Oracle Exadata Cloud@Customer (both autonomous and non-autonomous database) servers in Thales' CipherTrust Manager enterprise key management platform alongside keys from other 3rd party solutions, and Thales' CipherTrust Data Security encryption and tokenization solutions. Externally storing and managing encryption keys from where the data resides is a best practice that mitigates risks posed by privileged insiders and malicious hackers. CipherTrust Manager's ability to centrally manage encryption keys from disparate sources across the enterprise greatly simplifies administrative and management challenges to ensure keys are secure and always provisioned to authorized encryption services.

Centralized and Simplified - CipherTrust Manager centrally manages encryption key lifecycles and policies, independent of where the data resides. Simplifying key lifecycle management tasks such as secure key generation, backup/restore, clustering, deactivation, and deletion saves money, staff time, and effort. Organizations can save budget by purchasing fewer point key management solutions, allocate saved staff time to other critical tasks, and improve security by reducing the chance of human error from manual processes.

Access and Audit Controls - CipherTrust Manager provides role-based access control to keys and policies, multi-tenancy support with ultimate separation of duties, and robust auditing and reporting of all key management operations. All access and key state changes are recorded in detailed logs that improve oversight and facilitate audit reporting.

Customer Choice - Customers can store and manage their encryption keys outside Oracle Exadata Cloud@Customer autonomous and non-autonomous database servers in a virtual or physical Thales appliance that is entirely under their control. Customers can ensure that while Oracle is managing the Exadata environment, they remain in full control of their own data.

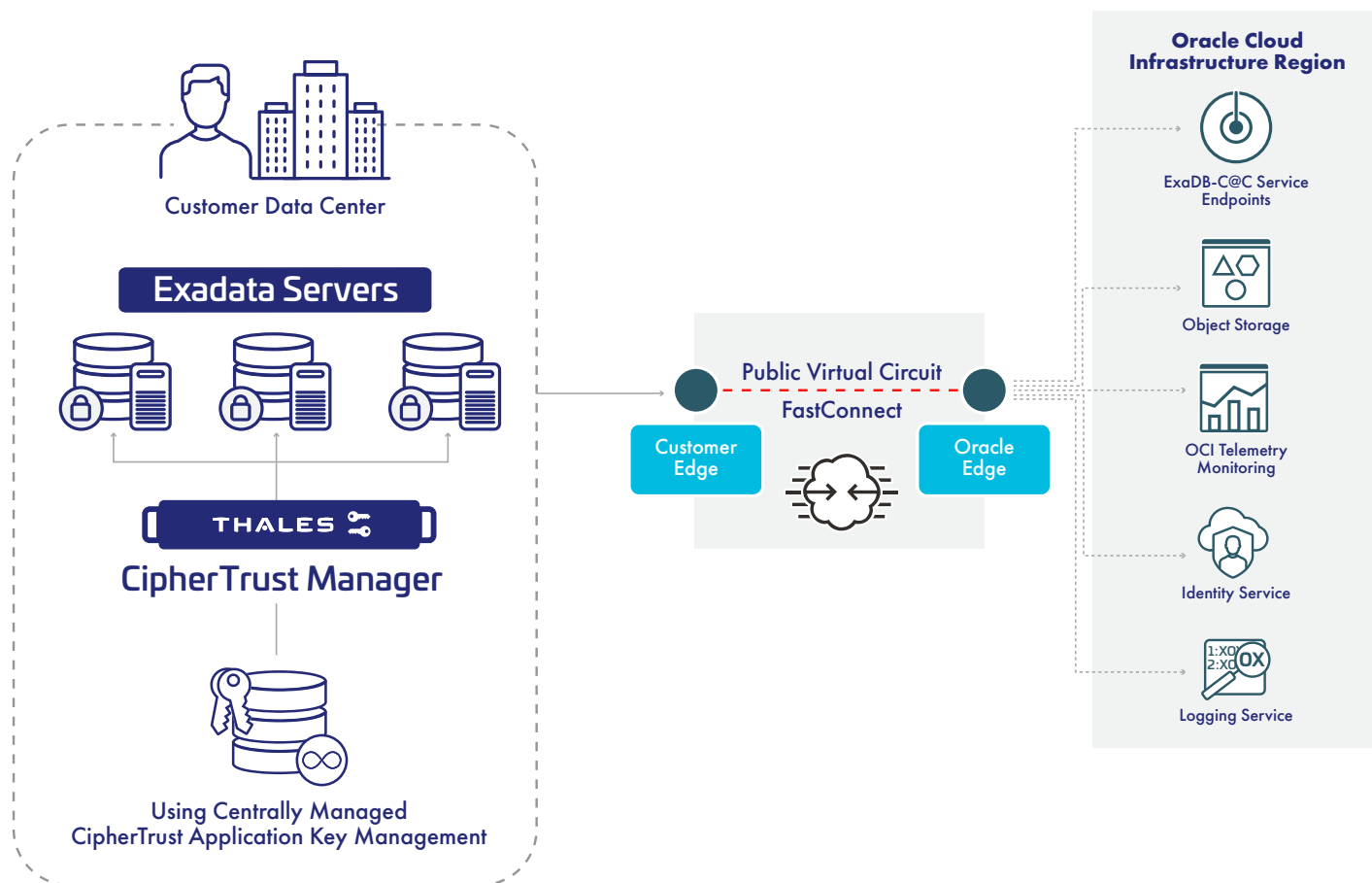
Business Highlights for Joint Customers

Centralize Security Management - Use a single pane of glass view and one straightforward interface to manage encryption keys for Oracle Exadata Cloud@Customer services, along with the rest of your cryptographic infrastructure.

Protect Against Breaches - Protect data in Oracle Exadata Cloud@Customer by using a third-party key management system such as Thales CipherTrust. Thales CipherTrust provides a higher level of data protection by storing keys outside Oracle infrastructure and cloud services. In the event of a breach, customers can sever the connection to the key manager to ensure that sensitive data remain unreadable to unauthorized users. Without access to the necessary encryption keys any stolen data will remain encrypted and ultimately useless to the attacker.

Key Provenance - When customers manage their own keys in a third-party key management system, they can demonstrate greater control over encrypted data by showing additional layers of security separation. External keys are never cached or stored anywhere in Oracle systems. Therefore, Oracle staff does not have access or control over these keys even when they manage the database services. Instead, Oracle services interact directly with the Thales key management system to unlock cryptographic (encrypt/decrypt) operations.

Regulatory Ready - Thales CipherTrust enables organizations to meet regulatory and compliance mandates more readily such as GDPR, HIPAA, LGPD, CCPA, and DORA.



Exadata Cloud@Customer with Thales CipherTrust for TDE key management

Conclusion

Oracle Exadata Cloud@Customer brings the performance, automation, and economics of Exadata Database Service and the fully managed Autonomous Database into enterprise data centers. It's the simplest way for customers to start using cloud database resources in their data centers and help address strict data residency requirements. Exadata Cloud@Customer incorporates unique optimizations that let Oracle Database workloads run faster with less management and lower costs so organizations can get more value from their data. Combining Thales CipherTrust to an Exadata Cloud@Customer deployment adds a layer of security and control to ensure the highest levels of protection, and streamline on-going administration at scale. Together, Thales and Oracle offer large-enterprises the best of both on-premises and the cloud.

About Thales

Thales is a global leader in cybersecurity, helping the most trusted companies and organizations around the world protect critical applications, sensitive data, and identities anywhere at scale. Through our innovative services and integrated platforms, Thales helps customers achieve better visibility of risks, defend against cyber threats, close compliance gaps, and deliver trusted digital experiences for billions of consumers every day.