

DATABASE

ORACLE ADVANCED SECURITY TDE TABLESPACE ENCRYPTION FOR ORACLE COMMUNICATIONS BILLING AND REVENUE MANAGEMENT

HIGH PERFORMANCE ENCRYPTION
BUILT INTO THE DATABASE

KEY FEATURES:

- Built-in key management
- Based on open standards with support for AES, 3DES, and PKCS#11
- Hardware crypto acceleration through Intel® AES-NI and SPARC T4

KEY BENEFITS

- Transparent, no application changes required
- Comprehensive encryption; Database files, redo logs, Data Pump export files and RMAN backups

Industry directives such as the Payment Card Industry Data Security Standard (PCI-DSS) and numerous privacy and breach notification laws require the use of encryption for sensitive data. Oracle Advanced Security provides a transparent and scalable encryption solution for encrypting sensitive Oracle Communications Billing and Revenue Management data in the database, on backup media, and export files. Oracle Advanced Security TDE tablespace encryption provides an easy to implement encryption solution.

Oracle Advanced Security Encryption

Oracle Advanced Security is Oracle's database security solution that protects data from access outside the database. Database bypass attacks that attempt to read data directly from files on the operating system are prevented because the data is only decrypted when accessed by the database. Oracle Advanced Security can also protect information in export files and on backup media. Without requiring any application changes, Oracle Advanced Security seamlessly encrypts application data.

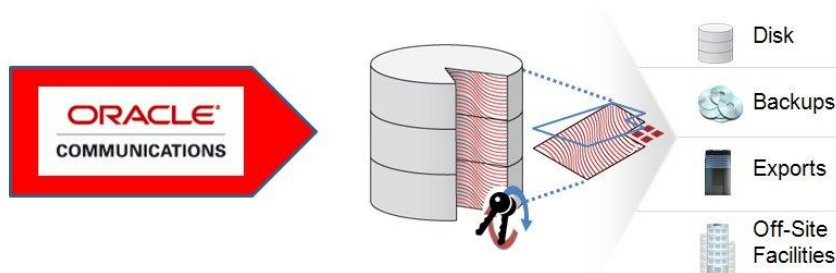


Figure 1. Oracle Advanced Security Transparent Data Encryption

Oracle Advanced Security TDE tablespace encryption automatically encrypts Oracle Communications Billing and Revenue Management data stored in database files, transparently decrypting it only when the data is accessed through the database. Traditional database access controls continue to apply, so data will not be decrypted until an application or database user has authenticated to the Oracle database, and passed all access control checks including those enforced by Oracle Database Vault. Once encrypted, data remains secure in the event of unauthorized access to files at the operating system level, discarded disk drives and off-site backup media.

Out-of-the-box protection for sensitive Oracle Communications Billing and Revenue Management data

Oracle has certified Oracle Advanced Security TDE tablespace encryption for Oracle Communications Billing and Revenue Management. The performance impact measured by early adopters and internal benchmarks is less than 6%. When the Oracle Database 11gR2 (11.2.0.2 and higher) is installed on servers with the Intel® CPUs with AES-NI or SPARC T4,

TDE tablespace encryption automatically leverages the built-in hardware crypto acceleration to further minimize the performance impact.

Integrated with Export, Backup and Compression

Oracle Advanced Security TDE tablespace encryption works seamlessly with Oracle Advanced Compression, automatically applying compression and encryption in the correct sequence, enabling Oracle Database 11g customers to achieve better security and storage savings at the same time. Oracle Advanced Security is integrated with Oracle DataPump and Oracle RMAN to provide seamless encryption of (compressed) database exports and backups to disk, providing protection for data exported from the database or transported off-site.

Integrated with Oracle's Engineered Systems

Oracle Advanced Security TDE tablespace encryption automatically leverages the built-in hardware encryption acceleration capabilities of the Intel® CPUs in Oracle Exadata X2 and the Oracle Database Appliance, as well as the SPARC T4 CPUs in Oracle SuperCluster, and fully complements Advanced Compression as well as Exadata Hybrid Columnar Compression (EHCC).

Contact Us

For more information about Oracle Advanced Security, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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Hardware and Software, Engineered to Work Together