

# ORACLE ADVANCED SECURITY

## ENCRYPTION FOR ORACLE JD EDWARDS

### ENTERPRISEONE APPLICATIONS

#### KEY FEATURES AND BENEFITS

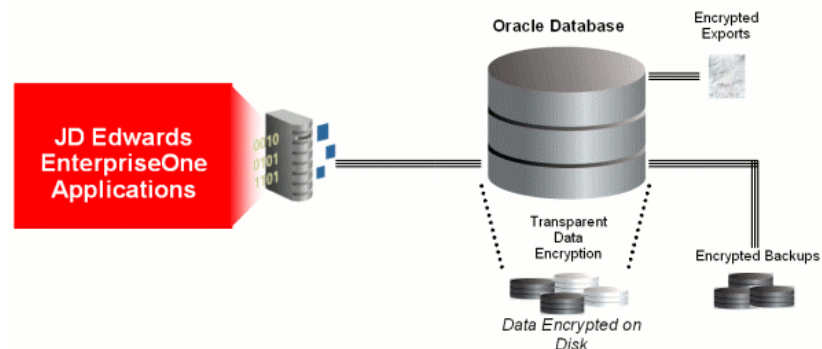
**ORACLE**  
DATABASE **11g**

- Transparent, no application changes
- Built-in key management
- Comprehensive encryption - database files, redo logs, exports and backups
- High performance
- Support for centralized key management using 3<sup>rd</sup> party hardware security modules (HSM)
- Based on open standards with support for AES, 3DES, and PKCS#11

Industry directives such as the Payment Card Industry Data Security Standard (PCI-DSS) and numerous privacy 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 JD Edwards EnterpriseOne application data in the database and on backup media. As the definition of sensitive data continues to expand far beyond credit card and social security numbers, Oracle Advanced Security allows encrypting entire application tablespaces, without any modification to the application itself.

#### Oracle Advanced Security Encryption

Oracle Advanced Security TDE tablespace encryption is Oracle's comprehensive data encryption solution that protects data in the database and on backup media. Without requiring any application changes, Oracle Advanced Security seamlessly encrypts sensitive application data.



Oracle Advanced Security TDE tablespace encryption transparently encrypts Oracle JD Edwards EnterpriseOne application data when written to database files and decrypts the data when accessed inside the database. Traditional access controls still apply, so data will not be decrypted until an application user has authenticated to the application and passed all access control checks in the database, including those enforced by Database Vault, Label Security and virtual private database. Once encrypted, sensitive data remains secure in the event of unauthorized access to files at the operating system level, discarded disk drives and off-site backup media.

## RELATED PRODUCTS AND SERVICES

- Oracle Database Vault
  - Protect application data from privileged users
  - Customizable separation-of-duty
  - Real time preventive controls
  - Out-of-the-box policies available for Oracle E-Business Suite, Siebel, PeopleSoft and JD Edwards EnterpriseOne Applications
- Oracle Audit Vault
  - Secure and consolidate audit data from Oracle Database 9i, Oracle Database 10g, Oracle Database 11g, Microsoft SQL Server 2000 and 2005, Sybase ASE 12.5-15.0, and IBM DB2 8.2-9.5 databases
  - Built-in reports for compliance and privileged user activity
  - Alert on suspicious activity
  - Central management of audit policies for Oracle databases
- Oracle Label Security
  - Transparent row level access controls using data labels
  - Multi-level security for government and defense organizations
  - Flexible, policy based architecture for commercial organizations
- Oracle Secure Backup
  - Transparent backup and encryption of database and operating system files to tape
  - Built-in key management
  - Based on open standards AES, 3DES
- Oracle Data Masking
  - De-identify privacy related application data for non-production environments
  - Automate the masking process with policies and format templates
  - Maintain referential and relational integrity to ensure applications work
  - Sensitive data never leaves the database

## Out-of-the-Box Protection For Sensitive Oracle JD Edwards EnterpriseOne Applications Data

Oracle has certified Oracle Advanced Security TDE tablespace encryption for Oracle JD Edwards EnterpriseOne Applications. Customers running on Oracle Database 11g can use TDE tablespace encryption to protect entire application tablespaces containing credit card numbers or other personally identifiable information (PII). Encryption of credit card numbers stored in Oracle JD Edwards EnterpriseOne applications helps organizations comply with section 3.6 of the PCI Data Security Standard (PCI-DSS).

## Integrated with Export, Backup and Compression

Oracle Advanced Security is integrated with Oracle DataPump and Oracle RMAN to provide seamless encryption for database exports and backups to disk, providing protection for data removed from the database or transported off-site. In addition, Oracle Advanced Security tablespace encryption can be used with Oracle Advanced Compression, reducing storage costs while still maintaining security.

## Certification

JD Edwards EnterpriseOne Tools are certified for Oracle Database 11g and can leverage TDE tablespace encryption. Refer to My Oracle Support web site for minimum technical requirements.

Oracle Database 11g Advanced Security supports hardware security modules (HSM) for centralized key management and high assurance.

## Contact Us

For more information about Oracle Advanced Security, please visit [oracle.com](http://oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.



Oracle is committed to developing practices and products that help protect the environment

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