#### How To Change The Tablespace Encryption Key? [ID 1152787.1]

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Goal Solution References

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## Applies to:

Oracle Server - Enterprise Edition - Version: 11.1.0.7 and later [Release: 11.1 and later ] Information in this document applies to any platform.

#### Goal

How to change the tablespace encryption keys to meet the PCI requirements?

#### Solution

When using TDE tablespace encryption there are two encryption keys involved:

- 1) The tablespace encryption master key
- 2) The individual tablespace encryption key

The individual tablespace keys are stored in the header of each datafile of the encrypted tablespaces. There is one such key for each tablespace. The individual tablespace keys are encrypted using the TDE master encryption key. The master encryption key is generated when TDE is initialized and stored in the Oracle Wallet or in an HSM device.

A complete rekey requires the change of both keys.

#### Tablespace encryption master key rekey:

Changing the tablespace encryption master key is possible starting with 11gR2. In this version a unified master encryption key is used. When the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will when the master key is changed then both the TDE column encryption and TDE tablespace encryption will be a supplied to the tablespace encryption will be a supplied to the tablespace encryption will be a supplied to the tablespace encryption and tablespace encryption will be a supplied to the tablespace encryption will be a supplied to tablespace encryption will be a supplied to table the tablespace encryption will be a supplied to table the table table the table tab

In 11gR1 the tablespace encryption master key cannot be changed.

## Individual tablespace encryption key rekey:

There is no command that would change the individual tablespace encryption key. The only way to accomplish this is to move the data to a newly created encrypted tablespace. This is true for both 11gR1 and 11gr2.

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## References

NOTE:207959.1 - All About Security: User, Privilege, Role, SYSDBA, O/S Authentication, Audit, Encryption, OLS, Database Vault, Audit Vault NOTE:432776.1 - 11g New Feature: Transparent Data Encryption at Tablespace Level

# Related

## Products

• Oracle Database Products > Oracle Database > Oracle Database > Oracle Server - Enterprise Edition

## Keywords

TABLESPACE; ENCRYPTION; ENCRYPTION KEY; ENCRYPT; TDE; TABLESPACES

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