**SQL Server 2014 Transparent Data Encryption (TDE)**

Enabling SQL Server TDE is a 4 step process:

* Create a master key
* Create or obtain a certificate protected by the master key
* Create a database encryption key and protect it by the certificate
* Set the database to use encryption

-Note there is a Service Master Key created during instance setup and requires no action during TDE setup.

1. **--Create Database Master Key**

--There must be a Database Master Key in the Master Database

USE master;

GO

CREATE MASTER KEY ENCRYPTION BY PASSWORD = '<UseStrongPasswordHere>';

Go

1. **--Create a Certificate (from a file in this case)**

USE master;

GO

CREATE CERTIFICATE MyServerCert

FROM FILE = 'D:\OAB\_DBCert.cer'

WITH PRIVATE KEY (FILE = 'D:\OAB\_DBKey.pvk',

DECRYPTION BY PASSWORD = 'somePASSWORD);

GO

1. **– Create Database Encryption Key (DEK) and associate to DB**

Use AdventureWorks;

Go

CREATE DATABASE ENCRYPTION KEY

WITH ALGORITHM = AES\_256

ENCRYPTION BY SERVER CERTIFICATE MyServerCert;

GO

1. **– Encrypt the Database**

ALTER DATABASE AdventureWorks2012

SET ENCRYPTION ON;

GO

Images for Reference

