Oracle® Key Vault

Release Notes

Release 12.1

E54108-09

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These Release Notes contain important information about Oracle Key Vault. See *Oracle Key Vault Administrator's Guide* for detailed information about Oracle Key Vault.

Topics:

- Downloading the Latest Version of This Document
- General Administration and Configuration Issues
- Oracle Database Bugs That Affect Oracle Key Vault
- Documentation Accessibility

1 Downloading the Latest Version of This Document

You can download the most current version of this document from the following website:

`http://www.oracle.com/technetwork/database/options/key-management/downloads/index.html`

To access the Oracle Key Vault documentation, visit the following site:

`http://docs.oracle.com/cd/E50341_01/index.htm`

2 General Administration and Configuration Issues

This section describes known issues and workarounds for general administration and configuration issues.

Topics:

- Session State Protection Violation Error
- Unable to Refresh the Current Key Vault Management Console Page
- KMIP Operation General Failure Error
- Failure When Setting Up High Availability with Asymmetric System Memory
- Adding a Default Wallet to an Endpoint Requires Re-Enrollment
- Cannot Change System Recovery Password When in High Availability
- Large Backups to Remote Destinations May Fail
- Unable to Download Security Objects to an Auto-login Wallet in Some Endpoints
- TDE_MASTER_KEY Is Not Set in Pluggable Database After HSM Migration

- Reverse Migration from Oracle Key Vault to a Local Wallet Does Not Set Master Key in PDBs
- Incorrect Error Message When Invalid Certificate Information Entered for High Availability

2.1 Session State Protection Violation Error

While using the Key Vault management console, the following error may appear:

```
Session state protection violation This may be caused by manual alteration of a
URL containing a checksum or by using a link with an incorrect or missing
checksum. If you are unsure what caused this error, please contact the application
administrator for assistance.
```

Workaround: Close the browser window and establish a new session with the Key Vault management console.

For example:

```
https://192.0.2.254
```

Oracle Bug: 18710655

2.2 Unable to Refresh the Current Key Vault Management Console Page

If you are logged into the Key Vault management console but leave the page and then try to refresh later on, the following error may appear:

```
Success message checksum content error

Contact your application administrator.
```

Workaround: Close the browser window and establish a new connection to the Key Vault management console.

For example:

```
https://192.0.2.254
```

Oracle Bug: 18866155

2.3 KMIP Operation General Failure Error

The following error may appear after you run an `okvutil` command that affects wallets:

```
Error: KMIP Operation General Failure
```

Workaround: As a Key Administrator, check for the following possible problems:

- The wallet name supplied for the `-g` *`group`* option is incorrect. Remember that the group name you specify is case sensitive, and that it must match exactly the virtual wallet that was created in Oracle Key Vault. You can check the wallet names in the Key Vault management console by selecting the **Keys & Wallets** tab, and then selecting **Wallets**. The names of the wallets are in the Wallets pane.
- The endpoint on which the command was used does not have access to the wallet. Look for the wallet name in the list of wallets for the endpoint, and then ensure that it has Read, Modify, and Manage Wallet permissions.

Oracle Bug: 17631393

2.4 Failure When Setting Up High Availability with Asymmetric System Memory

When configuring a standby appliance for High Availability, the standby appliance may fail to start if its memory size is smaller than the memory size of the primary appliance.

Workaround: Deploy a standby appliance with same system memory size as the primary appliance. Ensure that the hardware configurations (CPU, memory size, and disk size) for the primary and the standby match.

Oracle Bug: 18906235

2.5 Adding a Default Wallet to an Endpoint Requires Re-Enrollment

If a default wallet is not specified when you enroll an endpoint, then you must re-enroll the endpoint and as part of that process, specify the default wallet.

Workaround: None

Oracle Bug: 19079333

2.6 Cannot Change System Recovery Password When in High Availability

When the Oracle Key Vault appliance instance is operating in High Availability mode, an `Operation not allowed` error is returned when if you try to change the recovery passphrase. Therefore, when you use the system recovery page to create new administrative users or reset passwords for existing administrative users, ensure that you leave the system recovery passphrase fields blank.

Workaround: If you want to change the recovery passphrase, then revert the existing primary appliance node to a standalone appliance.

Oracle Bug: 19259565

2.7 Large Backups to Remote Destinations May Fail

In some cases, backups to remote destination may fail to transfer backups larger than 4GB when using password authentication.

Workaround: Configure the remote backup destination to use key-based authentication. Only use password authentication for testing and proof-of-concept deployments.

Oracle Bug: 19158043

2.8 Unable to Download Security Objects to an Auto-login Wallet in Some Endpoints

For Oracle Database 12*c* endpoints, downloading security objects from Oracle Key Vault directly into an auto-login wallet may fail to create an auto-login wallet in the specified path. This is due to changes in the `orapki` utility between the Release 11*g* and 12*c* `orapki` utility.

Workaround: Download the password-protected wallet and then manually convert it to an auto-login wallet by using the `orapki` utility.

Oracle Bug: 19266884

2.9 TDE_MASTER_KEY Is Not Set in Pluggable Database After HSM Migration

In a multitenant environment, after running the `ADMINISTER KEY MANAGEMENT SET ENCRYPTION KEY ... MIGRATE` statement, the `TDE_MASTER_KEY` column is set in the `PROPS$` table for `CDB$ROOT` even though you do not have column encryption in `CDB$ROOT`. However, the null value is set for the `TDE_MASTER_KEY` in the `CDB1_PDB1` view.

Workaround: None. TDE direct connections to Oracle Key Vault are not supported on databases using the Oracle Multitenant option.

Oracle Bug: 17409174

2.10 Reverse Migration from Oracle Key Vault to a Local Wallet Does Not Set Master Key in PDBs

In a multitenant environment, performing a reverse migration fails in a pluggable database (PDB). The reverse migration succeeds in the `CDB$ROOT`, but the master key is not set in any of the PDBs in this container.

Workaround: None. TDE direct connections to Oracle Key Vault are not supported on databases using the Oracle Multitenant option. However, you can perform Oracle wallet uploads and downloads in a multitenant environment.

Oracle Bug: 18223527

2.11 Incorrect Error Message When Invalid Certificate Information Entered for High Availability

If you are configuring high availability, in the Configure High Availability window, then you must enter a peer system IP address and certificate. If you enter invalid settings, a message saying `Peer system: IP and Certificate settings saved successfully` appears. This message is incorrect. If the settings are valid, they are saved. If they are invalid, the settings are not saved, even though the message indicates otherwise.

Workaround: None

Oracle Bug: 17400789

3 Oracle Database Bugs That Affect Oracle Key Vault

You may encounter one or more of the following Oracle Database bugs when using Oracle Key Vault for key management. In most cases, the bugs have already been fixed in the latest release. Check with Oracle Support to see if a patch is available for your version and platform of the Oracle Database.

Topics:

- ORA-00600 Error on Database Shutdown When Using TDE Direct Connection to Oracle Key Vault
- ORA-03113 Error After Performing DDL Actions
- ORA-03113 Error After Rekeying Table Keys

- ORA-03113 Error When Creating Keys with a Tag
- ADMINISTER KEY MANGEMENT SET KEY Returns ORA-600 in Oracle RAC Environments

3.1 ORA-00600 Error on Database Shutdown When Using TDE Direct Connection to Oracle Key Vault

An `ORA-00600 internal error code` error appears during a shutdown of the database after you have selected from the `V$ENCRYPTION_KEYS` or `V$CLIENT_SECRETS` TDE view when using TDE in an HSM configuration. This error occurs in the Oracle Database 12.1.0.2 release.

Workaround: This problem occurs when you try to clean up the SGA cache for `V$ENCRYPTION_KEYS` and `V$CLIENT_SECRETS` views after the database shutdown has been initiated. Closing the wallet also cleans up the system global area (SGA) cache for these views.

Before shutting down the database, explicitly close the keystore, as follows:

```
ADMINISTER KEY MANAGEMENT SET KEYSTORE CLOSE IDENTIFIED BY "Key_Vault_endpoint_
password";
```

Oracle Bug: 18419520

3.2 ORA-03113 Error After Performing DDL Actions

An `ORA-03113: end-of-file on communication channel` error appears under the following conditions:

- The endpoint database is Oracle Database Release 11.2.0.3.
- You attempt DDL actions on an encrypted table after uploading the keys to Oracle Key Vault but before migrating to Oracle Key Vault.

Workaround: Complete the migration process to Oracle Key Vault. For example:

```
ALTER SYSTEM SET ENCRYPTION KEY IDENTIFIED BY "Key_Vault_endpoint_password"
MIGRATE USING "wallet_password";
```

Oracle Bug: 17707304

3.3 ORA-03113 Error After Rekeying Table Keys

An `ORA-03113: end-of-file on communication channel` error appears under the following conditions:

- The endpoint database is Oracle Database Release 11.2.0.3.
- You attempt to rekey the table keys before you perform a migration of the TDE master key from an Oracle wallet file to Oracle Key Vault.

Workaround: Complete the migration process to Oracle Key Vault. For example:

```
ALTER SYSTEM SET ENCRYPTION KEY IDENTIFIED BY "Key_Vault_endpoint_password"
MIGRATE USING "wallet_password";
```

Oracle Bug: 17738957

3.4 ORA-03113 Error When Creating Keys with a Tag

An `ORA-03113: end-of-file on communication channel` error appears under the following conditions:

- The endpoint database is Oracle Database Release 12.1.0.1.
- You perform a create key operation using the `ADMINISTER KEY MANAGEMENT CREATE ENCRYPTION KEY USING TAG` statement in a new session.

Workaround: Execute a SQL statement that accesses Oracle Key Vault before you create the key in the same session. For example:

```
SELECT KEY_ID FROM V$ENCRYPTION_KEYS;
```

Oracle Bug: 17834007

3.5 ADMINISTER KEY MANGEMENT SET KEY Returns ORA-600 in Oracle RAC Environments

In an Oracle Real Application Clusters (Oracle RAC) environment using Oracle Database 12.1.0.1, the following error appears if you try to run the `ADMINISTER KEY MANAGEMENT SET KEY` statement to set a key using a TDE direct connection in a pluggable database:

```
ORA-00600: internal error code
```

Workaround: Use the `ALTER SYSTEM` SQL statement instead of `ADMINISTER KEY MANAGEMENT`.

For example:

```
ALTER SYSTEM SET ENCRYPTION KEY IDENTIFIED BY "Key_Vault_endpoint_password";
```

Oracle Bug: 18144599

4 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

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