Oracle® Database Vault

Release Notes

10*g* Release 2 (10.2.0.5) for Linux x86-64

B32497-08

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These Release Notes describe issues you may encounter with Oracle Database Vault 10*g* Release 2 (10.2.0.5). The Oracle Database Vault installation is covered in detail in *Oracle Database Vault Installation Guide for Linux x86-64*.

This document may be updated after it is released. To check for updates to this document and to view other Oracle documentation, see the Documentation section on the Oracle Technology Network (OTN) Web site:

http://www.oracle.com/technetwork/indexes/documentation/index.html

This document contains the following sections:

- Installation Issues and Recommendations
- Usage Issues and Recommendations
- Frequently Asked Questions on Installation
- Miscellaneous Notes
- Documentation Accessibility

1 Installation Issues and Recommendations

This section describes the known issues pertaining to installation. It also provides the workarounds that you can use.

1.1 Database Vault Administrator Web Application Fails to Start

Bug 9587181

The Database Vault Administrator (DVA) link does not work after an upgrade from Oracle Database Vault 10.2.0.4 to 10.2.0.5.

You can use the following workaround steps:

1. Set the `ORACLE_HOME`, `ORACLE_SID`, and `PATH` environment variables.

2. Stop the Enterprise Manager Database Control process. Use the following command:

    ```
    $ORACLE_HOME/bin/emctl stop dbconsole
    ```

3. Edit the file, `$ORACLE_HOME/oc4j/j2ee/OC4J_DBConsole_`*hostname_* *SID*`/config/server.xml`. Enter the following line just before the last line that reads, `</application-server>`:

    ```
    <application name="dva" path="$ORACLE_HOME/dv/jlib/dva_webapp.ear"
    auto-start="true" />
    ```

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For example:

```
<application name="dva" path="/home/oracle/product/10.2.0/db1/dv/jlib/dva_
webapp.ear" auto-start="true" />
```

4. Edit the file, $ORACLE_HOME/oc4j/j2ee/OC4J_DBConsole_*hostname_
   SID*/config/http-web-site.xml. Enter the following line just above the last line
   that reads, </web-site>:

```
<web-app application="dva" name="dva_webapp" root="/dva" />
```

5. Start the Enterprise Manager Database Control process. Use the following
   command:

```
 $ORACLE_HOME/bin/emctl start dbconsole
```

1.2 Array Index Out of Bounds Error Message in DVCA Install Log

Bug 6912225

When you install Database Vault for a database you may notice an array index out of
bounds error message in the DVCA install log. The DVCA install log may contain the
following error messages:

```
java.lang.ArrayIndexOutOfBoundsException: -1
at java.util.Vector.elementAt(Unknown Source)
at
oracle.sysman.oii.oiif.oiifp.OiifpConfigTablePanel$DetailsTextArea.scrollToTo
l(OiifpConfigTablePanel.java:1869)
at
oracle.sysman.oii.oiif.oiifp.OiifpConfigTablePanel.showDetails(OiifpConfigTal
ePanel.java:1487)
at
oracle.sysman.oii.oiif.oiifp.OiifpConfigTablePanel.rowSelected(OiifpConfigTal
ePanel.java:1554)
        at oracle.ewt.grid.Grid.processRowSelectEvent(Unknown Source)
        at oracle.ewt.grid.Grid.processEventImpl(Unknown Source)
        at oracle.ewt.lwAWT.LWComponent.redispatchEvent(Unknown Source)
        at oracle.ewt.lwAWT.LWComponent.processEvent(Unknown Source)
        at oracle.ewt.grid.Grid.fireRowEvent(Unknown Source)
        at oracle.ewt.grid.SingleRowSelection.setRowSelected(Unknown Source)
        at oracle.ewt.grid.SingleRowSelection.setCellSelected(Unknown Source)
        at oracle.ewt.grid.Grid.processNewFocusCell(Unknown Source)
        at oracle.ewt.grid.Grid._sendKeyToNavigator(Unknown Source)
        at oracle.ewt.grid.Grid._handleKeyPressed(Unknown Source)
        at oracle.ewt.grid.Grid.processKeyEvent(Unknown Source)
        at java.awt.Component.processEvent(Unknown Source)
        at java.awt.Container.processEvent(Unknown Source)
        at oracle.ewt.lwAWT.LWComponent.processEventImpl(Unknown Source)
        at oracle.ewt.grid.Grid.processEventImpl(Unknown Source)
        at oracle.ewt.lwAWT.LWComponent.redispatchEvent(Unknown Source)
        at oracle.ewt.lwAWT.LWComponent.processEvent(Unknown Source)
        at java.awt.Component.dispatchEventImpl(Unknown Source)
        at java.awt.Container.dispatchEventImpl(Unknown Source)
        at java.awt.Component.dispatchEvent(Unknown Source)
        at java.awt.KeyboardFocusManager.redispatchEvent(Unknown Source)
        at java.awt.DefaultKeyboardFocusManager.dispatchKeyEvent(Unknown
Source)
```

```
        at java.awt.DefaultKeyboardFocusManager.preDispatchKeyEvent(Unknown
Source)
        at java.awt.DefaultKeyboardFocusManager.typeAheadAssertions(Unknown
Source)
        at java.awt.DefaultKeyboardFocusManager.dispatchEvent(Unknown Source)
        at java.awt.Component.dispatchEventImpl(Unknown Source)
        at java.awt.Container.dispatchEventImpl(Unknown Source)
        at java.awt.Window.dispatchEventImpl(Unknown Source)
        at java.awt.Component.dispatchEvent(Unknown Source)
        at java.awt.EventQueue.dispatchEvent(Unknown Source)
        at java.awt.EventDispatchThread.pumpOneEventForHierarchy(Unknown
Source)
        at java.awt.EventDispatchThread.pumpEventsForHierarchy(Unknown
Source)
        at java.awt.EventDispatchThread.pumpEvents(Unknown Source)
        at java.awt.EventDispatchThread.pumpEvents(Unknown Source)
        at java.awt.EventDispatchThread.run(Unknown Source)
```

You can safely ignore this error as it does not affect either the database or Database Vault functionality.

1.3 Cannot Install Oracle Database Vault in a Data Guard Environment

Bug 5577503

The Database Vault installer fails to install Database Vault in an existing physical standby database.

You can create a new physical standby database by using the following steps:

1. Install Database Vault on the primary database.

2. Create a physical standby database using a hot backup of the primary database. This backup should include the Oracle home.

3. Set up communications between the primary and the physical standby database. Redo logs communicate changes from the primary database to the standby database.

> **See Also:**
>
> - Article ID 754065.1, titled "Installing Database Vault in a Data Guard Environment" on My Oracle Support (formerly Oracle*MetaLink*):
>
>   https://support.oracle.com
>
> - *Oracle Data Guard Concepts and Administration* for more information about creating a physical standby database

1.4 Enterprise Manager Does Not Start Automatically

Bug 5613521

After installing Database Vault on a database, and running the postinstallation steps on the nodes, you get an error when trying to access Enterprise Manager.

Also, when you try to check the status of dbconsole using the emctl status dbconsole command, you get a message saying that the EM daemon is not running even though the process is running.

The workaround is to manually restart the dbconsole process using the following commands:

```
$ORACLE_HOME/bin/emctl stop dbconsole
$ORACLE_HOME/bin/emctl start dbconsole
```

1.5 Unable to Log In to Enterprise Manager As the SYS User After Database Vault Installation

Bug 6630108

The SYS user is unable to log in to Enterprise Manager after installing Database Vault on an Oracle database. The following error is encountered:

```
ORA-01031: insufficient privileges
```

You need to regenerate the password file, using the orapwd utility, to reenable the SYS user to connect as SYSDBA. Use the following syntax to enable SYSDBA logins:

```
orapwd file=password_filename password=password [entries=users] force=y nosysdba=n
```

> **See Also:** *Oracle Database Vault Installation Guide for Linux x86-64* for more information about using the orapwd utility

1.6 Database Instance and Listener Do Not Start Automatically on the Remote Node After Database Vault Installation

Bug 6630191

After you install Database Vault, the database instances and listeners on the remote nodes do not start automatically. You must start these manually.

This is expected behavior. The DVCA utility configures the local node, and starts the database instance and listener processes on the local node. You need to start these processes manually on each of the remote nodes.

1.7 Cloned Database Vault Home Contains Invalid Objects

Bug 6658315

The following steps are used to create a cloned Database Vault instance:

1. Install Oracle Database Vault 10*g* Release 2 (10.2.0.5) in the first Oracle home.

2. Clone the first instance to create a second Oracle home.

3. Run Net Configuration Assistant (NetCA) and Database Configuration Assistant (DBCA) to configure a listener and database for the cloned instance.

4. Run DBCA again to configure Oracle Label Security (OLS) for the cloned instance.

5. Run Database Vault Configuration Assistant (DVCA) as follows:

```
$ORACLE_HOME/bin/dvca -action option -oh oracle_home
-jdbc_str jdbc_connection_string -sys_passwd SYS_password -owner_account
DV_owner_account_name -owner_passwd DV_owner_account_password
-acctmgr_account DV_account_manager_account_name -acctmgr_passwd
DV_account_manager_password -logfile ./dvca.log -nodecrypt
```

The following SQL statement shows that the cloned Database Vault instance contains invalid objects:

```
SQL> select count(*) from all_objects where status = 'INVALID';

  COUNT(*)
----------
        45
```

The workaround is to run the `utlrp.sql` script. This script recompiles all `PL/SQL` modules that might be in an invalid state, including packages, procedures, and types. Use the following commands to run the `utlrp.sql` script:

```
cd $ORACLE_HOME/rdbms/admin
sqlplus SYS "AS SYSDBA"
Enter password:
SQL> @utlrp.sql
```

1.8 Error Occurs When Oracle Database Vault Security Is Configured on a Remote Node

After you add a second node to a single-node Oracle Real Application Clusters (Oracle RAC) installation, the following error occurs when you try to configure Database Vault security for the second node:

```
ORA-32001: write SPFILE requested but no SPFILE specified at startup
```

The following steps reproduce the bug:

1. Install Oracle Clusterware on a 2-node cluster.

2. Install Oracle Database Vault on the first node.

3. Run the `addnode.sh` script on the first node to add the second node.

4. Configure the database listener and database instance for the second node.

5. Run the following `ALTER SYSTEM` statements on the second node:.

    ```
    ALTER SYSTEM SET AUDIT_SYS_OPERATIONS=TRUE SCOPE=SPFILE;
    ALTER SYSTEM SET OS_ROLES=FALSE SCOPE=SPFILE;
    ALTER SYSTEM SET RECYCLEBIN='OFF' SCOPE=SPFILE;
    ALTER SYSTEM SET REMOTE_LOGIN_PASSWORDFILE='EXCLUSIVE' SCOPE=SPFILE;
    ALTER SYSTEM SET SQL92_SECURITY=TRUE SCOPE=SPFILE;
    ALTER SYSTEM SET OS_AUTHENT_PREFIX='' SCOPE=SPFILE;
    ```

The workaround is to run the following steps before running the `addnode.sh` script in Step 3:

> **Note:**   These steps must be run from the first node.

1. Shut down the database.

    ```
    $ORACLE_HOME/bin/srvctl stop database -d db_name
    ```

2. Start the database with the `nomount` option.

    ```
    $ORACLE_HOME/bin/srvctl start database -d db_name -o nomount
    ```

3. Connect to the database `AS SYSDBA`.

```
sqlplus SYS "AS SYSDBA"
Enter password:
```

4. Create a server parameter file (SPFILE) using the traditional initialization parameter file (PFILE). The initialization parameter file is usually located at `$ORACLE_HOME/admin/db_name/pfile` for Optimal Flexible Architecture compliant databases.

   For example:

   ```
   SQL> CREATE SPFILE='SHARED_LOCATION/spfileORACLE_SID.ora'
        FROM 'PFILE=ORACLE_HOME/admin/db_name/pfile/initORACLE_SID.ora'
   ```

This statement reads the text initialization parameter file to create a server parameter file. You must have the or SYSOPER system privilege to run the CREATE SPFILE statement.

5. Shut down the database.

   ```
   $ORACLE_HOME/bin/srvctl stop database -d db_name
   ```

6. Clear the current contents of the initialization parameter file. Add the server parameter file location in the initialization parameter file:

   ```
   SPFILE = 'SHARED_LOCATION/spfileORACLE_SID.ora'
   ```

7. Restart the database.

   For example:

   ```
   $ORACLE_HOME/bin/srvctl start database -d db_name
   ```

1.9 Swap Space Requirement Prerequisite Test Fails

Bug 7506215

The Database Vault installer swap space requirement test may fail in some cases even when enough swap space is available.

The swap space required for installation should not exceed 16 GB. In case the required swap space is shown as more than 16 GB, this warning can be safely ignored.

1.10 Errors Generated by catmac.sql When Upgrading Database Vault

Bug 9888841

Oracle Database Vault Installation Guide for Linux x86-64 includes instructions to upgrade a previous version of Oracle Database Vault to Oracle Database Vault 10.2.0.5. One of the upgrade steps requires the user to run the catmac.sql script. *Oracle Database Vault Installation Guide for Linux x86-64* advises the user to spool the output of this script into a file in order to look for errors.

The spooled output file may include the following errors:

```
ORA-01920: user name 'DVSYS' conflicts with another user or role name
ORA-01920: user name 'DVF' conflicts with another user or role name
SP2-0310: unable to open file catmaca.sql
ORA-01952: system privileges not granted to 'DBA'
ORA-00955: name is already used by an existing object
ORA-02260: table can have only one primary key
```

You can safely ignore these error messages.

1.11 DVCA Error During Database Vault Installation

Bug 10033496

An `ORA-01031: insufficient privileges error` may be generated during the Lock DVSYS phase of the Database Vault installation process. This may be caused by a low shared pool size.

The workaround is to increase the shared pool size to a larger value. To set the shared pool size, use the following SQL statement:

```
ALTER SYSTEM SET SHARED_POOL_SIZE=VALUE;
```

1.12 Invalid Objects After Installing Oracle Database Vault

There may be invalid objects in the database after you install Oracle Database Vault.

Workaround:

1. Log into SQL*Plus as a user who has been granted the `SYSDBA` administrative privilege. For example:

   ```
   sqlplus sys as sysdba
   Enter password: password
   ```

2. In SQL*Plus, perform the following query to find invalid objects.

   ```
   SELECT COUNT(*) FROM ALL_OBJECTS WHERE STATUS = 'INVALID';
   ```

3. If there are invalid objects, then run the `utlrp.sql` script, which by default is located in the `$ORACLE_HOME/rdbms/admin` directory, to recompile the invalid objects.

   ```
   @?/rdbms/admin/utlrp.sql
   ```

4. If the `utlrp.sql` script provides any instructions, follow them, and then run the script again. If the script terminates abnormally without giving any instructions, then run it again.

Oracle Bug: 7631281

2 Usage Issues and Recommendations

This section discusses usage issues that you may encounter with Database Vault. It also provides the workarounds for these issues.

2.1 Accounts with DV_OWNER, DV_ADMIN, or DV_SECANALYST Role Cannot Use the ALTER USER Command

Bug 5161953

Accounts with the `DV_OWNER`, `DV_ADMIN`, or `DV_SECANALYST` role cannot run the following command:

```
ALTER USER user QUOTA UNLIMITED ON tablespace
```

The workaround is to `REVOKE` the role from the account, run the `ALTER USER` command, and then `GRANT` back the role to the account. This works if the account is not the `DV_OWNER` account that was created during installation. If the account is the `DV_OWNER` account created during installation, then you would need to use the following steps:

1. Disable the Database Vault command rule for the `ALTER USER` command.

2. Run the `ALTER USER` command.

3. Re-enable the Database Vault command rule for the `ALTER USER` command.

2.2 CREATE SESSION Privilege Is Controlled by the Data Dictionary Realm

Use the following steps to grant the `CREATE SESSION` privilege:

1. Temporarily disable the data dictionary realm.

2. Log in as the `SYSTEM` user.

3. Grant the `CREATE SESSION` privilege.

4. Enable the data dictionary realm.

3 Frequently Asked Questions on Installation

This section covers some of the frequently asked questions related to Database Vault installation. Oracle Database Vault installation is covered in detail in *Oracle Database Vault Installation Guide for Linux x86-64*.

The installer does not detect my existing Oracle Database Enterprise Edition 10*g* Release 2 (10.2.0.5) instance. What should I do?

To allow the installer to find the database instance information, you should check the following:

- The database home has Oracle Enterprise Manager Console DB 10.2.0.5.0 installed.

- For an Oracle Real Application Clusters (Oracle RAC) database, make sure that Oracle Clusterware is running on all nodes.

- For an Oracle Real Application Clusters (Oracle RAC) database, make sure that the `srvctl` utility can be run from Oracle Clusterware home and the Oracle RAC database home.

- The file `inventory.xml` under `oraInventory/ContentsXML` correctly lists the Oracle home information including the node names (for Oracle RAC).

- `/etc/oratab` has an entry for the database. This entry is case-sensitive.

- All database names listed in `/etc/oratab` have unique system identifier (SID) names.

- The file, `/etc/oraInst.loc` exists.

- The oraInventory location is set in the `/etc/oraInst.loc` file.

- The oraInventory location set in `/etc/oraInst.loc` is the same as the 10.2.0.5 Enterprise Edition database's oraInventory location.

- The 10.2.0.5 database home does not have Oracle Database Vault in it.

- The 10.2.0.5 database home does not contain an Oracle Automatic Storage Management (ASM) instance.

I have installed Oracle Database Vault into an Oracle home that has multiple databases. How do I secure the other databases in the Oracle home?

You would need to run Database Vault Configuration Assistant (DVCA) manually on the other databases. Refer to *Oracle Database Vault Installation Guide for Linux x86-64* for detailed instructions.

I have installed Oracle Database Vault on a Oracle Real Application Clusters (Oracle RAC) database instance. How do I secure the other nodes in the cluster?

You need to configure Database Vault security on the other Oracle RAC nodes. Refer to *Oracle Database Vault Installation Guide for Linux x86-64* for detailed instructions.

4 Miscellaneous Notes

This section contains miscellaneous notes not covered in the Oracle Database Vault documentation.

4.1 Snapshots and Materialized Views

The keyword `SNAPSHOT` is supported in place of `MATERIALIZED VIEW` for backward compatibility.

4.2 JOB_QUEUE_PROCESSES Initialization Parameter

The `JOB_QUEUE_PROCESSES` initialization parameter specifies the maximum number of processes that can be created for the execution of jobs. It specifies the number of job queue processes per instance.

This parameter must have a non-zero value. The default value for `JOB_QUEUE_PROCESSES` is 10.

5 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`.

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