Oracle® Database Vault

Release Notes

10*g* Release 2 (10.2.0.4) for Linux x86-64

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These Release Notes describe issues you may encounter with Oracle Database Vault 10*g* Release 2 (10.2.0.4). The Oracle Database Vault installation is covered in detail in the *Oracle Database Vault Installation Guide*.

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/technology/documentation/

This document contains the following sections:

- Installation Issues and Recommendations
- Usage Issues and Recommendations
- Frequently Asked Questions on Installation
- Manually Deploying the DVA Application
- Miscellaneous Notes
- Documentation Accessibility

Installation Issues and Recommendations

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

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)
```

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```
        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.

DVCA Fails If the SID Is Longer than 8 Characters

Bug 5258820

Running Database Vault Configuration Assistant (DVCA) manually, after
creating a new database in the Database Vault home, fails if the Oracle System
Identifier (SID) for the database is longer than 8 characters.

The following steps reproduce the bug:

1. Use Database Configuration Assistant (DBCA) to create a new database in an
   existing Database Vault home.

2. Run DVCA on the newly created database:

   ```
   $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] [-silent]
[-nodecrypt][-lockout] [-languages
{["en"],["de"],["es"],["fr"],["it"],["ja"],["ko"],["pt_BR"],["zh_CN"],
["zh_TW"]}]
```

> **See Also:** *Oracle Database Vault Installation Guide* for more
> information on running the DVCA command.

The reason for the bug is that the Oracle Net service name in the `tnsnames.ora`
(`$ORACLE_HOME/network/admin/tnsnames.ora`) file is truncated to 8
characters.

The workaround for the bug is to change the truncated Net service name in the
`tnsnames.ora` file to it's correct value. For example, say the SID for the
database is `ORACLEDB90`, and the entry in `tnsnames.ora` appears as:

```
ORACLEDB = (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST ....
```

Replace the truncated entry in the `tnsnames.ora` file with the correct entry:

```
ORACLEDB90 = (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST ....
```

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:** *Data Guard Concepts and Administration Guide* for more
> information on creating a physical standby database

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
```

Enterprise Manager Does Not Start Automatically on the Remote Nodes

Bug 5654876

After installing Database Vault on a Real Applications Cluster (RAC) database, and running the `dvca -action optionrac` command on the remote nodes, Enterprise Manager does not start automatically on the remote nodes.

> **See Also:** *Oracle Database Vault Installation Guide* for more information on running the `dvca -action optionrac` command.

The workaround is to set the correct value for the ORACLE_SID variable in the $ORACLE_HOME/bin/dvca.bat file on the remote node. The ORACLE_SID variable needs to be changed from the local node SID to the remote node SID on the remote node. You can then run DVCA on the remote node.

Alternatively, you can manually restart the dbconsole process using the following commands:

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

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 more information on using the orapwd utility

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.

Error When Installing Database Vault for a Database That Does Not Have Enterprise Manager Configured

Bugs 6640232 and 6640203

When you install Database Vault for a database that does not have Enterprise Manager configured, you may notice error messages in the DVCA install log. The DVCA install log may contain the following error messages:

```
DVCA_ERROR:java.io.IOException: java.io.IOException:
/scratch/aime/10.2DV/071120/dvr2/db/bin/dvca_getipc.sh: cannot execute
Error executing task DEPLOY_DVA:java.io.IOException:
java.io.IOException: /scratch/aime/10.2DV/071120/dvr2/db/bin/dvca_getipc.sh:
cannot execute
```

You may also see error files containing the following errors:

```
java.lang.NullPointerException
        at javax.swing.LayoutComparator.compare(Unknown Source)
        at java.util.Collections.indexedBinarySearch(Unknown Source)
        at java.util.Collections.binarySearch(Unknown Source)
        at javax.swing.SortingFocusTraversalPolicy.getComponentAfter(Unknown
Source)
        at javax.swing.LayoutFocusTraversalPolicy.getComponentAfter(Unknown
Source)
        at java.awt.Component.nextFocusHelper(Unknown Source)
        at java.awt.Container.nextFocusHelper(Unknown Source)
        at java.awt.Component.nextFocus(Unknown Source)
        at java.awt.Component.transferFocus(Unknown Source)
        at oracle.ewt.lwAWT.LWComponent.processFocusEvent(Unknown Source)
        at oracle.ewt.lwAWT.AbstractButton.processFocusEvent(Unknown Source)
        at oracle.ewt.button.PushButton.processFocusEvent(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.button.PushButton.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)
```

You can safely ignore these errors if you do not wish to deploy Enterprise Manager and Database Vault Administrator (DVA) for your Database Vault instance.

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 (10.2.0.4) 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. Perform the following:

1. Run Oracle Database Vault Configuration Assistant (DVCA) by using the dvca -action disable option:

```
dvca -action disable
    -service service_name
    -instance Oracle_instance_name
    -owner_account DV_owner_account_name

Enter SYS password: sys_password
Enter owner password: owner_password
```

2. Run the utlrp.sql script:

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

3. Run Oracle Database Vault Configuration Assistant (DVCA) by using the dvca -action enable option:

```
dvca -action enable
    -service service_name
    -instance Oracle_instance_name
    -owner_account DV_owner_account_name

Enter SYS password: sys_password
Enter owner password: owner_password
```

Incorrect Installer Warning for Non-English Locales

Bug 6645805

The Database Vault installer displays the following warning for non-English locales after you select the details in the Specify Installation Details screen:

```
Note that OS authentication will be turned off for all databases in the
selected Oracle Home. It is recommended that Oracle Database Vault be
installed into an Oracle Home with only one database in it.
```

Operating system (OS) authentication is not turned off after you install Oracle Database Vault 10*g* Release 2 (10.2.0.4). However, the recommendation to install Oracle Database Vault in it's own Oracle home still holds true.

Error Occurs When DVCA Is Run on a Remote Node

Bug 6140164

After you add a second node to a single-node Oracle Real Application Cluster (RAC) installation, the following error occurs when Database Vault Configuration Assistant (DVCA) is run with the `-action optionrac` switch on the newly added RAC node:

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

The following steps reproduce the bug:

1. Install Oracle Cluster Ready Services (CRS) 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 DVCA with the `-action optionrac` switch on the second node.

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
```

Usage Issues and Recommendations

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

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.

Command Rule SELECT Not Found for SYSADM.%

Bug 5508407

The following error is displayed when you try to update the owner or the rule set for the SELECT command rule:

```
Command Rule SELECT not found for schema.%
```

After the update has failed, you are not allowed to delete the command rule. You can use the following workaround steps:

1. Login to SQL*Plus using the SYSTEM account. Run the following command:

```
SQL>ALTER SYSTEM FLUSH SHARED_POOL;
```

2. Delete the command rule.

3. If you were trying to update the command rule, then re-create the command rule with the new parameters.

4. Repeat Step 1 for the new command rule to take effect.

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.

Incorrect Version and Copyright Information for Non-English Locales

Bug 6660620

The Database Vault Administrator (DVA) application displays incorrect version and copyright year information in the About Oracle Database Vault Administrator page, for non-English locales. The version numbers for Database Vault and Oracle Database are erroneously mentioned as 10.2.0.3.0. The correct version numbers should be as follows:

- Oracle Database Vault Administrator: 10.2.0.4.0

- Supported Target Databases: 10.2.0.4.0

The copyright year is incorrectly mentioned as follows:

Copyright © 1996,2006, Oracle. All rights reserved.

This should be:

 Copyright © 1996, 2008, Oracle. All rights reserved.

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 the *Oracle Database Vault Installation Guide* .

The installer does not detect my existing Oracle Database Enterprise Edition 10*g* Release 2 (10.2.0.4) 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 10.2.0.4.0 installed.

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

- /etc/oratab has an entry for the database.

- 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 10.2.0.4 Enterprise Edition database's oraInventory location.

- The 10.2.0.4 database home does not have Oracle Database Vault in it.

- The 10.2.0.4 database home does not contain an 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 the *Oracle Database Vault Installation Guide* for detailed instructions.

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

You need to run DVCA manually on the other RAC nodes. Refer to the *Oracle Database Vault Installation Guide* for detailed instructions.

Manually Deploying the DVA Application

You can manually deploy Database Vault Administrator (DVA) to the following Oracle Application Server Containers for J2EE (OC4J) home:

```
$ORACLE_HOME/oc4j/j2ee/home
```

Use the following steps to manually deploy the DVA application:

1. Edit the file, `$ORACLE_HOME/oc4j/j2ee/home/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" />
   ```

   For example:

   ```
   <application name="dva"
   path="/u00/app/oracle/oracle/product/dv12/dv/jlib/dva_webapp.ear"
   auto-start="true" />
   ```

2. Edit the file, `$ORACLE_HOME/oc4j/j2ee/home/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" />
   ```

3. Edit the file, `$ORACLE_HOME/oc4j/j2ee/home/config/global-web-application.xml`. Search for `<servlet-class>oracle.jsp.runtimev2.JspServlet</servlet-class>`. Uncomment the following lines after this:

   ```
   <init-param>
     <param-name>main_mode</param-name>
     <param-value>justrun</param-value>
   </init-param>
   ```

4. Create the directory, `$ORACLE_HOME/dv/jlib/sysman/config`.

   ```
   mkdir -p $ORACLE_HOME/dv/jlib/sysman/config
   ```

5. Create the database connection configuration file, `emoms.properties`, in the configuration directory that you just created. Add the following lines to the file:

   ```
   oracle.sysman.emSDK.svlt.ConsoleMode=standalone
   oracle.sysman.eml.mntr.emdRepRAC=FALSE
   oracle.sysman.eml.mntr.emdRepDBName=ORACLE_SID
   oracle.sysman.eml.mntr.emdRepConnectDescriptor=TNS_connection_string
   ```

   Note:

   - `oracle.sysman.eml.mntr.emdRepRAC` should be set to `TRUE` for a Real Application Clusters (RAC) database.

   - For `oracle.sysman.eml.mntr.emdRepConnectDescriptor`, you can use an alias from `$ORACLE_HOME/network/admin/tnsnames.ora`. Alternatively, you can use the following syntax:

     ```
     oracle.sysman.eml.mntr.emdRepConnectDescriptor=(DESCRIPTION\=(A
     DDRESS_LIST\=(ADDRESS\=(PROTOCOL\=TCP)(HOST\=HOSTNAME)(PORT\=PO
     RT)))(CONNECT_DATA\=(SERVICE_NAME\=ORACLE_SID)))
     ```
   ---

6. Start OC4J. Before starting OC4J, ensure that the correct environment variables are set. For example :

   ```
   ORACLE_SID=orcl
   export ORACLE_SID
   ORACLE_HOME=/u00/app/oracle/product/10.2/dv
   export ORACLE_HOME
   LD_LIBRARY_PATH=$ORACLE_HOME/bin:$ORACLE_HOME/lib32:$ORACLE_HOME/jdbc/lib
   export LD_LIBRARY_PATH
   PATH=$ORACLE_HOME/bin:$ORACLE_HOME/jdk/bin:$PATH
   export PATH
   ```

   Note: `LD_LIBRARY_PATH` must be set to use the OCI-based JDBC libraries.

   Start OC4J using the following syntax:

   ```
   $ORACLE_HOME/jdk/bin/java -Djava.awt.headless=true
   -DEMDROOT=$ORACLE_HOME/dv/jlib -jar $ORACLE_HOME/oc4j/j2ee/home/oc4j.jar
   -userThreads -config $ORACLE_HOME/oc4j/j2ee/home/config/server.xml
   ```

7. You can now access the DVA application. The HTTP port defaults to 8888 for this environment. Use the following URL:

   ```
   http://hostname:8888/dva
   ```

Miscellaneous Notes

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

Snapshots and Materialized Views

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

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.

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