Oracle® Virtual Directory

Patch Notes

10.1.4.2.0

E10287-01

May 2007

This document contains patch notes for Oracle Virtual Directory 10.1.4.2.0 and includes the following topics:

New in Oracle Virtual Directory 10.1.4.2.0

Oracle Virtual Directory 10.1.4.2.0 includes the following new functionality:

Integration with Enterprise User Security

Oracle Virtual Directory 10.1.4.2.0 supports integration with Oracle's Enterprise User Security database product. Integrating Oracle Virtual Directory and Enterprise User Security enhances and simplifies your authentication and authorization capabilities by allowing you to leverage user identities stored in an external LDAP repository without any additional synchronization.

Oracle Virtual Directory 10.1.4.2.0 is certified with Enterprise User Security in Oracle Database 10*g* Release 1 (10.1.x) and Release 2 (10.2.x). Together, the Oracle Virtual Directory 10.1.4.2.0-Enterprise User Security integration is certified with Oracle Internet Directory 10.1.4.0.1, Microsoft Active Directory 2003, and Sun Java System Directory Server 5.2.

Refer to the *Oracle Virtual Directory Product Manual* for complete information on integrating Oracle Virtual Directory and Enterprise User Security.

Enhanced Globalization Capabilites

Oracle Virtual Directory 10.1.4.2.0 includes several new and enhanced globalization capabilities, including expanded support for multibyte character data. Additionally, Oracle Virtual Directory 10.1.4.2.0 includes localized translations for the Oracle Virtual Directory Manager interface in the following languages:

- French
- Italian
- German
- Spanish
- Brazilian Portuguese
- Japanese
- Traditional Chinese
- Simplified Chinese
- Korean

Refer to the *Oracle Virtual Directory Product Manual* for complete information on setting the language for the Oracle Virtual Directory Manager.

Ability to Control LDAP Anonymous Authentication

Oracle Virtual Directory 10.1.4.2.0 allows you to control LDAP anonymous authentication. You can add the `-Dvde.anonconfig=` argument and options to the `LAX.NL.JAVA.OPTION.ADDITIONAL` parameter, located in the OViDServer.lax file on Windows and in the vde_start.sh file on UNIX, to control how Oracle Virtual Directory handles LDAP anonymous authentication.

Refer to the *Oracle Virtual Directory Product Manual* for complete information on controlling anonymous authentication.

Ability to Close Inactive Connections

Oracle Virtual Directory 10.1.4.2.0 allows you to define the maximum amount of time that a client connection to Oracle Virtual Directory can remain inactive. After an inactive client connection reaches the amount of time defined in the new `-Dvde.conn_timeout` system property, DoSManager unbinds and closes the socket.

Refer to the *Oracle Virtual Directory Product Manual* for complete information on closing inactive connections using the new `-Dvde.conn_timeout` system property.

Ability to Control Database Adapter Connection Pool

Oracle Virtual Directory 10.1.4.2.0 allows you to control the amount of time to wait for a database connection to become available after reaching the MaxConnections limit. LDAP requests will fail if a database connection does not become available in the cache after the MaxConnections limit and the amount of time defined in the new `-Dvde.db_conn_timeout` system property has been reached.

Refer to the *Oracle Virtual Directory Product Manual* for complete information on controlling the Database Adapter connection pool using the new `-Dvde.db_conn_timeout` system property.

New Certified Components

The following is a list of new components certified for Oracle Virtual Directory 10.1.4.2.0. These components are in addition to the configurations certified for Oracle Virtual Directory 10.1.4.0.1.

- Oracle TimesTen In-Memory Database versions 6.0 and 7.0
- Microsoft SQL Server 2005
- Internet Explorer 7
- Sun JRE versions 1.5 and 1.6

Upgrading to Oracle Virtual Directory 10.1.4.2.0

Oracle Virtual Directory 10.1.4.2.0 is an upgrade-only patch. You can upgrade to Oracle Virtual Directory 10.1.4.2.0 only from Release 10.1.4.0.1. If you are a new Oracle Virtual Directory customer, install Release 10.1.4.0.1 first, then upgrade to 10.1.4.2.0.

Note: Oracle recommends upgrading both the Oracle Virtual Directory server and Oracle Virtual Directory Manager to 10.1.4.2.0, though the 10.1.4.0.1 Oracle Virtual Directory Manager is supported for managing 10.1.4.2.0 Oracle Virtual Directory servers.

Do not attempt to use the 10.1.4.2.0 Oracle Virtual Directory Manager to manage 10.1.4.0.1 Oracle Virtual Directory servers.

This section contains the following topics:

Upgrade Prerequisites

This section contains the prerequisites for upgrading to 10.1.4.2.0 and contains the following topics:

Stopping Multiple Oracle Directory Servers on Linux (Bug 6008635)

You must stop your existing Oracle Virtual Directory 10.1.4.0.1 server before upgrading to 10.1.4.2.0. Oracle Virtual Directory contains a known issue on Linux where repeating the `./vde.sh start` command starts multiple Oracle Virtual Directory processes without error messages. However, when you attempt to stop Oracle Virtual Directory, only the last process that started will stop. If multiple Oracle Virtual Directory processes are running, you must use the `kill -9` command to stop the processes before upgrading to 10.1.4.2.0.

JRE Verification

The Oracle Universal Installer program that performs the upgrade to 10.1.4.2.0 requires Sun Microsystems JRE version 1.4 or higher. Before you upgrade to 10.1.4.2.0, confirm you are using JRE version 1.4 or higher by performing the following steps. If you are not using version 1.4 or higher, download and install it, then perform the following steps again.

Windows:

1. Go to Java Runtime Environment key in the Windows registry: **HKEY_LOCAL_MACHINE**, then **SOFTWARE**, then **JavaSoft**, and then **Java Runtime Environment**.
2. Verify that the value for the `CurrentVersion` parameter is 1.4 or higher.

UNIX:

1. Execute the `which java` command and verify the JRE listed in the output is the Oracle Virtual Directory Manager JRE. If it is not, edit your path to use the Sun JRE in the Oracle Virtual Directory Manager.
2. Execute the `java -version` command and verify that java version 1.4 or higher is being used.
3. Verify the JAVAHOME environment variable is set to JDK14 or higher.

Performing the Upgrade to 10.1.4.2.0

Perform the following steps to upgrade from Oracle Virtual Directory 10.1.4.0.1 to 10.1.4.2.0:

1. Stop your existing Oracle Virtual Directory 10.1.4.0.1 server if it is running.
2. Upgrade the 10.1.4.0.1 Oracle Virtual Directory server by running the Oracle Universal Installer program from the command line using the following steps:
   a. Go to the Disk1 directory in the 10.1.4.2.0 patch bundle.
   b. Execute the OVD10142_Server script—OVD10142_Server.exe for Windows and OVD10142_Server.sh for UNIX—using the command line options shown in the following example.

Note: You must execute the OVD10142_Server script from the Disk1 directory. The upgrade will fail if you move the OVD10142_Server script to a different location and execute it.

```
OVD10142_Server.sh or exe ORACLE_HOME_PATH ORACLE_HOME_NAME
```

ORACLE_HOME_PATH identifies the location of the existing Oracle Virtual Directory 10.1.4.0.1 installation.

ORACLE_HOME_NAME identifies the existing Oracle Virtual Directory 10.1.4.0.1 installation and registers it in oraInventory. Enter a unique name, that is, one that does not conflict with any other *ORACLE_HOME_NAME* on the system. If a space exists in the path to Oracle home, surround the entire variable string with double-quotations, for example:

```
C:\>OVD10142_Server.exe "C:\Program Files\Oracle\OViD" ORACLE_HOME_
NAME
```

The Oracle Universal Installer program starts.

c. Click **Next** on the Welcome screen. The Oracle Universal Installer program prepares to install the 10.1.4.2.0 upgrade patch on the 10.1.4.0.1 Oracle Virtual Directory server. After the preparation is complete, the Summary screen appears.

d. Click **Install** on the Summary screen to install the 10.1.4.2.0 upgrade patch on the Oracle Virtual Directory server. After the installation is complete, the End of Installation screen appears.

e. Click **Exit** on the End of Installation screen to close and exit the Oracle Universal Installer program.

3. Upgrade the 10.1.4.0.1 Oracle Virtual Directory Manager by running the Oracle Universal Installer program from the command line using the following steps:

a. Go to the Disk1 directory in the 10.1.4.2.0 patch bundle.

b. Execute the OVD10142_Manager script—OVD10142_Manager.exe for Windows and OVD10142_Manager.sh for UNIX—using the command line options shown in the following example.

Note: You must execute the OVD10142_Manager script from the Disk1 directory. The upgrade will fail if you move the OVD10142_Manager script to a different location and execute it.

```
OVD10142_Manager.sh or exe ORACLE_HOME_PATH ORACLE_HOME_NAME
```

ORACLE_HOME_PATH identifies the location of the existing Oracle Virtual Directory Manager 10.1.4.0.1 installation.

ORACLE_HOME_NAME identifies the existing Oracle Virtual Directory 10.1.4.0.1 installation and registers it in oraInventory. Enter a unique name, that is, one that does not conflict with any other *ORACLE_HOME_NAME* on the system. If a space exists in the path to Oracle home, surround the entire variable string with double-quotations, for example:

```
C:\>OVD10142_Manager.exe "C:\Program Files\Oracle\OViD Manager"
ORACLE_HOME_NAME
```

The Oracle Universal Installer program starts.

c. Click **Next** on the Welcome screen. The Oracle Universal Installer program prepares to install the 10.1.4.2.0 upgrade patch on the 10.1.4.0.1

Oracle Virtual Directory Manager. After the preparation is complete, the Summary screen appears.

d. Click **Install** on the Summary screen to install the 10.1.4.2.0 upgrade patch on the Oracle Virtual Directory Manager. After the installation is complete, the End of Installation screen appears.

e. Click **Exit** on the End of Installation screen to close and exit the Oracle Universal Installer program.

Removing 10.1.4.2.0

You must use the Oracle Universal Installer program to remove Oracle Virtual Directory 10.1.4.2.0 after it is installed. Perform the following steps to start the Oracle Universal Installer program and remove Oracle Virtual Directory 10.1.4.2.0:

1. Stop your existing Oracle Virtual Directory 10.1.4.2.0 server if it is running.
2. Go to the Disk1 directory in the 10.1.4.2.0 patch bundle.
3. Start the 10.1.4.2.0 Oracle Universal Installer program by running setup.exe on Windows or executing the runInstaller command on UNIX.

   The Oracle Universal Installer program starts.
4. Click **Deinstall Products...** on the Welcome screen. The Inventory window appears.
5. Choose the Oracle Virtual Directory 10.1.4.2.0 Oracle Home you want to deinstall and click **Remove**.

Resolved Issues in Oracle Virtual Directory 10.1.4.2.0

Oracle Virtual Directory 10.1.4.2.0 resolves the known issues from previous releases listed in Table 1:

Table 1 Issues Resolved in Oracle Virtual Directory 10.1.4.2.0

Bug #	Description
5489479	Oracle Virtual Directory could not search, read, or update records using Database Adapters connected to Oracle TimesTen database.
5479240	When using Cache Plug-in, Oracle Virtual Directory did not return any records for searches that retrieve entries from the cache.
5479822	Oracle Virtual Directory did not respond correctly when the connection pool to a target directory server was closed or idle for extended periods of time.
5618992	Oracle Virtual Directory did not accept client connection requests and the following error message appeared in the logs when a target LDAP server was unavailable: `ERROR - LDAP: Error accepting connection from server socket: Too many open files.`
5569237	Oracle Virtual Directory could not connect to target LDAP server and `LDAP ERR=2 Server Unavailable` appears in log files when using the LDAP Join or LDAP adapters and performing command line searches.
5601796	NullPointerException appeared after an executing an ldapsearch operation.

Table 1 (Cont.) Issues Resolved in Oracle Virtual Directory 10.1.4.2.0

Bug #	Description
5604851	Bind LDAP operation failed when the connection to the target LDAP server was not available at one time, but then later recovered.
5518546	When using a mapping or plugin, searches that containing a ! "not" parameter failed and did not return any records.
5568169	After adding the Cache plug-in to multiple adapters, Oracle Virtual Directory quit responding and `java.lang.ClassCastException on CachePlugin.java:225` appeared.
5707085	Oracle Virtual Directory did not return any records after searching with the UniqueEntry plug-in installed and the attribute used to describe uniqueness was not included.
5442784	The DNS host name or IP address was reset to the default IP address of 127.0.0.1 when creating a new LDAP Adapter and the DNS Discovery option was set to Standard or Microsoft.
5523446	Oracle Virtual Directory Manager quit and closed when more than two connections to Oracle Virtual Directory servers within one project existed and you attempted to open multiple adapter definitions in each connection.
5566846	Benign `java.lang.reflect.InvocationTargetException` error message appeared after creating a validate Database Adapter connection and clicking the **Validation Connection** button on the New Database Adapter panel without selecting the database type or if the user name was null.
5590199	After entering multibyte characters in the Root DN Field of the engine/server/settings form and then exiting that form the data was corrupted.
5590259	After creating an attribute with a multibyte character name and saving it to a server, the `java.io.UTFDataFormatException: Invalid byte 2 of 2-byte UTF-8 sequence error` appeared.
5661989	`LDAP Error 53 - Unwilling to perform when searched from OVD Browser` appeared after adding a mapping or plug-in to one of the source adapters used in a Join Adapter and searching the Join Adapter.
5663771	Oracle Virtual Directory Manager did not release the file handlers of LDIF files when it failed to handle the content of the imported file. For example, after attempting to import an invalid LDIF file using the **Import LDIF** operation, receiving an error, then renaming the same LDIF file and attempting to import it again, an error appeared stating the file was being used by another application.
5721191	The LDAP Adapter wizard did not complete and errors appeared when a remote server's Directory Specific Entry (DSE) was invalid or in an unsupported format.
5727560	Copying and pasting an adapter did not operate correctly.
5634944	Searching for any parent objectclass values when the Database Adapter was configured and the Include Objectclass Super Classes option was enabled did not return any records.
5449534	Socket connections from LDAP clients did not time-out and close after extend periods without LDAP activity.
5502146	Sequential Failover Mode did not operate correctly when using the LDAP Adapter. Oracle Virtual Directory distributed the load across all servers according to load balancing settings instead of using the first remote host.
5879935	`{0}` string appears in various screens, titles, and hint messages in Oracle Virtual Directory Manager.

Table 1 (Cont.) Issues Resolved in Oracle Virtual Directory 10.1.4.2.0

Bug #	Description
5879955	After creating a new Oracle Virtual Directory server using Oracle Virtual Directory Manager, the `F` character appears in path to the newly created server in Editor Panel.

Known Issues and Limitations

This section describes known issues and limitations with Oracle Virtual Directory 10.1.4.2.0 and contains the following topics:

- Multibyte Compliant Tools (Bugs 5891655 and 5989474)
- Various Strings, Labels, and Messages in the Oracle Virtual Directory Manager's Interface Cannot be Translated to Local Language (Bug 5958289)
- Oracle Virtual Directory Manager's Help Information Available in English Only (Bug 5956316)
- First Edition of Oracle Virtual Directory Release 10g (10.1.4.0.1) Installation Guide Contained Errors
- Oracle Virtual Directory Manager's Edit ACL Button May Not Function When ACL is Without a Subject (Bug 6009313)
- Mapping File Names Must be Comprised of ASCII Characters Only (Bug 6004686)
- Oracle Virtual Directory's Database Browser Does Not Support Oracle TimesTen In-Memory Database (Bug 6016902)
- Database Details Information Not Available in Enterprise Security Manager Interface (Bug 6037626)
- Increase Memory Size When LDAP: Out of Memory Error Appears in Log (Bug 6034081)
- Clarifying Client Connection Information (Bug 6047154)
- Oracle Virtual Directory SSL Connections to Database Server May Occasionally Close in a High-Volume Enterprise User Security Integration (Bug 3036620)
- Database Not Visible in Enterprise Security Manager Interface When Configuring Enterprise Proxy Users (Bug 6046210)
- Exception May Appear After Pressing Enter (Return) Key When Configuring an LDAP Browser (Bug 6049201)
- JDK 1.5 or Higher Needed for Oracle Virtual Directory Manager's One Step Configuration Feature for Tivoli Access Manager on UNIX
- Errors May Occur When Saving a Local Store Adapter to Oracle Virtual Directory in Brazilian Portuguese (Bug 6049614)

Multibyte Compliant Tools (Bugs 5891655 and 5989474)

Use a multibyte compliant tools, such as Oracle Internet Directory's ldapmodify or ldapsearch, if you need to perform operations on Oracle Virtual Directory data that contains multibyte characters. The tools included in the Oracle Virtual Directory tools directory currently are not multibyte compliant.

Various Strings, Labels, and Messages in the Oracle Virtual Directory Manager's Interface Cannot be Translated to Local Language (Bug 5958289)

The Oracle Virtual Directory Manager interface contains a some minor strings, labels, and messages that are hard coded, cannot be translated to a local language, and appear in English for 10.1.4.2.0.

Oracle Virtual Directory Manager's Help Information Available in English Only (Bug 5956316)

The information available from Oracle Virtual Directory Manager's **Help** menu is available in English only for 10.1.4.2.0. The *Oracle Virtual Directory Product Manual* is available in Japanese for 10.1.4.2.0.

First Edition of Oracle Virtual Directory Release 10*g* (10.1.4.0.1) Installation Guide Contained Errors

The first edition of the *Oracle Virtual Directory Installation Guide* for Release 10*g* (10.1.4.0.1), document part number B28834-01, contained multiple errors. This document was revised and the new edition, document part number B28834-02, is installed when you upgrade to 10.1.4.2.0 and is also available on Oracle Technology Network. You can access the Oracle Technology Network Web site at:

`http://www.oracle.com/technology//index.html`

Oracle Virtual Directory Manager's Edit ACL Button May Not Function When ACL is Without a Subject (Bug 6009313)

The Edit ACL button in Oracle Virtual Directory Manager may not function if the ACL you are trying to edit does not have a subject. To resolve this issue, delete the ACL and recreate it with a subject.

Mapping File Names Must be Comprised of ASCII Characters Only (Bug 6004686)

All Oracle Virtual Directory Mapping file names must be comprised of ASCII characters only. Mapping file names that include non-ASCII characters are not supported and will cause errors if they are deployed.

Oracle Virtual Directory's Database Browser Does Not Support Oracle TimesTen In-Memory Database (Bug 6016902)

The Oracle Virtual Directory 10.1.4.2.0 database browser does not support Oracle TimesTen In-Memory Database. To work around this issue, use Oracle Virtual Directory's Adapter View for an SQL view of the data.

Database Details Information Not Available in Enterprise Security Manager Interface (Bug 6037626)

Database detail information is not available in the database pane of the Enterprise Security Manager interface when integrating Oracle Virtual Directory with Enterprise User Security.

Increase Memory Size When LDAP: Out of Memory Error Appears in Log (Bug 6034081)

By default, Oracle Virtual Directory is configured to use 512MB. The 512MB setting is based on experience that proved to provide sufficient room for management of data when using Oracle Virtual Directory as a directory or database proxy.

However, if you encounter the `ERROR - LDAP: Out of Memory Error:` message in the Oracle Virtual Directory logs, increase your memory setting to 1024 MB by referring to the Modifying Runtime Memory Allocation procedure in the Oracle Virtual Directory Installation Guide.

Clarifying Client Connection Information (Bug 6047154)

Oracle Virtual Directory includes a Status web service typically viewed using the Oracle Virtual Directory Manager's Status tab. This information provides a snapshot to the number of active client connections to Oracle Virtual Directory. The purpose of the status service is to give administrators clues to how well Oracle Virtual Directory is running, specifically regarding adapter activity.

The status snapshot is updated every 60 seconds, therefore it is not a true "real-time" monitor of client connections (because additional connections may have opened, or existing connections closed, after the snapshot). However, the sum of total current connections provides a good indication of number of current open connections. The most accurate tracking of open and closed connections is maintained in the Oracle Virtual Directory access log. Furthermore, Oracle Virtual Directory's Export to CSV (Comma Separated Value) feature is designed to facilitate reporting based on open and closed connections. The CSV generated by the Export to CSV feature can be used with a report system, such as Oracle Database or Microsoft Excel, to generate a graph to show activity over a period of time. Refer to the *Oracle Virtual Directory Product Manual* for more information on Oracle Virtual Directory's Export to CSV feature.

When viewing the client connections section, if you see client connections listed that have 0 open connections and 0 total connections, this reflects a client application is using Oracle Virtual Directory for authentication. When using LDAP authentication, client applications most often open a connection to the LDAP server and initially bind using a proxy credential. Then, to verify the user's credential, the client applications rebind as that user over the same connection. This type of connection is not an actual new connection, but rather reusing an existing connections.

Oracle Virtual Directory SSL Connections to Database Server May Occasionally Close in a High-Volume Enterprise User Security Integration (Bug 3036620)

Oracle Virtual Directory uses JNDI for SSL connections. Due to bug 3036620, Oracle Virtual Directory SSL connections to the database server may occasionally close in a high-volume Oracle Virtual Directory-Enterprise User Security integration. If you encounter this issue, retry the connection.

Database Not Visible in Enterprise Security Manager Interface When Configuring Enterprise Proxy Users (Bug 6046210)

When using Microsoft Active Directory as an external directory for an Oracle Virtual Directory-Enterprise User Security integration and configuring enterprise proxy users, the available databases are not visible in the Enterprise Security Manager interface. To avoid this issue, manually perform the LDAP operation.

Exception May Appear After Pressing Enter (Return) Key When Configuring an LDAP Browser (Bug 6049201)

After creating a new LDAP Browser and entering the configuration information in the LDAP Browser Configuration windows, pressing the Enter (Return) key may cause the JAVA.LANG.STRINGINDEXOUTOFBOUNDSEXCEPTION to appear. To avoid this issue, be sure to click the Finish button after entering information in the LDAP Browser Configuration windows--do not use the Enter to close the LDAP Browser Configuration windows.

JDK 1.5 or Higher Needed for Oracle Virtual Directory Manager's One Step Configuration Feature for Tivoli Access Manager on UNIX

On UNIX, you must use Sun Java JDK 1.5 or higher to avoid various errors when using Oracle Virtual Directory Manager's One Step Configuration feature for Tivoli Access Manager. Refer to BugID 4824045 on the Sun Developer Network for more information about this JDK known issue.

Errors May Occur When Saving a Local Store Adapter to Oracle Virtual Directory in Brazilian Portuguese (Bug 6049614)

Errors may occur when attempting to save a Local Store Adapter to the Oracle Virtual Directory server while using the Brazilian Portuguese localized translation for the Oracle Virtual Directory Manager interface.

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