Oracle® Database Lite

Release Notes

10*g* (10.3.0)

Part No. B28930-01

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The information in this release note pertains to items that did not make it into each book. The information is organized by the book to which it pertains, as follows:

- Section 1, "New Features for Oracle Database Lite 10g Release 3"
- Section 2, "General Subjects"
- Section 3, "Modifications to the Getting Started Guide"
- Section 4, "Modifications to the Administration and Deployment Guide"
- Section 5, "Modifications to the Developer's Guide"
- Section 6, "Modifications to the SQL Reference"
- Section 7, "Documentation Accessibility"

1 New Features for Oracle Database Lite 10*g* Release 3

The following are the new features in this release:

- Section 1.1, "Automatic Synchronization"
- Section 1.2, "OC4J Container for Web-To-Go Client"
- Section 1.3, "New Features for the Oracle Lite Client"
- Section 1.4, "C++ and .Net Stored Procedures"
- Section 1.5, "Symbian OS JDBC support"
- Section 1.6, "New Features for Development and Deployment"
- Section 1.7, "Java 1.5 Support"
- Section 1.8, "New Troubleshooting and Tuning Guide"

1.1 Automatic Synchronization

You can now configure for synchronization to automatically occur under specific circumstances and conditions. When these conditions are met, then Oracle Database Lite automatically performs the synchronization for you without locking your database, so you can continue to work while the synchronization happens in the background. This way, synchronization can happen without the user's knowledge.

Automatic synchronization is based on a different model than manual synchronization. Automatic synchronization operates on a transactional basis.

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Thus, when the conditions are correct, any new data transactions are uploaded to the server, in the order of the specified priority for the data. In the manual synchronization model, you can synchronize all data or use the selective sync option, where you can detail only certain portions of the data to be synchronized. The selective sync option is not supported in automatic synchronization, since we are no longer concerned with synchronization of only a subset of data.

1.2 OC4J Container for Web-To-Go Client

In the past, the Web-to-Go client used an Oracle Database Lite stack for servlets and JSPs. In order to keep up with the technology, the new Web-to-Go client is developed using the OC4J container, and is known as the OC4J Web-to-Go client.

Since the OC4J product is continually updated, then building your Web-to-Go application using the J2EE standards is better if you want to use future J2EE standards.

To build the OC4J Web-to-Go application, follow the J2EE standards specified by Sun Microsystems. Thus, all applications built for the OC4J Web-to-Go client must be fully compliant with OC4J applications. Create the snapshot with MDW and publish the application with the EAR or WAR file within the Packaging Wizard.

1.3 New Features for the Oracle Lite Client

The following sections describe the new features developed for the Oracle Lite client:

- Section 1.3.1, "BLOB Support in the Oracle Lite Database"
- Section 1.3.2, "Additional platform support"

1.3.1 BLOB Support in the Oracle Lite Database

Most of the data is stored in the Oracle Lite database file with an ODB extension; any BLOB objects—either binary or character—and the indexes are stored in a file with an OBS extension.

Because BLOB data and indexes are stored in an OBS file, there is no limit for BLOB data or indexes. The limitation for BLOB data and indexes is the space limitations of the operating system or 16 terabytes. There still exists a 4 GB limitation for the ODB file; however, this is not as much of an issue now that BLOB data can be stored in the OBS files.

> **Note:** If you have been using the Oracle Lite database prior to the 10.3 release, you can upgrade your database to remove all BLOB data from within it and transfer the BLOB objects to OBS files by using the `defragdb` utility, which is documented in Section 3.6, "Defragmentation and Reducing Size of the Client Database" in the *Oracle Database Lite Administration and Deployment Guide*.

1.3.2 Additional platform support

The following platforms are now supported for the Mobile client:

- Windows Mobile 5 Native Build—There is now a CAB file download available for this Mobile client in the setup page.

- Windows CE Standard SDK 5.0—There are WinCE SDK 5.0 CAB files, which can only be downloaded in a special manner and are not included on the setup page. See the installation documentation for information on how to install the WinCE SDK CAB files.

- The ADO.Net driver is compatible with ADO.Net 2.0 and the .Net Compact Framework 2.0.

1.4 C++ and .Net Stored Procedures

You can now create stored procedures using C++ and .Net; however, they do not automatically download to the client during synchronization.

1.5 Symbian OS JDBC support

We support Symbian OS versions 7.x/8.x, UIQ 2.0, 2.1. In addition, you can use a JDBC driver for J2ME CLDC—in a limited capacity—for Java applications to connect and update the database.

On the Symbian platform, only one JDBC connection is supported.

Table 1   Symbian Support

Platform	Programming Languages	Operating System	Hardware
Symbian OS on Nokia and Motorola	C, C++	Symbian OS versions 7.0 and 8.0	ARM

1.6 New Features for Development and Deployment

- Mobile Server Repository Diagnostic Tool—You can use the `msrdt` tool to validate your environment and what is in the back-end Mobile Server repository. See the Troubleshooting and Tuning Guide for more information.

- MDW Quickstart Wizard—The Quick Start Wizard enables you to create a simple publication in just a few steps. It generates the publication items within your publication by assuming that you want the default settings. In addition, the snapshot defaults to select all items within the table. For example, if the table selected is `EMP`, then the select statement defaults to `select * from emp`.

- MDW is set up so that you can create publication items that use the new Automatic Synchronization.

1.7 Java 1.5 Support

We now support Java version 1.5, as follows:

For all Mobile clients, use JRE 1.5.1. For the Mobile Server and Mobile Development Kit, the version required depends on what version of OracleAS 10*g* you are using.

Table 2   JDK Version Supported

OracleAS 10*g* Version Used	JDK Version Supported
Oracle Database Lite Standalone using OC4J Standalone	JDK 1.5.1
OracleAS 10*g* version 10.1.2	Use either JDK 1.4.2 or 1.5.1
OracleAS 10*g* version 10.1.3	JDK 1.5.1

1.8 New Troubleshooting and Tuning Guide

There is now a separate guide for performance information, troubleshooting and tuning.

2 General Subjects

The following subjects apply, in general, to the entire product:

- Section 2.1, "Desupported Windows Operating Systems"
- Section 2.2, "Limitations for Linux"
- Section 2.3, "Certified Versions for Oracle RDBMS"

2.1 Desupported Windows Operating Systems

Microsoft has desupported the following versions of the Windows operating system: Windows 98, and Windows NT. In addition, Microsoft has desupported the Windows CE 3.0 version of the Windows CE operating system.

2.2 Limitations for Linux

The following are limitations for Linux Mobile clients:

- Section 2.2.1, "Red Hat Enterprise Linux Version Supported"
- Section 2.2.2, "Limitations of the Web-to-Go Client on Linux"
- Section 2.2.3, "Installing Into a Different Oracle Home"
- Section 2.2.4, "Installing on RedHat Linux 3.0 with Japanese Local"

2.2.1 Red Hat Enterprise Linux Version Supported

The following details the Red Hat Enterprise Linux Version supported for various components of Oracle Database Lite:

Table 3   Red Hat Enterprise Linux Version Support

Mobile Client	The Linux Mobile clients are supported on Red Hat Enterprise Linux Version 4, but not on Version 3.
MDK	The Linux MDK is supported on Red Hat Enterprise Linux Version 4, but not on Version 3.
Mobile Server	The Linux Mobile Server is supported on either Red Hat Enterprise Linux AS Version 3 or 4.

2.2.2 Limitations of the Web-to-Go Client on Linux

The JDK is not installed, if not present on the client machine.

2.2.3 Installing Into a Different Oracle Home

If you are installing Linux Oracle Lite MDK in a different Oracle Home other than where Mobile Server resides, then you have to install the JDBC component separately, which is available under the JDBC folder in the install location.

2.2.4 Installing on RedHat Linux 3.0 with Japanese Local

If you are installing Oracle Database Lite into the same Oracle home as the Oracle Database 10*g*R2 or *i*AS 10.1.2 on a host that uses Redhat Linux 3.0 with Japanese Local, then you will receive an error message and the Oracle Universal Installer is aborted.

In the OUI log file, and XMLParse and "`NullPointerException`" errors are written.

Instead, rename the `ORACLE_HOME\inventory\clone` folder to any other name and restart the installer again. Once renamed, then the installation completes successfully.

2.3 Certified Versions for Oracle RDBMS

For the 10.3 release, only the following versions of the Oracle database are certified: 10.2, 10.1, and 9.2. The Oracle RDBMS versions 9.0, and 8.1.7 are desupported.

3 Modifications to the Getting Started Guide

The following subjects detail modifications that should be in the *Oracle Database Lite Getting Started Guide*.

- Section 3.1, "Supporting Microsoft Windows Vista"
- Section 3.2, "Pre-Install Requirements Before Installing the MDK on LINUX"
- Section 3.3, "Pre-Install Environment Variable Settings Before Installing Mobile Client on Linux"
- Section 3.4, "Unable to Locate the JDK Installation"
- Section 3.5, "Mobile Client User and Its Device"
- Section 3.6, "Cannot Install Over Network With Windows 2003 Service Pack 1"
- Section 3.7, "Error Message Received When Installing on Pocket PC Device"
- Section 3.8, "Upgrade Limitations"
- Section 3.9, "Buttons Disabled in MDW for Japanese Language on Windows 2000"

3.1 Supporting Microsoft Windows Vista

Microsoft Windows Vista is supported for the Mobile Server, MDK, and Mobile clients for Web-to-Go and Win32.

The Microsoft Windows 2000 platform is no longer supported.

3.2 Pre-Install Requirements Before Installing the MDK on LINUX

Of all of the UNIX platforms, the MDK is only support on the Linux platform. But before installing the MDK on your Linux system, modify the following environment variables:

Table 4   Linux Environment Variable

Linux Environment Variable	Description
JDKDIR	Point to the JDK installation directory
OLITE_HOME	$ORACLE_HOME/mobile/sdk
LD_LIBRARY_PATH	/usr/lib:$JDKDIR/jre/lib/i386:$JDKDIR/jre/lib/i386/server:$OLITE_HOME/lib:$LD_LIBRARY_PATH
CLASSPATH	.:$ORACLE_HOME/mobile/sdk/bin/olite40.jar
PATH	$JDKDIR/bin:$OLITE_HOME/bin:$PATH

3.3 Pre-Install Environment Variable Settings Before Installing Mobile Client on Linux

Set the following environment variables before installing the Mobile client on Linux:

- Set OLITE_HOME to where Oracle Database Lite is installed, such as /home/<user>/olite

- Set JAVA_HOME to the Java installation directory

- Add the following to the LD_LIBRARY_PATH
  $JAVA_HOME/jre/lib/i386
  $JAVA_HOME/jre/lib/i386/server
  $OLITE_HOME/bin

- Add $OLITE_HOME/bin to the PATH

3.4 Unable to Locate the JDK Installation

If you received the message "Unable to Locate the JDK Installation" during Oracle Database Lite installation, then your registry keys may be pointing to the incorrect location. At the time of this release, the JDK 1.5 install writes out incorrect registry keys for the location of the JDK Home. To correct the registry keys, perform the following:

1. At the command prompt enter:

   regedit

2. Check the values of the following registry keys:

   My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\JavaSoft\Java Development
   Kit\1.5.0_11\JavaHome
   My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\JavaSoft\Java Development
   Kit\1.5\JavaHome

3. If the registry keys are set to a number value, such as "1", which is not a valid directory, then modify the registry key to point to the directory where you installed JDK.

   The following is an example of a valid directory:

   ```
   C:\Program Files\Java\jdk1.5.0_11
   ```

4. Reboot the machine.

3.5 Mobile Client User and Its Device

You cannot install the same Mobile Client platform for the same user on more than one device

3.6 Cannot Install Over Network With Windows 2003 Service Pack 1

While running the setup.exe through a network drive on Windows 2003 SP1 machine, you will receive a Windows security alert. In order to overcome this and run the setup.exe you need to do one of the following:

- Execute the `setup.exe` command locally with the Oracle Database Lite CD.

- Copy the contents for Oracle Database Lite on to the local disk.

- Refer to the Microsoft Web site on how to add the Oracle Database Lite files to the list of the reliable files.

3.7 Error Message Received When Installing on Pocket PC Device

When you install Oracle Database Lite on a Pocket PC device with Pocket PC 2003 (Windows Mobile) Second Edition or Windows Mobile 5 operating systems, you may get the following warning.

```
"The program you have installed may not display properly because it is
designed for a previous version of Windows Mobile software."
```

Ignore the message. Oracle Database Lite works as expected.

3.8 Upgrade Limitations

The following describes upgrade limitations:

- Section 3.8.1, "Upgrading Mobile Clients from De-Supported Mobile Client Platforms"

- Section 3.8.2, "Limitation for Branch Office Upgrade on a Windows Platform"

- Section 3.8.3, "Upgrading Branch Office 10g Release 1 to version 10g Release 3"

- Section 3.8.4, "Upgrading Web-to-Go Applications"

- Section 3.8.5, "Upgrade Your Windows Mobile 5 Client Platform"

- Section 3.8.6, "Increasing Quota Before Upgrading Repository Wizard from 5.0.2.x to 10.3.0"

- Section 3.8.7, "Online Web Application Issue When Upgrading from 5.0.2.x to 10.3"

3.8.1 Upgrading Mobile Clients from De-Supported Mobile Client Platforms

For the Oracle Lite Palm, PPC2003 Emulator, and PPC2000 ARM Mobile client platforms, there is no upgrade option. These client device platforms are no longer supported for Oracle Database Lite.

Table 5 displays how you can migrate the following de-supported Mobile client platforms to currently available platforms:

Table 5   Upgrading De-Supported Mobile Client Platforms

De-Supported Client Platform	Upgrade to this Available Platform
Oracle Lite PPC2003 XScale	Oracle Lite PPC2003 ARMV4
Oracle Lite WCESTD42 ARMV4	Oracle Lite PPC50 ARMV4I

During the upgrade process, be sure to not cancel in the middle. If your device is Windows 5.0 or later, then you must perform the following after the CAB files are downloaded to the device:

1. Tap on the CAB files to extract the files to the device.

2. Tap on dmagent to execute start the Device Manager.

The following describes what happens for those Mobile client devices that want to continue to use the de-supported platforms:

- Any client device that has a de-supported platform is given the option to migrate to the upgrade platform when they execute `msync.exe` or `update.exe`.

- If you do not want to upgrade the client platform, then these clients can still synchronize with the Mobile Server; however, they will be prompted to upgrade each time.

- You can continue to administer de-supported client platforms, as they will still appear in the platform tabs in the Mobile Manager. We will not disable them from your administration management GUI. However, they will not be included in the setup page for you to create new clients using these platforms.

- The applications that already exist on the de-supported client platforms will still run as expected. And you may apply any patches for the application. However, you cannot deploy any new applications to that platform.

- If you do upgrade the client platform, then you must re-package and re-publish each application as a new application for the new client platform.

3.8.2 Limitation for Branch Office Upgrade on a Windows Platform

When you are upgrading a Branch Office client on a Windows platform, the upgrade will not complete if Web-to-Go is running in service mode. Perform on e of the following:

- First terminate the Web-to-Go service and re-start it in debug mode, as follows:

  ```
  webtogo -d0
  ```

- Execute `update.exe`.

3.8.3 Upgrading Branch Office 10*g* Release 1 to version 10*g* Release 3

If you have Oracle Database Lite 10*g* Release 1, then upgrade your Branch Office to 10g Release 3, as follows:

> **Note:** These steps assume that you have a 10*g* Release 1 Branch Office environment already configured and synchronized. If you do not have this environment currently configured, you do not need to upgrade.

1. Install Oracle Lite 10*g* Release 3 Mobile Server in the same *ORACLE_HOME* directory where you installed Release 1.

2. Stop the Branch Office client executing as a Windows Service.

3. From the Branch Office client machine, which is being migrated to 10*g* Release 3, point your browser to `http://<hostname>:<port>/webtogo/setup` on the Mobile Server 10*g* Release 3.

4. Click on "Oracle Lite Branch Office Client" link from the list of Mobile clients. Download and save the `setup.exe` file into the `BO_CLIENT_HOME\bin` directory. Overwrite the existing `setup.exe` file.

5. Open a command prompt, navigate to the `BO_CLIENT_HOME\bin` directory, and execute the `update.exe` command to start the upgrade process. Alternatively, you can open Programs->Oracle Database Lite->Oracle Lite Update.

3.8.4 Upgrading Web-to-Go Applications

Web-to-Go Applications that upgrade from 5.0.2 to 10*g* Release 3 that have no associated snapshots will not display on the Mobile Server workspace.

3.8.5 Upgrade Your Windows Mobile 5 Client Platform

In this release, we provide a new client that is for the Windows Mobile 5 client platform called Oracle Lite PPC50 ARMV4I. If you currently have an existing Oracle Lite PPC Mobile client installed, you can upgrade to this new Mobile client, as detailed in this section.

You may have one of the following clients already installed on your Windows Mobile 5 device: Oracle Lite PPC2000 ARM, Oracle Lite PPC2003 ARMV4, Oracle Lite PPC2003 XScale.

If you would like to upgrade the client to Oracle Lite PPC50 ARMV4I, please do the following:

> **Note:** These instructions are ONLY for those Mobile clients that exist on Windows Mobile 5 devices.

1. Repackage and republish the applications that are assigned to the affected users. Associate these new applications with Oracle Lite PPC50 ARMV4I.

2. Execute the `upgradetoppc50.bat` (`upgradetoppc50.sh` on Linux) script that exists in the `<ORACLE_HOME>`\Mobile\Server\admin\ directory, as follows:

   ```
   upgradetoppc50.bat INSTALL [ORACLE_HOME] [REPOSITORY USERNAME]
   [REPOSITORY PASSWORD] [JDBC URL]
   ```

3. Run `msync` or `update` executables from the intended client devices. An update to PPC50 is shown. Accept the update to be installed.

4. You can revert the mapping by executing the same script with `UNINSTALL` as the first argument, as follows:

   ```
   upgradetoppc50.bat UNINSTALL [ORACLE_HOME] [REPOSITORY USERNAME]
   [REPOSITORY PASSWORD] [JDBC URL]
   ```

3.8.6 Increasing Quota Before Upgrading Repository Wizard from 5.0.2.x to 10.3.0

Perform the following step before installing Oracle Database Lite 10.3 to increase the quota for the 10.3 Repository Wizard:

1. Login to sqlplus as `system` or `sysdba`.

2. At the SQL prompt execute the following:

   ```
   alter user mobileadmin quota unlimited on USERS;
   ```

If you do not perform this before upgrading the repository from 5.0.2 to 10.3.0, then the following error is thrown:

```
ORA-01536: space quota exceeded for tablespace 'USERS'
```

3.8.7 Online Web Application Issue When Upgrading from 5.0.2.x to 10.3

When you upgrade from 5.0.2.x to the 10.3 version, then some of the online Web applications may lose the username/password. If you try to execute them, you will get the error 'accessing data'. Modify the database username and password in the Application properties to a valid username/password.

3.8.8 Please Wait... Message When Upgrading Branch Office with Oracle Database Lite 10.3

If after the upgrade process for the 10.3 is complete, the browser continues to display a "Please wait... " message, either reboot your machine or perform the following:

1. Restart the Oracle Database Lite MultiUser service.

2. Restart the Oracle Web-to-Go service.

3.8.9 Re-Installing Sample Applications While Upgrading from 10*g* Release 1 to 10*g* Release 3

If you have installed the Mobile client with the sample user `S11U1` on a device prior to the 10*g* Release 3 upgrade, and you decide to re-install the sample applications, then the user will no longer be able to synchronize. You must uninstall the client and then re-install before the sample user `S11U1` will work again.

3.8.10 Issue With Mobile Applications Running In Online Mode After Upgrading From 5.0.2.x To 10*g* Release 3

After upgrading from 5.0.2.x to 10*g* Release 3, if you want to run your application in on-line mode, then you need to set the username and password of the application in the Mobile Manager. In some cases, the username and password may become null after the upgrade.

3.9 Buttons Disabled in MDW for Japanese Language on Windows 2000

If you are using Japanese as your language on a Windows 2000 operating system, then when you are creating a publication item, the buttons disable at the end of the creation wizard. You can use the tabs to complete the process and end the wizard.

The following details the process where the buttons disable at the end on step 10.

1. Launch MDW.

2. Create a new project or open an existing project file.

3. Select **Publication Item** and click **Create Publication Item**.

4. Click **Next** on the Welcome page.

5. Enter the name, click **Enable automatic Synchronization**, and then click **Next**.

6. Select the appropriate table and click **Next**.

7. Click **Next** to bring you to the Summary page, and then click **Finish**.

8. Select the **Specified Users** tab.

9. Enter your SQL statement and click **Applied**.

10. Check any button in the Select Primary Base Object for Publication Item dialog box. At this point, use the tabs to enable the windows to disable and return to the main UI.

4 Modifications to the Administration and Deployment Guide

The following subjects detail modifications that should be in the *Oracle Database Lite Administration and Deployment Guide*.

- Section 4.1, "ENCRYPTDB Configuration Parameter Change"

- Section 4.2, "OC4J Cannot Update Access Log"

- Section 4.3, "Synchronization Error After Modifying Client Password"

- Section 4.4, "Errors When Using VALIDATEDB On WEBTOGO.ODB"

4.1 ENCRYPTDB Configuration Parameter Change

The parameter for encrypting a database in the `POLITE.INI` file is listed in the Administration guide to be `ENCRYPT_DB`. Instead, the parameter name is `ENCRYPTDB`.

4.2 OC4J Cannot Update Access Log

The `NullPointerException` is thrown in `StandardRequestLogger.appendIP` if the Mobile Server is running in the standalone SSL mode. This is a bug in the OC4J container, which will be fixed in future releases. Usually this is a harmless exception.

Perform the following as a workaround:

Open the `<ORACLE_HOME>\mobile_oc4j\j2ee\mobileserver\config\secure-web-site.xml` file and add `access-log="false"` at the end of the `web-app` tag for the `mobileserver` application, as follows:

```
<web-app application="mobileserver" name="webtogo" load-on-startup="true"
 root="/webtogo" shared="true" access-log="false"/>
```

4.3 Synchronization Error After Modifying Client Password

If you have an active client and change its password on the server, then the client cannot synchronize. Return the password back to its original value on the server and retry the synchronization.

4.4 Errors When Using VALIDATEDB On WEBTOGO.ODB

If you execute the `VALIDATEDB` on `webtogo.odb`, you will receive errors. Ignore the errors.

4.5 User Password Encryption Impacts Using Older Version Database Binaries

Oracle Database Lite encrypts the user password with a one-way encryption algorithm before storing it in the database. With the change in password encryption, any database upgraded from an older version is not accessible using the old binaries.

4.6 Device Manager Command 'Reset Password' Update

The purpose of the Reset Password command is to reset the client side password to match the new password on the server side. Note that this command DOES NOT change the password on the server side. In order to use the command, the Administrator must change the user's password in Mobile Server and later send the command to the device to reset its stored password. Also the device must be immediately reachable from the Server.

Webtogo Clients and Branch Offices do not support the Reset Password command in this release.

4.7 Using Oracle Lite Database on Branch Office

The Mobile Client for Branch Office is installed as a service for an internal user. Thus, if you are running Branch Office as a service and perform an initial synchronization, then the DSN created is not visible to the other users in the ODBC administration tool.

If the user wants to use the Oracle Lite database created by Branch Office, then they must create the DSN entries using the ODBC administration tool manually.

4.8 Changing the Language or Locale for Branch Office Client

If the user needs to change the locale for the default user-profile on the Branch Office client, the perform the following:

If the Branch Office client is installed on Windows 2000, then perform the following:

1. Log on to the computer as the administrator, and then create a local user account.

2. Log off as the administrator, and then log on to through the local user account that you just created.

3. Change the locale of user to the desired locale within the **Control-Panel->Regional Settings** page.

4. Log off as the local user, and then log back on as the administrator.

5. Turn on the following option: **Show hidden files and folders**. In Windows Explorer, this option can be selected in the View tab of the Tools->Folder Options screen.

6. Replace the current default user profile with the customized default user profile, as follows:

   a. Navigate to the Control-Panel->System.

   b. On the User Profiles tab, click the user profile that you just created, and then click **Copy To**.

   c. In the Copy profile to section, select the location and who is permitted to use this profile. Click **Browse** and select the `\Documents and Settings\Default User` folder for where the profile is to be copied. To set the permissions, then under the **Permitted to use** section, click **Change** for **everyone**. Click **OK** to save.

This modifies the locale for the default user-profile. At this point, you should install the Branch Office, which will reflect the new locale.

4.9 Selective Sync in the Web-to-Go Workspace

Selective sync in the Web-to-Go workspace is not applicable for automatic synchronization publications. The automatic synchronization publications will always synchronize with the server—even if the user unselects it in the selective sync publication list.

4.10 Modifications to Register the WCESTD500 SDK CAB Files with Java, MSQL, and Utility Support

After you execute the dmloader executable, perform the following:

Copy the `setup_<language>.exe` files to the following directory on the Mobile Server:

```
<ORACLE_HOME>\mobile_oc4j\j2ee\mobileserver\applications\mobileserver
\setup\dmc\wince\<platform>\<chipset>\
```

For example, registering the `wcestd500_sdk` CAB file, the setup files should be copied to the following directory:

```
ORACLE_HOME\mobile_oc4j\j2ee\mobileserver\applications\mobileserver
\setup\dmc\wince\ppcstd500\armv4i
```

4.11 Logging in to the Mobile Client for OC4J After Upgrade

After the Mobile Client for OC4J is upgraded, the Web browser does not display the login page automatically. Instead, the user needs to click on the desktop browser shortcut for Mobile client for OC4J to open the login page.

4.12 Migrating Users to OID

After you have migrated users to OID, when you login to Mobile Manager results in a page that contains one workspace inside another workspace. To resolve this, refresh the browser.

4.13 Receiving SecurityException When Using OID With Mobile Server

If you are using Mobile Server with OID in Oracle Application Server 10.1.2 in the Unix environment, then you may see following exception:

```
 java.lang.SecurityException: access denied
oracle.ias.repository.schemaimpl.CheckRepositoryPermission connectAs)
at oracle.security.jazn.util.JAZNSecurityManager.verifyPermission(Unknown
Source) at
oracle.ias.repository.SchemaManager.connectAs(SchemaManager.java:1280)
at oracle.lite.web.OIDUserManager.getIASInitialDirContext(Unknown Source)
at oracle.lite.web.OIDUserManager.getUsers(Unknown Source)
at oracle.lite.web.OIDUserManager.getOIDUserGUID(Unknown Source)
at oracle.lite.web.OIDUserManager.getOIDUsersGUIDHash(Unknown Source)
at oracle.lite.web.migrate.GUID.<init>(Unknown Source)
at oracle.lite.web.migrate.GUID.main(Unknown Source)
```

This issue only happens in Unix environment.

To resolve this issue, edit `$ORACLE_HOME/config/jazn-data.xml` and find the following line:

```
<url>file:/$ORACLE_HOME/Mobile/Server/bin/webtogo.jar </url>
```

Modify this line to the following:

```
<url>file:/$ORACLE_HOME/mobile/server/bin/webtogo.jar </url>
```

4.14 Problem Encountered When Synchronizing on Microsoft Windows Vista

Perform the following if you receive this message when you initiate a synchronization off of a Microsoft Windows Vista: "`740 The requested operation requires elevation.`"

1. Right click the `msync.exe` on FileExplorer.

2. Select Properties ->Compatibility.

3. Click the "Run this program as an administrator" checkbox.

This issue only occurs when the Windows Vista User Account Control is on.

4.15 Using Packaging Wizard For SSL-Enabled Mobile Server

If you enable the Mobile Server to be SSL-Enabled, then you have to change the configuration on the host where the Packaging Wizard is located in order for it to successfully communicate with the Mobile Server.

In order for Packaging Wizard to be SSL-Enabled, perform the following:

Set the `SSL` parameter to `TRUE` in the `webtogo.ora` file located on the host where the MDK is installed. The `webtogo.ora` file is located in the `<ORACLE_HOME>\Mobile\Sdk\bin` directory.

```
[WEBTOGO]
SSL=TRUE
```

4.16 Using MDW, OLI and WTGDebug the Same MDK Installation

The MDW, OLI and WTGDebug tools all use the same `polite.ini` configuration file and ODBC DSN names. Because of this, they can overwrite configuration needed for the other tools. For this release, if you want to use more than one of these tools in the same MDK, then you must re-install the MDK in between using different tools to ensure that the configuration is correct.

Also, because of the `polite.ini` sharing issue, installing a normal client on a machine that has an MDK installation is not supported.

4.17 Initiating Debug Messages for Device Manager

If you turn on the DEBUG parameter in the [DMC] section in the `polite.ini` file on the Mobile client, then this turns on the debugging for the device manager. All device manager debug messages are written to the `_dmdebug.txt` file.

To enable, set the DEBUG parameter in the [DMC] section to 1. Set to 0 to turn off debug feature, which is the default.

4.18 Performing Offline Instantiation

In the offline instantiation chapter, all of the steps are included; however, the way that it is written, administrators often skip step one as detailed below:

1. Perform a normal client installation on the Windows machine where `oli.bat` script has to be run. Download the `setup.exe` for the intended platform. This is the base client binaries that will be used in creating the distributed client installation. Execute the `setup.exe` to install the client into the client root directory, which you need to define in the MOBILECLIENT_ROOT parameter in `oli.ini` file.

2. Initiate the distributed client installation by executing the `setup.exe` file a second time with the distribution flag (`setup.exe -d`) in a separate directory location on the same machine. This location has to be given as MOBILECLIENT_CD_ROOT parameter in `oli.ini` file.

3. Download the Mobile client binaries from the Mobile Server by successfully synchronizing the Mobile client with Mobile server. Use the `msync.exe` application to initiate the synchronization process for one of the subscribing clients.

4. Update `oli.ini` with required information and run `oli.bat` to get final client distribution packages.

    Make sure you are not connected to the client database—such as using msync in case of Win32 client or logged into the Web-to-Go client—while running the `oli.bat`.

When configuring the device type, use one of the following:

- WIN32: Windows 32

- WTG: OC4J Web, Web-to-Go client, Branch Office

- WCE: Windows CE (PocketPC)

For more information, refer to Chapter 9 in the *Oracle Database Lite Administrator's Guide*.

4.19 Configuration Details When Using a Farm

When you configure multiple Mobile Servers against a single repository, this is known as a farm.

To enable the Device Manager, Mobile Manager and all of the Mobile Clients to work properly in Farms, you need to modify the `webtogo.ora` file on EACH Mobile Server.

Add and enable the following parameter in the `[WEBTOGO]` section of `webtogo.ora` file on all Mobile Servers in the Farm:

```
DM_AUTO_SYNC_CACHE=YES
```

4.20 Username and Password Naming Conventions

The username is a unique string that is not case sensitive. It must begin with a letter and is limited to 28 alphanumeric characters. The user name can only contain single-byte characters.

The password must begin with a letter, does not appear in quotes and is not case-sensitive.

The password is limited to a maximum of 28 alphanumeric characters.

Both the user name and password should not contain characters such as ',",@,% or blank spaces and should not be Oracle Database reserve words.

4.21 Web-to-Go Workspace Pages Garbled for Japanese, Korean and Simplified Chinese on Some of the Linux Operating Systems

Some of the Linux operating systems for Japanese, Korean and Chinese use UTF-8 as the default locale. Consequently, this effects some of the Web-to-Go Workspace pages—causing some garbled characters. This applies to the Linux server, Linux Web-to-Go client, and Linux Web-to-Go OC4J client.

If you experience this situation, perform the following:

1. Modify the operating system locale and encoding according to your language by setting the environment variables `LC_ALL` for the locale and `LANG` for the encoding, as follows:

    -   Supported locale and encoding for Simplified Chinese:

        locale: `zh_CN.gb18030`, encoding: `zh_CN.gb18030`

    -   Supported locale and encoding for Korean:

        locale: `ko_KR.eucKR`, encoding : `ko_KR.eucKR`

    -   Supported locale and encoding for Japanese:

        locale: `ja_JP.eucJP`, encoding: `ja_JP.eucJP`

2. For the Mobile Server, restart the Mobile Server to re-initialize with the new locale and encoding. For any Linux Mobile clients, the locale and encoding are only initialized when you install the client. Thus, you must re-install the Oracle Lite client after modifying the locale and encoding.

4.22 Device Management Network Provider WOR_IAS is No Longer Configured

During installation, we no longer configure the Network Provider WOR_IAS to send SMS based device management commands to mobile devices. If you have a device that supports Wake On Ring functionality, then you can use the SMTP network provider instead. If you need to use the WOR_IAS provider, contact Oracle Support.

If you have a mobile phone as a Mobile device, then you would have a network protocol where the mobile phone receives incoming data. Thus, the address is a phone number for the mobile phone. The mobile phone is "woken" when incoming commands are initiated from the Mobile Manager. However, you can only use the Wake on Ring over SMTP (WOR_SMTP). The Wake on Ring over OracleAS (WOR_IAS) is no longer configured.

5 Modifications to the Developer's Guide

The following subjects detail modifications that should be in the *Oracle Database Lite Developer's Guide*.

- Section 5.1, "BLOB/CLOB Behavior Changed"

- Section 5.2, "CLOB With Extra Leading Byte"

- Section 5.3, "ADF BC4J Tutorial Modifications"

- Section 5.4, "Modification to Network_Changed Input Parameter for Automatic Synchronization Notification"

- Section 5.5, "Customizing Synchronization Conflict Resolution Outcomes"

- Section 5.6, "Backing Up an Encrypted Oracle Lite Database"

- Section 5.7, "Setting Data as High Priority to Be Synchronized First"

- Section 5.8, "Complete Refresh and High Priority Data"

5.1 BLOB/CLOB Behavior Changed

There is a change in behavior for some SELECT statements when all of the following conditions are met:

1. The transaction isolation level is `READ_COMMITED`

2. The SELECT statement does NOT contain the FOR UPDATE clause

3. The result set of the SELECT statement retrieves at least one binary or character large object—also known as BLOBs. The data type for the large object is either BLOB, CLOB, LONG, LONG RAW, LONG VARBINARY or RAW.

See Section 4.3.46.10 "Select Statement Behavior When Retrieving BLOBs in a READ COMMMITTED transaction" section in the *Oracle Database Lite SQL Reference* for details.

5.2 CLOB With Extra Leading Byte

Before 10.3, how you created any long objects may have caused a leading byte to be inserted before your data.

You will have a leading byte if you created a long object with the CLOB `putChars` and `putString` methods of the old JDBC driver. However, you will not have a leading byte if you had created the CLOB using an `INSERT` statement with an embedded string or a marker that was initialized as a string, then the CLOB object is created correctly without the leading blank. If you used both methods, you may have an inconsistency of some rows having the leading byte and others created normally.

> **Note:** You will not experience the leading byte problem when the Oracle Lite database is created during the first synchronization as it does not use JDBC/ODBC for creation.

However if your CLOB does have a leading blank, perform one of the following:

- If a column in the CLOB is consistently off by one, then fix this by writing a Java program that left shifts the CLOB bytes by one and truncates the last byte.

- If a column is not consistently created, then you may have to re-create all values.

5.3 ADF BC4J Tutorial Modifications

When developing for ADF BC4J, you can only use JDK 1.5 or later.

In Section 18.4.1, we have provided the most used libraries in the WAR file for the ADF BC4J sample. However, if you need other libraries for your JDeveloper environment, refer to Chapter 22.12.3 "Installing the ADF Runtime Libraries Manually" in the Oracle Application Framework, Developer's Guide, 10g Release 3 (10.1.3) for a list of potential libraries.

5.4 Modification to Network_Changed Input Parameter for Automatic Synchronization Notification

In Section 3.2.5, all input parameters for automatic synchronization notification are listed. There is an event identifier for `INFO` type of `NETWORK_CHANGE`, when it should be `NETWORK_CHANGED`.

5.5 Customizing Synchronization Conflict Resolution Outcomes

You can customize synchronization conflict resolution by doing the following:

1. Configure the winning rule to Client Wins.

2. Perform only ONE of the following:

   - Create and attach one or more triggers on the back-end Oracle database base tables to execute before the `INSERT`, `UPDATE`, or `DELETE` DML statements. The triggers should be created to evaluate the data and handle the conflict. Triggers are created to compare old and new row values and resolve client changes as defined by you. See the *Oracle Database* documentation for full details on how to create and attach triggers.

   - Create a custom DML procedure. See Section 3.4.1.13, "Callback Customization for DML Operations" in the *Oracle Database Lite*

Developer's Guide for an example of how to create a custom DML procedure. This example uses the `addMobileDMLProcedure` API.

You can use the `generateMobileDMLProcedure` to generate the procedure specification for a given publication item. This specification can be used as a starting point in creating your own custom DML handling logic in a PL/SQL procedure. You use the `addMobileDMLProcedure` API to attach the PL/SQL procedure to the publication item. See the *Oracle Database Lite API Specification* for more information.

5.6 Backing Up an Encrypted Oracle Lite Database

If you are backing up an encrypted database, then supply the encryption password to the `backupdb` utility, as follows:

```
BACKUPDB DSN|NONE DBName backup_filename [DB_password]
```

The password you used for encrypting the database is only required if the database you are backing up is encrypted. You can either supply this password on the command line or when prompted during execution.

5.7 Setting Data as High Priority to Be Synchronized First

In 10.3, Oracle Database Lite adds a hidden column (MSG$PRIO) to all automatic synchronization snapshots to designate if this data has a higher priority for synchronization if conditions are right. If users need to indicate that a particular record is high priority, they can set the column value to (0). Then sync agent automatically schedules a high priority synchronization for the transaction that contains this record.

5.8 Complete Refresh and High Priority Data

In the documentation, there is a note that states you cannot use fast refresh synchronization with high priority. However, the note should state that you cannot use COMPLETE refresh with high priority data.

6 Modifications to the SQL Reference

Oracle Database Lite does not support the `JOINED_TABLE` functionality. Instead, use ODBC or the Oracle JOIN syntax.

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