

Oracle®

Getting Started with Database Mobile Server (DMS)

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Table of Contents

1.	Installation of Java Development Kit (JDK)	3
2.	Installation Packages (for Windows)	3
2.1	Installation of Oracle Database Express Edition (Oracle Database XE)	4
2.2	Installation of Glassfish	8
2.3	Installation of Database Mobile Server (DMS)	11
3	Installation of Mobile Development Kit (MDK)	20
4	Transport Demo	22
5	Summary	22

Getting Started

This guide provides information for downloading and installing the Database Mobile Server (DMS) and its dependencies. DMS uses a middle-tier Application Server to communicate between the mobile clients and the backend Oracle database. Different Application Servers are supported for DMS, including Oracle WebLogic Suite, Oracle Glassfish, Apache TomEE. See the sections below:

- [Installation of Java Development Kit \(JDK\)](#)
- [Installation Packages \(for Windows\)](#)
- [Installation of Oracle Database Express Edition \(Oracle Database XE\)](#)
- [Installation of Glassfish](#)
- [Installation of Database Mobile Server \(DMS\)](#)
- [Installation of Mobile Development Kit \(MDK\)](#)

The following sections provide information on the transport demo and a review of the key installation steps:

- [Transport Demo](#)
- [Summary](#)

1. Installation of Java Development Kit (JDK)

There are two types of JDK for Windows:

- Windows x86 for 32bit
- Windows x64 for 64bit

DMS supports both of them. To download JDK, go to:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

Double click on the *Installation Executable* and go through the required installation steps. By default, after the installation, you can find the JDK in *C:\Program Files\Java* or *C:\Program Files (x86)\Java*

2. Installation Packages (for Windows)

Install and run the following products:

- Oracle Database Express Edition (Oracle Database XE):

<http://www.oracle.com/technetwork/database/database-technologies/express-edition/downloads/index.html>

- Oracle Glassfish: <http://www.glassfish.java.net/downloads/3.1-final.html>
(glassfish-3.1-windows.exe)
- DMS:
<http://www.oracle.com/technetwork/database/database-technologies/database-mobile-server/downloads/index.html>

Note: To install and run all the above products, first, you need to install the latest JDK 6 or JDK 7.

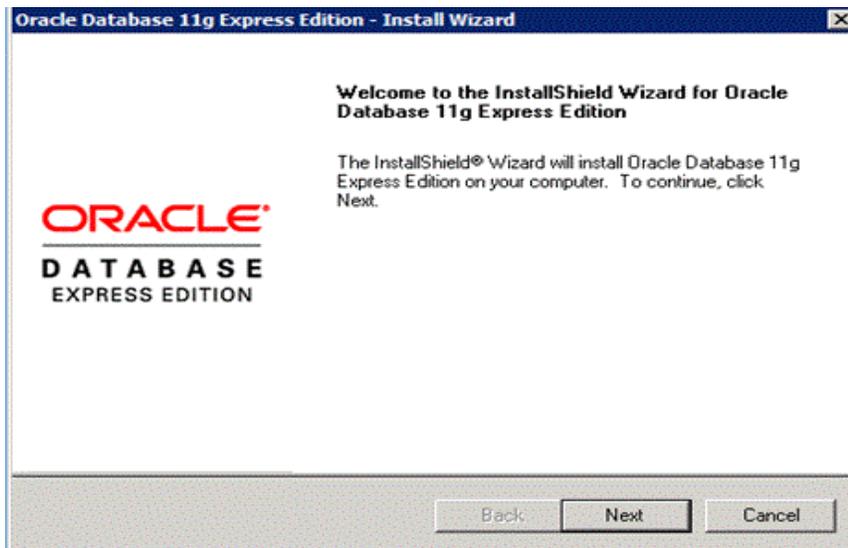
2.1 *Installation of Oracle Database Express Edition (Oracle Database XE)*

To install Oracle Database XE, follow the steps below:

1. Extract Oracle Database XE ZIP package in the current directory. You will get directory DISK1. Double click *DISK1\setup.exe* to install Oracle XE (see, [Figure 1](#)).

Figure 1

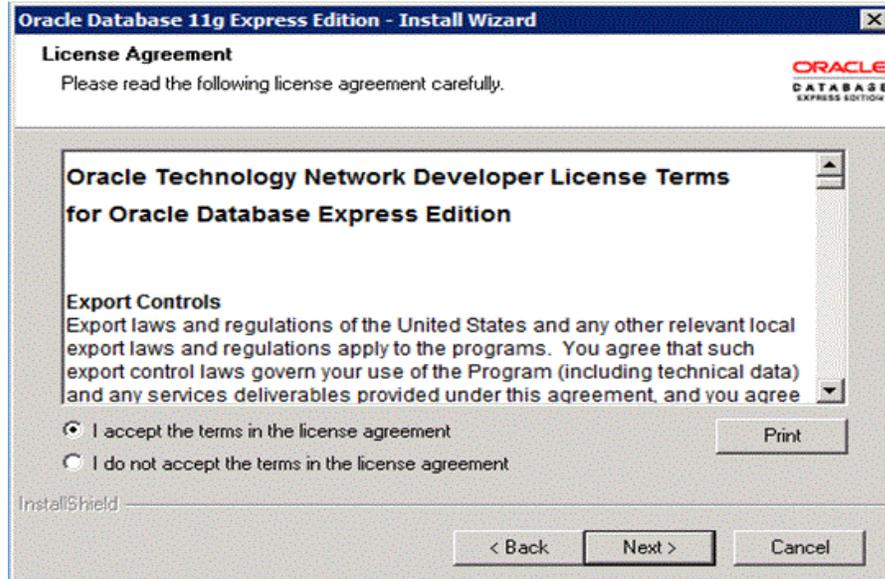
Welcome Screen of Oracle Database XE Install Wizard



2. On the "License Agreement" screen, choose "I accept the terms in the license agreement", then click "Next" (see [Figure 2](#)).

Figure 2

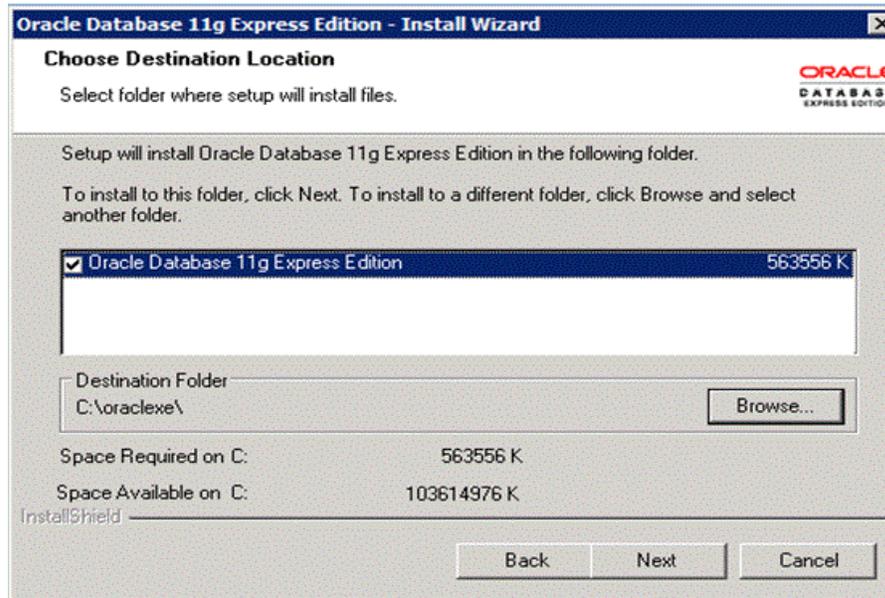
License Agreement



3. On the "Choose Destination Location" screen, click "Browse..." to select the path to install Oracle Database XE, as shown in Figure 3.

Figure 3

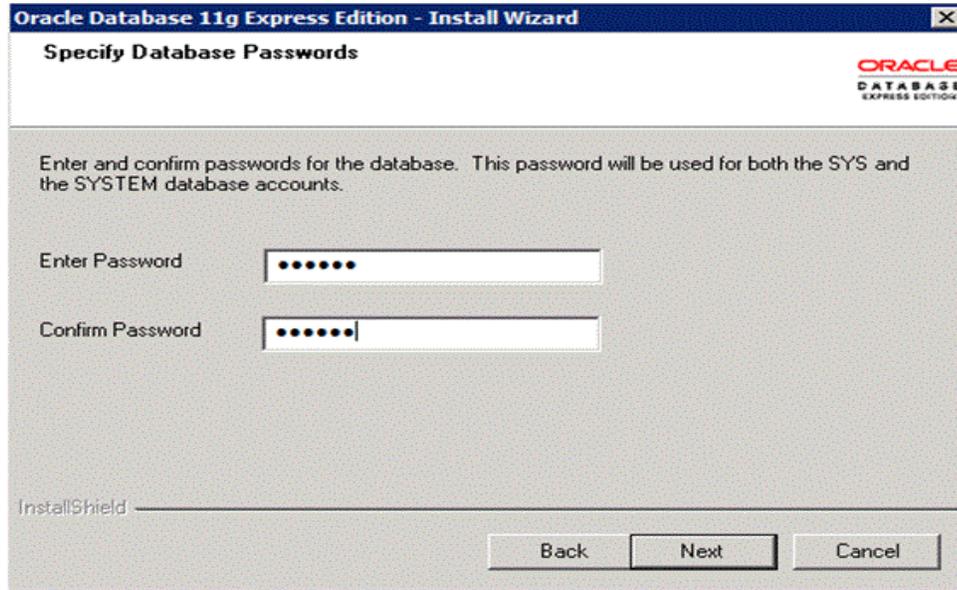
Choose Destination Location



4. On the "Specify Database Password" screen, enter password for both the SYS and the SYSTEM database accounts, as shown in Figure 4. Keep note of these as they will be required throughout the rest of the DMS setup process.

Figure 4

Specify Database Passwords



5. The "Summary" page shows current installation setting (before proceeding with the installation), as shown in Figure 5. If all the settings are as expected, click "Install" to start the installation, as shown in Figure 6.

Figure 5

Summary

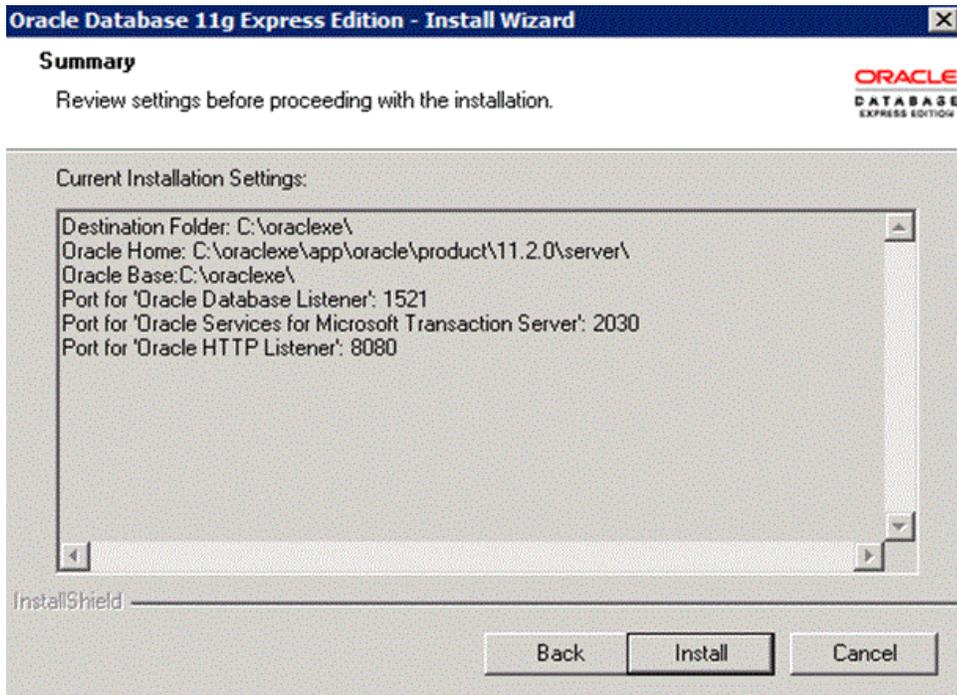
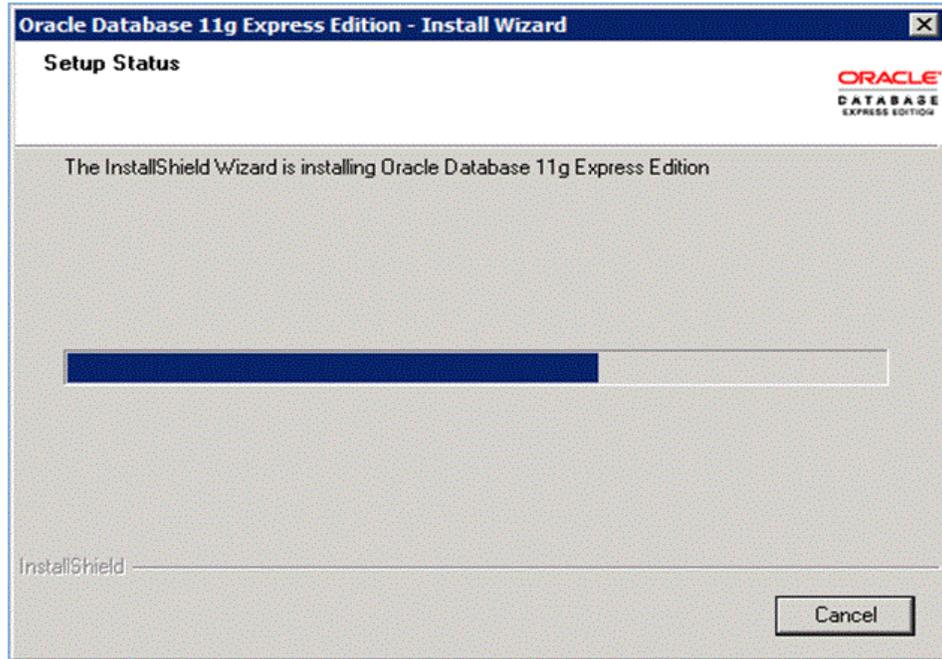


Figure 6

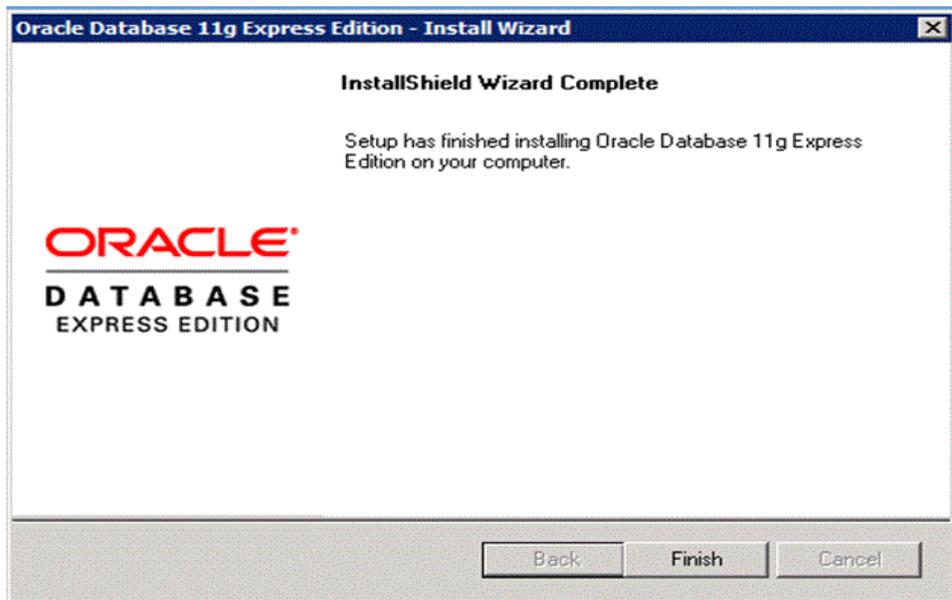
Installation Process



6. End of installation, click "Finish", as shown in [Figure 7](#).

Figure 7

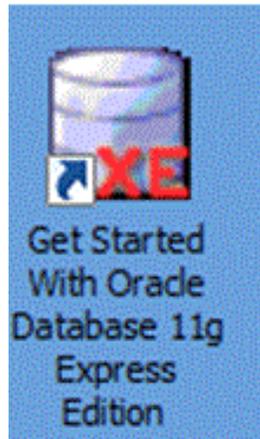
Installation Complete



7. After installation, the "Install Wizard" will create a shortcut on the desktop, as shown in [Figure 8](#).

Figure 8

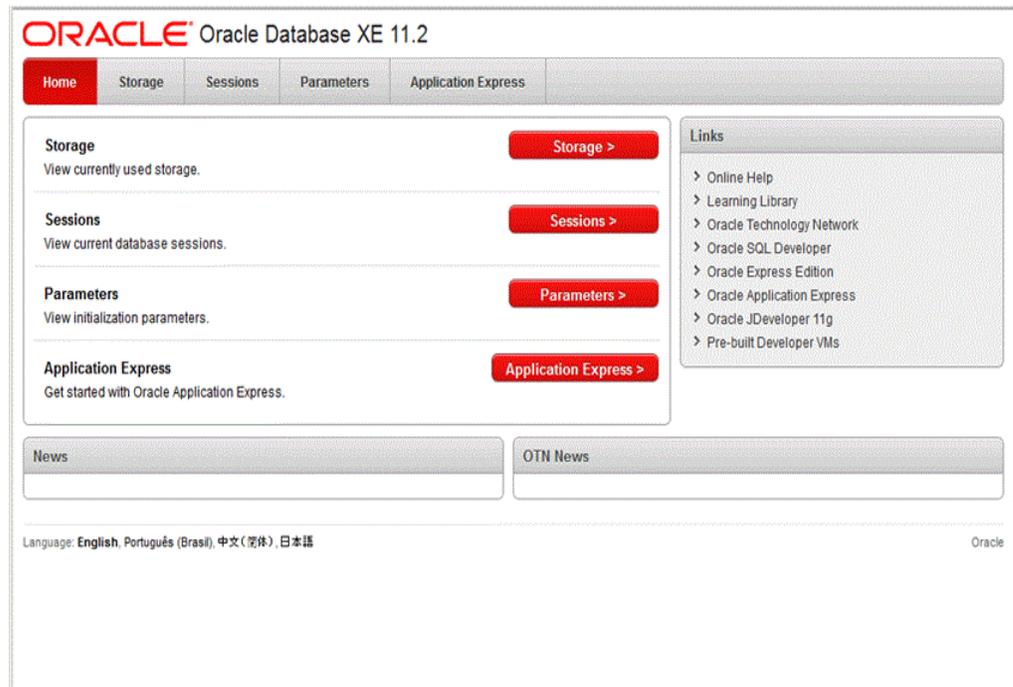
Oracle Getting Started Page



8. Double click this shortcut and it will run the default internet browser and show the home page of Oracle Database XE, as shown in Figure 9. Click the link on the home page to check the status of database.

Figure 9

Home Page of Oracle Database XE



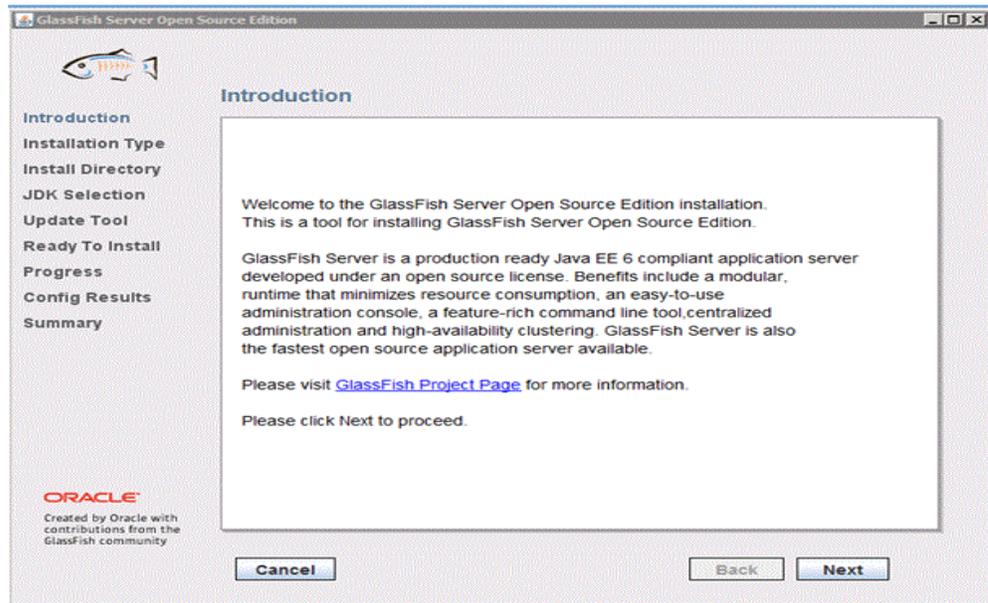
2.2 Installation of Glassfish

To install glassfish, follow the steps below:

1. Double click *glassfish-3.1-windows.exe* to start installation. On the "Introduction" page, click "Next" to proceed (see, Figure 10).

Figure 10

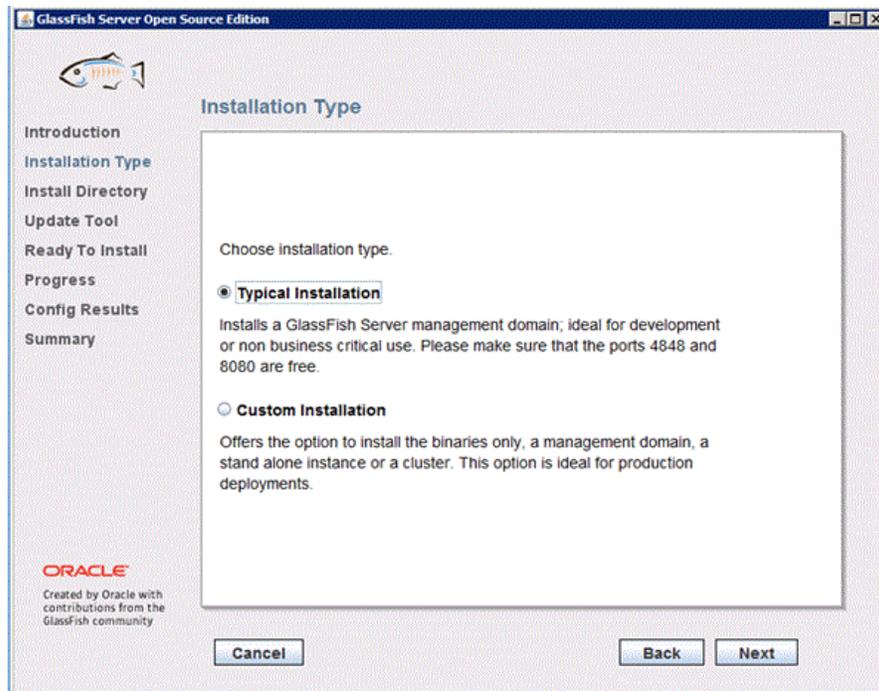
Introduction



2. Choose "Installation Type". Here, we choose the default type "Typical Installation", as seen in Figure 11.

Figure 11

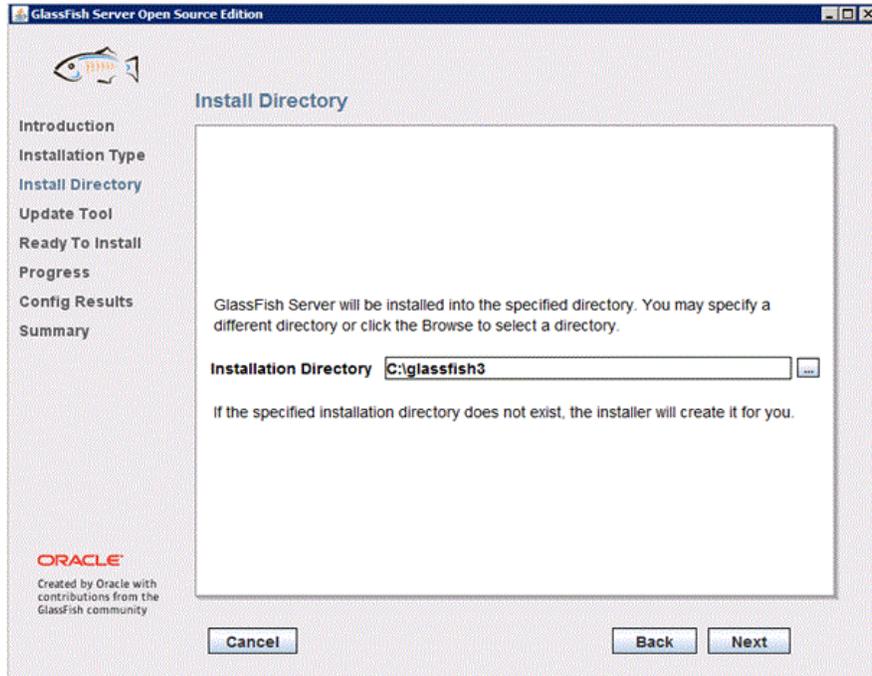
Installation Type



3. On the "Install Directory" screen, click "..." to select the path to install Oracle Glassfish. Click "Next" as shown in Figure 12.

Figure 12

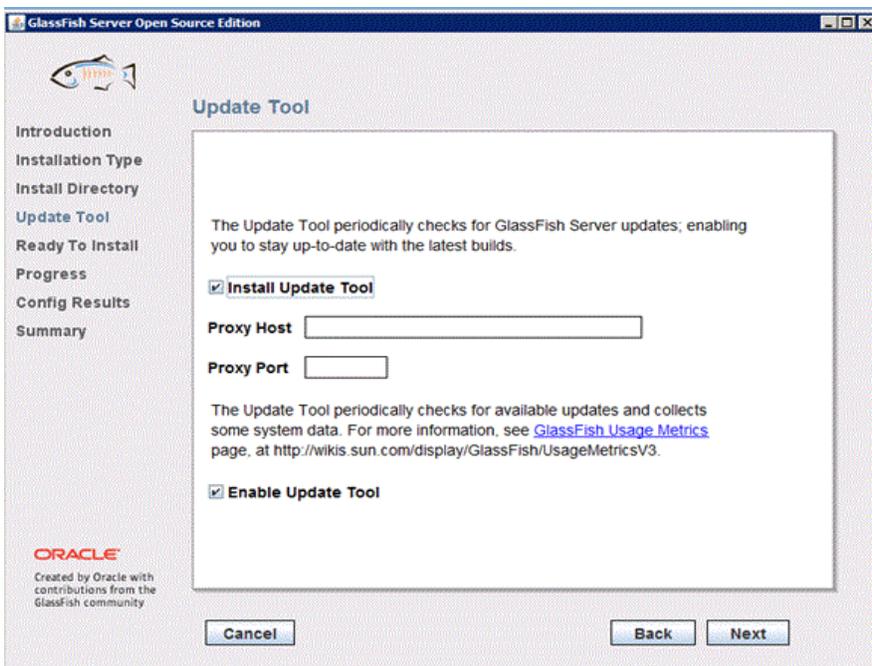
Install Directory



4. On the "Update Tool" screen, you can check for glassfish updates periodically or you can disable it, as shown in Figure 13.

Figure 13

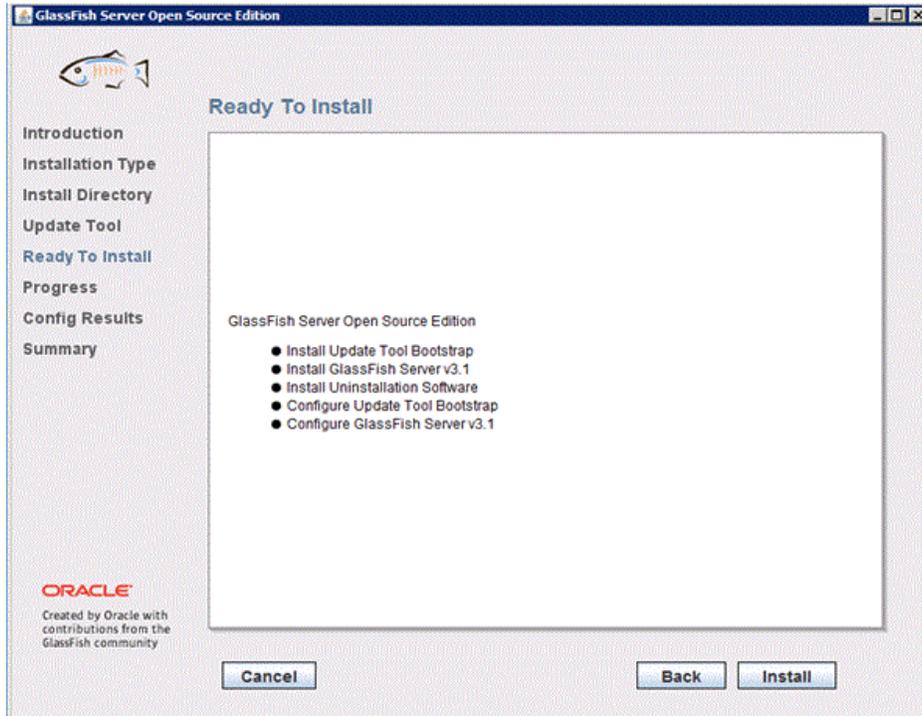
Update Tool



- The "Ready To Install" screen shows the current installation setting before proceeding with the installation, as shown in [Figure 14](#).

Figure 14

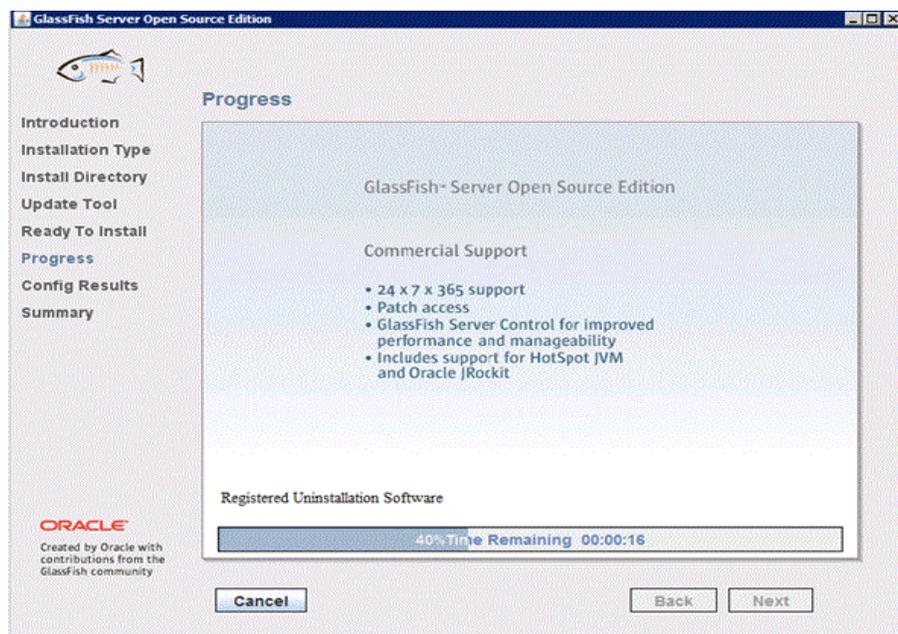
Ready to Install



- The installation process begins, as shown in [Figure 15](#).

Figure 15

Installation Process



- For the configuration results and summary, see [Figure 16](#) and [Figure 17](#).

Figure 16

Configuration Result

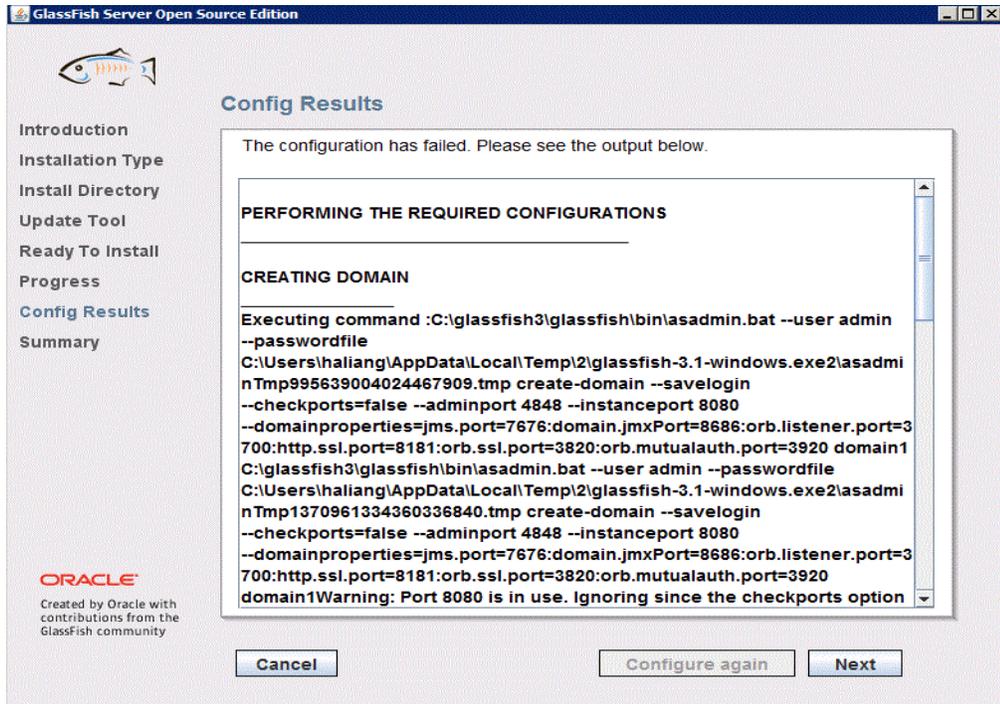
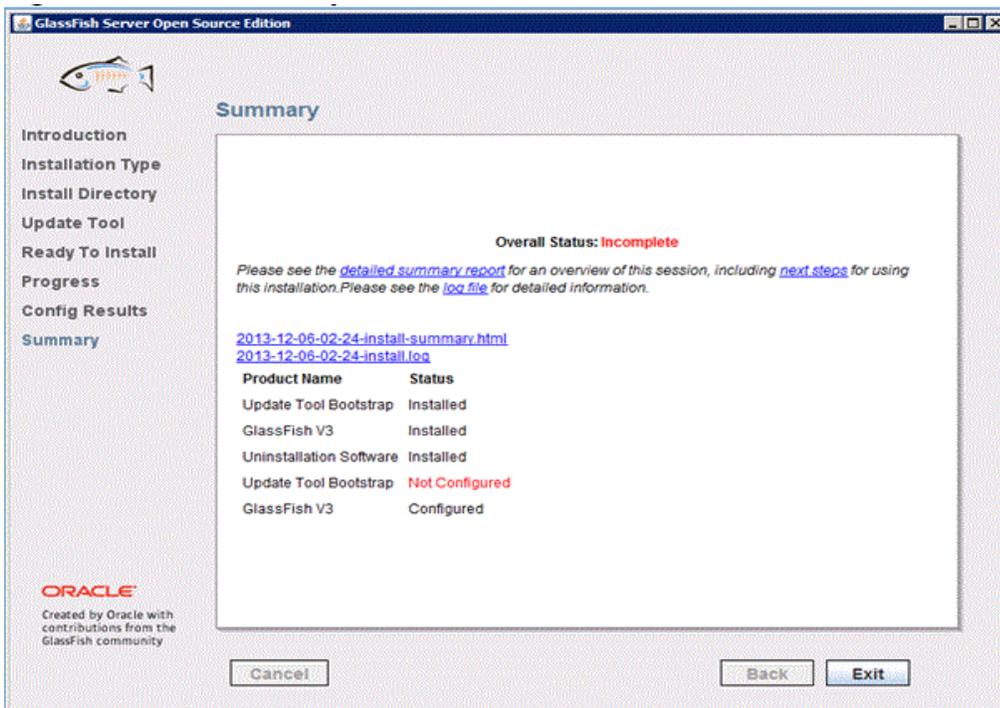


Figure 17

Summary



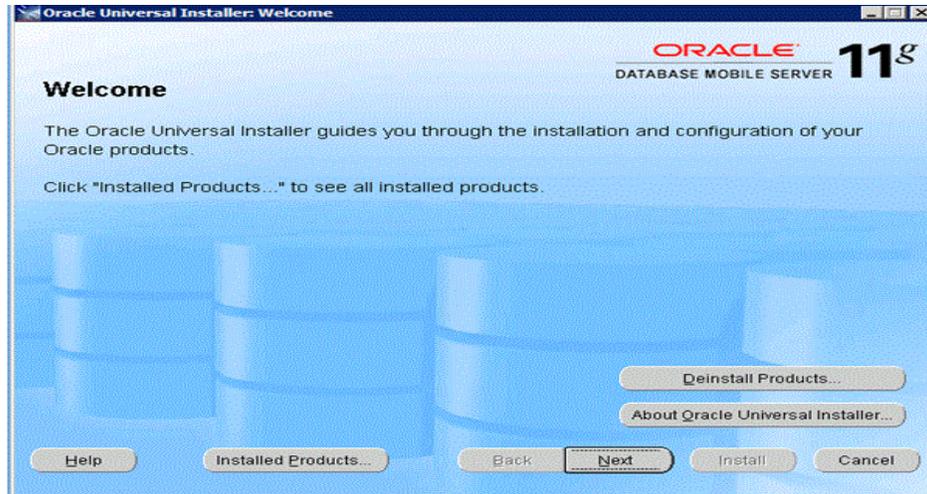
2.3 Installation of Database Mobile Server (DMS)

To install DMS, follow the steps below:

1. Extract Oracle DMS ZIP package in the current directory. Double click `<DMS_home>/\Disk1\install\win32\setup.exe` to start installation. If your CPU is 64bit, run `<DMS_home>/\Disk1\install\win64\setup.exe` instead, where `DMS_home` is the directory extracted from the ZIP package (see, [Figure 18](#)).

Figure 18

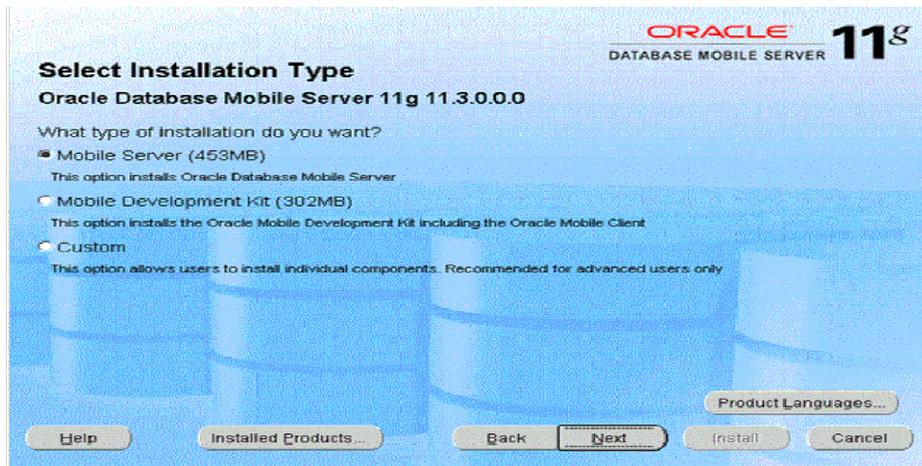
Welcome Screen



2. Choose "Mobile Server" and click "Next", as seen in [Figure 19](#).

Figure 19

Select Mobile Server

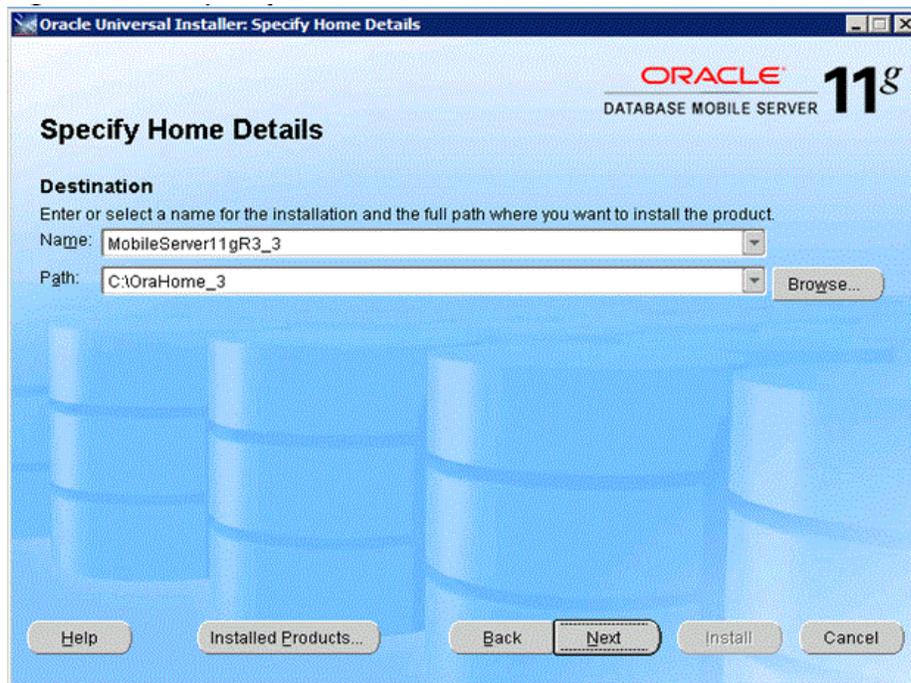


3. On the "Specify Home" screen, as seen in [Figure 20](#), enter the name for your Mobile Server installation, and path where you want to install Oracle Database Mobile Server.

Note: You must choose an empty directory to install Mobile Server. If the installation location you specified is not empty, you will get a warning.

Figure 20

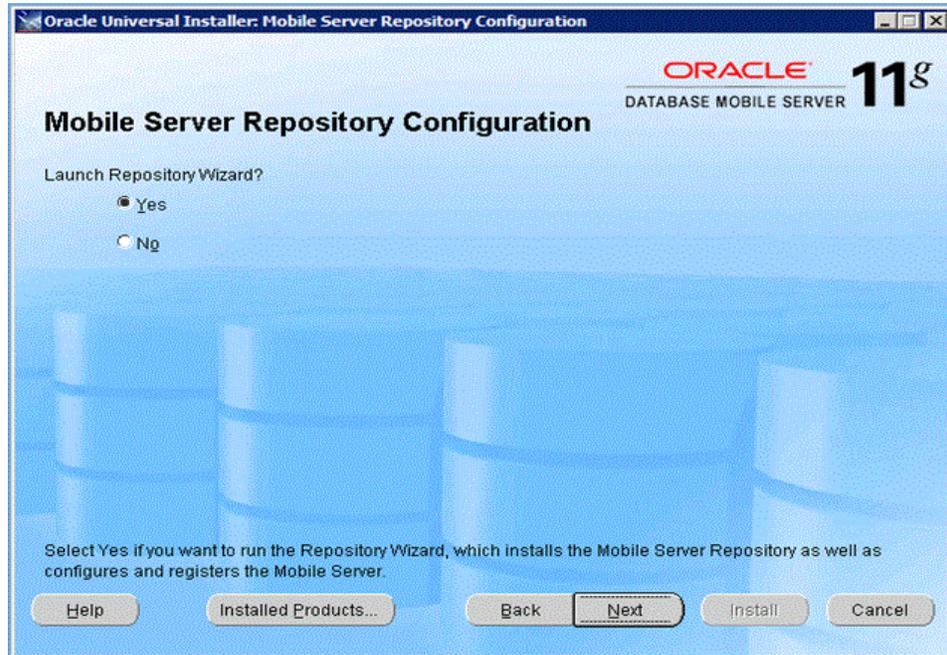
Specify Home Details



4. Click "Yes" to "Launch Repository Wizard" in order to install the Mobile Server repository. Click "Next". See [Figure 21](#).

Figure 21

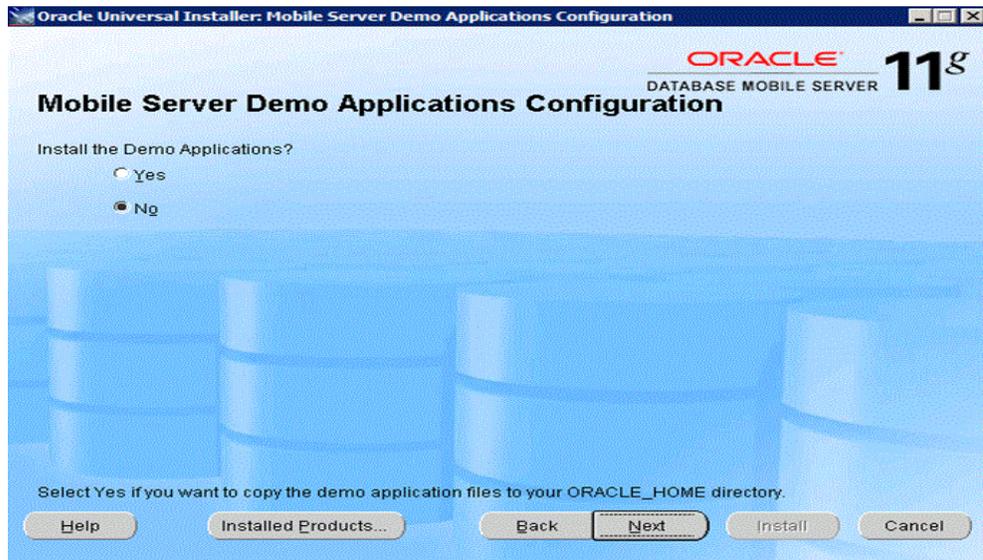
Mobile Server Repository Configuration



5. Click "Yes" or "No" to indicate if you want the demo applications to be installed on the server. Click "Next", as shown in [Figure 22](#).

Figure 22

Mobile Server Demo Application Configuration



- On the "Specify Application Server Home" screen, select the installation directory of your application server. Set the Application Server Home to `C:\glassfish3\glassfish`, where `C:\glassfish3` is the base installation directory for Glassfish Server, as shown in [Figure 23](#).

Figure 23

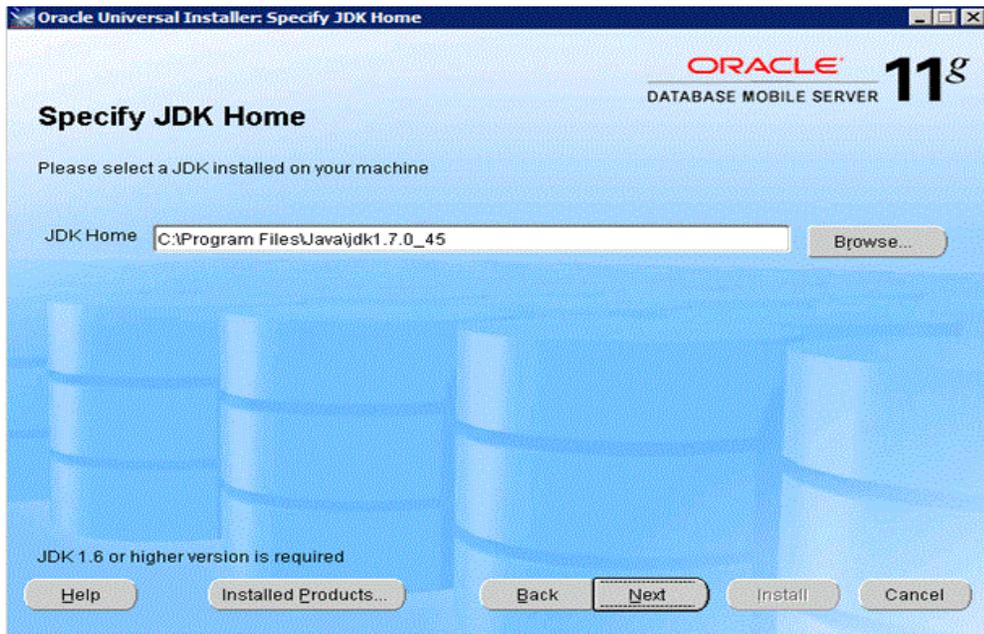
Specify Application Server Home



- On the "Specify JDK Home" screen, select a JDK installed on your machine, as shown in [Figure 24](#).

Figure 24

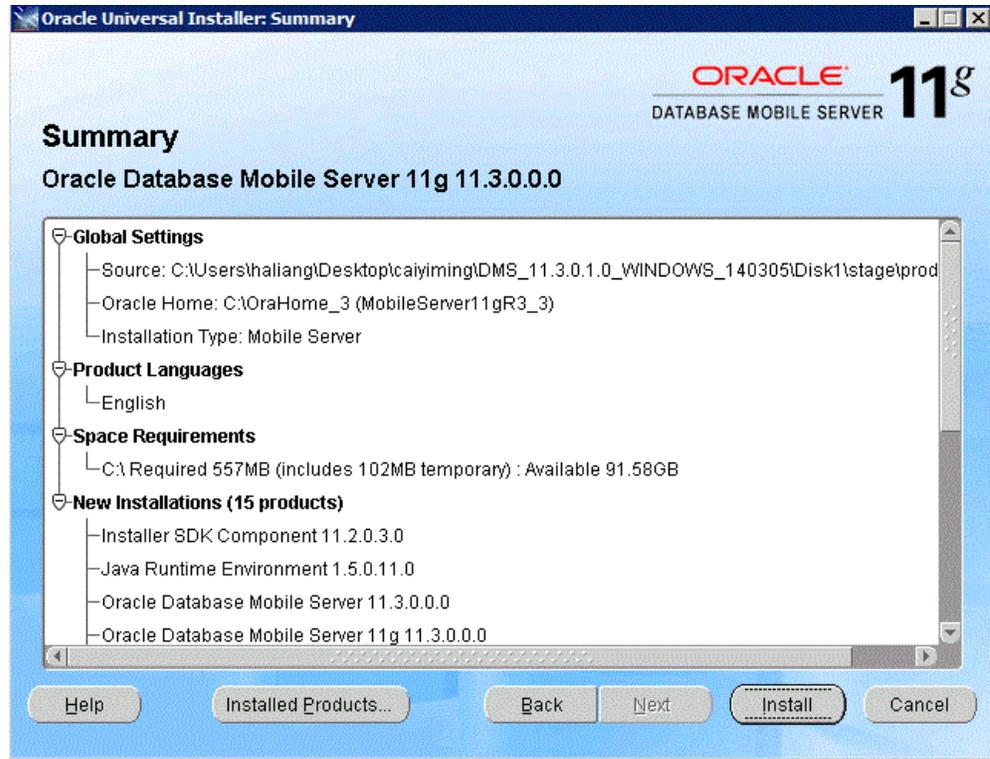
Specify JDK Home



8. On the "Summary" page, click "Install" to start the installation of Mobile Server, as shown in [Figure 25](#).

Figure 25

Installation of Mobile Server



9. Provide the URL for the backend Oracle database for the Mobile Server repository, as shown in [Figure 26](#).

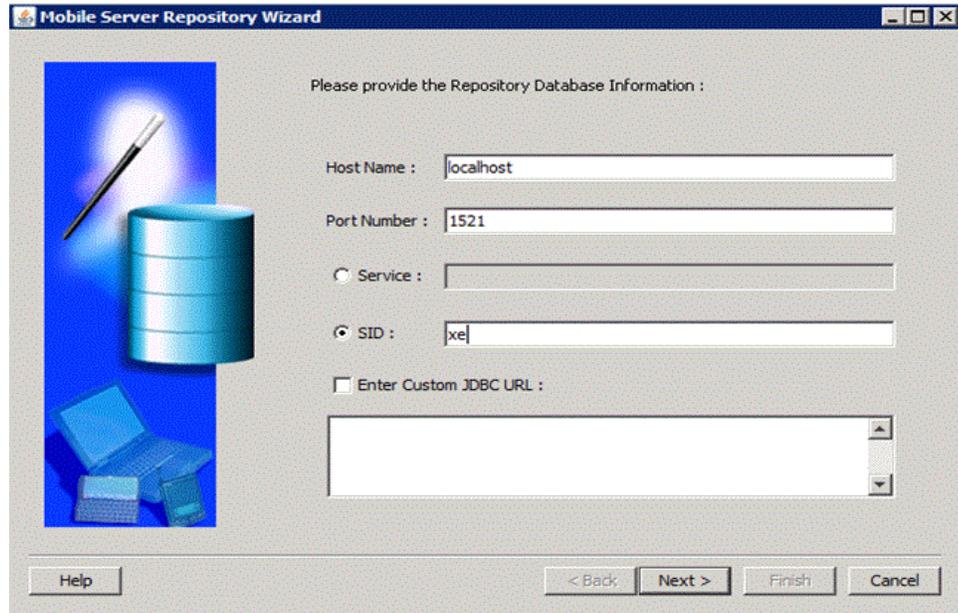
Host Name: localhost (the hostname/IP of machine where Oracle Database XE is installed)

Port Number: 1521

SID: xe

Figure 26

Provide Repository Database Information

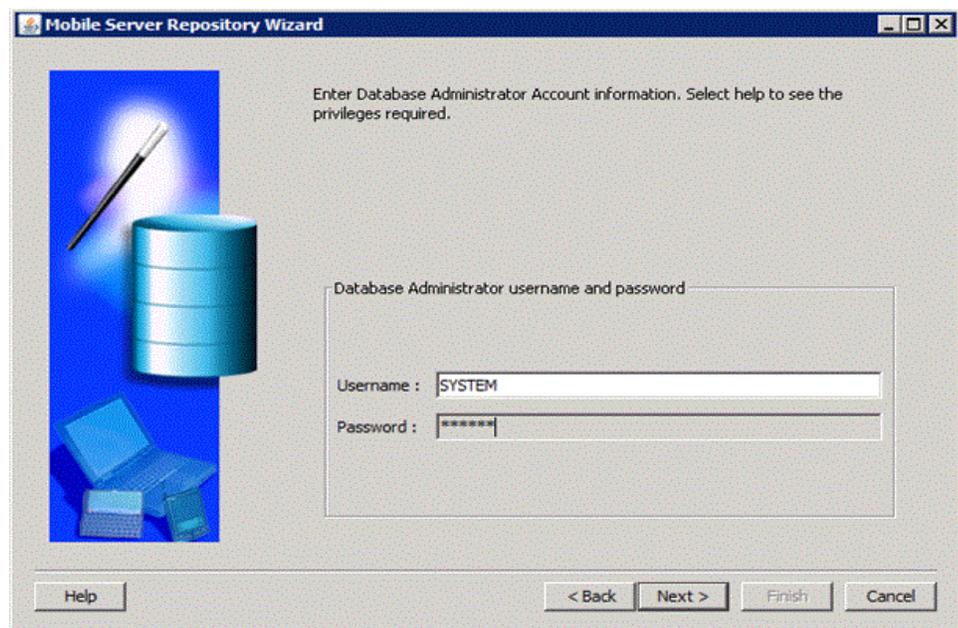


10. The Repository Wizard asks for a database user name and password. Use these details to connect to the backend database. Create the schema and assign database privileges for the Mobile Server schema.

Here we use user SYSTEM created during the installation of Oracle Database XE since it has database administrative privileges, as shown in [Figure 27](#).

Figure 27

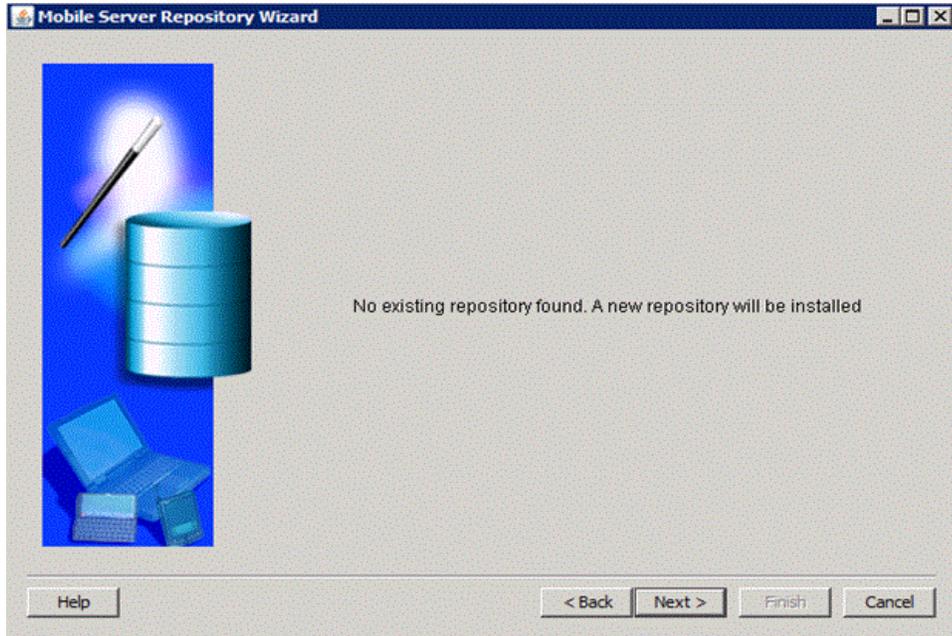
Specify Username/Password



11. Since there is no existing DMS repository in our Oracle Database XE, click "Next" to install a new one, as shown in [Figure 28](#).

Figure 28

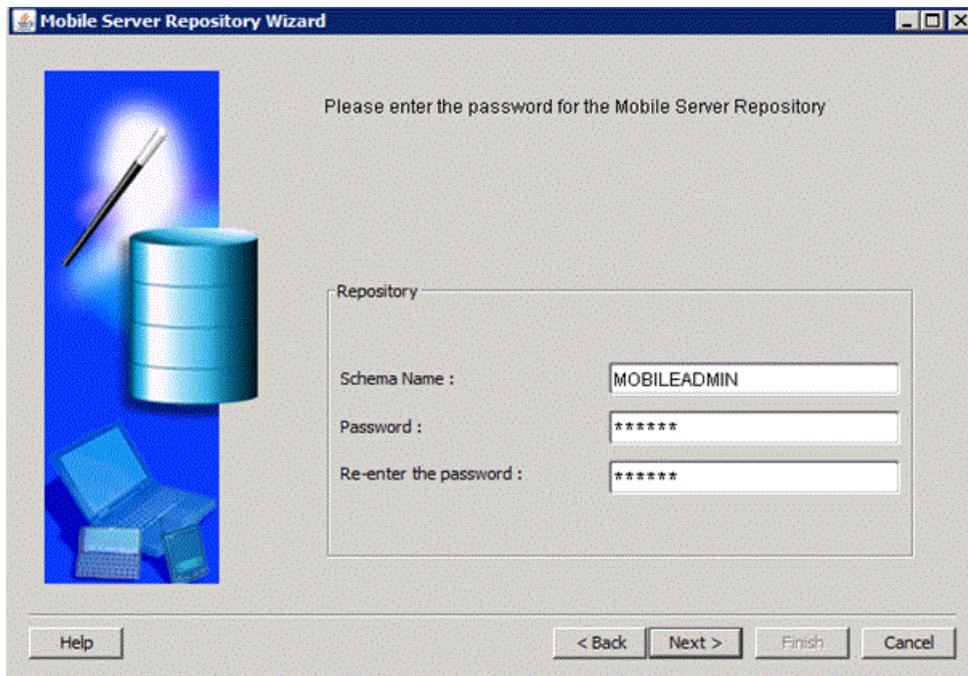
Create a New Repository



12. Enter the schema name and password for the Mobile Server repository. The default name is MOBILEADMIN. This schema contains database objects used by the Mobile Server. Click "Next". See [Figure 29](#).

Figure 29

Enter Password for Mobile Server Repository



13. Enter the Mobile Server Administrator name and password that you will use to log into the Mobile Manager - a web GUI tool which allows administration of the Mobile Server. See Figure 30.

Figure 30

Mobile Server Administrator

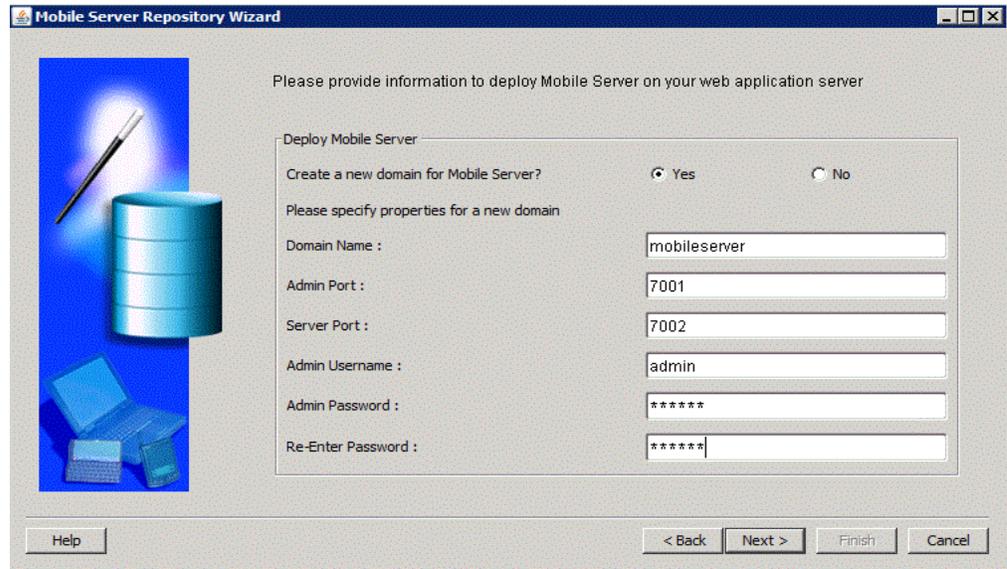
14. When using the Repository Wizard, users can deploy the Mobile Server either on a new domain or on an existing domain under GlassFish. See Figure 31. To deploy the Mobile Server on a new domain under GlassFish, follow the instructions below:
- Choose "Yes" for "Create a New Domain" for the Mobile Server option.
 - Specify a "Domain Name".
 - Specify an "Admin Username" for the Glassfish domain.
 - Specify an "Admin Port" for the Glassfish domain. Ensure the ports you specified are free at the time of deployment.
 - Specify a "Server Port" for the Glassfish domain. Ensure the ports you specified are free at the time of deployment.
 - Specify an "Admin Password" for the admin user.
 - Keep note of the values you entered, as they will be used in the consequent steps of the installation.

Note: A domain is comprised of a set of instances. Each domain behaves like a separate server. It is a separated space within its own boundary and you can create as many domains as you like.

For example, if you specify 'mobileserver' as the domain name and Glassfish is installed at `C:\glassfish3\glassfish`, then `C:\glassfish3\glassfish\domains\mobileserver` will be created and the domain configuration files will be stored in that directory.

Figure 31

Deploy Mobile Server on the Application Repository



15. The next page is summary page and "End of Installation" page. Click "Exit" to finish installation. You have now installed the Database Mobile Server.
16. Run `C:\OraHome_3\Mobile\Server\bin\runmobileserver.bat` to start the server, where `C:\OraHome_3` is the Oracle Home. To verify your installation, open your browser, input `http://localhost:7002/mobile`. Check that the Mobile Manager login page is displayed, as shown in Figure 32.

If DMS is not running, you will see an error page: "The webpage cannot be displayed or Unable to connect". Start the DMS and refresh the page.

Figure 32

Mobile Manager Login Page



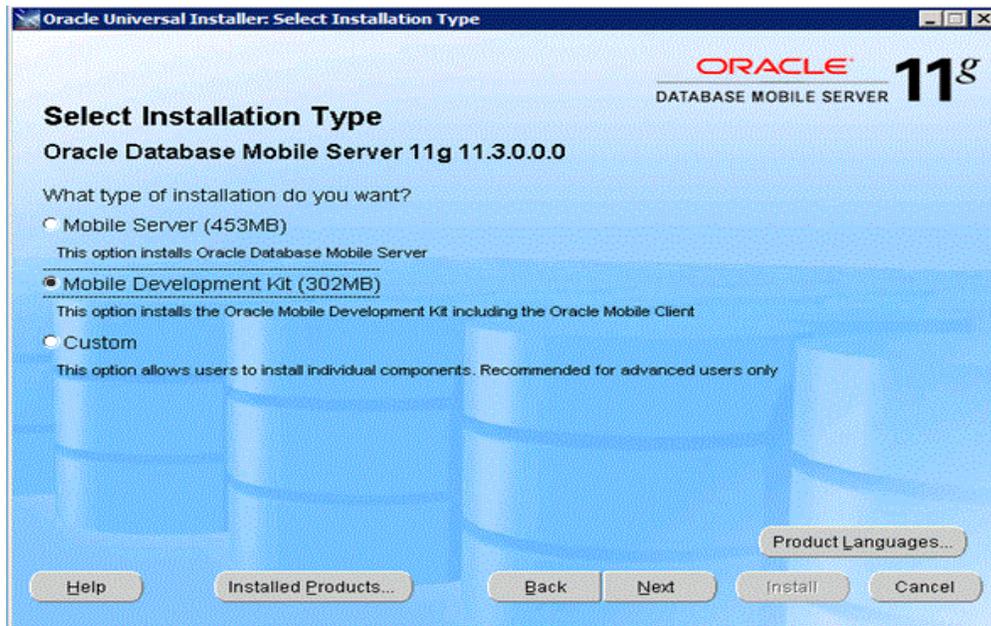
3 Installation of Mobile Development Kit (MDK)

To install MDK, follow the steps below:

1. Double click `<DMS_home>/\Disk1\install\win32\setup.exe` to start installation. If your CPU is 64bit, run `<DMS_home>/\Disk1\install\win64\setup.exe` instead, where `DMS_home` is the directory extracted from the ZIP package.
2. Choose the Mobile Development Kit and click "Next", as seen in [Figure 33](#).

Figure 33

Select Mobile Development Kit



3. On the "Specify Home Details" screen, enter the name and path where you want to install Mobile Development Kit, as shown in [Figure 34](#).

Note: The path should not include any spaces.

Figure 34

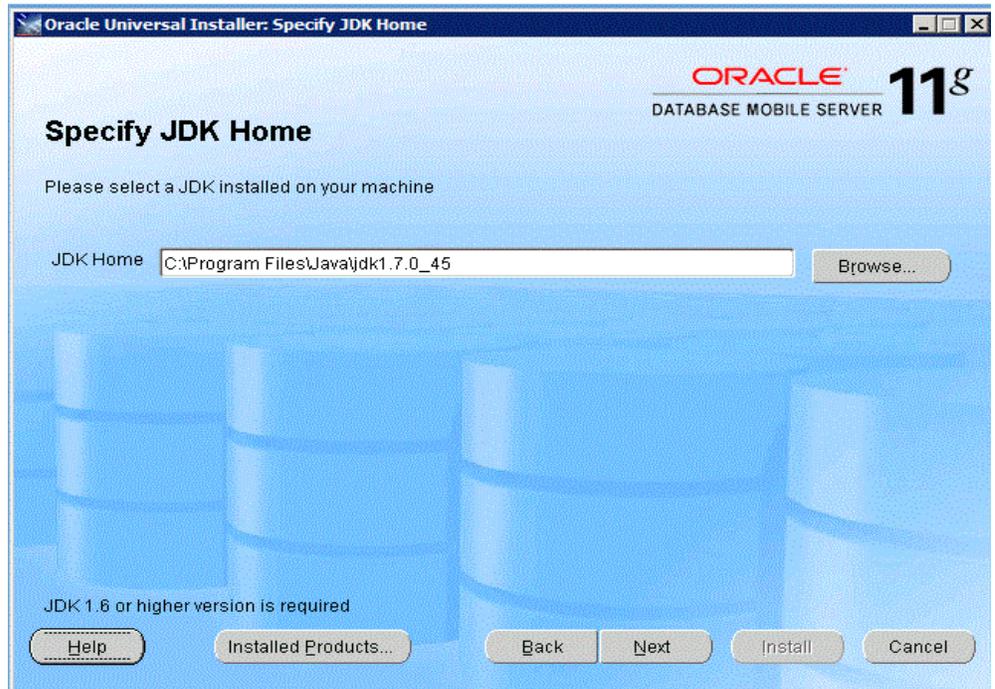
Specify Home Details



4. On the "Specify JDK Home" page, click "Browse..." to select a JDK installed on your machine, as shown in Figure 35.

Figure 35

Specify JDK Home



5. On the "Summary" screen, click "Install". Click "Exit" to return to the installation screen.
MDK is now installed.

4 Transport Demo

Once DMS and MDK are installed, you are ready to move on to the next step - the Mobile Server synchronization and the application development and deployment models.

For more information, see your mobile client platform-specific version of the Transport demo tutorial included in the MDK:

Win32/WinCE: <ORACLE_HOME>\Mobile\Sdk\samples\dotnet\bdb\transport\doc\Transport Tutorial.doc

Note: Android and iOS tutorials are only included in the DMS version 11.3.0.1 and above.

- For Android: <ORACLE_HOME>\Mobile\Sdk\samples\android\transport\Transport Tutorial.pdf
 - For iOS: <ORACLE_HOME>\Mobile\Sdk\samples\ios\transport\Transport Tutorial.pdf
-
-

5 Summary

After going through all the installation instructions in this document, here are the key steps:

1. Download and install the required software (JDK, Oracle Database XE, Oracle Glassfish, and DMS).
2. Create the Application Schema and data in Oracle Database XE.
3. Create a Mobile Server publication for the application data using the MDW - a GUI publication tool included in the MDK.
4. Create the Transport Application for your device platform.
5. Publish the application using the Packaging Wizard.
6. Create mobile users using the Mobile Manager.
7. Grant user access to the application using the Mobile Manager - DMS online administrative console.
8. Setup and run the Transport Application on your mobile device.