Oracle® Database Mobile Server

Getting Started - Quick Guide Release 12.1.0 **E58913-01** January 2015

This document 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 WebLogic Server, Oracle Glassfish, Glassfish Server Open Source Edition and Apache TomEE.

1 Introduction

This Getting Started Guide demonstrates the following:

- How to install DMS on top of Oracle Glassfish server on a Windows platform
- How to create a publication using Mobile Development Workbench
- How to publish the Transport Application to the Mobile Server
- How to run the Transport Application on the client device

See the sections below:

- Section 1.1, "Installation of Java Development Kit (JDK)"
- Section 1.2, "Installation Packages (for Windows)"
- Section 1.3, "Installation of Oracle Database Express Edition (Oracle Database XE)"
- Section 1.4, "Installation of Oracle Glassfish"
- Section 1.5, "Installation of Database Mobile Server (DMS)"
- Section 1.6, "Installation of Mobile Development Kit (MDK)"

The following sections provide information on the transport demo and how to publish the transport application:

- Section 2, "Transport Demo"
- Section 3, "Publish the Transport Application"

1.1 Installation of Java Development Kit (JDK)

You should use a supported JDK for DMS install. For information on what JDK to use, refer to Section 4.3.2 JDK *Platform Support* in the *Installation Guide*.

To download JDK, go to:

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

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*

(*x86*)*Java* on a 32-bit Windows platform or *C*:*Program Files**Java* on a 64-bit Windows platform.

1.2 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/expres
s-edition/downloads/index.html

• Oracle Glassfish 3.1:

http://www.oracle.com/technetwork/java/javaee/downloads/ogs-3-1-1-downl
oads-439803.html

DMS:

http://www.oracle.com/technetwork/database/database-technologies/databa se-mobile-server/downloads/index.html

Note: To install and run all the above products, first, you need to install the latest JDK 7 or JDK 8.

1.3 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", as seen in Figure 2.

Figure 2 License Agreement

icense Agreement		000
Please read the following license agreement	nt carefully.	CATAS
Oracle Technology Network	Developer License Te	erms 🔺
for Oracle Database Express	Edition	
Export Controls		
export laws and regulations apply to export control laws govern your use and any services deliverables provid	nited States and any other r the programs. You agree to of the Program (including te led under this agreement, a	elevant local hat such chnical data) nd you agree

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

cle Database 11g Express E	dition - Install Wizard	
Choose Destination Location	n	ORACI
Select folder where setup will in	stall files.	CATABA EXPRESS EDIT
Setup will install Oracle Databas	se 11g Express Edition in the following	g folder.
To install to this folder, click Net another folder.	xt. To install to a different folder, click	Browse and select
🔽 Oracle Database 11g Expres	ss Edition	563556 K
Oracle Database 11g Express	ss Edition	563556 K
Oracle Database 11g Expresion	ss Edition	563556 K
Oracle Database 11g Expres Destination Folder	ss Edition	563556 K
Oracle Database 11g Expres Destination Folder C:\oraclexe\	ss Edition	563556 K Browse
Oracle Database 11g Expres Destination Folder C:\oraclexe\ Space Required on C:	ss Edition 563556 K	563556 K Browse
Oracle Database 11g Expres Destination Folder C:\oraclexe\ Space Required on C: Space Available on C: allShield	ss Edition 563556 K 103614976 K	563556 K Browse

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

Oracle Database 11g Express Edit	tion - Install Wizard
Specify Database Passwords	ORACLE
	DATABASE Extrast contour
Enter and confirm passwords for the the SYSTEM database accounts.	database. This password will be used for both the SYS and
Enter Password	
Confirm Password	
Instalishield	
	Back Next Cancel

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

Review settings before proceeding with the ins		
	tallation.	DATABAS EXPRESS EDITION
Current Installation Settings:		
Destination Folder: C:\oraclexe\ Oracle Home: C:\oraclexe\app\oracle\produc Oracle Base:C:\oraclexe\ Port for 'Oracle Database Listener': 1521 Port for 'Oracle Services for Microsoft Transac Port for 'Oracle HTTP Listener': 8080	t\11.2.0\server\ tion Server': 2030	<u> </u>
liShield		

Figure 6 Installation Process



6. End of installation, click "Finish", as shown in Figure 7.

Figure 7 Installation Complete

Oracle Database 11g Express Edition - Install Wizard 🛛 🔀	
	InstallShield Wizard Complete
	Setup has finished installing Oracle Database 11g Express Edition on your computer.
DATABASE EXPRESS EDITION	
	Back Finish Cancel

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

Home Storage Sessions Parameters App	ication express
Storage	Storage >
view currently used storage.	> Online Help
Sessions	Sessions > > Oracle Technology Network
View current database sessions.	> Oracle SQL Developer
Parametere	Oracle Express Edition
View initialization parameters.	Oracle Application Express Oracle JDeveloper 11g
	> Pre-built Developer VMs
Application Express Get started with Oracle Application Express.	Application Express >
lews	OTN News

1.4 Installation of Oracle Glassfish

To install Oracle Glassfish server, follow the steps below:

1. Double click Oracle Glassfish installation executable file to start installation. On the "Introduction" page, click "Next" to proceed (see, Figure 10).

Figure 10 Introduction

Introduction	Introduction	
Installation Type Install Directory JDK Selection Update Tool Ready To Install Progress Domain Info Config Results Summary	Welcome to the Oracle GlassFish Server installation. This is a tool for installing Oracle GlassFish Server. GlassFish Server is a production ready Java EE 6 compliant application server developed under an open source license. Benefits include a modular, runtime that minimizes resource consumption, an easy-to-use administration console, a feature-rich command line tool,centralized administration and high-availability clustering. GlassFish Server is also the fastest open source application server available.	
	Please visit <u>GlassFish Project Page</u> for more information. Please click Next to proceed.	
java ⁻		
ORACLE.	Cancel Back Next	

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

Figure 11 Installation Type

🕌 Oracle GlassFish Server		_ 🗆 ×
Introduction Installation Type Install Directory JDK Selection Update Tool Ready To Install Progress	Installation Type Choose installation type. Typical Installation Installs a GlassFish Server management domain; ideal for development	
Domain Info Config Results Summary	or non business critical use. Please make sure that the ports 4848 and 8080 are free.	
	Offers the option to install the binaries only, a management domain, a stand alone instance or a cluster. This option is ideal for production deployments.	
Java.		
ORACLE.	Cancel Back Next	

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

Figure 12 Install Directory

Introduction Installation Type Install Directory Update Tool	Install Directory
Ready To Install Progress Domain Info Config Results	GlassFish Server will be installed into the specified directory. You may specify a different directory or click the Browse to select a directory.
Summary	Installation Directory C:\glassfish3
نچن) Java	
ORACLE.	Cancel Back Next

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

Figure 13 Update Tool

Oracle GlassFish Server	Update Tool The Update Tool periodically checks for GlassFish Server updates; enabling you to stay up-to-date with the latest builds. Image: Install Update Tool Proxy Host Proxy Port The Update Tool periodically checks for available updates and collects some system data. For more information, see GlassFish Usage Metrics page, at https://wikis.oracle.com/display/GlassFish/UsageMetricsV3.	
Java.	Enable Update Tool	
ORACLE"	Cancel Back Next	

5. 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

Oracle GlassFish Server		- - ×
Introduction Installation Type Install Directory Update Tool Ready To Install Progress Domain Info Config Results Summary	Ready To Install Oracle GlassFish Server Install Update Tool Bootstrap Install GlassFish Server 3.1.2 Configure Update Tool Bootstrap Configure GlassFish Server 3.1.2	
java ORACLE	Cancel	Back

6. The installation process begins, as shown in Figure 15.

Figure 15 Installation Process

Progress	
Progress	
Introduction	
Installation Type	
Oracle GlassFish* Server	
Jpdate 1001	
Ready To Install Modular Extensible Interoperable	
Progress Modulal, Extensible, Inteloperable	
Modular architecture based on OSGi Smbaddabla	
• Endeddable • RESTful administration API	
Summary	
Fast startup, less memory consumption	
*	
Configuring Update Tool Bootstrap. This may take a few minutes	
Java 41%Time Remaining 00:00:04	
ORALLE	
Cancel Back	Next

7. Configure the Oracle Glassfish administration settings. See Figure 16.

Figure 16 Configure Administration Settings

() 1000- 1		
	Domain Info	
ntroduction Installation Type Install Directory Update Tool	Configure the administration settings for the server. Please pro the username and password for the server. You may leave the empty if you would like to configure the server for unauthentica	ovide passwords ated logins.
Ready To Install	Domain Name domain1	
Progress Domain Info	Admin Port 4848	
Config Results	Http Port 8080	
Summary	Username admin	
	Password	
	Reenter Password	
4	Create Operating System service for the domain	
Se la	Service Name domain1Service	
java	Start domain after creation	
ORACLE"		
	Cancel	Next

8. For the configuration results and summary, see Figure 17 and Figure 18.

Figure 17 Configuration Result

	Config Results
troduction stallation Type	The configuration has failed. Please see the output below.
stall Directory odate Tool eady To Install ogress omain Info onfig Results	savelogin option was used during the create-domain command. Login information relevant to admin user name [admin] for this domain [domain1] stored at [C:\Users\haliang\.asadminpass] successfully. Make sure that this file remains protected. Information stored in this file will be used by asadmin commands to manage this domain. Command create-domain executed successfully.
mmary	Starting domain
الله الله Java	C:\glassfish3\glassfish\bin\asadmin.bat start-domain domain1 Attempting to start domain1 Please look at the server log for more details



troduction	
stallation Type	
stall Directory	
pdate Tool	Overall Status: Complete
eady To Install	Please see the detailed summary report for an overview of this session, including next steps for
ogress	using this installation.Please see the log file for detailed information.
omain Info	
onfig Results	2014-09-17-03-08-install-summary.html 2014-09-17-03-08-install.log
immary	Product Name Status
	Update Tool Bootstrap Installed
	GlassFish 3.1.2 Installed
	Uninstallation Software Installed
	Update Tool Bootstrap Configured
4	GlassFish 3.1.2 Configured
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lava ⁻	

1.5 Installation of Database Mobile Server (DMS)

Refer to Section 4.3.1.1 "Installation of the Mobile Server" in the *Oracle Database Mobile Server Installation Guide* for instructions on how to install Database Mobile Server.

Note: During the installation of Database Mobile Server you must do the following:

- 1. On the *Specify Application Server Home* screen, select the installation directory of your Oracle Glassfish server installation.
- **2.** On the *Please Provide the Repository Database Information* screen, provide the URL of the Oracle Database XE you have installed.
- **3.** On the *Enter Database Administrator Account Information* page, you can use the user SYSTEM created during the installation of Oracle Database XE, since it has database administrative privileges.

After you have installed Database Mobile Server, run *<ORACLE_ HOME>\Mobile\Server\bin\runmobileserver.bat* to start the server, where *<ORACLE_ HOME>* is the Oracle Home where you have installed the Database Mobile Server.

To verify your installation, open your browser, input Mobile Server URL *http://<Mobile_Server_hostname>:<port>/mobile*, and check that the Mobile Manager login page is displayed, as shown in Figure 19.

Log on to the Mobile Manager with the Mobile Server Administrator user name and password and the Mobile Server Farm Page is displayed, as shown in Figure 20.

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 19 Mobile Manager Login Page

ORACLE Mobile Manager	Database Mobile Server 12c	Home	Setup	File Sync	() Startup	(? Hel
Mobile Manage	r Login					
* Username * Password Login						
Copyright © 1997, 2014, (Home <u>Setup</u> <u>File Sync</u> <u>Startup</u> <u>Help</u> Dracle, All rights reserved.					

Figure 20 Mobile Server Farm Page

Mobile Servers Mobile Devi	ces					
Mobile Servers						
					Page Refreshed Sep 1	17, 2014 12:26:35 PI
Search		Go				
Host Name 🛆	Port	SSL	Status	MGP	Start Time	Version
odbcn6.cn.oracle.com	9091		0		Sep 16, 2014 10:05:21 AM	12.1.0.0.0

1.6 Installation of Mobile Development Kit (MDK)

Refer to Section 4.3.1.2 "Installation of Mobile Development Kit" in the *Oracle Database Mobile Server Installation Guide* for instructions on how to install Mobile Development Kit.

2 Transport Demo

Once DMS and MDK are installed, you are ready to move on to the next step - 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:

- For Win32/WinCE: <ORACLE_ HOME>\Mobile\Sdk\samples\dotnet\bdb\transport\doc\Transport Tutorial.doc
- For Android: <ORACLE_HOME>\Mobile\Sdk\samples\android\ transport\Transport Tutorial.pdf
- For iOS: <*ORACLE_HOME*>*Mobile**Sdk**samples**ios*\ *transport**Transport Tutorial.pdf*

3 Publish the Transport Application

Follow the steps below to publish the Transport Application:

- 1. Create the Application Schema and data in back-end Oracle Database XE.
- **2.** Create a Mobile Server publication for the application data using the MDW a GUI publication tool included in the MDK.
- **3.** Create the Transport application for your device platform.
- **4.** Publish the Transport application to Mobile Server using the Packaging Wizard.
- 5. Create mobile users using the Mobile Manager.
- **6.** Grant user access to the Transport application using the Mobile Manager DMS online administrative console.

7. Install mobile client on your device, download the Transport application to your device, and synchronize data between the Transport application and back-end Oracle Database.

4 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

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http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit
http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing
impaired.

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