

Oracle® Fusion Middleware

Using Oracle Forms for Oracle Cloud Infrastructure



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The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Oracle Fusion Middleware Using Oracle Forms for Oracle Cloud Infrastructure, 12.2.1.4.0

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Preface

Learn how to provision and use Oracle Forms for Oracle Cloud Infrastructure when deployed from Oracle Cloud Marketplace.

Audience

This document is intended for users of Oracle Forms for Oracle Cloud Infrastructure.

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>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <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.

Related Documents

Refer to these resources for more information:

- For 12c Oracle Forms information, see Oracle Forms Documentation Library.
- For information about Oracle Reports, see [12.2.1.3.0 Documentation Library](#).
- For Oracle Fusion Middleware documentation, see [Middleware Documentation](#).
- For Oracle Database documentation, see [Oracle Database Documentation](#).
- For Oracle Autonomous Database documentation, see [Oracle Autonomous Database](#).

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.

Convention	Meaning
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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About Oracle Forms for Oracle Cloud Infrastructure

Use Oracle Forms for Oracle Cloud Infrastructure to create a Forms application deployment environment in Oracle Cloud Infrastructure in a fraction of the time it would normally take to do so on premises.

Oracle Forms for Oracle Cloud Infrastructure is available as an application in the Oracle Cloud Infrastructure Marketplace. Oracle Forms for Oracle Cloud Infrastructure is available in Marketplace at: <https://cloudmarketplace.oracle.com/marketplace/app/OracleForms>.

After launching this application, you can connect to the instance for the first time using SSH. Upon first connection, you will be presented with a series of questions that will be used to help configure the environment. Once the instance and the software on it have been provisioned, you can customize it to meet your needs.

The default settings for this VM image provides enough basic operational scope for most user cases. However, if you want to emulate something more typical of a true enterprise deployment (like hosting hundreds of concurrent users), you may need to adjust the VM shape, operating system, and/or your server software settings accordingly.

While this image can be used for production purposes, Oracle recommends that you perform a thorough security review before doing so.

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Before You Begin with Oracle Forms for Oracle Cloud Infrastructure

Before you use this Oracle Cloud Marketplace image, review these permission and database considerations carefully.

Required Permissions

Ensure you have the necessary permissions to:

- Create new Compute instances
- Create new Virtual Cloud Networks or select an existing one
- Create a Database Cloud Service instance or connect to an existing instance as the SYS user (only required if planning to use DBCS)
- Create an Autonomous Database instance or connect to an existing instance as the admin user (only required if planning to use ADB)
- Create an Identity Dynamic Group and Policy or modify existing ones (only required if planning to use ADB)

Database Options

The database you choose at provisioning is configured for both the Oracle Fusion Middleware repository and application data.

You can easily change your configuration to use a different database for application data, but attempting to change the database used for the FMW Repository is not recommended.

- **Local database:** If you elected to configure this instance using the locally installed database, it will be configured and running upon completion of the provisioning.
- **Database Cloud Service:** If you elected to configure this instance using DB Cloud Service, you must ensure it has been configured, is running, and you have SYS credentials to access it. You will also need the Easy Connect String and the Long Connect String in order to complete the provisioning. This information can be found on the DB Cloud Service dashboard for that instance.
- **Autonomous Database:** If you elected to configure this instance using Autonomous Database, in addition to having the instance created and accessible, you will also need the "admin" user password and complete the following pre-setup steps:

Set Up Oracle Forms to Use Autonomous Database

1. Create an Identity Dynamic Group:
 - a. From the Cloud navigation pane, click **Identity** and then **Dynamic Groups**.
 - b. Click **Create Dynamic Group**.
 - c. Type a name for your group, such as "Forms_ADB_Access".

- d. Click the Rule Builder link to the right of the Rule 1 box.
- e. Select **Compartment OCID** from the **Match instances with** list.
- f. Enter your Compartment OCID in the **Value** field.

 **Note:**

You can match by Compute Instance OCID if the instance has not yet been accessed the first time.

- g. Click **Add Rule** and then **Create**.
2. Create an Identity Policy:
 - a. From the Cloud navigation pane, click **Identity** and then **Policies**.
 - b. Click **Create Policy**.
 - c. Enter a name for your policy, such as "Forms_ADB_Policy".
 - d. Click **Policy Builder Show manual editor**.
 - e. Enter the policy as shown below. Use the Policy and Compartment name used for Step 1c above.

```
allow dynamic-group <YOUR DYNAMIC GROUP NAME> to use autonomous-  
database-family  
in compartment <YOUR COMPARTMENT NAME>
```

The above policy should be enter on a single line.

- f. Click **Create**.
3. Access the new Compute instance using SSH to begin the provisioning process.

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Installed Software and Patches

This chapter lists software titles and versions installed, as well as installed patches. Because some of these software titles include other software as part of their installation, additional software may be available in the instance although not listed here.

Software

Here are the licensable software products and versions installed on the machine, irrespective of your entitlements for usage:

- Oracle Linux 7.9
- Oracle JDK 8u281
- Oracle Database EE 19.3.0 (only when not selecting ADB or DBCS)
- Oracle WebLogic Server 12.2.1.4.0
- Oracle Forms and Reports 12.2.1.4.0
- SQLDeveloper 20.4.1.407.0006

Note:

Make sure that you have obtained the appropriate licensing to use the software installed in this virtual machine. If you are not sure of your entitlements, contact your Oracle Account Manager or an Oracle Sales Representative.

Patches

Note:

Only the patches noted below have been installed. It is strongly recommended that you install the latest Critical Patch Updates for the operating system, database, and all installed Fusion Middleware software.

See [Critical Patch Updates, Security Alerts and Bulletins](#).

Installed Fusion Middleware patches:

- 30613424 (Fusion Middleware Control)
- 31573174 (Form Builder)
- 31621312 (Forms AQ)
- 32490064 (Forms/FADS)

- 32645990 (Forms/FADS)
- 30540494 (RCU)
- 30754186 (RCU)
- 31676526 (RCU)

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Oracle Reports

Although Oracle Reports has been installed in the Middleware home, it has not been configured in the WLS domain, nor has the required Tools Component been created.

For more information about setting up Oracle Reports, see [Installing and Configuring Oracle Forms and Reports](#).

Oracle Reports has not been Certification tested in Oracle Cloud and therefore Oracle cannot guarantee it will work properly in this environment. If you plan to use Oracle Reports despite its certification status, be sure to thoroughly test before using it in a critical deployment.

It is important to note that because multi-cast communication is not permitted in Cloud, the Reports Naming Service is required. This also means that Reports HA configurations are not possible, since they require multi-cast support. For more information about the Naming Service and how to configure it, refer to [How to Enable Namingservice Discovery Mechanism for all Reports Server in Reports 12c \(Doc ID 2205595.1\)](#) on My Oracle Support.

Support for using Oracle Reports in this uncertified environment may be limited. In fact, Oracle recommends that Oracle Reports users migrate to Oracle BI-Publisher or Analytics Cloud Service for their reporting needs, as no new certifications or features are planned for Oracle Reports.

Because Oracle Reports has been deprecated, refer to the [12.2.1.3 Documentation Library](#) for setup and usage information.

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Using this Environment

Refer to this chapter for information about accessing the OCI instance, locating installed software, and using the Oracle Linux desktop.

Accessing the Instance

For information about accessing the instance, refer to the Usage Information section on the [Oracle Forms Services Marketplace](#) page.

Software Locations

All software has been installed and is owned by the "opc" user.

- Database software is installed only if you choose to have a local database during provisioning.
- Database ORACLE_HOME: /u01/oracle/database/base/Oracle_Home
Database connect string: orcl
- Middleware ORACLE_HOME: /u01/oracle/middleware/Oracle_Home
- Middleware DOMAIN_HOME: /u01/oracle/middleware/user_projects/domains/base_domain
 - WebLogic Server repository (RCU) schema prefix: FRM
 - WebLogic Server Administrator username: weblogic
- JDK 8 HOME: /u01/oracle/jdk
- FORMS_PATH in frmbld.sh and default.env includes: /home/opc/oracle/formsmodules

Linux Desktop

For information on how to connect to the Linux desktop using VNC, refer to [Connecting to the VNC Console](#) in the Oracle Cloud Infrastructure documentation.

The Oracle Linux desktop created with this instance includes a variety of useful desktop application launchers (shortcuts). Upon first attempt to use these launchers, a warning will be displayed that suggests the launcher is "Untrusted". This warning is expected. Choose "Trust and Launch" to continue. This will permanently trust the launcher and display the appropriate desktop icon associated with the launcher. Launchers added by this provisioning include the following:

- Firefox
- Forms Builder
- Instance Controller
- Terminal
- ReadMe

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Server Information

Refer to this chapter for information about server ports, the Oracle HTTP Server, and provisioned Oracle Fusion Middleware server configuration.

Server Ports

Server	Port	Notes
Database Listener Port	1521	Only if using local database
WLS Administration Server	7001	Non-SSL port
WLS_FORMS	9001	Non-SSL port
Oracle HTTP Server (OHS)	7777 & 4443 (7777 & 4443 opened in Linux firewall)	Use the <code>firewall-cmd</code> Linux command to list all open ports or change the current operating system firewall settings. Refer to the <code>firewall-cmd `man`</code> page for more information on this command. To use SSL/TLS, you must obtain the appropriate certificate and configure it in this environment as mentioned above. The "demo" certificate provided in the installation is intended only to illustrate how to use SSL/TLS.

Oracle HTTP Server

OHS has been configured to forward requests for `/forms/` and `/fadsui`. If this is not desirable, remove the associated entries from `forms.conf` through Oracle Fusion Middleware Control. The OHS `KeepAliveTimeout` setting has been changed from its default of 5 to 10, which you can verify in `httpd.conf`.

All Servers

The Oracle Fusion Middleware servers have been configured with a "boot.properties" for each Managed Server (including the Admin Server). This allows the Managed Servers to start without being prompted to log in. These can be removed/deleted if interactive login is desired. All servers configured during the provisioning are configured to autostart with the machine. This means that if the machine is rebooted, these servers should start automatically unless you have disabled that functionality. Refer to this documentation for details on starting servers and working with "boot.properties": <https://docs.oracle.com/en/middleware/fusion-middleware>.

If using the locally installed database, it is also configured to autostart on reboot.

Refer to the Oracle Forms Installation and Working with Oracle Forms guides for additional configuration and usage instructions.

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Extend the OCI Instance Disk Space

On initial access to the instance, only about 40 GB of disk space is available. You can recover extra disk space by using the `growpart` command.

After executing this command and rebooting the machine, about 70 GB will be available unless a custom size was selected at provisioning time.

To recover the extra disk space:

1. Execute the `growpart` command as the root user:

```
growpart /dev/sda 3
```

2. Reboot the machine.

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Security Information

This chapter includes important information regarding some security aspects of this environment and its configuration. Although various security considerations were taken into account when this environment was created, it is important that a thorough security review be completed before using this environment in production.

Default Settings

All installations/configurations include default settings unless noted otherwise. Any dependencies required by the included software for installation have also been installed.

VNC

Tiger VNC has been installed and configured to start automatically, and to provide access to the Desktop as the "opc" user. Tunneling through an SSH connection is recommended to access using VNC.

Refer to this Cloud documentation for details: <https://docs.cloud.oracle.com/iaas/Content/Compute/References/serialconsole.htm>.

SSL/TLS

When installed, the local Oracle Database and Fusion Middleware installations include a "demo" SSL/TLS certificate. This certificate should be replaced with an appropriate one, as the demo is not intended for anything beyond demonstrating how to configure and use SSL/TLS.

For more information about Oracle Fusion Middleware security, refer to the documentation available from the [Secure the Environment](#) page of the Oracle Fusion Middleware site.

Listener Ports

Most inbound ports are blocked by the Linux firewall. However, several ports have been opened in order to make the Fusion Middleware software easier to use. If having these ports accessible by other nodes is not desirable, the firewall settings can be changed in order to block them. The firewall-cmd command can be used to make the needed changes. Refer to the [Oracle Linux Security Guide](#) for more information.

For a list of TCP ports opened as part of the Fusion Middleware software installed in this instance, refer to [Server Information](#).