



# Connector Deployment

*Oracle® Identity Governance Connector for  
Keycloak Realm*

*Deployment Guide*

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## *Oracle® Identity Governance Connector for Keycloak Realm Deployment Guide*

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# Preface

This guide describes the requirements to deploy and use the connector bundle on a remote Java Connector Server (JCS).

## Audience

This document is intended for people who deal with the administration of resources as well as teams who deal with the integration of target systems.

## Related Documents

For information about installing and using Oracle® Identity Governance, visit the following Oracle® Help Center page:

- <https://docs.oracle.com/en/middleware/identity-governance/12.2.1.3/index.html>
- <https://docs.oracle.com/en/middleware/identity-governance/12.2.1.4/index.html>

For information about Identity Governance Connectors documentation, visit the following Oracle® Help Center page:

- <https://docs.oracle.com/en/middleware/identity-governance-connectors/12.2.1.3/index.html>

## Confidentiality

The material contained in this documentation represents proprietary, confidential information pertaining to Oracle® products and methods.

The audience agrees that the information in this documentation shall not be disclosed outside of Oracle, and shall not be duplicated, used, or disclosed for any purpose other than to evaluate this procedure.

## Typographical Conventions

The following table describes the typographic conventions that are used in this document.

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

## Symbol Conventions

The following table explains symbols that might be used in this document.

Convention	Meaning
[ ]	Contains optional arguments and command options.
{   }	Contains a set of choices for a required command option.
\${ }	Indicates a variable reference.
-	Joins simultaneous multiple keystrokes.
+	Joins consecutive multiple keystrokes.
>	Indicates menu item selection in a graphical user interface.

# About the Keycloak Realm Connector

Oracle® Identity Governance is a centralized identity management solution that provides self service, compliance, provisioning and password management services for applications residing on-premises or on the Cloud. Oracle® Identity Governance connectors are used to integrate Oracle® Identity Governance with the external identity-aware applications.

The Oracle® Identity Governance Connectors lets you create and onboard Oracle® Identity Governance itself as an applications in Oracle® Identity Governance.

## Required Components

The platform-specific hardware and software requirements listed in this document are valid as of the date this document was created. Since new platforms and operating systems may be certified after this document is published, it is recommended to consult the certification matrix on Oracle® Technology Network. The current statements about certified platforms and operating systems can be found there.

The respective certification matrix for Oracle® Identity and Access Management Suite products are available at the following URLs:

- [Oracle® Fusion Middleware 12c \(12.2.1.4.0\)](#)
- [Oracle® Fusion Middleware 12c \(12.2.1.3.0\)](#)

## Required Versions

These are the software components and their versions required for installing and using the connector.

Component	Version
Oracle® Java Development Kit	JDK 1.8.0_131 or higher
Oracle® Infrastruktur	Oracle® WebLogic 12c (12.2.1.3.0)
Oracle® Database	Oracle® RDBMS 12c (12.2.0.1.0) or higher
Oracle® Identity Governance	Oracle® Identity Governance 12c Release 12.2.1.3.0
Connector Server	Identity Connectore Server Release 12.2.1.3.0 or higher
Target System	Identity Governance Provisioning Release 1.0.0.0

Table 1. Required versions of software components

## Required Patches

These are the software components and their versions required for installing and using the connector.

Component	Version
Oracle® Identity Governance	Patch 30735905 Oracle® Identity Governance Bundle Patch ID:200108.2108)

Table 2. Required patches of software components

# Installing and Configuring the Connector Server

This section contains the following topics:

- [About Installing and Configuring the Connector Server](#)
- [Installing and Configuring the Java Connector Server](#)

## About Installing and Configuring the Connector Server

You can deploy this connector either locally in Oracle® Identity Governance or remotely in the Connector Server. A **Connector Server** enables remote execution of an Identity Connector.

Connector Servers are available in two implementations:

- As a .Net implementation that is used by Identity Connectors implemented in .Net
- As a Java implementation that is used by Java-based Identity Connectors

## Installing and Configuring the Java Connector Server

Use the following steps to install and configure the Java Connector Server:

### Note

Before you deploy the Java Connector Server, ensure that you install JDK or JRE on the same computer where you are installing the Java Connector Server and that your `JAVA_HOME` or `JRE_HOME` environment variable points to this installation.

1. Download the Java Connector Server package from the Oracle® Technology Network.
2. Create a new directory on the computer where you want to install the Connector Server.

### Note

In this guide, `CONNECTOR_SERVER_HOME` represents this directory.

3. Unzip the Java Connector Server package in the new directory created in Step 1.
4. Open the `ConnectorServer.properties` file located in the `conf` directory. In the `ConnectorServer.properties` file, set the following properties, as required by your deployment.

Property	Description
<code>connectorserver.port</code>	Port on which the Java Connector Server listens for requests.  Default value: 8759
<code>connectorserver.bundleDir</code>	Directory where the connector bundles are deployed.



## Installing and Configuring the Connector Server

Property	Description
	Default value: <code>bundles</code>
<code>connectorserver.libDir</code>	Directory in which to place dependent libraries. Default value: <code>lib</code>
<code>connectorserver.usessl</code>	If set to <code>true</code> the Java Connector Server uses SSL/TLS for secure communication. Default value: <code>false</code> See also <a href="#">Configuring SSL for the Connector</a> .
<code>connectorserver.ifaddress</code>	Bind address. To set this property, uncomment it in the file (if necessary). The bind address can be useful if there are more NICs installed on the computer.
<code>connectorserver.key</code>	Java Connector Server key.

Table 3. Connector Server Properties

5. Set the properties in the `ConnectorServer.properties` file, as follows:
6. The `conf` directory also contains the `logging.properties` file, which you can edit if required by your deployment.

# Installing and Configuring the Connector Bundle

This section contains the following topics:

- [Install Required Libraries](#)
- [Install Connector Bundle](#)

## Install Required Libraries

Make sure following jars are in the class path:



### Note

Copy the libraries mentioned below to `<CONNECTOR_SERVER_HOME>/lib/endorsed`.

Library	Description
<code>javax.annotation.jar</code>	Common Annotations for the Java™ Platform API.  <code>&lt;MW_HOME&gt;/oracle_common/modules/ javax.annotation.jar</code>
<code>javax.ws.rs.jar</code>	Java API for RESTful Web Services  <code>&lt;MW_HOME&gt;/oracle_common/modules/ javax.ws.rs.jar</code>
<code>javax.inject.jar</code>	This package provides portable dependency injection annotations that can be used by any dependency injection framework.  <code>&lt;MW_HOME&gt;/oracle_common/modules/ javax.inject.jar</code>
<code>com.sun.jersey.core.jar</code>	Jersey Core  <code>&lt;MW_HOME&gt;/oracle_common/modules/ com.sun.jersey.core.jar</code>
<code>com.sun.jersey.client.jar</code>	Jersey Client  <code>&lt;MW_HOME&gt;/oracle_common/modules/ com.sun.jersey.client.jar</code>
<code>jackson-annotations-2.7.9.jar</code>	Core annotations used for value types, used by Jackson data binding package.  <code>&lt;MW_HOME&gt;/oracle_common/modules/ thirdparty/jackson-annotations-2.7.9.jar</code>
<code>jackson-core-2.7.9.jar</code>	Core Jackson processing abstractions (aka Streaming API), implementation for JSON

## Installing and Configuring the Connector Bundle

Library	Description
	<i>&lt;MW_HOME&gt;/oracle_common/modules/thirdparty/jackson-core-2.7.9.jar</i>
jackson-jaxrs-base-2.7.9.jar	Pile of code that is shared by all Jackson-based JAX-RS providers.  <i>&lt;MW_HOME&gt;/oracle_common/modules/thirdparty/jackson-jaxrs-base-2.7.9.jar</i>
jackson-jaxrs-json-provider-2.7.9.jar	Functionality to handle JSON input/output for JAX-RS implementations (like Jersey and RESTeasy) using standard Jackson data binding.  <i>&lt;MW_HOME&gt;/oracle_common/modules/thirdparty/jackson-jaxrs-json-provider-2.7.9.jar</i>
jackson-databind-2.7.9.1.jar	General data-binding functionality for Jackson: works on core streaming API.  <i>&lt;MW_HOME&gt;/oracle_common/modules/thirdparty/jackson-databind-2.7.9.1.jar</i>
org.glassfish.javax.json.jar	Default provider for JSR 374:Java API for Processing JSON  <i>&lt;MW_HOME&gt;/oracle_common/modules/org.glassfish.javax.json.jar</i>
org.glassfish.jersey.core.jersey-common.jar	Jersey core common packages  <i>&lt;MW_HOME&gt;/oracle_common/modules/org.glassfish.jersey.core.jersey-common.jar</i>
org.glassfish.jersey.ext.jersey-entity-filtering.jar	Jersey extension module providing support for Entity Data Filtering.  <i>&lt;MW_HOME&gt;/oracle_common/modules/org.glassfish.jersey.ext.jersey-entity-filtering.jar</i>
org.glassfish.jersey.core.jersey-client.jar	Jersey core client implementation  <i>&lt;MW_HOME&gt;/oracle_common/modules/org.glassfish.jersey.core.jersey-client.jar</i>
org.glassfish.jersey.bundles.repackaged.jersey-guava	Jersey Guava Repackaged  <i>&lt;MW_HOME&gt;/oracle_common/modules/org.glassfish.jersey.bundles.repackaged.jersey-guava</i>
org.glassfish.jersey.media.jersey-media-json-jackson.jar	Jersey JSON Jackson (2.x) entity providers support module.  <i>&lt;MW_HOME&gt;/oracle_common/modules/org.glassfish.jersey.media.jersey-media-json-jackson.jar</i>

## Installing and Configuring the Connector Bundle

Library	Description
<code>org.glassfish.hk2.hk2-api.jar</code>	HK2 API module  <code>&lt;MW_HOME&gt;/oracle_common/modules/ org.glassfish.hk2.hk2-api.jar</code>

Table 4. Connector Libraries

## Install Connector Bundle



### Note

Copy the Connector Bundle mentioned below to `<CONNECTOR_SERVER_HOME>/bundle`.

Bundle	Description
<code>rkc.identity.connector.bundle-12.2.1.3.jar</code>	The connector bundle.

Table 5. Connector Bundle