Oracle® Enterprise Manager

Enterprise Manager Plug-in for Big Data Discovery

Installation Guide

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Table of Contents

Preface

Oracle Big Data Discovery is a set of end-to-end visual analytic capabilities that leverage the power of Hadoop to transform raw data into business insight in minutes, without the need to learn complex products or rely only on highly skilled resources.

About this guide

This guide describes how to download, deploy, verify, and validate the Enterprise Manager Plug-in for Big Data Discovery. The plug-in extends Oracle Enterprise Manager Cloud Control to add support for monitoring, diagnosing, and managing Oracle Big Data Discovery.

Who should use this guide

This guide is intended for administrators who are using Enterprise Manager Cloud Control to monitor and manage an Oracle Big Data Discovery environment.

Conventions used in this document

The following conventions are used in this document.

Typographic conventions

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

Typeface	Meaning
User Interface Elements	This formatting is used for graphical user interface elements such as pages, dialog boxes, buttons, and fields.
`Code Sample`	This formatting is used for sample code phrases within a paragraph.
Variable	This formatting is used for variable values. For variables within a code sample, the formatting is `Variable`.
`File Path`	This formatting is used for file names and paths.

Symbol conventions

The following table describes symbol conventions used in this document.

Symbol	Description	Example	Meaning
>	The right angle bracket, or greater-than sign, indicates menu item selections in a graphic user interface.	File > New > Project	From the File menu, choose New, then from the New submenu, choose Project.

Path variable conventions

This table describes the path variable conventions used in this document.

Path variable	Meaning
$MW_HOME	Indicates the absolute path to your Oracle Middleware home directory, which is the root directory for your WebLogic installation.
$DOMAIN_HOME	Indicates the absolute path to your WebLogic domain home directory. For example, if bdd_domain is the domain name, then the $DOMAIN_HOME value is the $MW_HOME/user_projects/domains/bdd_domain directory.
$BDD_HOME	Indicates the absolute path to your Oracle Big Data Discovery home directory. For example, if BDD1.0 is the name you specified for the Oracle Big Data Discovery installation, then the $BDD_HOME value is the $MW_HOME/BDD1.0 directory.
$DGRAPH_HOME	Indicates the absolute path to your Dgraph home directory. For example, the $DGRAPH_HOME value might be the $BDD_HOME/dgraph directory.

Contacting Oracle Customer Support

Oracle Customer Support provides registered users with important information regarding Oracle software, implementation questions, product and solution help, as well as overall news and updates from Oracle.

You can contact Oracle Customer Support through Oracle's Support portal, My Oracle Support at https://support.oracle.com.

Chapter 1
Overview

Description

The *Enterprise Manager Plug-in for Big Data Discovery* extends Oracle Enterprise Manager Cloud Control to add support for monitoring, diagnosing, and managing Oracle Big Data Discovery and its components.

By deploying the plug-in within your Cloud Control environment, you gain the following management features:

- Monitor the availability and performance of Big Data Discovery components.
- Perform administrative operations such as starting and stopping Dgraph nodes.
- View logging information for each Big Data Discovery component including Dgraph request logs.
- Perform trend analysis on collected performance information.
- Gain access to rich out-of-box reports.

Supported Versions

This plug-in supports the following versions of Oracle products:

- Enterprise Manager Cloud Control 12c Release 1 (12.1.0.1.0) or higher.
- Oracle Big Data Discovery 1.0.0 or higher.

Prerequisites

The following prerequisites must be met before you can deploy the plug-in:

- Oracle Big Data Discovery 1.0.0 or higher is installed and running.

- The following components of Oracle Enterprise Manager Cloud Control 12c Release 1 or higher are installed:

  - Oracle Management Service with Oracle Management Repository

  - Oracle Management Agent for Linux

- For remote Agent monitoring, a remote Agent must be properly configured. See *Configuring a Remote Agent on page 7*.

- Set user privileges for the Job system of Enterprise Manager. For the procedure, refer to "Setting Credentials for the Job System to Work with Enterprise Manager" in *Database Installation Guide for Microsoft Windows* (E24186-04).

  This guide is listed in the Installing and Upgrading section of the Oracle Database Documentation Library at: http://www.oracle.com/pls/db112/homepage.

Downloading the Plug-in

You can download plug-ins in online or offline mode. Online mode refers to an environment where you have Internet connectivity, and can download the plug-in directly through Enterprise Manager from My Oracle Support. Offline mode refers to an environment where you do not have Internet connectivity, or where the plug-in is not available from My Oracle Support.

See the Managing Plug-ins chapter in the *Oracle Enterprise Manager Cloud Control Administrator's Guide* for details on downloading the plug-in in either mode:
http://docs.oracle.com/cd/E24628_01/doc.121/e24473/plugin_mngr.htm#CJGBEAHJ

Configuring a Remote Agent

Enterprise Manager uses remote Agents as a communication mechanism to monitor and manage host machines. You must install and configure a remote agent on any host machine running Big Data Discovery nodes. Enterprise Manager can then monitor the host, discover any Big Data Discovery targets running on the host, and manage the targets.

To configure a remote Agent:

1. Log in to Enterprise Manager Cloud Control.

2. Select **Setup>Add Target>Add Targets Manually**.

3. Select **Add Host Targets** and click **Add Host...**

4. On the **Add Host Targets: Host and Platform** page, click **+ Add** and do the following:

   (a) In **Host** field, specify the fully qualified name of the host where you want to install the remote Agent.

(b) From the **Platform** list, select the appropriate platform.

For example, this is typically `Linux x86-64`.

(c) Specify as many target hosts as necessary.

(d) Click **Next**.

5. On the **Add Host Targets: Installation Details** page, do the following:

(a) In **Installation Base Directory** field, specify the path to install the remote agent into.

For example, the typical installation path is `/localdisk/basedir`.

(b) The **Instance Directory** name is populated by default based on the **Installation Base Directory** value. You should not have to change this value.

(c) In **Named Credential** field, click the + icon.

6. In the **Create new Named Credential** dialog, specify the following:

(a) In **UserName**, specify the user who has privileges to log into the host where you want to install the remote Agent.

(b) In **Password** and **Confirm Password**, specify the corresponding password for the user.

(c) In **Run Privilege**, select `Sudo`.

(d) In **Run as**, specify `root`.

(e) Click **OK**.

The user you specify must have write privileges to create an installation directory on the host.

7. In the **Privileged Delegation Setting**, add `-S` to the list of command line arguments.

For example:

```
/usr/bin/sudo -S -u %RUNAS% %COMMAND%
```

8. At the top of the **Add Host Targets: Installation Details** page, click **Next**.

9. On the **Add Host Targets: Review** page, confirm the information and click **Deploy Agent**.

It may take a few moments to install the remote agent on the host. If you specified multiple target hosts in step 4, Enterprise Manager deploys an agent to each host.

10. Click **Done**.

Deploying the Plug-in

You can deploy the plug-in to an Oracle Management Service instance using the Enterprise Manager Cloud Control console, or using the EM Command Line Interface (EMCLI).

The console and the command line interface let you deploy one plug-in at a time, or multiple plug-ins.

For instructions on deploying the plug-in, see the "Managing Plug-ins" chapter in the *Oracle Enterprise Manager Cloud Control Administrator's Guide*:
http://docs.oracle.com/cd/E24628_01/doc.121/e24473/plugin_mngr.htm#CJGCDHFG.

Discovering Big Data Discovery Targets

After deploying the plug-in, follow the steps below to manually discover Big Data Discovery targets and add the targets to Enterprise Manager for central monitoring and management. Also, as part of this procedure, you promote the targets after they have been discovered.

Remember that discovering Big Data Discovery targets identifies the components on their host machines. Promoting the targets adds them to Enterprise Manager for central monitoring and management.

To discover targets:

1. Log in to Enterprise Manager Cloud Control.

2. Click **Setup>Add Target>Add Targets Manually**.

3. Select **Add Targets Using Guided Process**.

4. From the **Target Types** list, choose Oracle Big Data Discovery and click **Add Using Guided Process**.

5. On the **Add Oracle Big Data Discovery Targets: Select Hosts** page, click **+ Add** to display a list of hosts.

6. On the **Search and Select: Host** page, select one or more hosts names where Big Data Discovery is installed and click **Select**.

   The discovered targets for Big Data Discovery display in a table.

7. Specify a path to the installation for **Big Data Installation Home**.

   For example, a typical default value is `/localdisk/Oracle/Middleware/BDD1.0`.

8. To set preferred credentials for a host:

   (a) Select a host name from the table.

   (b) Click **Set Credential** and **Selected Host**.

   (c) Specify **UserName** and **Password** values to access a host.

   (d) Click **OK**.

9. Click **Next**.

10. On the **Add Oracle Big Data Discovery Targets: Select Targets** page, choose a specific cluster from **Cluster Name**.

11. Select one or more targets within that cluster to promote.

12. For any Studio targets on this page, specify the WebLogic username and password under **WebLogic Authentication**.

13. If SSL is enabled for Studio targets, specify the SSL entries so that Enterprise Manager can access the secured targets. Depending on how SSL is enabled for Studio, do one of the following:

    • If Studio is configured in one-way SSL mode, provide the Trust Keystore file name and path, type and passphrase for Studio targets only in the **SSL Trust Keystore Authentication** field.

    • If Studio is configured in two-way SSL mode, provide the corresponding keystore file names and paths, types and passphrases for Studio targets in both the **SSL Trust Keystore Authentication** and the **SLL Keystore Authentication** fields.

These SSL fields have the same meaning as their WebLogic counterparts.

Note: Enabling SSL for Studio activates default demo keystores in Weblogic, which you should replace with your own certificates after deployment.

For additional information on plug-in's requirements for a securely deployed Studio, see the section on Enterprise Manager plug-in, in the *Oracle Big Data Discovery Administrator's Guide*.

14. Click **Next**.

15. On the **Add Oracle Big Data Discovery Targets: Review** page, click **Submit**.

    You can confirm that Enterprise Manage is managing the targets by selecting **Targets>All Targets** and expanding the **Target Type>Middleware** folder. You see the Target Name (the Big Data Discovery hosts) and the Target Type (the Big Data Discovery components).

Verifying and Validating the Plug-in

After waiting a few minutes for the plug-in to start collecting data, follow the steps below to verify and validate that Enterprise Manager is properly monitoring the plug-in target.

To verify and validate the plug-in:

1. Click **Targets**, then **All Targets**.

2. On the **All Targets** page, expand **Target Type>Middleware** and select an Oracle Big Data Discovery Cluster.

   The target home page displays.

Upgrading the Plug-in

The Self Update feature allows you to expand Enterprise Manager's capabilities by updating Enterprise Manager components whenever new or updated features become available. Updated plug-ins are made available via the Enterprise Manager Store, an external site that is periodically checked by Enterprise Manager Cloud Control to obtain information about updates ready for download.

See the Updating Cloud Control chapter in the *Oracle Enterprise Manager Cloud Control Administrator's Guide* for steps to update the plug-in: *http://docs.oracle.com/cd/E24628_01/doc.121/e24473/self_update.htm*.

Undeploying the Plug-in

See the Managing Plug-ins chapter in the *Oracle Enterprise Manager Cloud Control Administrator's Guide* for steps to undeploy the plug-in:

http://docs.oracle.com/cd/E24628_01/doc.121/e24473/plugin_mngr.htm#CJGEFADI.

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http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.