

## Cloud Control Release Notes

Oracle Enterprise Manager Cloud Control 13c Release 2 Plug-ins Update 1 is a management solution providing centralized monitoring, administration, and lifecycle management functionality for the complete IT infrastructure. This Release Notes document provides information about the release, as well as information to assist you in either installing or upgrading to Cloud Control and/or Management Agent 13c Release 2. This document contains the following sections:

### Where To Find Installation And Upgrade Documentation

The following documents are related to installing and/or upgrading to Enterprise Manager Cloud Control 13c Release 2.

All of these documents can be downloaded from the Enterprise Manager Cloud Control Documentation Library at the following URL:

<http://docs.oracle.com/en/enterprise-manager/>

- *Oracle Enterprise Manager Cloud Control Release Notes, 13c Release 2* (this document)

The Release Notes document provides instructions on installing, upgrading or de-installing of the software. It also includes a list of known issues related to installation and upgrade, as well as post-installation configuration.

- *Oracle Enterprise Manager Cloud Control Basic Installation Guide, 13c Release 2*

The document provides references detailed instructions on performing a fresh installation of Enterprise Manager Cloud Control and Management Agents.

- *Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide, 13c Release 2*

The document provides detailed instructions on advanced installation scenarios, including silent installation and de-installation of Cloud Control components. It also provides guidelines on post-installation configuration tasks, including high availability configuration.

- *Oracle Enterprise Manager Cloud Control Upgrade Guide, 13c Release 2*

The document provides detailed instructions on upgrading an existing Enterprise Manager installation to the latest release.

The documents noted above are referenced several times in this Release Notes document. The documents can also be downloaded from the Enterprise Manager Cloud Control Documentation Library at the following URL:

<http://docs.oracle.com/en/enterprise-manager/>

## New Features Included In This Release

Oracle Enterprise Manager Cloud Control 13c Release 2 contains a significant number of new features and enhancements. See "New Features In Enterprise Manager 13c" in the Enterprise Manager Cloud Control 13c Introduction book for a detailed overview of what's new in this latest release.

This document is available at the following URL:

<http://www.oracle.com/pls/topic/lookup?ctx=em13l&id=EMCON132>

Note that the following plug-ins are deployed by default with Oracle Enterprise Manager Cloud Control:

- Enterprise Manager for Zero Data Loss Recovery Appliance (13.2.2.0.0)
- Enterprise Manager for Oracle Database (13.2.2.0.0)
- Enterprise Manager for Big Data Appliance (13.2.2.0.0)
- Enterprise Manager for Oracle Virtualization (13.2.2.0.0)
- Enterprise Manager for Cloud Services Management (13.2.2.0.0)
- Enterprise Manager for Oracle Consolidation Planning and Chargeback (13.2.1.0.0)
- Enterprise Manager for Oracle Fusion Middleware (13.2.2.0.0)
- Enterprise Manager for Cloud (13.2.2.0.0)
- Enterprise Manager for Oracle Siebel (13.2.1.0.0)
- Enterprise Manager for Oracle Exadata (13.2.2.0.0)
- Enterprise Manager for Storage Management (13.2.2.0.0)
- Enterprise Manager for Oracle Cloud Framework (13.2.2.0.0)
- Enterprise Manager for Systems Infrastructure (13.2.2.0.0)
- Enterprise Manager for Oracle Virtual Infrastructure (13.2.2.0.0)
- Enterprise Manager for Oracle Fusion Applications (13.2.2.0.0)
- Enterprise Manager for Oracle Audit Vault and Database Firewall (13.2.1.0.0)

You can deploy the latest plug-ins as part of the process of installing or upgrading to Enterprise Manager Cloud Control 13c Release 2.

To deploy plug-ins during installation, follow the process outlined in the "Installing with Advanced Configuration" chapter in the *Enterprise Manager Cloud Control Basic Installation Guide*:

[http://docs.oracle.com/cd/E73210\\_01/EMBSC/GUID-D0C8EB92-8297-4FF9-A721-BDD2425243C4.htm#EMBSC159](http://docs.oracle.com/cd/E73210_01/EMBSC/GUID-D0C8EB92-8297-4FF9-A721-BDD2425243C4.htm#EMBSC159)

As part of Replication and L2ARC, additional monitoring features and metrics are added for:

- Replication statistics by direction
- Replication Operations by Latency
- Project Replication statistics
- IO operations by latency
- L2ARC statistics

Oracle Enterprise Manager Cloud Control 13c Release 2 also provides the Project storage statistics with reservation and discovery of ZFS server target thru UI.

## Acquiring the Software

You can get the installation software from the product DVD or from Oracle Technology Network (OTN) at:

<http://www.oracle.com/technetwork/oem/enterprise-manager/downloads/index.html>

For more details on how you can obtain the Enterprise Manager Cloud Control software, refer to the "Procuring Enterprise Manager Cloud Control Software" section of the *Enterprise Manager Cloud Control Advanced Installation and Configuration Guide* at the following URL:

[http://docs.oracle.com/cd/E73210\\_01/EMADV/GUID-A175D0C7-8367-4D03-8E05-6D13C6D59BBD.htm#EMADV271](http://docs.oracle.com/cd/E73210_01/EMADV/GUID-A175D0C7-8367-4D03-8E05-6D13C6D59BBD.htm#EMADV271)

### Note:

Verify that the file size of your downloaded installation software matches the file size displayed on Oracle Technology Network (OTN). After downloading the software, run the cksum command against the downloaded file to ensure that the file size of the downloaded software is the same as the file size on OTN.

## Installing Oracle Enterprise Manager Cloud Control 13c Release 2

These instructions assume that you will install a complete Enterprise Manager Cloud Control system using an existing certified Oracle Database on which the Oracle Management Repository can be configured.

See the "Installing Enterprise Manager System" chapter in the *Enterprise Manager Cloud Control Basic Installation Guide 13c* for installation and post-install configuration instructions:

[https://docs.oracle.com/cd/E73210\\_01/EMBSC/GUID-D0C8EB92-8297-4FF9-A721-BDD2425243C4.htm#EMBSC159](https://docs.oracle.com/cd/E73210_01/EMBSC/GUID-D0C8EB92-8297-4FF9-A721-BDD2425243C4.htm#EMBSC159)

## Installing An Additional Oracle Management Service

To configure Cloud Control for high-availability, you can install additional Oracle Management Service (OMS) instances into your existing Enterprise Manager Cloud Control environment.

See the "Adding An Additional Oracle Management Service" chapter in the *Enterprise Manager Cloud Control Basic Installation Guide* for prerequisites and instructions on installing additional OMS instances at the following URL:

[https://docs.oracle.com/cd/E73210\\_01/EMBSC/GUID-E9722310-FD6A-42E7-A015-10DEBD303B5C.htm#EMBSC171](https://docs.oracle.com/cd/E73210_01/EMBSC/GUID-E9722310-FD6A-42E7-A015-10DEBD303B5C.htm#EMBSC171)

## Installing Additional Management Agents

You can install additional Management Agents into your environment. Several Management Agent deployment options are supported in this release.

For instructions on using the recommended Add Host wizard method (also referred to as Agent push in previous EM releases), refer to "Installing Oracle Management Agent Using Agent Deployment Wizard" in the *Enterprise Manager Cloud Control Basic Installation Guide*.

[http://docs.oracle.com/cd/E73210\\_01/EMBSC/GUID-D08C7C37-7BCD-4E32-A74B-7C5FD266D151.htm#EMBSC181](http://docs.oracle.com/cd/E73210_01/EMBSC/GUID-D08C7C37-7BCD-4E32-A74B-7C5FD266D151.htm#EMBSC181)

## Known Installation Issues

This section covers issues related to installing Enterprise Manager Cloud Control 13c Release 2:

### Verifying UDP and TCP Kernel Parameters

Enterprise Manager 13c has specific Operating System requirements for AIX. Ensure that the lower range for TCP/IP and UDP/IP ports is set to at least 11000, to avoid Well Known ports, and to avoid ports that are used by Enterprise Manager components. Set the upper range for TCP/IP and UDP/IP ports to no more than 65000.

Use the following command to check your current range for ephemeral ports.

```
# /usr/sbin/no -a | fgrep ephemeral
tcp_ephemeral_low = 11000
tcp_ephemeral_high = 65000
udp_ephemeral_low = 11000
udp_ephemeral_high = 65000
```

In the preceding example, the TCP and UDP ephemeral ports are set to the required ranges for Enterprise Manager 13c.

If the output above contains ranges such that the 'low' value is below '11000' or the 'high' range is above 65000, then you need to execute these commands, as the AIX super user.

```
# /usr/sbin/no -p -o tcp_ephemeral_low=11000 -o tcp_ephemeral_high=65500
# /usr/sbin/no -p -o udp_ephemeral_low=11000 -o udp_ephemeral_high=65500
```

(Bug 22242359)

## Creating the SYSMAN User Account Password

The SYSMAN account password must begin with a letter, and can only contain uppercase or lowercase letters, numbers and the following characters: \$, #, \_

Examples of valid passwords:

Welcome1, oracle\_User

Examples of invalid passwords:

Welcome!, 123oracle, #Oracle

(Bug 22879000)

## Plugin Installation Issue

You must ensure that you manually add the oms-host-name to the localhost line in the `/etc/hosts` file. The oms-host-name must match the CN, DN in the certificate shipped with the Oracle VBox EM Template.

(Bug 25159503)

## Upgrading To Oracle Enterprise Manager Cloud Control 13c Release 2

To upgrade your existing Enterprise Manager 10g Grid Control Release 5 (10.2.0.5.0), Enterprise Manager 11g Grid Control Release 1 (11.1.0.1.0), Enterprise Manager Cloud Control 12c Release 2 (12.1.0.2), or Enterprise Manager Cloud Control 12c Release 3 (12.1.0.3), you must upgrade to Enterprise Manager Cloud Control 12c Release 4 (12.1.0.4) or Enterprise Manager Cloud Control 12c Release 5 (12.1.0.5) and then upgrade to Enterprise Manager Cloud Control 13c Release 2.

If you have Enterprise Manager 10g Grid Control Release 4 (10.2.0.4.0) or lower installed, then you must first upgrade to Enterprise Manager 10g Grid Control Release 5 (10.2.0.5.0) or Enterprise Manager 11g Grid Control Release 1 (11.1.0.1.0) before you can upgrade to the new release.

Before beginning, Oracle recommends that you back up the Oracle Management Service (OMS) Oracle Home, the Management Agent Oracle Home, the Oracle Inventory directory and the Software Library. You should also back up the

Management Repository database, as upgrade changes made to the Repository cannot be rolled back. For details, see the "Backing Up Enterprise Manager" chapter in the *Enterprise Manager Cloud Control Advanced Installation and Configuration Guide*:

[http://docs.oracle.com/cd/E73210\\_01/EMADV/GUID-08F7F2DA-7439-4FA9-9727-B18D68B90D19.htm#EMADV10740](http://docs.oracle.com/cd/E73210_01/EMADV/GUID-08F7F2DA-7439-4FA9-9727-B18D68B90D19.htm#EMADV10740)

See the *Enterprise Manager Cloud Control Upgrade Guide* for upgrade prerequisites and instructions. This document is available from the Enterprise Manager Cloud Control Documentation Library at the following URL:

[http://docs.oracle.com/cd/E73210\\_01/EMUPG/GUID-DE37E620-29A9-49A7-9D41-9C28E38977E1.htm#EMUPG128](http://docs.oracle.com/cd/E73210_01/EMUPG/GUID-DE37E620-29A9-49A7-9D41-9C28E38977E1.htm#EMUPG128)

 **Note:**

The upgrade process will upgrade only the Management Repository (sysman) schema and will create the new Metadata Services (sysman\_mds) schema within the database. It will not impact any other data within the database. Even so, a database backup is strongly recommended.

## Known Upgrade Issues

This section covers issues related to upgrading to Enterprise Manager Cloud Control 13c Release 2:

### Oracle Home Data Not Collected Correctly After Management Agent Update

Oracle Home data may not be collected correctly for Management Agents that were deployed as Gold Images, but no longer match the Gold Image configuration after plug-ins or patches were applied..

You can address this issue by either running the Oracle Home collections manually or waiting for the Oracle Home collections to be run automatically.

(Bug 21757085)

### Plug-in Repository Upgrade Fails

If plug-in repository upgrade fails ORA-21700 PS4 HA EM 13.2 upgrade, you must make the RAC DB to single-instance DB during EM upgrade and bounce the running instance.

Following are the steps to make the RAC DB to single-instance DB during EM upgrade and bounce the running instance:

1. Log in to all but one instance as `sys` using individual connect-descriptor and shut it down by running following command:

```
from SQL*Plus run 'shutdown immediate'
```

2. Log in to the running instance `as_sys` and bounce it by running the following command:

```
from SQL*Plus run 'shutdown immediate', 'startup'
```

If you have not started the upgrade, follow the above steps and use the individual connect-descriptor of the running instance or RAC connect-descriptor in EM Installer's Interview-page.

(Bug 23532666)

## Transparent Data Encryption Page Unavailable After Upgrade From Previous Versions of Enterprise Manager

After an Enterprise Manager upgrade from either Enterprise Manager Cloud Control 12c Release 3 (12.1.0.3) or Enterprise Manager Cloud Control 12c Release 4 (12.1.0.4) to Enterprise Manager Release 13c, you may not be able to view or access the Transparent Data Encryption (TDE) functionality under the Security menu in the context of a target database (specifically version 11.1.0.7).

To work around this issue, you can reach the Transparent Data Encryption Home page using the following navigation:

1. From the Oracle Database page, navigate to the Security Home page by choosing **Security** from the Oracle Database Home page.
2. From the Security menu, choose **Home**.
3. On the Security Home page, scroll down to the **Encryption, Redaction and Masking** section.

In this section you will find high level information related to Transparent Data Encryption (if the keystore was previously configured).

4. If the keystore is not configured, click on the home icon in the **Oracle Advanced Security** section to navigate to the TDE Home page.

Enterprise Manager displays the TDE Home page.

This issue occurs primarily with target Database version 11.1.0.7.

(Bug 22231728)

## Targets Broken After Agents Are Upgraded in Enterprise Manager Release 13c

After an Enterprise Manager Release 13c upgrade, some targets are broken with a broken code 512 after Management Agents are upgraded. As a result, broken targets cannot be monitored.

To work around this issue, bounce (shutdown and startup) the instance that hosts the Enterprise Manager repository.

(Bug 21496075)

## Creating the SYSMAN User Account Password

The SYSMAN account password must begin with a letter, and can only contain uppercase or lowercase letters, numbers and the following characters: \$, #, \_

Examples of valid passwords:

Welcome1, oracle\_User

Examples of invalid passwords:

Welcome!, 123oracle, #Oracle

(Bug 22879000)

## Upgrading Plugins from 13.2 to 13.2 Plugin Update 1 without applying patch 24608207 or BP1

When upgrading from 13.2 to 13.2 EMAS plugin update 1 without applying patch 24608207 or BP1, the BIP server causes an error.

To work around this issue, you must perform following steps:

1. Login to weblogic console.
2. Click **Lock & Edit**.
3. Go to Deployments and click **jvmdengine (13.2.2.0.0)**.
4. Click **Targets** tab.
5. Select **jvmdengine (13.2.2.0.0)** checkbox and click **Change targets**.
6. In Target Deployments page, de—select the **BIP\_cluster** and click **Yes**.
7. Click **Activate changes**.
8. Go to **Environment-> Servers --> Control** and Start the BIP.

Perform the following steps to un-deploy old jvmd engine ear

9. Go to **Deployments** and select **jvmdengine (13.2.1.0.0)**.



### Note:

The **jvmdengine(13.2.1.0.0)** should be in prepared state.

10. Click **Delete**, and you will be redirected to **Delete Deployments** page.
11. Click **Yes** and activate changes.
12. Login to EM and refresh the weblogic domain named **GCDomain**.
13. Run `emctl stop oms -bip_only` and `emctl start oms -bip_only` command on all the oms.

Bug (24816794)



## Set IOCP Status

While upgrading to Enterprise Manager 13.2 on AIX platform, you must make sure that I/O Completion Port (IOCP) Status is shown as **Available**.

Run the following command to check the IOCP Status:

```
/usr/sbin/lsdev -c iocp -F status
```

If the IOCP Status is not **Available**, then see [Checking I/O Completion Port \(IOCP\) settings](#) to change the status.

## De-installing Oracle Enterprise Manager Cloud Control

You can de-install existing Enterprise Manager Cloud Control components in either graphical or silent mode.

See "De-installing Enterprise Manager Cloud Control" in the *Enterprise Manager Cloud Control Advanced Installation and Configuration Guide* for de-installation instructions:

[http://docs.oracle.com/cd/E73210\\_01/EMADV/GUID-0A1F5FA1-A2E1-4BF6-B5F4-D7FB0960393A.htm#EMADV226](http://docs.oracle.com/cd/E73210_01/EMADV/GUID-0A1F5FA1-A2E1-4BF6-B5F4-D7FB0960393A.htm#EMADV226)

## 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.

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