Oracle® Enterprise Manager

Cloud Control Release Notes

13c Release 3 for AIX-Based Systems

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Cloud Control Release Notes

Oracle Enterprise Manager Cloud Control 13*c* Release 3 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 Enterprise Manager Cloud Control and/or Management Agent 13c Release 3. This document contains the following sections:

- Where To Find Installation And Upgrade Documentation
- New Features Included In This Release
- Acquiring the Software
- Installing Oracle Enterprise Manager Cloud Control 13c Release 3
- Upgrading To Oracle Enterprise Manager Cloud Control 13c Release 3
- Uninstalling Oracle Enterprise Manager Cloud Control
- Documentation Accessibility

Where To Find Installation And Upgrade Documentation

The following documents are related to installing and/or upgrading to Enterprise Manager Cloud Control 13*c* Release 3.

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, 13*c* Release 3 (this document):

  The Release Notes document provides instructions on installing, upgrading, or uninstalling 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 3:

  This document provides 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, 13*c* Release 3:

  This document provides detailed instructions on advanced installation scenarios, including silent installation and uninstallation 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 3:

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

New Features Included In This Release

Oracle Enterprise Manager Cloud Control 13*c* Release 3 contains a significant number of new features and enhancements. See New Features In Enterprise Manager 13*c* section in the *Enterprise Manager Cloud Control 13c Introduction* guide for a detailed overview of what's new in this latest release.

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

- Enterprise Manager for Zero Data Loss Recovery Appliance (13.3.1.0.0)
- Enterprise Manager for Oracle Database (13.3.1.0.0)
- Enterprise Manager for Big Data Appliance (13.3.1.0.0)
- Enterprise Manager for Oracle Virtualization (13.3.1.0.0)
- Enterprise Manager for Cloud Services Management (13.3.1.0.0)
- Enterprise Manager for Oracle Consolidation Planning and Chargeback (13.3.1.0.0)
- Enterprise Manager for Oracle Fusion Middleware (13.3.1.0.0)
- Enterprise Manager for Cloud (13.3.1.0.0)
- Enterprise Manager for Oracle Siebel (13.3.1.0.0)
- Enterprise Manager for Oracle Exadata (13.3.1.0.0)
- Enterprise Manager for Storage Management (13.3.1.0.0)
- Enterprise Manager for Oracle Cloud Framework (13.3.1.0.0)
- Enterprise Manager for Systems Infrastructure (13.3.1.0.0)
- Enterprise Manager for Oracle Virtual Infrastructure (13.3.1.0.0)
- Enterprise Manager for Oracle Fusion Applications (13.3.1.0.0)
- Enterprise Manager for Oracle Audit Vault and Database Firewall (13.3.1.0.0)

You can deploy the latest plug-ins as part of the process of installing or upgrading to Enterprise Manager Cloud Control 13*c* Release 3. 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*.

You must install the JDBC patch to upgrade the database plug-in for Enterprise Manager Cloud Control 13.3.2.0.0.

Before upgrading plug-ins to 13.3.2.0.0 release, if customer has applied any Enterprise Manager 13.3.1.0.x Plugin System Bundle Patch, which are listed in MOS Note 2476468.1, on Oracle Management Server (OMS), it is mandatory to apply 13.3.0.0.0 version one-off patch for bug 29132445.

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 13*c* Release 3 also provides the project storage statistics with reservation and discovery of ZFS server target through the user interface.

Oracle Enterprise Manager SI Plugin supports following Oracle ZFS Storage Appliance models:

- zfs7110
- zfs7120
- zfs7320
- zfs7420
- zs3-1
- zs3-2
- zs3-4
- zs3-ES
- zs4-4

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* .

> **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 3

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.

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.

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*.

Known Installation Issues

This section covers issues related to installing Enterprise Manager Cloud Control 13c Release 3:

Verifying UDP and TCP Kernel Parameters

Enterprise Manager Cloud Control 13c Release 3 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 Cloud Control 13c Release 3. 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 Cloud Control 13c Release 3.

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. It can only contain uppercase or lowercase letters, numbers, and the characters like $, #, _.

Examples of valid passwords:

Yourpw1, oracle_User

Examples of invalid passwords:

Welcome!, 123oracle, #Oracle

(Bug 22879000)

Plugin Installation Issues

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)

Agent deployment on Windows using Gold Image fails

Enterprise Manager 13c Release 3 agent deployment on Windows using Gold Image fails. Currently, this issue has no workaround in place.

(Bug 28178280)

Agent home page does not list the patches applied on it

Enterprise Manager 13c Release 3 agent side patch details are not listed in agent home page after updating opatch. Currently, this issue has no workaround in place.

(Bug 28224832)

Nm2user Limitation in IBswitch Firmware Version 2.2.7 and Above

In Enterprise Manager 13c Release 3, if IBSwitch (FW 2.2.7 +) is discovered as `nm2user`, the following metrics will throw the metric collection errors and will not be collected:

- Switch InfiniBand PKey-GUID Membership
- Switch InfiniBand PKey Configuration
- Network Datalinks

You must use `ilom-admin` user to get data for these above mentioned metrics.

(Bug 27880372)

ldmpower Fails to Return Expected Results on T7/M7/S7/T8/M8 based Systems

PM is disabled by default at the LDoms layer on T7/M7/S7/T8/M8 based systems with S11.3, SRU 29, and later. For these systems Enterprise Manager Cloud Control does not monitor power consumption on Oracle VM Server for SPARC.

While deploying EM agent on such systems, the prerequisite check shows a warning **Enterprise Manager will not monitor Oracle VM Server for SPARC Power consumption**. This does not affect the agent deployment process and the monitoring for the rest of the Oracle VM Server metrics.

(Bug 28561189)

Upgrading To Oracle Enterprise Manager Cloud Control 13c Release 3

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), Enterprise Manager Cloud Control 12c Release 3 (12.1.0.3), or Enterprise Manager Cloud Control 12c Release 4 (12.1.0.4), you must upgrade to Enterprise Manager Cloud Control 12c Release 5 (12.1.0.5) or Enterprise Manager Cloud Control 13c Release 1 or Enterprise Manager Cloud Control 13c Release 2, and then upgrade to Enterprise Manager Cloud Control 13c Release 3.

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*.

See the Enterprise Manager Cloud Control Upgrade Guide for upgrade prerequisites and instructions.

> **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. Yet, a database backup is strongly recommended.
>
> In case of Microsoft Edge browser, you may notice browser specific issues while viewing engineering system targets. It is recommended to use Internet Explorer, Firefox, Chrome, or Safari web browser.

Known Upgrade Issues

This section covers issues related to upgrading to Enterprise Manager Cloud Control 13c Release 3:

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, that 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)

Repository Upgrade Fails

If 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 the 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 performing an upgrade from either Enterprise Manager Cloud Control Release 3 (12.1.0.3) or Enterprise Manager Cloud Control 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).

Perform the following steps to reach the Transparent Data Encryption home page:

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.

   TDE home page is displayed.

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 13*c* 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. It can only contain upper-case or lowercase letters, numbers, and the characters like $, #, _.

Examples of valid passwords:

Yourpw1, oracle_User

Examples of invalid passwords:

Welcome!, 123oracle, #Oracle

(Bug 22879000)

Set IOCP Status

While upgrading to Enterprise Manager 13c Release 3 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.

Uninstalling Oracle Enterprise Manager Cloud Control

You can uninstall existing Enterprise Manager Cloud Control components in either graphical or silent mode.

See Uninstalling Enterprise Manager Cloud Control in the *Enterprise Manager Cloud Control Advanced Installation and Configuration Guide* for uninstallation instructions.

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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