

Oracle® Enterprise Manager

Management Agent Release Notes for Microsoft Windows x86-64

10g Release 4 (10.2.0.4.0)

E12528-01

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Oracle Enterprise Manager Grid Control (Grid Control) is a management solution that provides a centralized, integrated framework for managing different versions of Oracle products and some third-party products in the enterprise. Grid Control automates day-to-day maintenance requirements such as software installation, patching, upgrading, workload balancing, and security for an enterprise grid.

This Release Notes document is one of the documents that is bundled with 10.2.0.4.0 Grid Control Patch Set. The document provides information about the Patch Set and procedures that help you patch your 10.2.0.x.0 releases of Grid Control and (or) Management Agent, that is 10.1.0.x.0 or 10.2.0.x.0 or higher installation, and upgrade it to 10.2.0.4.0 release.

Note: This document helps you patch 10.2.0.x.0 releases of Grid Control and (or) Management Agent, that is 10.1.0.x.0 or 10.2.0.x.0 or higher installation, and upgrade it to the 10.2.0.4.0 release. If you do not have a previous release but want to have a 10.2.0.4.0 environment, then first install 10.2.0.x.0 OMS, and then use this Patch Set to upgrade it to 10.2.0.4.0. For information about installing Grid Control, refer to the Quick Installation guide available at:

<http://www.oracle.com/technology/documentation/oem.html>

This document contains the following sections:

- [Patch Set Documentation](#)
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1 Patch Set Documentation

There are two documents related to this release of Grid Control Patch Set:

- *Oracle Enterprise Manager Grid Control Release Notes, 10g Release 4 (10.2.0.4.0)* (this document)

This document provides:

- A list of new features included in this Patch Set
- Information about how to install or de-install the Patch Set
- A list of known issues relating to this release of Grid Control Patch Set
- *Oracle Enterprise Manager Grid Control List of Bugs Fixed, 10g Release 4 (10.2.0.4.0)*

This document provides a list of all generic bugs related to Grid Control that have been fixed in this release.

Both these documents are included with the 10.2.0.4.0 Patch Set. You can also find a consolidated document, which has the Document ID 603184.1, on *OracleMetaLink* at:

<http://metalink.oracle.com/>

To locate document 603184.1:

1. Click **Advanced** at the top of the *OracleMetaLink* page.
2. Enter 603184.1 in the **Document ID** field and click **Submit**.

You can also find this document on the Oracle Technology Network (OTN) Web site:

<http://www.oracle.com/technology/documentation/oem.html>

2 New Features Included in the Patch Set

If you are migrating from Enterprise Manager 10g Grid Control Release 3 (10.2.0.3) to Enterprise Manager 10g Grid Control Release 4 (10.2.0.4), then you will see the following new features:

- Provides data masking, that is the capability to replace sensitive data with false but realistic looking data on test and development databases.
- Allows usage of commonly-used privileged delegation software, such as sudo or pbrun, to fit into the existing credential subsystem in Enterprise Manager.
- Allows bidirectional flow of events between Enterprise Manager and third-party products.
- Provides users through the Service Level Management Pack the capability to record transactions on Forms 6i-based applications and periodically replay these transactions to monitor performance and availability.
- Provides DHTML transaction recording and monitoring features that allow you to record and playback DHTML-based applications. The features help you to capture mouse and keyboard actions, in addition to the HTTP requests.
- Allows you to monitor and manage Oracle BI Suite Enterprise Edition (Maui release). You can discover Oracle BI EE servers, view configuration information, monitor performance, and so on.

- Provides, through the Diagnostics Pack for Non-Oracle Middleware, Oracle Application Diagnostics for Java (Oracle AD4J) that allows you to diagnose performance problems in production Java applications with minimal performance overhead and without shutting down the applications.
- Provides improved SOA management capabilities that enable you to automate the provisioning of BPEL Processes using the deployment procedures. Also offers configuration management of BPEL Process Manager.
- Provides out-of-box plug-in support for Microsoft Exchange targets. Allows you to monitor performance, availability, usage statistics, and administration of Exchange Servers.
- Offers support for the following plug-ins:
 - VMware ESX Server: You can monitor configuration and performance data of VMware ESX Server 3.
 - Microsoft SQL Server: You can access core administration capabilities.
 - IBM DB2 Database: You can monitor IBM DB2 Release 9.
- Provides Oracle Configuration Manager (OCM) that is designed to gather and provide your configuration information and store it in Oracle repository for maintenance and other related tasks.

3 Preinstallation Tasks

This section describes the preinstallation tasks to be performed.

Warning: There is no mechanism provided for de-installing Patch Sets. If you are concerned about being able to de-install a Patch Set, Oracle recommends that you back up your software installation before applying the Patch Set. See [Section 6, "De-Installation of a Patch Set"](#) for more information.

3.1 Preinstallation Tasks in General

The following are the general preinstallation tasks.

Important: For information on upgrade prerequisites, refer to Document ID [-464674.1](#) on Oracle MetaLink at <http://metalink.oracle.com/>.

1. Oracle recommends that you back up the ORACLE_HOME that must be upgraded using this Patch Set. In the case of a Management Repository, Oracle recommends that you back up the repository database **because the Patch Set makes changes to the repository that cannot be rolled back**. Also, back up the Oracle Inventory directory.
2. The product prerequisites (required operating system patches, packages, and so on) of 10.2.0.4.0 are already met in the previous release (10.2.0.x). Refer to the *Quick Installation Guide* for more details.

http://download.oracle.com/docs/cd/B16240_01/doc/install.102/e10081/toc.htm#CHDBCAGE

3. Before patching your Oracle Management Service, ensure that the shared pool size is set as per your infrastructure. Minimum size for shared pool 512 MB. For information see Table B-2 in the Enterprise Manager Grid Control Installation and Basic Configuration Guide available at:

http://download.oracle.com/docs/cd/B14099_19/manage.1012/b16228/app_database_settings.htm

4. If your Enterprise Manager is shutdown for a long period of time, you must follow the below steps before conducting the upgrade:
 - a. Log into the Repository Database as SYSMAN
 - b. Run the following sql:

```
SQL> exec emd_maintenance.analyze_emd_schema('SYSMAN')
```
 - c. Start the Oracle management service
5. If you have a Grid Control environment that was installed using the "Enterprise Manager using New Database" option or "Enterprise Manager using an Existing Database" option with the 10.1.0.4 or 10.1.0.5 database, then before upgrading from 10.2.0.3 to 10.2.0.4, apply the patch for bug 4329444 on the Repository Database Home.

Note: Before upgrading the OMS to 10.2.0.4 from 10.2.0.3, you must first apply patch 4329444 to the 10.1.0.4 or 10.1.0.5 database that houses the repository. This patch is not required for a Windows 10.1.0.4 or 10.1.0.5 database that houses the repository.

Important: Oracle recommends that you back up your database before you perform the upgrade operation. Note that the patch 4329444 might conflict with some previous CPU releases (for example, April 2007 CPU) that might be applied to your repository database. In case of a conflict while applying patch 4329444, do not continue with the upgrade process. Contact Oracle Support to first resolve the patch conflict and then perform the following steps before performing the upgrade:

- a. Login into the Database as SYS user
- b. Check if there are any invalid SYSMAN objects

```
SQL> select object_name, object_type from all_objects  
where owner='SYSMAN' and status <> 'VALID';
```

The above query should return 0 rows. If there are rows, then run the below sql statement:

```
SQL> @admin_recompile_invalid.sql SYSMAN
```

The *admin_recompile_invalid.sql* script is available under *ORACLE_HOME/sysman/admin/emdrep/sql/core/latest/admin/* where *ORACLE_HOME* is the Oracle home directory of the OMS.

- c. Go to step b again to be sure all SYSMAN objects are valid. If you still have invalid SYSMAN objects that are not in the Recycle bin, please contact Oracle support.

- d. Check to be sure there is no invalid SYS object:

```
SQL> select object_name, object_type from all_objects
where status<>'VALID' and object_name like 'DBMS%';
```

- e. The above query should return 0 rows. If there are rows, then try to "recompile" them. For example:

```
if the object_type = "PACKAGE" and object_name = "foo"
alter package foo compile;
if the object_type = "PACKAGE BODY" and object_name =
"foo" alter package foo compile body;
```

- f. If any of the packages fail to become valid even after recompilation, then Contact Oracle Support to assist you. Once this verification is done, continue through with the rest of the pre-installation tasks.

- 6. If you have applied the patch 5478872 to your Enterprise Manager Grid Control environment, then you MUST drop the index MGMT_DELTA_SNAP_IDX3 before upgrading Grid Control to 10.2.0.4. If the index is not dropped, the upgrade process will fail.

To drop the index MGMT_DELTA_SNAP_IDX3, run the following command:

- a. Connect to SQL Plus session as EM repository owner (SYSMAN)

- b. Issue the command `SQL> drop index MGMT_DELTA_SNAP_IDX3`

Refer to MetaLink DocID 558673.1 for details. The fix for bug 5478872 is included in the patch set version 10.2.0.4 so you are not required to apply any additional patches to resolve this bug after upgrading to the 10.2.0.4 version of Grid Control.

- 7. If you have applied the patch 6606233 to your Enterprise Manager Grid Control environment, then you MUST roll back the patch before upgrading Grid Control to 10.2.0.4.

After rolling back the patch, upgrade Grid Control to 10.2.0.4 and then apply patch 6606233 that is specific to 10.2.0.4 Grid Control.

To roll back the patch, follow these steps:

- a. Shut down OMS using the following command, where \$ORACLE_HOME is the Oracle home directory of the OMS. In case of multi-OMS environment, shut down all OMSes. Leave the EM Repository database and its listener running.

```
$ORACLE_HOME/bin/emctl stop oms
```

In case of multi-OMS environment, if the .sql scripts were executed successfully from the first OMS, then run steps (g), (h) and (n). Skip other steps.

If the OMS and Repository are on the same machine, then set the TNS_ADMIN variable to <Repository Database Home>/network/admin, and then invoke SQLPLUS.

If the OMS and the Repository Database are on different machines, then create the *tnsnames.ora* file and set the TNS_ADMIN variable in the following location, where \$ORACLE_HOME is the Oracle home directory of the the OMS:

\$ORACLE_HOME/network/admin/

Create a tns alias in *tnsnames.ora* that points to the Repository database and connect to the Database repository. For example:

```
sqlplus sysman/<password>@<tns alias from $TNS_
ADMIN/tnsnames.ora>
```

- b. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT what, broken FROM dba_jobs WHERE log_user
= priv_user and priv_user = (SELECT owner FROM dba_
procedures WHERE object_name = 'MGMT_USER' AND
procedure_name = 'DROP_USER') ORDER BY job;
```

IMPORTANT: Store the results of this query so that you can compare it with the results of the query run in step (l).

- c. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT object_name FROM user_objects WHERE
status = 'INVALID' order by object_name;
```

IMPORTANT: Store the results of this query so that you can compare it with the results of the query run in step (m).

- d. Note the value of *job_queue_processes* in *init.ora* parameter<original count>:

```
SQL> show parameter job_queue_processes;
```

- e. Connect to sqlplus as the SYSMAN:

```
ALTER SYSTEM SET job_queue_processes = 0;
```

- f. Make sure the following query returns 0 rows. If the query returns non-zero records please wait and run again:

```
SELECT /*+ RULE */ * FROM DBA_JOBS_RUNNING ;
```

- g. Set your current directory to the \$ORACLE_HOME directory of the OMS where the patch is located:

```
% cd 6606233
```

- h. Ensure that the directory containing the opatch script appears in your \$PATH; then run the following command:

```
$ opatch rollback -id 6606233
```

- i. Connect to sqlplus as the sysman and run the following SQL files (Be sure that the SQL commands are executed in the order mentioned below):

```
SQL> @?/sysman/admin/emdrep/sql/core/latest/esm/esm_
pkgdefs.sql
```

```
SQL> @?/sysman/admin/emdrep/sql/core/latest/esm/esm_
pkgbodys.sql
```

- j. Recompile the SQL packages in sysman schema by running the following pl/sql procedure:

```
SQL>
@?/sysman/admin/emdrep/sql/core/latest/admin/admin_
recompile_invalid <repository owner>
```

Where *<repository owner>* is the repository owner username in Upper caps (for example, *SYSMAN* and not *sysman*).

k. SQL> ALTER SYSTEM SET job_queue_processes=<original count>;

l. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT what, broken FROM dba_jobs WHERE log_user = priv_user and priv_user = (SELECT owner FROM dba_procedures WHERE object_name = 'MGMT_USER' AND procedure_name = 'DROP_USER') ORDER BY job;
```

Be sure that the output from the above query is exactly the same as the output obtained in Step b. If not, please call Oracle Support immediately.

m. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT object_name FROM user_objects WHERE status = 'INVALID' order by object_name ;
```

Be sure that the output from the above query is exactly the same as the output obtained in Step c. If not, please call Oracle Support immediately.

n. Start the OMS using the following command. In case of a multi-OMS environment, start all the OMSes:

```
$ORACLE_HOME/bin/emctl start oms
```

The above steps are also mentioned in the README document of the Patch. For information on upgrade prerequisites, refer to Document ID- **464674.1** on Oracle MetaLink at <http://metalink.oracle.com/>.

8. Before proceeding with the upgrade, make sure that the dbms jobs are stopped. To do this, follow these steps:

a. Login into the SQL as SYSMAN

b. Run the following SQL command:

```
SQL> execute emd_maintenance.remove_em_dbms_jobs;
```

```
SQL>commit;
```

c. Stop the Repository Database

d. Start the Repository Database

9. If you are using the corrective actions feature, then you may run into a schema inconsistency that could cause an upgrade to fail (bug 5855008). If you are using corrective actions, then run the following PL/SQL block in the Enterprise Manager repository using sqlplus (connected as SYSMAN), **BEFORE** doing the upgrade, in order to clean up the inconsistent data.

```
BEGIN
  FOR r IN (SELECT job_id
            FROM mgmt_corrective_action a
            WHERE NOT EXISTS
              (SELECT 1
               FROM mgmt_job j
               WHERE j.job_id = a.job_id)
            ) LOOP
    UPDATE mgmt_policy_assoc_cfg c
      SET crit_action_job_id = NULL
      WHERE crit_action_job_id = r.job_id
```

```

;
UPDATE mgmt_policy_assoc_cfg c
  SET warn_action_job_id = NULL
WHERE warn_action_job_id = r.job_id
;
UPDATE mgmt_policy_assoc_cfg c
  SET info_action_job_id = NULL
WHERE info_action_job_id = r.job_id
;
DELETE
FROM mgmt_corrective_action
WHERE job_id = r.job_id
;
COMMIT;
END LOOP;
COMMIT;
END;
/

```

3.2 Preinstallation Tasks Specific to the Upgrade Type

The preinstallation tasks can be broadly categorized based on the following types of upgrades that you can perform:

- [Upgrading the First Oracle Management Service and Repository](#)
- [Upgrading Additional Oracle Management Services](#)
- [Upgrading Management Agents](#)

3.2.1 Upgrading the First Oracle Management Service and Repository

To upgrade multiple Oracle Management Services (OMS), shut down all the OMS's, apply the patch set to any one of the OMS's so that the associated Management Repository is also upgraded, then apply the patch to the rest of the Oracle Management Services.

Note: Database version 10.2.0.4 is **not** certified as Grid control Repository. This applies to all the 10.2.0.4 Repository Upgrade references in the Release Note.

The steps to be taken before upgrading the first OMS are:

- While applying the OMS patchset, leave the repository database and listener instance running.
- If you have a Grid Control environment that was installed using "Enterprise Manager using New Database" option or "Enterprise Manager using an Existing Database" option with 10.1.0.4 or 10.1.0.5 Database, then before upgrading to 10.2.0.4, apply the patch for bug 4329444 on the Repository Database Home.

Note: Before upgrading the OMS to 10.2.0.4 from 10.2.0.3, you must first apply patch 4329444 to the 10.1.0.4 or 10.1.0.5 database that houses the repository. This patch is not required for a Windows 10.1.0.4 or 10.1.0.5 database that houses the repository.

Important: Oracle recommends that you back up your database before you perform the upgrade operation. Note that the patch 4329444 might conflict with some previous CPU releases (for example, April 2007 CPU) that might be applied to your repository database. In case of a conflict while applying patch 4329444, do not continue with the upgrade process. Contact Oracle Support to first resolve the patch conflict and then perform the following steps before performing the upgrade:

a. Login into the Database as SYS user

b. Check if there are any invalid SYSMAN objects

```
SQL> select object_name, object_type from all_objects
where owner='SYSMAN' and status <> 'VALID';
```

The above query should return 0 rows. If there are rows, then run the below sql statement:

```
SQL> @admin_recompile_invalid.sql SYSMAN
```

The *admin_recompile_invalid.sql* script is available under *ORACLE_HOME/sysman/admin/emdrep/sql/core/latest/admin/* where *ORACLE_HOME* is the Oracle home directory of the OMS.

c. Go to step b again to be sure all SYSMAN objects are valid. If you still have invalid SYSMAN objects that are not in the Recycle bin, please contact Oracle support.

d. Check to be sure there is no invalid SYS object:

```
SQL> select object_name, object_type from all_objects
where status<>'VALID' and object_name like 'DBMS%';
```

e. The above query should return 0 rows. If there are rows, then try to "recompile" them. For example:

```
if the object_type = "PACKAGE" and object_name = "foo"
alter package foo compile;
if the object_type = "PACKAGE BODY" and object_name =
"foo" alter package foo compile body;
```

f. If any of the packages fail to become valid even after recompilation, then Contact Oracle Support to assist you. Once this verification is done, continue through with the rest of the pre-installation tasks.

- **Shut down all OMS instances attached to the repository from the respective ORACLE_HOMEs in their respective hosts. Also stop the Application Server components that run in each \$ORACLE_HOME of the OMS.**

Note: If you have multiple Oracle Management Services then you must stop all the OMS instances. When you upgrade the first OMS, the Patch Set also upgrades the repository, and since the other OMS instances connect to the same repository, they must also be stopped.

Stopping the Management Agents is not mandatory, and as a result, there may be an increase in the number of Agent-related log files. However, this is harmless and can be ignored.

To stop all the Grid Control components on a host, follow these steps:

1. Stop the OMS.

```
$PROMPT> $ORACLE_HOME/bin/emctl stop oms
```

2. Stop the Application Server Control Console, which is used to manage the Oracle Application Server instance used to deploy the Management Service.

```
$PROMPT> $ORACLE_HOME/bin/emctl stop iasconsole
```

3. Stop all the application server components, such as Oracle HTTP Server, OracleAS Web Cache.

```
$PROMPT> $ORACLE_HOME/opmn/bin/opmnctl stopall
```

4. Wait for four to five minutes to ensure that all the OPMN processes are stopped and TCP ports are released.

5. Change the directory to the Oracle home directory for the Management Agent and stop the Management Agent.

```
$PROMPT> $ORACLE_HOME/bin/emctl stop agent
```

6. Set the Oracle_Home to your Oracle home directory of the Oracle Management Services before applying the patch set. Apply the 10.2.0.4.0 Patch Set either interactively by executing *setup.exe* or silently by using the response file.

- Apply the 10.2.0.4.0 Patch Set either interactively by executing *setup.exe* or silently by using the response file.

Note: If your Repository Upgrade Configuration Assistant fails during the configuration step then you might be experiencing bug 6901072. Refer to [Section 7.1.1, "Installation and Upgrade Issues In General"](#). For more information about bug 6901072, refer to the document ID -559658.1 on Oracle MetaLink at <http://metalink.oracle.com>.

3.2.2 Upgrading Additional Oracle Management Services

After you have upgraded the first OMS and the Grid Control repository (Sysman schema) to version 10.2.0.4.0, the first OMS starts up automatically and you must then patch the unpatched OMS's to version 10.2.0.4.0.

Note: Do not start an OMS that has not been patched to version 10.2.0.4.

For example, assume there are four versions of 10.2.0.3 Oracle Management Services labeled OMS *A*, *B*, *C*, and *D*. In the previous section, all four OMS's are down and you decide to patch OMS *B* first. After you patch OMS *B* to version 10.2.0.4.0, the Enterprise Manager Repository is also patched and OMS *B* is now up and running. However OMS *A*, *C*, and *D* remain down.

You can then patch OMS *A*, *C*, and *D* in parallel or in serial to version 10.2.0.4.0 but you must not bring up the unpatched version of those OMS's at any time prior to patching them to version 10.2.0.4.0.

3.2.3 Upgrading Management Agents

While manually applying the Patch Set using Oracle Universal Installer (OUI), the only pre-installation step to be performed is to shut down the Management Agent. Note that OUI validates for running Management Agent processes. If any Management Agent process is running, then the installer prompts to shut down the Management Agent, and then proceeds with the copying of files and subsequent relinking operation.

While applying the Patch Set using the Grid Control Patch Wizard, the Management Agent to be patched should be up and running.

Note: The OMS installation not only installs an OMS but also automatically installs a Management Agent. However, when you upgrade that OMS to 10.2.0.4.0 using the Patch Set, the Patch Set does not upgrade any of the associated Management Agents. To upgrade the Management Agents, you have to manually apply the Patch Set on each of the Management Agent homes, as they are separate Oracle Homes.

4 Installation Procedure

This section describes the installation procedure.

4.1 Extracting the Software

For upgrading to 10.2.0.4.0, you have to manually download and extract the 10.2.0.4.0 Patch Set.

Note: Mass Agent patching is an exception. For Mass Agent patching, refer to [Section 4.3.3, "Upgrading Management Agent - Multiple Hosts at a Time"](#).

To download and extract the Patch Set:

1. Download the p3731593_102040_<platform name>.zip patch set installation archive to any directory that may or may not be an Oracle Home directory.
2. Enter the following command to unzip and extract the installation files:

```
$ unzip p3731593_102040_<platform name>.zip
```

This extracts the files to the "3731593" directory.

Important: The same Patch Set can be used for patching Oracle Management Service, Repository, and Management Agent. The procedures are described in the following sections.

4.2 Upgrading Oracle Management Service

Ensure that ORACLE_HOME is set to the Oracle Home of the OMS that is intended to be upgraded. Navigate to the 3731593/Disk1 subdirectory and run the *setup.exe*.

IMPORTANT:

In the case of a Grid Control environment being installed via the "Enterprise Manager using New Database" option or the "Enterprise Manager using an existing Database" option with version 10.1.0.4 or 10.1.0.5 database, then before upgrading to 10.2.0.4, apply the patch for bug 4329444 on the Repository Database Home.

Patch 4329444 must be applied on all 10.1.0.4 or 10.1.0.5 repository databases but not for Windows 10.1.0.4 or 10.1.0.5 repository databases.

Oracle recommends that you back up your database before you perform the upgrade operation. Note that the patch 4329444 might conflict with some previous CPU releases (for example, April 2007 CPU) that might be applied to your repository database. In case of a conflict while applying patch 4329444, do not continue with the upgrade process. Contact Oracle Support to first resolve the patch conflict and then perform the following steps before performing the upgrade:

1. Login into the Database as SYS user

2. Check if there are any invalid SYSMAN objects

```
SQL> select object_name, object_type from all_objects
where owner='SYSMAN' and status <> 'VALID';
```

The above query should return 0 rows. If there are rows, then run the below sql statement:

```
SQL> @admin_recompile_invalid.sql SYSMAN
```

The *admin_recompile_invalid.sql* script is available under *ORACLE_HOME/sysman/admin/emdrep/sql/core/latest/admin/* where *ORACLE_HOME* is the Oracle home directory of the OMS.

3. Go to step 2 again to be sure all SYSMAN objects are valid. If you still have invalid SYSMAN objects that are not in the Recycle bin, please contact Oracle support.

4. Check to be sure there is no invalid SYS object:

```
SQL> select object_name, object_type from all_objects
where status<>'VALID' and object_name like 'DBMS%';
```

5. The above query should return 0 rows. If there are rows, then try to "recompile" them. For example:

```
if the object_type = "PACKAGE" and object_name = "foo"
alter package foo compile;
if the object_type = "PACKAGE BODY" and object_name =
"foo" alter package foo compile body;
```

6. If any of the packages fail to become valid even after recompilation, then Contact Oracle Support to assist you. Once this verification is done, continue through with the rest of the pre-installation tasks.

If *ORACLE_HOME* is set in the environment or passed as a command line argument, then OUI automatically picks it up and goes through the following three phases.

4.2.1 Interview Phase

In this phase, OUI picks up the repository connection details from the configuration files and then prompts for the SYS password of the repository database.

It validates if there are any existing connections from Oracle management service to the repository. It does not check for operating system processes but looks for specific entries in the Enterprise Manager repository. Wait for few minutes for the session entries to get cleared after you shut down all the OMSs.

It also checks for background DBMS jobs that are running. If any jobs are running, then follow the steps below:

1. Run the following SQL procedure as SYSMAN to remove the scheduled EM dbms jobs:

```
SQL> execute emd_maintenance.remove_em_dbms_jobs;
SQL> commit;
```

2. Run the following SQL statement as DBA user until no rows are returned, which indicates that all outstanding running dbms jobs are completed:

```
SQL> Select count(*) FROM dba_jobs_running run_job,
gv$session sess
WHERE sess.sid = run_job.sid
AND sess.schemaname = 'SYSMAN';
```

Oracle Configuration Manager Installation

In this step, the installer collects information to install Oracle Configuration Manager (OCM) into the existing ORACLE_HOME location. OCM will be configured only if the license agreement is accepted.

Provide the Customer Service Identification (CSI), Oracle*MetaLink* Account User Name and the Country of license origin when configuring OCM on the OCM Configuration Page. If you want to configure the proxy settings, then click **Connection Settings** on the Configuration Page and provide the proxy settings.

Note: OCM is installed even when you decline the license agreement, but is not configured. The necessary directories are created and files are instantiated. You need to invoke `setupCCR ($ORACLE_HOME/ccr/bin/setupCCR)` at a later point of time to configure it. When `setupCCR` is invoked interactively, it prompts for the required parameter values. You can also accept the license agreement, but choose not to enable the Oracle Configuration Manager. You can disable Oracle Configuration Manager even after accepting the license agreement by unchecking or deselecting the "Enable Oracle Configuration Manager" option.

If you install the Management Agent using "Agent Download", then you will have to manually configure OCM. To configure OCM, perform the following steps:

1. Determine your CSI, Oracle*MetaLink* identifier, and the country where you purchased your service contract.
2. Execute one of the following commands according to your choice:

If you want to configure using proxy server:

```
$ORACLE_HOME/ccr/bin/setupCCR -p <proxy server>
```

If you want to configure without using proxy server:

```
$ORACLE_HOME/ccr/bin/setupCCR
```

For more information about using setupCCR, use the setupCCR -help command.

3. The license agreement for Oracle Configuration Manager is displayed. To accept the license agreement, enter "Y".
4. When setup prompts for the CSI, Oracle*MetaLink* identifier, and country code, provide these details.
5. Setup then installs and configures OCM.
6. When setup is complete, OCM gathers configuration information for ORACLE_HOME, and uploads this information to Oracle for use while supporting your site.
7. If you want to check the status of OCM, run the following command:

```
$ORACLE_HOME/ccr/bin/emCCR status
```

4.2.2 Copy and Relink Phase

In this phase, the installer copies all necessary files and does relink operations.

4.2.3 Configuration Phase

In this phase, the installer does the following:

- **Updates the Repository:** This assistant upgrades the repository to 10.2.0.4 release. If the repository has already been upgraded to 10.2.0.4.0 release and this is an additional OMS being patched, then the configuration phase does not upgrade the repository.

Note: If the Repository Upgrade Assistant fails during the 10.2.0.4.0 OMS patchset install, then do not click *Retry*.

Check the error messages in the latest log file that is available in the following location, where \$ORACLE_HOME is the Oracle home directory of the OMS:

<\$ORACLE_HOME>/cfgtoollogs/cfgfw/CfmLogger_<LATEST_TIME_STAMP>.log.

1. If the following error message is present in the log, then the repository upgrade is going on from another OMS patchset install:

STATUS - 2: Repository Upgrade is already running from another OMS install. Wait until upgrade finishes.

Run the below SQL query to find the Repository Upgrade status.

```
select status from sysman.mgmt_versions where  
component_name='_UPGRADE_'
```

Wait until the status shows '4' which indicates that the upgrade is complete without any errors. Then click *Retry* to continue with Install.

2. If the following error message is present in the log, then the repository upgrade has failed:

SEVERE: oracle.sysman.top.oms:Repository Upgrade is failed with errors.Rectify the errors and retry the install.

For additional details on configuration issues, you may refer to these log files available in the following location, where \$ORACLE_HOME is the Oracle home directory of the OMS:

<\$ORACLE_HOME>/cfgtoollogs/cfgfw

For additional details on repository failures, you may refer to the log files available in the following location, where \$ORACLE_HOME is the Oracle home directory of the OMS:

<\$ORACLE_HOME>/sysman/log/emrepmgr.log.10.2.0.4.0

<\$ORACLE_HOME>/sysman/log/emrepmgr.log.10.2.0.4.0.errors

If you cannot identify the repository issues, contact Oracle Support and provide the above log files. If the errors from the schema upgrade were analyzed and rectified, then the following can be executed to allow the installer to continue upon *Retry*:

1. Log in to the database as SYSMAN
2. Execute `emd_maintenance.set_comp_status('_UPGRADE_', EMD_MAINTENANCE.G_STATUS_CONFIGURED_READY);`
3. Exit SQLplus
4. Click *Retry* on the installer. Alternately, you can run the *runConfig* command to run the failed config tools manually.

Go to the <ORACLE_HOME>/oui/bin directory and run the command below:

```
runConfig.bat ORACLE_HOME=<OMS_ORACLE_HOME>  
ACTION=patchsetConfigure MODE=perform  
COMPONENT_XML={oracle.sysman.top.oms.10_2_0_4_0.xml} RERUN=true
```

- **Redeploys the Enterprise Manager Application:** In this step, the OC4J application is redeployed.
- **Deploys the Provisioning Application:** In this step, various provisioning application steps are configured, which you can use to deploy an application. Here, the Provision Archive files are also updated to the Enterprise Manager Repository. A Provisioning Archive file typically consists of new procedures, new directives, and new components that are used by the application.

If the software library is not set up, then a message is displayed stating that the provisioning configuration did not succeed. The tool has to be run manually after upgrade and after setting up the software library. Software library can be created using any mounted file system that is readable and writeable from the all OMS instances.

To correct this, perform the following steps:

1. Login to Enterprise Manager Grid Control as SYSMAN.
2. Navigate to **Deployments**, then **Provisioning** and then to **Administration**.
3. Navigate to the **Software Library Configuration** section and click **Add**.
4. Provide a valid directory path where you want to store the raw data for the component(s).
5. Log in to the machine that hosts the OMS and do the following:
 - Set the ORACLE_HOME environment variable to the Oracle home directory of the OMS
 - Run the following command:

```
<ORACLE_HOME>/bin/PARDeploy -action deploy -parDir
<ORACLE_HOME>/sysman/prov/paf -force
```

- **Starting Oracle Management Service:** In this step, the OMS is started.
- **Configures Oracle Configuration Manager:** This step configures the OCM, if you have accepted the license agreement. The necessary directories are created and files are instantiated. If there are problems during configuration, then the configuration is not performed. To configure it later, you can invoke setupCCR (\$ORACLE_HOME/ccr/bin/setupCCR) at a later point of time.

4.3 Upgrading Management Agent

The Management Agent can be upgraded in two ways - either one host at a time or many hosts at a time.

Important: Oracle recommends you upgrade your Management Agent to version 10.2.0.4. The Patch Set contains some new components for the proper functioning of the new features.

4.3.1 Interview Phase

Oracle Configuration Manager Installation

In this step, the installer collects information to install Oracle Configuration Manager (OCM) into the existing ORACLE_HOME location. OCM will be configured only if the license agreement is accepted.

Provide the Customer Service Identification (CSI), Oracle*MetaLink* Account User Name and the Country of license origin when configuring OCM on the OCM Configuration Page. If you want to configure the proxy settings, then click **Connection Settings** on the Configuration Page and provide the proxy settings.

Note: OCM is installed even when you decline the license agreement, but is not configured. The necessary directories are created and files are instantiated. You need to invoke `setupCCR` (`$ORACLE_HOME/ccr/bin/setupCCR`) at a later point of time to configure it. When `setupCCR` is invoked interactively, it prompts for the required parameter values. You can also accept the license agreement, but choose not to enable the Oracle Configuration Manager. You can disable Oracle Configuration Manager even after accepting the license agreement by unchecking or deselecting the "Enable Oracle Configuration Manager" option.

If you install the Management Agent using "Agent Download", then you will have to manually configure OCM. To configure OCM, perform the following steps:

1. Determine your CSI, Oracle*MetaLink* identifier, and the country where you purchased your service contract.

2. Execute one of the following commands according to your choice:

If you want to configure using proxy server:

```
$ORACLE_HOME/ccr/bin/setupCCR -p <proxy server>
```

If you want to configure without using proxy server:

```
$ORACLE_HOME/ccr/bin/setupCCR
```

For more information about using `setupCCR`, use the `setupCCR -help` command.

3. The license agreement for Oracle Configuration Manager is displayed. To accept the license agreement, enter "Y".
4. When setup prompts for the CSI, Oracle*MetaLink* identifier, and country code, provide these details.
5. Setup then installs and configures OCM.
6. When setup is complete, OCM gathers configuration information for `ORACLE_HOME`, and uploads this information to Oracle for use while supporting your site.
7. If you want to check the status of OCM, run the following command:

```
$ORACLE_HOME/ccr/bin/emCCR status
```

4.3.2 Upgrading Management Agent - One Host at a Time

To upgrade Management Agents one host at a time using OUI, follow these steps:

1. Login to the specific host where the Management Agent is running.
2. Stop the Management Agent.

3. Ensure that ORACLE_HOME is set to the Oracle home directory of the Management Agent that need to be patched.
4. Extract the software as per the section 4.1 and then run the setup.exe executable from the 3731593/Disk1 subdirectory.

If the ORACLE_HOME is set in the environment or passed as a command line argument, then OUI automatically picks it up.

Patch set installer validates whether the Management Agent is up and running from its ORACLE_HOME. If it is running, then the installer prompts the Management Agent to shut down, and then proceeds with the copying of files and subsequent relinking operation.

After the installation is complete, the Patch Set automatically restarts the Management Agent.

4.3.3 Upgrading Management Agent - Multiple Hosts at a Time

To upgrade Management Agents multiple hosts at a time, use either of the following two methods:

- Method 1 - By Distributing the Full Patch Set to a Number of Hosts
- Method 2 - By Staging the Patch Set and Distributing Scripts to a Number of Hosts

You can choose one of the methods for mass patching of Management Agents. Method 1 is based on a "push" technique in which the entire set of patch binaries is transferred to all the hosts. Method 2 is based on a "pull" technique in which only a script is transferred to the targets and the patch is then installed over HTTP. Since it does not require to transfer the entire set of patch binaries in Method 2, it is the recommended method for large number of targets, whereas Method 1 is more suitable for a limited number of targets. Note that for Method 2, the wget utility must be installed on the target machines and present in the PATH environment variable.

- **Method 1 - By Distributing the Full Patch Set to a Number of Hosts**
 1. Log in to Enterprise Manager Grid Control using SYSMAN credentials. Go to the Targets--> Hosts tab to ensure that the required host targets are up and running.
 2. Click **Setup** from the top-right corner of the Grid Control console. Then select **Patching Setup** from the panel to the left. Provide the OracleMetalink credentials and click **Apply**.
 3. Navigate to the **Jobs** tab. Create a job of the type "RefreshFromMetalink", and run it.
 4. If you have already upgraded the OMS to version 10.2.0.4, click the **Deployments** tab, then click the **Patch Agent** link. For OMS version 10.2.0.3, click **Deployments**, then **Patch Oracle Software**. Provide the patch number 3822442 and select the correct platform and 10.2.0.4.0 release.
 5. You can then select a number of targets to apply the patch. After selecting the target, select "Use default patching script" or "Provide custom script" option to allow OCM to be installed in the target Agent's home.

6. If the target is a Microsoft Windows machine, then in the pre-script option specify the following:

```
%emd_root%\EMStagedPatches\3822442\3822442\ecm_3822442.bat
```

7. If the target is on Solaris, Aix 5L, or HP-UX PA-RISC, then you must select *Custom Post Command/Script*, select *Use sudo*, and provide Custom Post Command/Script value as `%emdroot%/root.sh`. If Sudo is not installed on the target box then this step will not work. In this case `root.sh` will not run and you must manually run the `root.sh` on the target from the Oracle home directory of the Management Agent.

This method copies the patch to the Oracle home directory of the Management Agent of the selected targets and runs a script to apply the patch. The script creates blackouts, shuts down the Management Agent before applying the Patch Set, applies the Patch Set, clears the blackouts after applying the Patch Set, and then restarts the Management Agent. It is advisable to choose a reasonable number of nodes so that the network is not overloaded.

■ Method 2 - By Staging the Patch Set and Distributing Scripts to a Number of Nodes

Note: For Microsoft Windows target machines, patching through this method requires `wget.exe` to be in the PATH environment variable. If `wget.exe` is not in the PATH of the target machine, then add it to the PATH and rebound the Management Agent by executing the following:

```
<ORACLE_HOME>/bin/emctl stop agent  
<ORACLE_HOME>/bin/emctl start agent
```

Perform the following steps on the OMS host:

1. Navigate to the following location, where `$ORACLE_HOME` is the Oracle home directory of the OMS:

```
cd <$ORACLE_HOME>/sysman/agent_download/
```
2. Create a directory:

```
mkdir -p patchset/10.2.0.4.0/<platform name>
```
3. You can then stage the Patch Set by either copying from a DVD or by extracting the contents of the Metalink patch 3731593.
4. Copy the `p3731593_102040_<platform name>.zip` from the DVD or Metalink patch to an empty, temporary directory.
5. Extract the contents of the ZIP file to the same temporary directory created above.
6. Now navigate to the `3731593/Disk1` directory and copy its contents to the newly created directory in step (2):

To navigate:

```
cd 3731593/Disk1
```

To copy the contents to the newly created directory in step (2):

```
cp -r * <ORACLE_HOME>/sysman/agent_  
download/patchset/10.2.0.4.0/<platform name>
```

Here, ORACLE_HOME is the Oracle home directory of the OMS and "platform name" is one of the following:

Table 1 *Descriptions of Platform Names*

Platform Name	Description
linux	Linux
linux_64	Linux X86_64
ppc64	Linux on power PC
linux390	z/Linux
ia64linux	IA64 Linux
solaris	Solaris 64 bit
solarisx86	Solaris-x86
hpux	HP-UX
decunix	HP Tru64 UNIX
hpunix	HP 64 bit
hpi	HP-UX-Itanium
aix	AIX5L
macosx	MACOSX
vms	VMS
windows_ia64	Microsoft Windows (64-bit IA)
windows_x64	Microsoft Windows (64-bit AMD64)
win32	Microsoft Windows 32 bit

The above-mentioned operation stages the contents of the Patch Set in the OMS host.

Note: For an environment with multiple OMS servers, repeat steps 1 through 6 for each OMS server.

7. After this happens, follow these steps:
 - (a) Login to Enterprise Manager Grid Control using SYSMAN credentials. Click **Targets** and check to see that the host is running.
 - (b) Click **Setup** from the top right corner of the Grid Control console. Select **Patching Setup** from the panel to the left. Provide the OracleMetalink credentials and click **Apply**.
 - (c) Navigate to the Jobs tab. Create a job of the type **RefreshFromMetalink** and run it.

(d) If you have already upgraded the OMS to version 10.2.0.4, click the **Deployments** tab, then click the **Patch Agent** link. For versions of the OMS 10.2.0.3 or earlier, click **Deployments**, then **Patch Oracle Software**. Provide the patch number 3731596 and select the correct platform and 10.2.0.4.0 release.

(e) You can then select a number of targets to apply the patch. After selecting the target, select **Use default patch script** or **Provide custom script** option to allow OCM to be installed in the target Agent's home.

(f) If the target is a Microsoft Windows machine, then in the pre-script option specify the following:

```
%emd_root%\EMStagedPatches\3731596\3731596\ecm_3731596.bat
```

(g) If the target is on Solaris, AIX 5L, or HP-UX PA-RISC, then you must select *Custom Post Command/Script*, select *Use sudo*, and provide Custom Post Command/Script value as `%emdroot%/root.sh`. If Sudo is not installed on the target box then this step will not work. In this case `root.sh` will not run and you must manually run the `root.sh` on the target from the Oracle Home directory of the Management Agent.

This method copies the script to the selected number of hosts and runs a script to apply the Patch Set from the above staged location. It is advisable to choose a reasonable number of nodes so that the network is not overloaded.

4.3.4 Upgrading Management Agent Clusters

You can patch the Management Agent on selected nodes of a cluster. To do this, you can use either of the following two methods:

- Method 1 - By Distributing the Full Patch Set to a Number of Hosts
- Method 2 - By Staging the Patch Set and Distributing Scripts to a Number of Hosts

You can choose one of the methods for mass patching of Management Agents. Method 1 is based on a "push" technique in which the entire set of patch binaries is transferred to all the hosts. Method 2 is based on a "pull" technique in which only a script is transferred to the targets and the patch is then installed over HTTP. Since it does not require to transfer the entire set of patch binaries in Method 2, it is the recommended method for large number of targets whereas Method 1 is more suitable for a limited number of targets. Note that for Method 2, the `wget` utility must be installed on the target machines and present in the `PATH` environment variable.

- **Method 1 - By Distributing the Full Patch Set to a Number of Hosts:**

1. Login to Enterprise Manager Grid Control using `SYSMAN` credentials. Click **Targets** and check to see that the host is running.
2. Click **Setup** from the top right corner of the Grid Control console. Select **Patching Setup** from the panel to the left. Provide the OracleMetalink credentials and click **Apply**.
3. Navigate to the Jobs tab. Create a job of the type **RefreshFromMetalink** and run it.
4. If you have already upgraded the OMS to version 10.2.0.4, click the **Deployments** tab, then click the **Patch Agent** link. For OMS version

10.2.0.3, click **Deployments**, then **Patch Oracle Software**. Provide the patch number 3822442 and select the correct platform and 10.2.0.4.0 release..

5. You can then select all the cluster nodes to apply the patch. After selecting the target, select the **Provide custom script** option to allow OCM to be installed in the target Agent's home.
6. If the target is a Microsoft Windows machine, then in the pre-script option specify the following:

```
%emd_root%\EMStagedPatches\3822442\3822442\ecm_3822442.bat
```
7. If the target is on Solaris, Aix 5L, or HP-UX PA-RISC, then you must select *Custom Post Command/Script*, select *Use sudo*, and provide Custom Post Command/Script value as `%emdroot%/root.sh`. If Sudo is not installed on the target box then this step will not work. In this case `root.sh` will not run and you must manually run the `root.sh` on the target from the Oracle home directory of the Management Agent.

This method copies the patch to the selected cluster nodes and runs a script to apply the patch. The script creates blackouts, shutdowns the Management Agent before applying the Patch Set, clears the blackouts after applying the Patch Set, and then starts up the Management Agent. If the cluster is a very large one, then it is advisable to choose a reasonable number of nodes so that the network is not overloaded.

■ **Method 2 - By Staging the Patch Set and Distributing Scripts to a Number of Hosts:**

Note: For Microsoft Windows target machines, patching through this method requires `wget.exe` to be in the `PATH` environment variable. If `wget.exe` is not in the `PATH` of the target machine, then add it to the `PATH` and rebound the Management Agent by executing the following:

```
<ORACLE_HOME>/bin/emctl stop agent  
<ORACLE_HOME>/bin/emctl start agent
```

Perform the following steps on the OMS host:

1. Navigate to the following location, where `<ORACLE_HOME>` is the Oracle home directory of the OMS:

```
cd <ORACLE_HOME>/sysman/agent_download/
```
2. Create a directory:

```
mkdir -p patchset/10.2.0.4.0/<platform name>
```
3. You can then stage the Patch Set by either copying from the DVD or extracting the contents of the Metalink patch 3731593.
4. Copy the `p3731593_102040_<platform name>.zip` from the DVD or Metalink patch to an empty, temporary directory.
5. Extract the contents of the ZIP file to the same temporary directory created above.

6. Now navigate to the 3731593/Disk1 directory and copy its contents to the newly created directory in step (2):

To navigate:

```
cd 3731593/Disk1
```

To copy the contents to the newly created directory in step (2):

```
cp -r * <ORACLE_HOME>/sysman/agent_
download/patchset/10.2.0.4.0/<platform name>
```

Here, ORACLE_HOME is the Oracle home directory of the OMS and "platform name" is one of the following:

Table 2 *Descriptions of Platform Names*

Platform Name	Description
linux	Linux
x86_64	Linux X86_64
ppc64	Linux on power PC
linux390	z/Linux
ia64linux	IA64 Linux
solaris	Solaris 64 bit
solarisx86	Solaris-x86
hpux	HP-UX
decunix	HP Tru64 UNIX
hpunix	HP 64 bit
hpi	HP-UX-Itanium
aix	AIX5L
macosx	MACOSX
vms	VMS
windows_ia64	Microsoft Windows (64-bit IA)
windows_x64	Microsoft Windows (64-bit AMD64)
win32	Microsoft Windows 32 bit

The above operation stages the contents of the Patch Set in the OMS host.

Note: For an environment with multiple OMS servers, repeat steps 1 through 6 for each OMS server.

7. After this happens, follow these steps:
 - (a) Login to Enterprise Manager Grid Control using SYSMAN credentials. Click **Targets** and check to see that the host is running.
 - (b) Click **Setup** from the top right corner of the Grid Control console. Select **Patching Setup** from the panel to the left. Provide the OracleMetalink credentials and click **Apply**.

(c) Navigate to the Jobs tab. Create a job of the type **RefreshFromMetalink** and execute it.

(d) If you have already upgraded the OMS to version 10.2.0.4, click the **Deployments** tab, then click the **Patch Agent** link. For versions of the OMS 10.2.0.3 or earlier, click **Deployments**, then **Patch Oracle Software**. Provide the patch number 3731596 and select the correct platform and 10.2.0.4.0 release.

(e) You can then select all the cluster nodes to apply the patch. After selecting the target, select the **Provide custom script** option to allow OCM to be installed in the target Agent's home.

(f) If the target is a Microsoft Windows machine, then in the pre-script option specify the following:

```
%emd_root%\EMStagedPatches\3731596\3731596\ecm_3731596.bat
```

(g) If the target is on Solaris, AIX 5L, or HP-UX PA-RISC, then you must select *Custom Post Command/Script*, select *Use sudo*, and provide Custom Post Command/Script value as %emdroot%/root.sh. If Sudo is not installed on the target box, then you must manually run the root.sh on the target from the Oracle home directory of the Management Agent.

This method copies the patch to the selected cluster nodes and runs a script to apply the Patch Set from the above staged location. It is advisable to choose a reasonable number of nodes so that the network is not overloaded.

5 Post Installation Tasks

This section describes the post installation tasks to be performed.

5.1 Post Installation Tasks in General

If you had upgraded multiple Oracle Management Services (OMS) by applying the patch set to one of the OMS's first, and then subsequently upgraded the remaining OMS's, then after the upgrade is complete the OMS restarts automatically. If the Agents are shutdown prior to the OMS upgrade then they must be restarted manually.

For information about upgrading the first OMS and repository, refer to [Section 3.2.1, "Upgrading the First Oracle Management Service and Repository"](#).

5.1.1 Installing Cloning Support Files After Patching a 10.2.x.x Release

As part of the upgrade of a Grid Control installation from 10.2.0.3 or higher, you must download and install Clone Support Files from MetaLink and install the files onto each OMS as part of a post-patch configuration task to enable clone support for Oracle Tech stack components.

This step can often be overlooked and will result in issues for the cloning and provisioning subsystems.

(Bug 5975464)

Important: If you have stopped your dbms jobs before applying the patchset then after applying the patchset you need to manually start your dbms jobs. To do this, follow these steps:

1. Login into the SQL as SYSMAN
 2. Run the following SQL command:

```
SQL> exec emd_maintenance.submit_em_dbms_jobs;
```
-
-

6 De-Installation of a Patch Set

There is no mechanism provided for de-installing Patch Sets. If you are concerned about being able to revert to the environment that was existing before applying the Patch Set, then Oracle recommends that you back up your software installation before applying the Patch Set.

After applying the Patch Set, at any point if you want to revert to your old environment, then restore the backed-up software installation following these steps (in the order designated):

1. Restore the ORACLE_HOME directory that was backed up
2. Restore the repository database that was backed up
3. Restore the Oracle Inventory that was backed up

Contact Oracle Support Services if you encounter any problem.

7 Known Issues

This section lists the known issues pertaining to this release.

7.1 Installation and Upgrade Issues

This section addresses installation and upgrade issues.

7.1.1 Installation and Upgrade Issues In General

This section covers all installation and upgrade issues in general.

Important: For more information about upgrading the Grid Control environment, refer to the Document ID- **464674.1** on Oracle MetaLink at <http://metalink.oracle.com/>.

7.1.1.1 Repository Upgrade Failure

When you apply the 10.2.0.4 Patch Set to upgrade your repository, the upgrade may fail.

In case of the Grid Control environment being installed via the "Enterprise Manager using New Database" option or "Enterprise Manager using an existing Database" option with a 10.1.0.4 or 10.1.0.5 database, then before upgrading to 10.2.0.4, apply the patch for bug 4329444 on the repository Database Home to avoid repository upgrade failure.

Note: Patch 4329444 must be applied on the 10.1.0.4 or 10.1.0.5 repository databases that houses the repository. This patch is not required for Windows 10.1.0.4 or 10.1.0.5 databases that house the repository.

Important: Oracle recommends that you back up your database before you perform the upgrade operation. Note that the patch 4329444 might conflict with some previous CPU releases (for example, April 2007 CPU) that might be applied to your repository database. In case of a conflict while applying patch 4329444, do not continue with the upgrade process. Contact Oracle Support to first resolve the patch conflict and then perform the following steps before performing the upgrade:

1. Login into the Database as SYS user

2. Check if there are any invalid SYSMAN objects

```
SQL> select object_name, object_type from all_objects
where owner='SYSMAN' and status <> 'VALID';
```

The above query should return 0 rows. If there are rows, then run the below sql statement:

```
SQL> @admin_recompile_invalid.sql SYSMAN
```

The *admin_recompile_invalid.sql* script is available under *ORACLE_HOME/sysman/admin/emdrep/sql/core/latest/admin/* where *ORACLE_HOME* is the Oracle home directory of the OMS.

3. Go to step 2 again to be sure all SYSMAN objects are valid. If you still have invalid SYSMAN objects that are not in the Recycle bin, please contact Oracle support.

4. Check to be sure there is no invalid SYS object:

```
SQL> select object_name, object_type from all_objects
where status<>'VALID' and object_name like 'DBMS%';
```

5. The above query should return 0 rows. If there are rows, then try to "recompile" them. For example:

```
if the object_type = "PACKAGE" and object_name = "foo"
alter package foo compile;
if the object_type = "PACKAGE BODY" and object_name =
"foo" alter package foo compile body;
```

6. If any of the packages fail to become valid even after recompilation, then Contact Oracle Support to assist you. Once this verification is done and to resume the upgrade process, go to <ORACLE_HOME>/oui/bin, where ORACLE_HOME is the Oracle home directory of the OMS and then run the following command:

```
./runConfig.sh ORACLE_HOME=<OMS_ORACLE_HOME>
ACTION=patchsetConfigure MODE=perform COMPONENT_
XML={oracle.sysman.top.oms.10_2_0_4_0.xml}
```

(Bug 5648438, 5665837)

7.1.1.2 Grid Control Repository Upgrade Fails With ORA-20206: Target Does Not Exist: Host

While upgrading the OMS to 10.2.0.4, the repository upgrade might fail and the installer will display the following message:

```
OUI-25031: Some of the configuration assistants failed.
It is recommended that you retry the configuration assistants as this time.
Not successfully running any "Recommended" assistants means your system will
not be correctly configured.
1. Check the Details panel on the Configuration Assistant Screen to see the
errors resulting in the failures.
2. Fix the errors causing these failures.
3. Select the failed assistants and click the 'Retry' button to retry them.
```

When you see this message, go to the Oracle home directory of the OMS, that is, `$ORACLE_HOME/sysman/log`, and check the contents of `emrepmgr.log.10.2.0.4.0.errors` file created with the following:

```
ORA-20206: Target does not exist: :host
ORA-06512: at "SYSMAN.MGMT_TARGET", line 571
ORA-06512: at "SYSMAN.EM_RAC_LICENSE", line 273
ORA-06512: at "SYSMAN.EM_LICENSE", line 221
ORA-06512: at line 27
```

Ensure that the above-mentioned error is the only error in the `emrepmgr.log.10.2.0.4.0.errors` file. Also confirm that the following error is captured in the `$ORACLE_HOME/sysman/log/emrepmgr.log.10.2.0.4.0` file:

```
@ 85  END;--exception was added since we are granting
@ license
@ 86      --by invoking 'insert into table' directly and
@ not through grant_license api;
@ 87      --wherein otherwise this exception would be
@ handled in grant_license()
@ 88          END IF;
@ 89      END LOOP;-- end c1
@ 90  END LOOP;
@ 91  END IF;
@ 92  COMMIT;
@ 93 END;
@ 94  /
@ DECLARE
@ *
@ ERROR at line 1:
@ ORA-20206: Target does not exist: :host
@ ORA-06512: at "SYSMAN.MGMT_TARGET", line 571
@ ORA-06512: at "SYSMAN.EM_RAC_LICENSE", line 273
@ ORA-06512: at "SYSMAN.EM_LICENSE", line 221
@ ORA-06512: at line 27
@ .
```

This above error is harmless and it means that the "auto licensing" of these new packs introduced in 10.2.0.4GC (they are Identity Management Pack, Data Masking Pack and Oracle BI Management Pack) may not have worked for certain targets.

After you confirm the error messages, follow the steps:

1. Log in to the database as SYSMAN

2. Execute `emd_maintenance.set_comp_status('_UPGRADE_', EMD_MAINTENANCE.G_STATUS_CONFIGURED_READY');`
3. Exit SQLplus
4. Click **Retry** on the installer. Alternately, you can exit the Installer and run the `runConfig` command to run the failed config tools manually

Go to the `<ORACLE_HOME>/oui/bin` directory, where `ORACLE_HOME` is the Oracle home directory of the OMS, and run the following command:

```
./runConfig.sh ORACLE_HOME=<OMS_ORACLE_HOME>
ACTION=patchsetConfigure
MODE=perform COMPONENT_XML=(oracle.sysman.top.oms.10_2_0_4_0.xml)
```

Once the upgrade is completed successfully by following the steps mentioned above, use the Grid Control console to manually grant licenses for these packs. In the Grid Control console, log in as Super Administrator and click **Setup**, and then click **Management Pack Access**.

You can also refer to Document ID -559658-1 on OracleMetaLink at <http://metalink.oracle.com/>.

(Bug 6901072)

7.1.1.3 Upgrade Fails with Patch 5478872

If you have applied the patch 5478872 to your Enterprise Manager Grid Control environment, then you **MUST** drop the index `MGMT_DELTA_SNAP_IDX3` **only before** upgrading Grid Control to 10.2.0.4. If the index is not dropped, the upgrade process will fail.

To drop the index `MGMT_DELTA_SNAP_IDX3`, execute the following command:

1. Connect to SQL Plus session as EM repository owner (SYSMAN)
2. Issue the command `SQL> drop index MGMT_DELTA_SNAP_IDX3`

The fix for bug 5478872 is included in the patch set version 10.2.0.4 so you are not required to apply any additional patches to resolve this bug after upgrading to the 10.2.0.4 version of Grid Control. For details, refer to Document ID -558673.1 on OracleMetaLink at <http://metalink.oracle.com>.

7.1.1.4 Upgrade Fails with Patch 6606233

If you have applied the patch 6606233 to your Enterprise Manager Grid Control environment, then you **MUST** roll back the patch before upgrading Grid Control to 10.2.0.4.

After rolling back the patch, upgrade Grid Control to 10.2.0.4 and then apply patch 6606233 that is specific to 10.2.0.4 Grid Control.

To roll back the patch, follow these steps:

1. Shut down OMS using the following command, where `$ORACLE_HOME` is the Oracle home directory of the OMS. In case of multi-OMS environment, shut down all OMSes. Leave the EM Repository database and its listener running.

```
$ORACLE_HOME/bin/emctl stop oms
```

In case of multi-OMS environment, if the .sql scripts were executed successfully from the first OMS, then run steps (7), (8 and (14). Skip other steps.

If the OMS and Repository are on the same machine, then set the TNS_ADMIN variable to <Repository Database Home>/network/admin, and then invoke SQLPLUS.

If the OMS and the Repository Database are on different machines, then create the *tnsnames.ora* file and set the TNS_ADMIN variable in the following location, where \$ORACLE_HOME is the Oracle home directory of the the OMS:

```
$ORACLE_HOME/network/admin/
```

Create a tns alias in *tnsnames.ora* that points to the Repository database and connect to the Database repository. For example:

```
sqlplus sysman/<password>@<tns alias from $TNS_ADMIN/tnsnames.ora>
```

2. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT what, broken FROM dba_jobs WHERE log_user = priv_user and priv_user = (SELECT owner FROM dba_procedures WHERE object_name = 'MGMT_USER' AND procedure_name = 'DROP_USER') ORDER BY job;
```

IMPORTANT: Store the results of this query so that you can compare it with the results of the query run in step (9).

3. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT object_name FROM user_objects WHERE status = 'INVALID' order by object_name;
```

IMPORTANT: Store the results of this query so that you can compare it with the results of the query run in step (13).

4. Note the value of *job_queue_processes* in *init.ora* parameter<original count>:

```
SQL> show parameter job_queue_processes;
```

5. Connect to sqlplus as the SYSMAN:

```
ALTER SYSTEM SET job_queue_processes = 0;
```

6. Make sure the following query returns 0 rows. If the query returns non-zero records please wait and run again:

```
SELECT /*+ RULE */ * FROM DBA_JOBS_RUNNING ;
```

7. Set your current directory to the \$ORACLE_HOME directory of the OMS where the patch is located:

```
% cd 6606233
```

8. Ensure that the directory containing the opatch script appears in your \$PATH; then run the following command:

```
$ opatch rollback -id 6606233
```

9. Connect to sqlplus as the sysman and run the following SQL files (Be sure that the SQL commands are run in the order mentioned below):

```
SQL> @?/sysman/admin/emdrep/sql/core/latest/esm/esm_
pkgdefs.sql
SQL> @?/sysman/admin/emdrep/sql/core/latest/esm/esm_
pkgbodys.sql
```

10. Recompile the SQL packages in sysman schema by running the following pl/sql procedure:

```
SQL> @?/sysman/admin/emdrep/sql/core/latest/admin/admin_
recompile_invalid <repository owner>
```

Where *<repository owner>* is the repository owner username in Upper caps (for example, *SYSMAN* and not *sysman*).

11. SQL> ALTER SYSTEM SET job_queue_processes=<original count>;

12. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT what, broken FROM dba_jobs WHERE log_user =
priv_user and priv_user = (SELECT owner FROM dba_
procedures WHERE object_name = 'MGMT_USER' AND procedure_
name = 'DROP_USER') ORDER BY job;
```

Be sure that the output from the above query is exactly the same as the output obtained in Step 2. If not, please call Oracle Support immediately.

13. Connect to sqlplus as SYSMAN and run the following command:

```
SQL> SELECT object_name FROM user_objects WHERE status =
'INVALID' order by object_name ;
```

Be sure that the output from the above query is exactly the same as the output obtained in Step 3. If not, please call Oracle Support immediately.

14. Start the OMS using the following command. In case of a multi-OMS environment, start all the OMSes:

```
$ORACLE_HOME/bin/emctl start oms
```

Here, \$ORACLE_HOME is the Oracle home directory of the OMS and "platform name" is one of the following

The above steps are also mentioned in the README document of the Patch. For information on upgrade prerequisites, refer to Document ID- **464674.1** on Oracle MetaLink at <http://metalink.oracle.com/>

7.1.1.5 Errors While Doing an Additional OMS Install

If you are doing an additional OMS install pointing to a repository whose key is not present, then you will see following message:

"The emkey for securing the current Management Service does not exist in the repository you have specified. From the first Oracle Management Service install, execute "emctl prepare repository -new_oms_install" before proceeding with this install."

In this message, the command that needs to be run is incorrect. Therefore, follow these steps instead:

1. Rebounce the database.
2. Copy emkey.ora into /OH/sysman/config/

```
3. run ./emctl config emkey -emkeyfile
   /OH/sysman/config/emkey.ora
```

(Bug 5658897)

7.1.1.6 After Upgrading OMS, Additional OMS Install Is Blocked

You cannot perform an additional 10.2.0.3.0 OMS install by using the repository of 10.2.0.4.0 OMS.

You can install additional 10.2.0.3.0 OMS with the following workaround if the repository is already upgraded to 10.2.0.4.0. To do this, complete the following steps:

1. Convert the repository version to 10.2.0.3.0 from 10.2.0.4.0 by using the following sql statement:

```
UPDATE sysman.mgmt_versions SET version = '10.2.0.3.0'
where component_name='CORE'; commit;
```

2. Invoke the Installer from the 10.2.0.3.0 DVD and choose the *Additional Management Service* option.
3. Provide the repository credentials for the Specify Database Configuration Screen and click **Next**, then stop here. (Do not proceed with the install.)
4. Go to the database Oracle Home where the OMS is using the 10.2.0.4.0 repository and connect to the database through SQLplus.
5. Update the repository version to 10.2.0.4.0 by using the following sql statement:

```
UPDATE sysman.mgmt_versions SET version = '10.2.0.4.0'
where component_name='CORE'; commit;
```

6. Then click **Next** to proceed with the installation from where it was previously stopped.
7. Once the 10.2.0.3 install has completed, both the Agent and the OMS must be shut down immediately by executing the commands below:

```
<ORACLE_HOME>/bin/emctl stop agent
```

Where ORACLE_HOME is the Oracle home Directory of the Management Agent

```
<ORACLE_HOME>/opmn/bin/opmnctl stopall
```

Where ORACLE_HOME is the Oracle home Directory of the OMS

8. Patch the OMS to 10.2.0.4 using the 10.2.0.4 Patch Set. Refer to [Section 3.2, "Preinstallation Tasks Specific to the Upgrade Type"](#) in this document for more information on how to patch the OMS to version 10.2.0.4.
9. Once the OMS has been patched to 10.2.0.4 successfully, it will start automatically.
10. Restart the agent from the Oracle home directory of Management Agent:

```
<Oracle Home>/bin/emctl/start agent
```

(Bug 4910745)

7.1.1.7 Repository Upgrade Fails During 10.2.0.4 Patchset Due to Shared Memory Error

Repository upgrade fails if the `shared_pool_size` is less than 512 MB. Ensure that the shared pool size is set as per your infrastructure. For information see Table B-2 in the Enterprise Manager Grid Control Installation and Basic Configuration Guide available at:

http://download.oracle.com/docs/cd/B14099_19/manage.1012/b16228/app_database_settings.htm

After setting the Shared pool size, continue with the upgrade.

(Bug 6887851)

7.1.1.8 If TAF String Is Used in Grid Control, Then Install Fails During Upgrade

If TAF (Transparent Application Failover) string is used in 10.2.0.x.x Grid Control, then the patching process will fail while patching an existing release of Enterprise Manager Grid Control to 10.2.0.2.0, 10.2.0.3.0, or 10.2.0.4.0 or higher.

To resolve this issue, select one of the approaches below:

Approach 1

Follow these steps:

1. Change the `ConnectDescriptor` in the `emoms.properties` to the `sqlnet ConnectDescriptor`. Then try running the configuration tool again.

For example, the `sqlnet connect descriptor` is:

```
oracle.sysman.eml.mntr.emdRepConnectDescriptor=(DESCRIPTION\  
ON\=(ADDRESS_  
LIST\=(ADDRESS\=(PROTOCOL\=TCP) (HOST\=stada37.us.oracle.c  
om) (PORT\=1521) ) ) (CONNECT_DATA\=(SERVICE_  
NAME\=emrep11.us.oracle.com) ) )
```

2. After the installation completes, change the connect string back to TAF.

Alternatively, you can exit the OUI installer.

1. Change the `ConnectDescriptor` in the `emoms.properties` to the `sqlnet Connect Descriptor`. Then run the following `runConfig` command to continue the installation.

2. Navigate to the `bin` directory:

```
cd <ORACLE_HOME>/oui/bin
```

Where `ORACLE_HOME` is the Oracle home Directory of the Management Agent

3. Go to `<ORACLE_HOME>/oui/bin`, where `ORACLE_HOME` is the Oracle home directory of the OMS, and then run the following command:

```
./runConfig.sh ORACLE_HOME=<OMS_Oracle_Home>  
ACTION=patchsetConfigure MODE=perform  
COMPONENT_XML={oracle.sysman.top.oms.<version>.xml}  
(version can be '10_2_0_4_0')
```

4. After the installation (configuration) completes, change the connect string back to TAF.

Approach 2

If you upgraded the repository manually after the installation fails, then in order to run the remaining configuration tools by skipping the Repository Upgrade Config Tool, follow these steps:

1. Exit the OUI installer
2. Create the response file (for example, patchsetconfig.rsp) by adding the following parameter:

```
b_reposPatchUpgrade=false
```

3. Move to the bin directory

```
cd <ORACLE_HOME>/oui/bin
```

Where ORACLE_HOME is the Oracle home Directory of the OMS

4. Go to <ORACLE_HOME>/oui/bin, where ORACLE_HOME is the Oracle home directory of the OMS, and then run the following command:

```
./runConfig.sh ORACLE_HOME=<OMS_Oracle_Home>  
ACTION=patchsetConfigure MODE=perform  
COMPONENT_XML={oracle.sysman.top.oms.<version>.xml}  
(version can be '10_2_0_4_0')
```

(Bug 5672859)

7.1.1.9 Deploying Management Connectors Before Running OUI

If you used the seed database during a 10.2.0.3 installation and are upgrading to 10.2.0.4, please use the following steps before running the OUI to be sure Management Connectors are deployed correctly:

1. Log into the repository as sysman and run the following query:

```
SELECT * FROM mgmt$connector;
```

If you see an error that says the table or view does not exist or there is no record returned, proceed with the next step. Otherwise, skip the step.

2. Rename the following directories in the OMS home:

```
mv $ORACLE_HOME/sysman/connector/Remedy_Connector  
$ORACLE_HOME/sysman/connector/Remedy_Connector.orig.1  
  
mv $ORACLE_HOME/sysman/connector/Microsoft_Operations_  
Manager_Connector  
  
$ORACLE_HOME/sysman/connector/Microsoft_Operations_  
Manager_Connector.orig.1
```

(Bug 6939959)

7.1.1.10 Oracle Inventory Directory Should Be On a Local File System

The Oracle Central Inventory directory (*oraInventory*) stores an inventory of all software installed on the system. It is required by, and shared by, all Oracle software installations on a single system. The first time you install Oracle software on a system, Oracle Universal Installer prompts you to specify the path to this directory. The path to the Oracle Central Inventory directory should be on a local file system.

(Bug 6945830)

7.1.1.11 Patching Oracle RAC Database on RHEL5 or SLES10 Can Result in Errors

When installing version 10gR2 RAC on Oracle Enterprise Linux 5 or RHEL5 or SLES10, you must address a series of issues during installation. The problems and solutions are described in the *MetaLink ID -414163.1*. If these issues were not resolved during installation, patching RAC by way of Deployment Procedures could result in errors.

For example the 'Stop' and 'Start' steps along with steps that use the 'srvctl' command will result in errors.

You must ensure the steps mentioned in the above MetaLink note are addressed during installation before using the patching deployment procedures.

(Bug 6908484)

7.1.1.12 Upgrade Fails Through Agent Push

After upgrading the Agent, the Agent appears in blackout and you must manually stop the blackout. The blackout can be stopped either from the Grid Control console or through the command line.

To stop the blackout from the command line, follow these steps:

1. Go to the Oracle Home Dir of the *Agent/bin*
2. Run the command below:

```
$ emctl stop blackout
```

To stop the blackout from the Grid Control console, follow these steps:

1. Go to the Grid Control Home page -> Click on the Setup (extreme right corner) ->Click on the Blackout section from the left panel
2. Search the Blackout for the required Agent and stop it

(Bug 5736358)

7.1.1.13 While Doing AgentPush On Windows, root.sh is Appearing Under OS Credential on Agent Deploy Application

While doing an AgentPush on the Microsoft Windows platform when the Selected Platform is Windowsx64, root.sh is appearing under OS credential on Agent Deploy Application. In such a case, please do not select root.sh on the Agent Push Interview page.

(Bug 7165727)

7.1.2 Installation and Upgrade Issues Specific to Agent Deploy Application

This section covers issues that related to the Agent Deploy application.

7.1.2.1 IgnoreMessages.txt is Not Picked by Remote Infrastructure

ignoreMessages.txt is not picked up by remote infrastructure if it is edited with text editors like Microsoft Word or Wordpad. The agent deploy application results in an application error.

It is a good practice to backup a file before modifying it. Use text editors like Notepad or Vim to edit the *ignoreMessages.txt* available at the following location, where \$ORACLE_HOME is the Oracle home directory of the OMS:

```
<$ORACLE_HOME>/sysman/prov/resources
```

(Bug 5727231)

7.1.2.2 Banner Message Interfering With Remote Operations

If there is a banner displayed in the remote machine, make sure it is not displayed for non-interactive shell commands. You can accomplish this by enveloping the banner message script in an "if" condition for interactive mode, as seen in the example below. The banner script is typically found in a shell rc file - *.bashrc*, *.cshrc* or in a *.profile* file in the user home.

For bash shell:

```
if [ -n "$PS1" ]; then
    echo "hello world"
fi
```

For C shell and its variants:

```
if ($?prompt) then
    echo "hello world"
endif
```

As a result, the banner message will be displayed in interactive logins but will not interfere with remote non-interactive commands.

(Bug 6371499)

7.1.2.3 Manual Secure Agent Failed to Allocate ACSII Encoding Buffer

On securing the Solaris version 10.2.0.4 Agent manually you may receive the following error message:

```
AsciiDecode: Failed to allocate ascii encoding buffer
(status=1).
```

```
Decrypt: Failed to ascii decode encrypted-text (status=1).
```

This error is harmless and you can ignore it if securing of the agent is successful.

(Bug 6813669)

7.1.3 Correction to Configuring HA Environments Using a Server Load Balancer

When configuring High Availability environments using a Server Load Balancer (SLB), changes made to the security frame work of Grid Control deprecate the need to have a separate pool to secure agents. As a result, you no longer need to configure the 'genWallet' pool as described in the *Common Configurations* chapter (Chapter 3) of the *Oracle Enterprise Manager Advanced Configuration* guide.

(Bug 5121288)

7.2 Host Administration Known Issues

This section discusses issues related to host administration.

7.2.1 Host Administration Functionality Not Supported on Redhat Enterprise Linux 5 and SUSE Linux 10

The Host Administration functionality is not supported on Redhat Enterprise Linux 5 and SUSE Linux 10 for the 10.2.0.4.0 Grid Control Linux release.

(Bug 6488302, 6488282)

7.3 Oracle Management Service and Management Agent Issues

This section addresses the issues related to OMS and Management Agent.

7.3.1 Thousands of Partitions Created During Installation for `mgmt_metrics_raw/1hour/1day`

When using the seed db option for a 10.2.0.3 Grid Control repository, there will be an ORA-14074 error in the system error log in addition to having more than 2000 partitions on the `mgmt_metrics_raw/1hour/1day` table. The workaround is to re-install using the no-seed database. Optionally you can instead complete the following steps:

1. Stop OMS
2. Stop DBMS jobs
3. Run the following in sqlplus as the repository owner:

```
exec emd_maintenance.ADD_PARTITIONS('MGMT_METRICS_
RAW',5,FALSE);
exec emd_maintenanceADD_PARTITIONS('MGMT_METRICS_1HOURL
',5,TRUE);
exec emd_maintenance.ADD_PARTITIONS('MGMT_METRICS_1DAY',
5,TRUE);
```

You can optionally run the following to remove the large number of created partitions, however this will take time:

```
exec emd_maintenance.partition_maintenance
```

4. Start DBMS_JOBS
5. Start OMS

(Bug 6413404)

7.3.2 If OMS Has Been Shutdown For A Long Period of Time, Then EMD_MAINTENANCE Must Be Run Before an Upgrade

If Enterprise Manager is shutdown for a long period of time, you must run `emd_maintenance.analyze_emd_schema()` before conducting the upgrade.

(Bug 6377899)

7.3.3 Running Jobs Through Powerbroker Not Supported in Grid Control 10.2.0.4

Running jobs through powerbroker is not supported in grid control in 10.2.0.4. Selecting the powerbroker option when setting preferred or overridden credentials for a job will cause the job to fail.

(Bug 6453707)

7.3.4 Enterprise Manager Sometimes Displays Only One Application Instance Per Oracle Home

Enterprise Manager displays only one application instance per Oracle Home even though multiple instances might have been configured. Apply ARU Patch Request No. 9808755 to resolve this error. Access Automated Releases Updates at <http://aru.us.oracle.com/>.

(Bug 6644329)

7.3.5 Credentialed OMS User Must Have Home Directory on Target Machine

For proper functioning of the Linux Administration feature, the user whose credentials are entered in the OMS for Linux Administration needs to have a home directory on the target machine being administered and write access to `$HOME/.y2log` on the target machine. If the above conditions are not fulfilled, blank lines may be seen in Linux Administration tables in addition to the actual data.

(Bug 6919918)

7.3.6 SGA Wait Data in RAC Instance Performance Page Is Minimal

When attempting to get data for the Hang Analysis display, the Average Active Sessions chart in the Database Performance tab in Memory Access Mode is empty. If the listener is down, the `nmccollector.exe` will not stay up and the agent will report that it cannot connect to collector memory.

This bug is RAC-specific. It is not PL-specific, but generally will not affect Linux and will always affect Windows. The issue resolves itself in 30-35 minutes. Therefore the recommended workaround is to wait 30-35 minutes after enabling Memory Access Mode monitoring to use it. A second workaround is to bounce the OMS after the `nmccollector.exe` is running.

(Bug 7191961)

7.4 Patch Management Issues

This section addresses patch management issues.

7.4.1 Patching Windows RAC Agents In Share Location Is Not Supported

Patching windows shared RAC agent with a patchset or patch is not supported through the Patch Wizard.

You must upgrade the agent using the Oracle Universal Installer (OUI). Do not use the Patch Wizard. For more information on how to upgrade the agent using the OUI, see [Section 3.2, "Preinstallation Tasks Specific to the Upgrade Type"](#).

(Bug 6393304)

7.4.2 ULN Based Patching Fails Without Errors For OEL Targets With SUDO 1.6.8 And SELINUX Enabled

If the Linux target (including Oracle Enterprise Linux) has a sudo version 1.6.8, and SELinux (Security Enhanced) is enabled, then Emergency patching and Update Job from Linux host patching may fail without errors.

This is a known issue from Redhat. Bug 178429: SELinux Patch Breaks sudo noexec Capability is a precedent for this issue. For details, you can refer to the following site:

https://bugzilla.redhat.com/show_bug.cgi?id=178429

As a workaround, you can do the following:

1. Update sudo version to 1.6.9 (recommended)
2. Remove sudo selinux patch. (Rebuild sudo without the selinux)

To determine whether SELinux is activated, you can run the following command:

```
ls -Z
```

If SELinux is activated, a valid output is displayed. If SELinux is not activated, an error message, *-Z option is valid only for SELinux machines* is displayed.

(Bug 6395554)

7.4.3 Packages Information Job Failed with JAVA.IO.FILENOTFOUNDEXCEPTION

The repository in the Staging server host is corrupted or not created properly. This may be because either the Staging server host may be a part of any Linux Patching Groups created or the up2date tool method is used in patching the staging server host through Emergency patching or *Linux Hosts Patching* deployment procedure. This corrupts the header files created in the staging server by the *Linux Staging Server* Deployment Procedure. The procedure configures the up2date tool to communicate with the subscribed ULN channels. Header files created by running yum-arch and the createrepo tool gets deleted.

To address this problem remove the 'Staging Server Host' from all of the Linux Patching Groups if present. Then run the following steps in the Staging Server Host:

1. Login as root user in the Stage server machine

2. Edit the file */etc/sysconfig/rhn/sources*

3. Comment out the following line:

```
yum LocalRPMRepos <Local Repository> (  
#yum LocalRPMRepos <Local Repository>)
```

4. Uncomment the line:

```
#up2date default to  
up2date default
```

5. Re-run the "Linux Staging Server" Deployment Procedure

Note: To patch the Staging server host, use the "Patch Linux Host" Deployment Procedure and select YUM update tool only to update the host.

(Bug 6429484)

7.4.4 Opatch Update Job Intermittently Displays "Initialization Error"

When this error occurs, delete the component *p4898608_10.2.0.4_2000* from the software library and rerun the Opatch Update job.

To remove the above component please complete the following steps:

1. Navigate to the **Deployments** tab and choose **Provisioning**, then **Components**, and finally **OracleSoftwareUpdates**.

2. Click on the radio button next to the component *p4898608_10.2.0.4_2000*

3. Click **Delete**.

(Bug 6519240)

7.4.5 Applying Linux 32-Bit AS Patchset on 64-Bit Machine

While applying a Linux 32-bit AS patchset on a 64-bit machine, the apply patch step of the deployment directive must be the following:

```
sudo -u <patching_user> linux32
```

(Bug 6906042)

7.4.6 Deployment Procedure Fails to Apply Version 10.2.0.3 Patch On A 10.2.0.1 Database

Application 10.2.0.3 DB patchset for Windows x64 using patching Deployment Procedures could fail with the following error: *The image file <Agent Home>\EMStage\5337014\Disk1\install\setup.exe is valid, but is for a machine type other than the current machine.*

This is due to a packaging issue in the patchset and can be corrected by making a change to the *Apply Patch* directive in the Deployment Procedure.

The directive *Apply Patch* at Line 1148-1162, should be replaced by the following code snippet.

```
if (-e $rsp_loc_win_oui)
{
logf("\n\n oui.exe is found!");
$windows_rsp_loc = $rsp_loc_win_oui;
}
elseif (-e $rsp_loc_win_setup )
{
logf("\n\n setup.exe is found!");
$windows_rsp_loc = $rsp_loc_win_setup;
}
else
{
logf("\n\nBoth setup.exe and oui.exe are not found!\n\n");
}
}
```

The Deployment Procedure should then be run to apply the 10.2.0.3 Database Patchset.

(Bug 7162859)

7.4.7 Applying CPU 6867056 On a WINX64 Database Fails

Applying the CPU Patch 6867056 on a version 10.2.0.3 Win x64 database will fail if the Oracle Universal Installer (OUI) version on the Oracle Home is below version 10.2.0.4. The issue can be rectified by upgrading the OUI to version 10.2.0.4 or higher.

(Bug 7191587)

7.5 Client Side Monitoring Issues

This section addresses the client side monitoring issues.

7.5.1 Beacon Cannot Playback Apps R12 Forms Transaction Out Of The Box

10.2.0.4 beacon cannot playback a Oracle Apps R12 Forms transaction if the beacon is created on an agent installed out of the box. You can see the following error message :

"Forms version not supported: apps".

In order for beacon to playback a forms transaction, a set of Forms jar files must exist under EM agent \$EMAGENT_HOME/jlib/forms/<version>/ directory that exactly matches the jar files on the Forms server. 10.2.0.4 agent shiphome build contains release version of the jar files from Forms 9.0.4.3 and 10.1.2.2, but not the custom patched Forms version contained in Apps R12 tech stack.

As a workaround, you need to copy the following jar files manually from your Oracle Apps deployment to EM agent:

```
$COMMON_TOP/java/classes/oracle/apps/fnd/jar/fndforms.jar  
$COMMON_TOP/java/classes/oracle/apps/fnd/jar/fndewt.jar
```

These jars need to be copied to the following directory for every beacon agent which is used to monitor the application:

```
.$EMAgent_HOME/jlib/forms/apps/
```

Only one version of Oracle Apps can be monitored by a single EM Agent. If you have two deployments of Apps with different versions, then you need two EM Agents to monitor them. You need to apply the workaround for each of those agents.

(Bug 5458061)

7.5.2 Logout Step is Not Performed Properly for EBS 11i Forms Transaction Test

HTTP session cookies are cleared incorrectly before the final logout step is performed. As a result, the session is not being logged out from the EBS server and would cause lingering session on the server.

There is no workaround for this issue. A patch is available to address this problem.

(Bug 6445743)

7.5.3 Incorrect Blocks Read and Blocks Written Information in Top Disks Table and Disk Activity Table

When displaying the Disk Details page from the Performance page of the Host Target home, the Top Disk Devices table shows the following incorrect column values:

- Blocks Read (512 bytes per second) shows total transfers instead of only blocks read
- Blocks Written (512 bytes per second) always (incorrectly) shows zero

When displaying the Disk Activity page from the All Metrics page of the Host Target home, the Disk Activity table shows the following incorrect column values:

- Difference in Number of Reads shows difference in total transfers instead of difference in number of reads
- Difference in Number of Writes is always shown (incorrectly) as zero
- Disk Block Writes (per second) is always shown (incorrectly) as zero

(Bug 6767592)

7.5.4 Top Disk Devices Table Shows Negative Values for Average Service Time (ms)

When viewing Disk Details on the Host Performance page, the Top Disk Devices table can sometimes show negative values for Average Service Time (ms).

When viewing Disk Activity details from the All Metrics page of the Host target, the Disk Activity table can sometimes show negative values for Bulk IO Ticks and Average Disk I/O Service Time (ms).

(Bug 6911699)

7.6 Licensing Issues

The following are known licensing issues.

7.6.1 Licensing Information Page Missing or Displaying Incorrect Information

The Grid Control Licensing Information page of the Grid Control console, accessible from the About Oracle Enterprise Manager page identifies premium functionality contained within Enterprise Manager that requires a separate Oracle license. The Licensing Information page is missing information or displaying incorrect information as described below:

- The Provisioning Pack for Oracle Application Server does not appear on the Licensing Information page. The Provisioning Pack for Oracle Application Server automates deployment of software, applications, and patches. This pack provides functionality for provisioning of operating systems and software images, cloning of existing installations and software images on both bare-metal and live machines, and patching. Sizeable decreases in person-hours and costs can be achieved by using mass provisioning and patching, offering an easily quantifiable return on the investment of this management pack. Key features include the following:
 - Extensible, out-of-box best practice
 - Deployment procedures for provisioning and patching
 - Oracle Home cloning
 - Extend Oracle Application Server DCM Managed Cluster
 - Bare metal provisioning
 - Automated patching for the Oracle Application Server and underlying operating system
 - Software image library
 - CLI driven runtime
 - Critical Patch Facility
 - Enterprise Security Advisory
 - Provisioning and deployment reports
- (Bug 6403098)
- Provisioning Pack for Oracle Database does not appear on the Licensing Information page

- Diagnostics Pack for Non-Oracle Middleware does not appear on the Licensing Information page. The Oracle Diagnostics Pack for Non-Oracle Middleware displays the following target types:
 - BEA WebLogic Server
 - IBM WebSphere Application Server
 - JBoss Application Server

The Diagnostics Pack for Non-Oracle Middleware ensures high availability of mission-critical applications hosted by non-Oracle middleware by reducing the complex tasks of diagnosing and correcting application performance problems. Key features include the following:

- Monitor availability and performance statistics out-of-box
- Monitor end-user performance
- Perform trend analysis on collected performance information
- View and compare configuration data, as well as track configuration changes
- Receive email and/or page notification concerning potential problems surrounding availability and performance
- Gain access to out-of-box, customizable reports
- Monitor third party software via remote Management Agent. For remote monitoring, the Management Agent does not need to be on the same computer as the third party software

(Bug 6403105)

- System Monitoring Plug-in for Non-Oracle Middleware erroneously includes affiliated target types of BEA WebLogic Managed Server, IBM Websphere Application Server, a JBoss Application Server. These target types should be affiliated with the Diagnostics Pack for Non-Oracle Middleware.

The System Monitoring Plug-in for Non-Oracle Middleware should include only the following targets:

- IBM WebSphere MQ
- Microsoft Exchange Server
- Microsoft Active Directory
- Microsoft Internet Information Services
- Microsoft Internet Security and Acceleration Server
- Microsoft Commerce Server
- Microsoft BizTalk Server
- Microsoft .NET Framework

(Bug 6403069)

7.6.2 Incorrect Tip Text On Management Pack Access Page of Enterprise Manager

On the Management Pack Access page of the Enterprise Manager Version 10.2.0.4 console, the tip text at the bottom of the page should read as follows:

For a detailed description of the above functionality and where they can be used within the product, refer to the Oracle Database Licensing Information document, the Oracle Application Server Licensing Information document, or the Oracle Enterprise Manager Licensing Information document.

This corrects an issue when selecting either Web Application or Service from the drop-down list. As written, the previous and incorrect tip text does not accurately indicate that licensable information for web applications or services is not documented in the *Oracle Database Licensing Information* guide or the *Oracle Application Server Licensing Information* document. It is only available in the *Enterprise Manager Licensing Information* document.

(Bug 6373701)

7.7 Console Issues

The following are known console issues.

7.7.1 Search Throws an Error in Targets > Databases

After navigating to Targets > Databases, if you enter a search criteria and click Go, then you may encounter the following error:

An error has occurred! Error retrieving information from database. Exception: java.sql.SQLException: No more data to read from socket

As a workaround, apply the RDBMS one-off patch for bug 6266400.

(Bug 6169403)

7.7.2 Tablespaces Are Not Being Displayed In the LOV During Create Table

During table creation for 8.1.7 target databases, tablespaces are not being displayed in the LOV of the Search & Select Tablespace page. The issue does not prevent any create table functionality. A list of tablespaces can be retrieved from the tablespaces link. An alternative workaround is to type in the desired tablespace name.

This issue is also encountered for a single instance 8.1.7.4.1 database on a Windows host that is monitored by a 10.2.0.4 Grid Control site on HP-UX Itanium.

(Bug 6408462)

7.7.3 Oracle Access Manager Performance Page Drops Chart Information and Displays Java Exception

If you select one of the real time choices in the View Data list on the Oracle Access Manager Performance page and then wait for a period of time, the charts (with the exception of "Successful Authentication") will not be shown. Instead, an unhandled Java exception will occur and will be displayed in the location of the charts.

This is an installation issue regarding Access Manager monitoring.

(Bug 6405009)

7.7.4 Instance Lock Page Blocks Session When Two Sessions Attempt Lock on Table of a Version 8.1.7.4 Database

When monitoring a 8.1.7.4 database, the Instance Lock page may not work. If there are two sessions both trying to gain an exclusive lock on a table, one of them would be blocked without the Instance Lock page indicating such.

This should work properly on 8i databases if you log in with a user that has 'select any table' privileges.

(Bug 6460295)

7.7.5 Error on Cluster Credentials page While Adding or Deleting A Database Instance

When adding or deleting a 10.2.0.x database instance, the following error may occur after entering Host Credentials on the Cluster Credentials page:

Error

Cannot get SQLEngine Operation Failed. Refer logs at \$ORACLE_HOME/cfgtoollogs/rconfig/rconfig.log and \$ORACLE_HOME/cfgtoollogs/dbca/trace.log for more details

This is due to a Sun JCE mismatch in the 10.2.0.x Database Home. You can fix the problem by modifying \$ORACLE_HOME/bin/rconfig in the Database Home to change the *JRE_DIR* location from:

```
$ORACLE_HOME/jdk/jre
```

to

```
$ORACLE_HOME/jdk/opt/jdk1.4/jre
```

(Bug 6910792)

7.7.6 Error when Adding Database Instance to Cluster Database

When using the Add Instance wizard to add a database instance to a cluster database, you may receive the following error on *Step 2 - Add Instance: Host* if there are any stale database instance targets in the Cluster Database.

*oracle.sysman.emo.util.rconfig.StepExecutionException:
java.lang.NullPointerException*

You can remove a stale database instance target, which is in an error state, by following the *Monitoring Configuration* link from the Cluster Database home page. Once the stale target is removed, the Add Instance wizard should proceed.

(Bug 6918474)

7.8 Security Issues

The following sections describe known security issues.

7.8.1 Secure Communications Between OMS-Agent Stops After Time. OMSS Fronted By SLB

You may find that OMS and Agent using the SLB are initially secure and working. However, after a period of time the communication between the agent and OMS through SLB may stop working.

wget https://smpperf-gsvc4.us.oracle.com:1159/em/upload (SLB does not work)

wget https://staka14.us.oracle.com:1159/em/upload (Directly to OMS works)

wget http://smpperf-gsvc4.us.oracle.com:4889/em/wallets/emd (SLB does not work)

wget http://staka14.us.oracle.com:4889/em/wallets/emd (Directly to OMS works)

To restore communication between the OMS via SLB and the agent, reboot the agent machine. Rebooting the SLB does not clear the problem.

(Bug 6025580)

7.8.2 Secure Communication Between OMS and Agent Stops Occasionally

Communication between EM agents and EM management services stops occasionally when the management services are fronted by a load balancer.

This appears to be a TCP stack issue that manifests itself on some Linux platforms when communication is done via a load balancer. Internal test sites have exhibited this issue when agents and management services are running RedHat Linux and communicating through a IGIP load balancer.

Turn off tcp_timestamps option. On most flavours of Linux this can be done by setting the following sysctl parameter:

```
# Turn off the tcp_timestamps net.ipv4.tcp_timestamps = 0
```

(Bug 6085086)

7.8.3 Clarification of Case Treatment for Passwords In Current and Prior Versions of the Database

Prior to version 10.2.0.4, Enterprise Manager created users with uppercase passwords. Version 10gR2 and earlier databases supported only case-insensitive passwords. EM users were able to log in to EM providing passwords in any case.

Starting in version 11g, support for case-sensitive passwords was initiated. As a result, if you use DB11g for the repository and creates a user, for example TEST_USER with password TestUser01, then the user will be successfully authenticated only if he provides exactly "TestUser01" as the password. Any other variation such as "testuser01" or "TESTUSER01" will fail during authentication.

However, if you use a pre-11g database for the repository the user will be able to provide any of the "testuser01" variations to log in to the database. Also, if the database that holds the repository is upgraded to version 11g, then all existing user passwords will be converted to upper case passwords and only upper case passwords are allowed for authentication.

There is an init.ora parameter that version 11g databases support that allows for old-style case-insensitive authentication.

(Bug 6073321, 6073322)

7.9 Deployment Library Issues

The following sections are known deployment library issues.

7.9.1 Creation of Oracle Cluster Clone Fails With GC Installed On JA_JP W2K3

Component/Image/Directive with a non-English configuration property name leads to provisioning failure. Further, component/image/directive UI may not show any data when you save a component/image/directive that has a property name in locale other than English.

This is a dynamic reference and it cannot be non-English.

As a workaround, always create a configuration property with English locale.

(Bug 6315953)

7.10 Data Masking Issues

The following sections are known data masking issues and limitations.

7.10.1 Data Masking Does Not Support Masking Data Into Multibyte Characters

Data Masking performs masking operation based on a user-specified masking definition which includes masking columns and masking formats. If the masking format contained multibyte character strings, masked data appears garbled rather than in a specified multibyte character string format. This is a known limitation in data masking and will be addressed in a future release. In version 10.2.0.4.0 of Grid Control, use only an English string format to mask character data.

(Bug 6474636)

7.10.2 Data Masking Cannot Import Exported Format Library or Masking Definition Containing Multibyte Character Strings

If a masking definition or format library contained multibyte character strings, after Export an attempt to Import an xml file into another Grid Control system results in garbled strings replacing multibyte character strings. This is a bug in Import and will be fixed in a future release.

(Bug 6474596)

7.11 Provisioning Issues

The following sections are known provisioning issues.

7.11.1 Deployment Procedure Fails When Applying Oracle Patch Prerequisite Checker for Standalone Database

When running the *Oracle Patch Prerequisite Checker for Standalone Database* deployment procedure, the step *Run Prerequisite Checks* fails with the following message:

Incorrect Component URN: null

The problem itself is not a product defect but is due to the fact that Oracle does not ship all Software Library Components for all platforms by default. Please refer to WebIV note:

<http://webiv.oraclecorp.com/cgi-bin/webiv/do.pl/Get?WwwID=note:468344.1>

The WebIV note explains how to create the missing component for the affected platforms.

(Bug 6797068)

7.11.2 Patch Oracle Clusterware DP Fails In the Step "Targets Discovery" If Cluster and Agent Are Owned By Different Users

In a setup where the cluster is owned by user 'A' and the agent by user 'B', the deployment procedure *Patch Oracle Clusterware* fails in the Targets Discovery step. To address this, run the Targets Discovery step of the deployment procedure as the agent owner. For example, run this step with Run Privilege *sudo* and Run Privilege Command `sudo -u A`.

(Bug 6862744)

7.11.3 Deployment Procedure "Patch Oracle Clusterware" Cannot Be Run With Different User

The deployment procedure *Patch Oracle Clusterware* cannot be run with some other user as the patching user in 'Sudo' mode. The deployment procedure has a small number of execute root scripts that change the permission of files in CRS home. These steps, if executed with a different patching user, create files with permission of patch users rather than CRS home owner. For example:

X is *crs_home* owner

Y is patching user

A CRS patchset is applied with user *Y* and *sudo* command of `sudo -u X`. After patching, the CRS dir contains many files with ownership of B user. There is no workaround for the above issue.

(Bug 6338831)

7.11.4 Application Server Discovery Fails If Target and Agent are Owned By Different Users

Application Server has very restrictive permissions for group and others. All directories under AS Home have permissions of either 700 or 600. Therefore even if users A and B belong to the same group, AS is not being discovered by the OMS. This is true even for the AS target cloning. The cloned AS target will not appear in the OMS until it has been manually discovered after applying the below mentioned workaround:

Permissions of following files and directories in iAS home have to be recursively set to 770:

- `<iashome>/sysman/emd/targets.xml`
- `<iashome>/sysman/emd/centralagents.lst`

Permissions of following files/directories in GC Agent home have to be recursively set to 770:

- `<gcagenthome>/sysman/emd/targets.xml`
- `<gcagenthome>/sysman/opmn/`
- `<gcagenthome>/sysman/opmn/conf/`

For an example of setting permissions recursively, consider setting 770 permissions to `<iashome>/sysman/emd/targets.xml`. This should be performed similar to the following:

- `chmod 750 <iashome>/`

- `chmod 750 <iashome>/sysman/`
- `chmod 750 <iashome>/sysman/emd/`
- `chmod 770 <iashome>/sysman/emd/targets.xml`

For an example of restoring permissions, consider restoring permissions of `<iashome>/sysman/emd/targets.xml` to 700. This should be performed as seen below:

- `chmod 700 <iashome>/sysman/emd/targets.xml`
- `chmod 700 <iashome>/sysman/emd/`
- `chmod 700 <iashome>/sysman/`
- `chmod 700 <iashome>/`

Note: Please set 770 permissions to these optional files, only if required. For example, you should only set permissions only if discovery still fails after the below activities are performed:

- `<iashome>/opmn/conf/opmn.xml`
 - `<iashome>/config/ias.properties`
 - `<iashome>/sysman/config/emd.properties`
-
-

Please restore the permissions at the end of discovery.

(Bug 6576991)

7.11.5 Pre-req Deployment Procedure Fails

Prereq deployment procedure has not been ported to HP-UX Platform. It is certified only on Linux, Windows, and Solaris platforms.

If the OUI version is less than 10.2.0.3.0, then download the OUI from MetaLink. The patch number for OUI 10.2.0.4.0 is 6640752. Install the OUI component that was downloaded. This will upgrade the OUI in the Oracle Home to 10.2.0.4.0. Then follow the workaround mentioned in the following note:

<http://webiv.oraclecorp.com/cgi-bin/webiv/do.pl/Get?WwwID=note:468344.1>

(Bug 6797068,6905935)

7.11.6 Cloning Fails When the Target and Agent Are Owned by Different Owners

If the user executing the clone operation is not the Agent user on the target machine, then the clone operation will fail when trying to add the newly cloned Oracle Home to the `OUIinventories.add` file.

The permission of `$ORACLE_HOME/sysman/config/OUIinventories.add` must be the changed so that the group to which it belongs also has write privileges to the file. The user executing the clone operation must belong to the same group. This file is in the Agent Oracle Home.

(Bug 6871174)

7.11.7 Provisioning Application Server 10.1.3 from Gold Image with Stand-alone Option Fails in Configuration Step

While installing Application Server only from Gold Image with the Stand Alone option, the installation fails in the configure step. Provisioning Standalone AS 10.1.3 from Gold Image fails with the below error

```
"getaddrinfo(, , 1) failed (host/servertime not known):  
Unresolved discovery multicast address and port:,  
unable to reload opmnctl"
```

There is no workaround for the above issue.

(bug 6868378)

7.11.8 Application Server Provisioning Fails

If the Application Server shiphome exceeds 2.1 GB of size, then Application Server Provisioning fails. It will result in an error while unzipping the files.

Bug (6878555)

7.11.9 Extending an Oracle Clusterware Home Using the EM Cloning Wizard Fails

Extending Oracle Clusterware using the Enterprise Manager Cloning Wizard is deprecated. To extend a cluster, use the Extend Cluster Database deployment procedure that is available on the Deployments page.

To access the Extend Cluster Database deployment link, log in to Enterprise Manager Grid Control and click **Deployments**. In the Deployments page, from the Deployment Procedure Manager section, click **Extend Cluster Database**. Enterprise Manager Grid Control displays the Extend Real Application Clusters page. Click **Help** for information about what details to specify and how to run the deployment procedure.

(Bug 6921833)

7.11.10 Use Cases Deprecated from the Enterprise Manager Cloning Wizard

The following table lists the deprecated use-cases for provisioning Oracle Software using the Enterprise Manager Cloning Wizard and the corresponding Deployment Procedure to be used instead.

Use Case	Deployment Procedure
Scale up the RAC stack	Extend Cluster Database (Deployments Tab->Extend Cluster Database link)
Single Instance Database Provisioning	Database Provisioning Procedures (Deployments Tab->Database Provisioning Procedures)
Oracle Clusterware / RAC Database Provisioning	RAC Provisioning Procedures (Deployments Tab->RAC Provisioning Procedures)
AS 10.1.2.0.2 myJ2EE (webtier + apptier) farm	Application Server Provisioning Procedures (Deployments Tab->>Application Server Provisioning Procedures)
AS 10.1.3 myJ2EE webtier or apptier standalone	Application Server Provisioning Procedures (Deployments Tab->>Application Server Provisioning Procedures)

The above listed scenarios are in correspondence to the Enterprise Manager cloning Functionality available.

(Bug 6914611)

7.11.11 Patch Clusterware Deployment Procedure Does Not Reflect the Clusterware Patched Version on OMS

During patchset application on a CRS target using the "Patch Oracle Clusterware - Rolling" Deployment Procedure, the CRS version might not be updated on the Enterprise Manager Console, despite successful application of the patchset on the target. Workaround for this is to bounce (stop and then start) agents on the cluster nodes and then run the *Refresh Host Configuration* job for each cluster node. This will result in the correct version being reflected at the Enterprise Manager Console.

(Bug 6955323)

7.11.12 Patchset Deployment Procedures (RAC) Clear Configuration Properties of RAC Targets

During patchset application on a CRS target using the *Patch Oracle Clusterware - Rolling* Deployment Procedure or patchset application on a RAC target using the *Patch Oracle RAC Database - All Nodes* Deployment Procedure, certain RAC database targets running on the cluster may appear to be unconfigured on the Enterprise Manager console. To address this issue, reconfigure *Monitor Password* for the unconfigured targets.

(Bug 7018196)

7.11.13 SIDB Provisioning With Installed Software As Source Fails

SIDB provision with installed software as source fails at the step *Run Database Configuration Tools*.

(Bug 7010737)

7.11.14 Extend Cluster Deployment Procedure Fails at Post-Install CVU Check

The extend cluster deployment procedure fails at the clusterware post install CVU check. Windows 64 bit on x86 is having an ARU ID of 233 that is not updated into the supported platforms header of the deployment procedure XML. Also cluster introspection detects that this is a windows platform, but this information is not loaded into run time. Because of this variable, *IS_WINDOWS* is set to false and this causes cluster home cloning to be skipped. This caused the issue in clusterware add node.

To work around this issue, manually run clusterware cloning followed by add node and then retry the failed post install CVU check.

To save the deployment procedure customized to ignore failures for the Win 64 platform on x86 and to use this procedure to submit the scale up runs, follow the procedure below:

1. View the procedure "One Click Extend Cluster Database", and click the **Create Like** button.
2. In the Name field, change the name to "One Click Extend Cluster Database for Win64 x86".
3. Select the following steps by checking the selection boxes beside each step:
 - *Create Directory* step
 - *State Prerequisites* step and all component steps below it
 - All three *Setup SSH* steps

4. Click the **Disable** button to disable the selected steps.
5. Select the check box on the step "Clusterware Cloning".
6. Click the **Insert** button to add a new step.
7. Enter the following information in the Create page to create the new step and then choose **Next** to continue:
 - Choose **Step** in the Select field
 - Enter **Clusterware Cloning** in the Name field
 - Enter **Perform Clusterware Cloning (Win64 x86)** in the Description field
 - Choose **After "Clusterware Cloning"** in the Insert Location field
 - Choose **Library Directive** in the Type field
 - Choose **Inherit (Stop on Error)** in the Error Handling field
8. On the Select Directive page, enter **deployClusterware.pl** in the File name field and click the **Go** button.
9. Click on **Next** to continue.
10. On the Map Properties page, enter the following values for each property and then click on **Next**:

MODE	Set Value	EXTEND
CRS_ORACLE_HOME_LOCATION	Choose Variable	Procedure Variable: CLUSTERWARE_ORACLE_HOME_LOC
CRS_ORACLE_HOME_NAME	Choose Variable	Procedure Variable: CLUSTERWARE_ORACLE_HOME_NAME
CRS_NODE_NIC_LIST	Choose Variable	Target Variable: CRS_NODE_NIC_LIST
AGENT_HOME	Set Value	%emd_root%

11. Click **Finish** and then **Save** to save the deployment procedure customized to ignore failures for Win64 platform on x86 and to use this procedure to submit the scale up runs.

(Bug 7214697)

7.11.15 Provisioning Certified For Specific Application Server Targets

Provisioning on Windows 2008 (32-bit/64-bit) and Windows 2003 (64-bit) targets is not certified except for the following two targets:

- Application Server 10.1.3.1 SOA
- Application Server 10.1.3 myJ2EE cloning from gold image

7.12 BPEL Management Issues

This section addresses the BPEL Management issues.

7.12.1 Apply Patch to Support BPEL 10.1.2 Targets

As a part of EM 10g (10.2.0.4) release, BPEL 10.1.2 targets will be supported.

If you need to enable the support for BPEL 10.1.2 targets, then apply the patch ARU: 9360239 on the specific BPEL target.

(Bug 6338643)

7.13 Third-Party Application Server Monitoring Issues

This section addresses third-party application server monitoring issues.

7.13.1 EM Unable to Discover Admin-Security Enabled WebSphere 6.1

When Admin Security on WebSphere 6.1 Server is enabled, Grid Control is unable to discover and monitor the targets.

The SOAPConnectorClient, which is a part of the WebSphere jar files, uses the "contains" method of the String class. The "contains" method was introduced since jdk 1.5. But the current version of Java shipped along with Agent is jdk 1.4.

You can continue to add and monitor WebSphere 6.1 provided Admin Security is not enabled.

(Bug 6241737)

7.14 Configuration Standard Framework Issues

This section addresses configuration standard framework issues.

7.14.1 Repository Upgrade Fails for EM with Seed DB

Repository Upgrade configuration assistant fails when you upgrade a Grid Control environment that has a seed database. As a workaround, you need to apply ARU 8885534 (that contains ARU "4329444") on top of DB 10104 before you upgrade to Grid Control 10.2.0.3.

(Bug 5648438)

7.14.2 System Rebooted After Four Days

On HP-UX Itanium systems, a system sometimes reboots after running for four days or longer.

If the agent is installed on a file system of type lofs (a loopback file system), it is possible for the agent to cause a kernel panic, crashing the entire system. Oracle strongly recommends that you not install the agent on such a loopback filesystem.

Note that a loopback file system mount can be created either explicitly, or when a host mounts an NFS volume exported by the host itself. If there is any doubt about whether a particular file system is mounted with lofs, run '/usr/bin/df -F lofs' for a list of all loopback file systems currently mounted.

If this kernel panic does occur, analysis of the resulting crash file with adb will indicate the following stack:

- lo_realvfs+0x110
- freelonode+0x170
- lo_badop+0x1b70
- vn_rele+0x420

- lookupnpvp+0x3b0
- lookuppn+0x90
- lookupname+0x60
- vn_open+0x80
- copen+0x190
- open+0x80
- syscall+0x920

(Bug 6790425)

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Oracle Enterprise Manager Grid Control Release Notes, 10g Release 4 (10.2.0.4.0) for Microsoft Windows x86-64

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