

Oracle® Enterprise Manager Ops Center

SuperCluster Upgrade Guide

12c Release 1 (12.1.3.0.0)

E41080-01

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This document explains how to upgrade from Oracle Enterprise Manager Ops Center 12c R1 PSU1 to PSU3.

The following topics are covered:

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About Oracle Enterprise Manager Ops Center

Oracle Enterprise Manager Ops Center is Oracle's comprehensive system management solution for managing the physical and virtual operating systems, servers, and storage devices in your data center.

The documentation library at http://docs.oracle.com/cd/E27363_01/index.htm explains how to configure, use, and administer Oracle Enterprise Manager Ops Center.

Preparing Your Environment

Before you begin the installation and configuration, verify that the systems are prepared.

- Oracle Enterprise Manager Ops Center can be upgraded during the upgrade to the new Quarterly Full Stack Download Patch (QFSDP). If Ops Center is being upgraded as part of QFSDP, upgrade Ops Center as the first QFSDP component, before you upgrade all other QFSDP components.
- Enable root user to ssh to the system on the active and standby nodes.
- Run the OCDoctor script with the `--ec-prereq` option on the target nodes to verify that all prerequisites are met. The OCDoctor can be downloaded from <http://java.net/projects/oc-doctor/downloads>.

During the upgrade, historic data for some of the assets might be lost (CPU/Network/Memory/Utilization). If you want to keep your asset history data for future reference, export the data and save it.

To export history data, perform the following steps:

1. On the Navigation pane, select the node for which you want to export the history data.
2. On the center pane, click Charts tab.
3. Click **Export Chart Data**.
The Export Chart Data window opens.
4. Select the File Format and Time Period, then click **Export**.
The chart data is exported in the desired format.

Upgrading from Oracle Enterprise Manager Ops Center 12c R1 PSU1 to 12c R1 PSU3

Perform the following steps to upgrade from PSU1 to PSU3 environment.

1. On the Navigation pane, click **Administration**. Select the Standby Proxy Controller, then click **Managed Assets** on the Center pane.

Make note of the assets that are managed by the Standby Proxy Controller. These assets will have to be rediscovered later in the upgrade process.

Note: Historic data for these assets will be lost.

You may skip this step if you have the original discovery file from the initial Oracle Enterprise Manager Ops Center 12c R1 PSU1 install.

Perform the following actions on the Standby node.

2. On the Standby node, use the *ecadm* command with the *ha-unconfigure-standby* subcommand to unconfigure the standby nodes from the HA configuration.

```
<Standby EC># /opt/SUNWxvmoc/bin/ecadm ha-unconfigure-standby
```

3. Install IDR-16577137 from the subdirectory *16346054/SystemsManagement/OpsCenter* in the unpacked QFSDP directory.

```
<Standby EC># ./install
```

4. Uninstall the Enterprise Controller software on the Standby node and then reboot the system.

```
<Standby EC># /n1gc-setup/installer/install -e
```

If you encounter the following package removal error, perform the workaround.

The following package is currently installed:

```
ipmiflash ipmiflash
(sparc) 11.11,REV=2009.11.11
Do you want to remove this package? [y,n,?,q] pkgrm: ERROR:
unable to change current working directory to
</var/sadm/pkg/ipmiflash/install>
Removal of <ipmiflash> failed (internal error).
No changes were made to the system.
Error removing package ipmiflash
```

Error uninstalling IPMI package

* * * * *

Please fix the problem and then try this step again.

For a full log of the failed install see the file:
/var/tmp/installer.log.1412.

t. Try this step again (correct the failure before proceeding)

x. Exit

Enter selection: (t/x) x

Workaround:

```
<Standby PC># pkginfo ipmiflash
system ipmiflash ipmiflash
<Standby PC># cd /var/sadm/pkg
<Standby PC># mv ipmiflash /var/tmp/OC/
<Standby PC># pkginfo ipmiflash
ERROR: information for "ipmiflash" was not found
<Standby EC># /nlgc-setup/installer/install -e
```

Perform the following actions on the Primary node and Active node.

5. On the Primary node, use the *ecadm* command with the *ha-unconfigure-primary* subcommand to unconfigure the Enterprise Controller as part of a High Availability configuration..

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm ha-unconfigure-primary
```

The Active Enterprise Controller node is unconfigured as the active node. This will also stop the Oracle Enterprise Manager Ops Center application.

6. On the Primary Enterprise Controller system, type the following command:

```
# echo "" > /var/opt/sun/xvm/uce/etc/opt/server/uce_server/proxy.conf
# svcadm disable uce-server ; svcadm enable uce-server
```
7. On the Primary Enterprise Controller system, update the *start/exec* property in the *svc:/application/scn/satellite-enable* SMF service.

- a. Change the *start/exec* property for the *svc:/application/scn/satellite-enable* service to *:true*.
For example:

```
<Primary EC># /usr/sbin/svccfg
svc:> select svc:/application/scn/satellite-enable
svc:/application/scn/satellite-enable> setprop start/exec = :true
svc:/application/scn/satellite-enable> end
```

- b. Refresh the *svc:/application/scn/satellite-enable* service.
For example:

```
<Primary EC># /usr/sbin/svcadm refresh
svc:/application/scn/satellite-enable:default
```

- c. Confirm if the property has changed.

For example:

```
<Primary EC> #svccprop -p start/exec
svc:/application/scn/satellite-enable:default
:true
```

8. On the Primary node, use the `ecadm` command with the `start` subcommand and the `-w` option to start the active node.

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm start -w
```

The Enterprise Controller is restarted.

Use the following command to verify the database:

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm verify-db -v
```

9. On the Navigation pane, click **Administration**, then select the proxy on the Standby Enterprise Controller.
10. On the Actions pane, click **Unconfig/uninstall Proxy**.
11. On the Primary node, use the `ecadm` command to restart the Enterprise Controller and Proxy Controller.

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm stop -w
```

```
<Primary EC># /opt/SUNWxvmoc/bin/proxyadm stop -w
```

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm start -w
```

```
<Primary EC># /opt/SUNWxvmoc/bin/proxyadm start -w
```

12. Download Oracle Enterprise Manager Ops Center 12c R1 PSU3 Software from Oracle's public domain.

<http://www.oracle.com/technetwork/oem/ops-center/oem-ops-center-188778.html>

Download the enterprise-controller.Solaris.sparc.12.1.3.2305.tar.zip file and copy the same to both Primary and Secondary Enterprise Controller nodes.

- The enterprise-controller.Solaris.sparc.12.1.3.2305.tar.zip is also located in the QFSDP in the following location:
16346054/SystemsManagement/OpsCenter

13. After moving the software to the Primary and Secondary Enterprise Controller Nodes, unpack it.

For example:

```
<Primary EC># mkdir -p /var/tmp/OC/update
```

```
<Primary EC># cp enterprise-controller.Solaris.sparc.
```

```
12.1.3.2305.tar.zip /var/tmp/OC/update
```

14. Change to the directory containing the upgrade bundle.

```
<Primary EC># cd /var/tmp/OC/update
```

15. Unzip and un-tar the bundle.

```
<Primary EC># unzip
```

```
enterprise-controller.Solaris.sparc.12.1.3.2305.tar.zip | tar xf -
```

```
<Primary EC># ls
```

```
enterprise-controller.Solaris.sparc.12.1.3.2305.tar.zip
```

xvmoc_full_bundle

16. Uninstall Hardware Management packages before running upgrade installer on the Primary Enterprise Controller.

```
<Primary EC># pkg uninstall hmp-libs
Creating Plan
pkg uninstall: Cannot remove
'pkg://exa-family/system/management/hmp/hmp-libs@2.2.15016,5.11-1:20111102T203716Z' due to the following packages that depend on it:
```

```
pkg://exa-family/system/management/hmp/hmp-hwmgmt@2.2.15016,5.11-1:20111102T203710Z
```

```
<Primary EC># pkg uninstall hmp-hwmgmt
Packages to remove: 1
Create boot environment: No
Create backup boot environment: No
Services to change: 1
```

PHASE	ACTIONS
Removal Phase	38/38

PHASE	ITEMS
Package State Update Phase	1/1
Package Cache Update Phase	1/1
Image State Update Phase	2/2

The following unexpected or editable files and directories were salvaged while executing the requested package operation; they have been moved to the displayed location in the image:

```
var/opt/sun-ssm -> /var/pkg/lost+found/var/opt/sun-ssm-20130404T201025Z
```

```
<Primary EC># pkg uninstall hmp-libs
Packages to remove: 1
Create boot environment: No
Create backup boot environment: No
```

PHASE	ACTIONS
Removal Phase	101/101

PHASE	ITEMS
Package State Update Phase	1/1
Package Cache Update Phase	1/1
Image State Update Phase	2/2

```
<Primary EC>#
```

17. Stop and unconfigure the OpsCenter agent if it is running on the Primary Enterprise Controller.

```
<Primary EC># /opt/SUNWxvmoc/bin/agentadm stop
```

```
<Primary EC># /opt/SUNWxvmoc/bin/agentadm unconfigure
```

18. Change to the *xvmoc_full_bundle* directory and run the upgrade installer script.

```
<Primary EC># cd xvmoc_full_bundle
```

```
<Primary EC># ./install
```

When the upgrade is completed, the install script displays a message. For example:

2013-03-28-14:50:33 Upgrade of the Enterprise Controller to 12.1.3.2305 has completed.

19. Rediscover assets from Step 1.

- If you have the original discovery file from the initial Oracle Enterprise Manager Ops Center 12c R1 PSU1 install, do the following:

```
<Primary EC># /opt/ORCLsysman-ecu-discovery/bin/oc-ecu-discovery.sh -c  
<original-ecu-discovery.cmd>
```

For example:

```
/opt/ORCLsysman-ecu-discovery/bin/oc-ecu-discovery.sh -c  
/emocdata/oc/ecu-discovery.cmd
```

Note: The original-ecu-discovery.cmd must reference the original discovery properties file.

For example: The file contains

```
parse --configuration=/emocdata/oc/myrack.properties  
--forceautomaticnetworks, where /emocdata/oc/myrack.properties  
describes all SSC assets to be discovered.
```

- If you do not have the original discovery file from the initial Oracle Enterprise Manager Ops Center 12c R1 PSU1 install, discover the assets from Step 1, in the following order, if the assets are present in your list:
 - a. Operating Systems
 - b. Exadata Storage Cells
 - c. Storage Servers
 - d. PDUs
 - e. ILOMs
 - f. Cisco Switch
 - g. IB Switches

On the Navigation pane, click Plan Management. Under Profiles and Policies, select Discovery. Select a Discovery Profile and click Add Assets on the Actions pane for each missing asset as per the above listed order, by clicking on the appropriate discovery profile in the Discovery tree.

20. Convert the upgraded Primary Enterprise Controller to a HA configuration.

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm ha-configure-primary
```

21. Verify the Primary Enterprise Controller status.

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm ha-status -d
```

22. Edit the /var/opt/sun/xvm/ha/EnterpriseController_HA_clusterware.properties file and update the following entries:

- enterpriseControllerNetworkResourceName=EnterpriseController-network
Change the value from ora-scan1.vip to EnterpriseController-network.
- ecVirtualIPAddress=<VirtualIP>
<VirtualIP> is the virtual IP (e.g. 10.129.185.178).

- ecNic=<nic>
<nic> is the management network interface (either net0 or bondmgt0 depending on the SSC install).
- ecVirtualIPNetmask=<netmask>
<netmask> is the network mask for the VIP (e.g. 255.255.252.0).

23. Create a /tmp/creds.props file and add the username and password to the file. For example:

```
# cat /tmp/creds.props
username:root
password:welcome1
```

24. Apply the changes on the EnterpriseController resource using the /opt/SUNWxvmoc/bin/ecadm command with the ha-modify-resource -p subcommand. For example:

```
# /opt/SUNWxvmoc/bin/ecadm ha-modify-resource -p <creds filename>
```

Perform the following actions on the Standby node.

25. Create a database properties file for Standby Enterprise Controller installation. The database properties file must contain the location of the RAC database instance and the same user and read-only user credentials supplied in the schema creation script.

For example:

```
<Standby EC># vi /var/tmp/OC/RACdb.properties

mgmtdb.appuser=emoc

mgmtdb.password=Welcome_1

mgmtdb.roappuser=emoc_ro

mgmtdb.ropassword=Welcome_1

mgmtdb.dburl=jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_
LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=etc11-01-ib-vip.us.oracle.com)(PORT=1
521))(ADDRESS=(PROTOCOL=TCP)(HOST=etc11-02-ib-vip.us.oracle.com)(PORT=1
521)))(CONNECT_DATA=(SERVICE_NAME=emocdb)))
```

26. Install Oracle Enterprise Manager Ops Center 12c R1 PSU3 on the Standby Enterprise Controller.

To copy the Oracle Enterprise Manager Ops Center Enterprise Controller software bundle and extract the software, see steps 13 to 15.

Note: Perform steps 13 to 15 on the Standby Enterprise Controller node and not on the Primary Enterprise Controller.

Run the Standby Enterprise Controller installation as follows:

```
<Standby EC># /var/tmp/OC/update/xvmoc_full_bundle/install
--remoteDBprops=/var/tmp/OC/RACdb.properties --standbyEC
```

27. Create Credential File on the Standby Enterprise Controller to configure it in standby mode.

```
<Standby EC># cat /tmp/creds.props
username:root
password:welcome1
```

- 28.** Configure Standby Enterprise Controller to HA mode.

```
<Standby EC># /opt/SUNWxvmoc/bin/ecadm ha-configure-standby -p
/tmp/creds.props
```

- 29.** Relocate the Enterprise Controller from Primary to Secondary.

```
<Primary EC># /opt/SUNWxvmoc/bin/ecadm ha-relocate
```

- 30.** Relocate the Enterprise Controller from Secondary to Primary.

```
<Standby EC># /opt/SUNWxvmoc/bin/ecadm ha-relocate
```

- 31.** Create a temporary directory, for example, /var/tmp/OC, to hold the password file that is used in the next step.

```
# mkdir -p /var/tmp/OC
```

- a.** Create an empty file named /var/tmp/OC/mypasswd, and set its permission mode to 400.

```
# touch /var/tmp/OC/mypasswd
```

```
# chmod 400 /var/tmp/OC/mypasswd
```

- b.** Edit the /var/tmp/OC/mypasswd file so that it contains the password of the user that you designated the administrator of your Enterprise Controller. The following echo command appends the password to the /var/tmp/OC/mypasswd file. Replace password with the correct password. For example:

```
# echo 'password' > /var/tmp/OC/mypasswd
```

- 32.** Register the Proxy Controller on the Standby node to Oracle Enterprise Manager Ops Center VIP Host.

```
<Standby EC># /opt/SUNWxvmoc/bin/proxyadm configure -s <OpsCenter
VIP Hostname> -u root -p /var/tmp/OC/mypasswd
```

- 33.** Start the Proxy Controller on the Standby node.

```
<Standby EC># /opt/SUNWxvmoc/bin/proxyadm start -w
```

- 34.** Clear your browser cache and refresh the browser before you login to the newly-upgraded Enterprise Controller.

- 35.** Login to Oracle Enterprise Manager Ops Center BUI by launching the following URL:

```
<https://<OpsCenter VIP Hostname>:9443/emoc/
```

Updating the Master Software Repository

After the QFSDP is completed, update the Master Software Repository (MSR) in Oracle Enterprise Manager Ops Center.

To update the MSR in Oracle Enterprise Manager Ops Center, perform the following steps:

1. On the Navigation pane, navigate to Libraries, Software Libraries.

2. Click **Oracle Solaris 11 Software Update Library**.
3. On the Actions pane, click **Configure Parent Repositories**. The Specify Library Location window opens.
4. Click **Next**.
5. Replace the existing Parent Repository URL with the SSC Solaris 11 IPS repository and click **Next**.
For example, `nfs://192.168.30.15/export/ssc/s11repo`
6. Select Sync Now, then click **Next**.
7. Click **Finish**.

Resources

This section includes links to other resources.

- For more information about Oracle Enterprise Manager Ops Center, see the documentation library at http://docs.oracle.com/cd/E27363_01/index.htm.
- For more information on upgrading Oracle Enterprise Manager Ops Center, see http://docs.oracle.com/cd/E27363_01/doc.121/e25143/upgrading.htm#autoId9.
- For more information about SuperCluster hardware, see the product page at <http://www.oracle.com/technetwork/server-storage/hardware-solutions/sparc-supercluster-191641.html>.

Documentation Accessibility

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