

Oracle® Enterprise Manager Ops Center

Enabling Single Root Input Output Virtualization in Exalogic Elastic Cloud

12c Release 1 (12.1.2.0.0)

E35262-01

November 2012

This guide provides an end-to-end example for how to use Oracle Enterprise Manager Ops Center.

Introduction

Oracle Exalogic Elastic Cloud X2-2 solution includes a set of compute nodes interconnected through QDR InfiniBand IO Fabric. In order to be able to virtualize the InfiniBand IO of Exalogic compute nodes, the Single Root Input Output Virtualization (SR-IOV) option must be enabled in BIOS.

After compute node ILOM and BIOS is updated, the BIOS configuration settings of the Exalogic node are set to default, leaving the SR-IOV settings disabled. For proper functioning of the appliance, this option has to be re-enabled. You can change the SR-IOV settings in BIOS using the following procedures.

- [Enabling Single-Root Input Output Virtualization Using Oracle Enterprise Manager Ops Center UI](#)
- [Enabling Single-Root Input Output Virtualization using ILOM CLI Commands](#)

Both these procedures are explained in this document.

What You Will Need

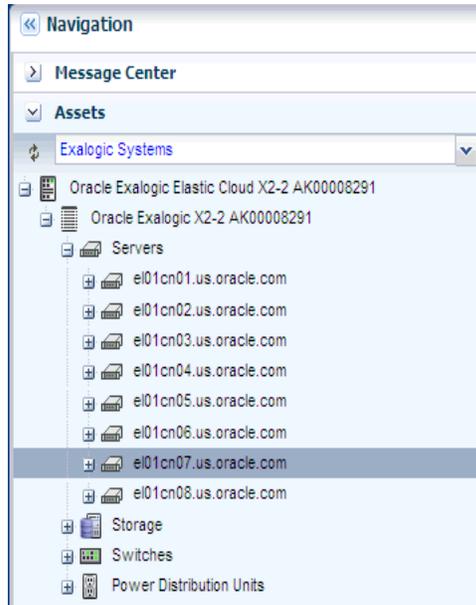
You will need the following to enable single-root input output virtualization:

- A configured Enterprise Controller
- Oracle Exalogic Elastic Cloud (version 2.2 or later) installed on Oracle Enterprise Manager Ops Center
- Ensure popup is enabled on the web browser
- You must have the role of System Admin to enable SR-IOV actions
- Login credentials to login to ILOM (administrative login credentials)

Enabling Single-Root Input Output Virtualization Using Oracle Enterprise Manager Ops Center UI

If Oracle Enterprise Manager Ops Center is available and fully functional, you can use this procedure to enable single-root IO virtualization through the Oracle Enterprise Manager Ops Center UI.

1. On the Navigation pane, under Assets, select a Server.



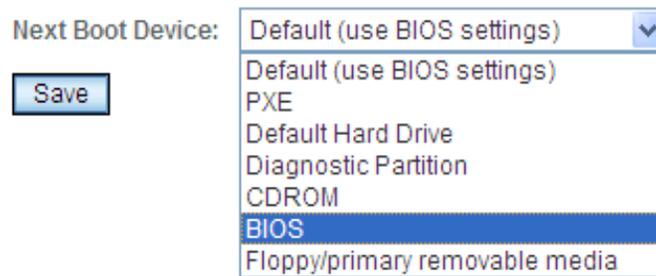
2. On the Actions pane, click Launch LOM Controller. The web-based ILOM login screen for the asset opens.
3. Enter the User Name and Password (Admin login credentials for the service processor of the asset) and click Log In.



4. After logging in, click Remote Control, then click Host Control.



5. In the Next Boot Device field, select BIOS.

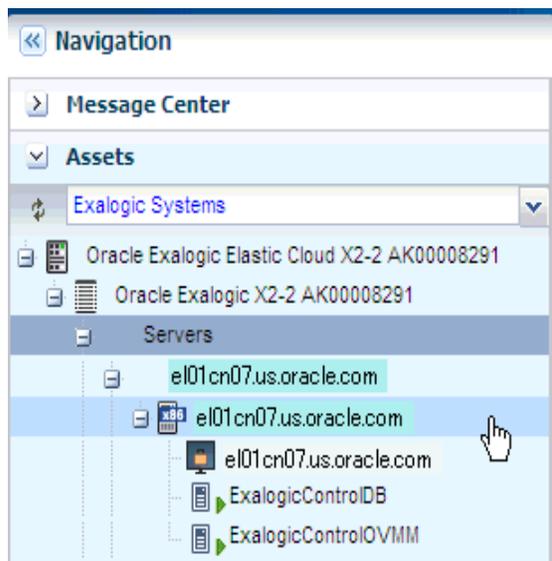


6. Click Save.

7. Click the Logout button on the top right corner of the screen to logout of LOM Controller.

- The server moves into locked state indicated by a padlock on the OS of the server.

8. In the Navigation pane, under Assets, expand the Server node that you have just edited and select the hypervisor node under it.



9. On the Actions pane, click Reboot Oracle VM Server Host.

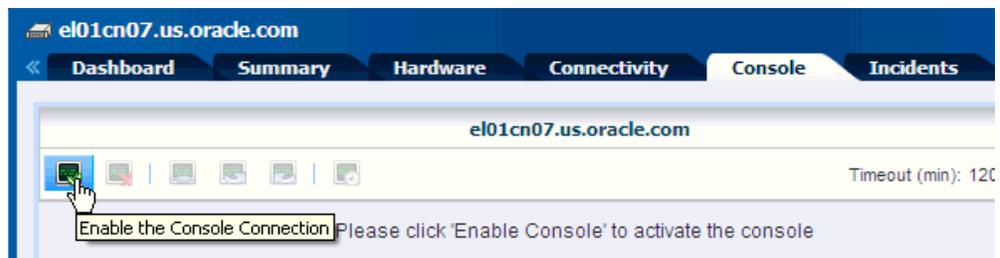
10. Click Reboot Oracle VM Server. The VM server is rebooted.



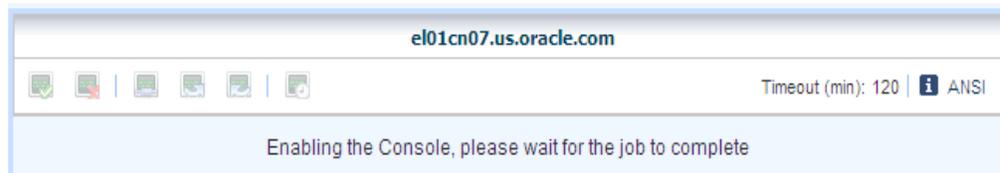
11. On the Navigation pane, under Assets, select the server.



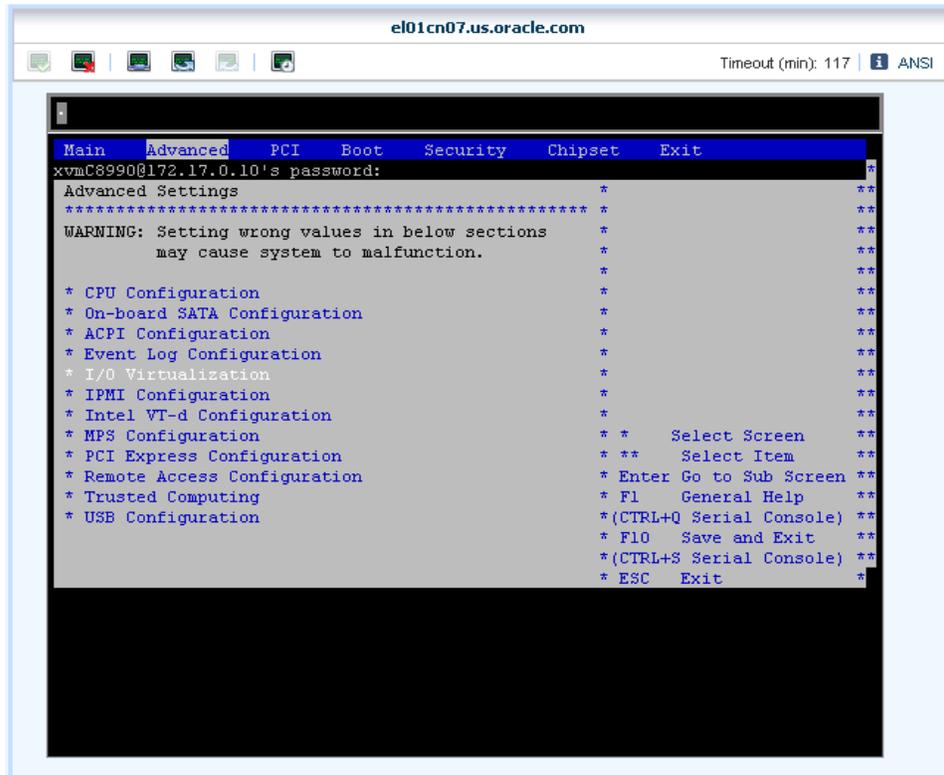
12. In the center pane, click the Console tab, then click the Enable Console Connection icon.



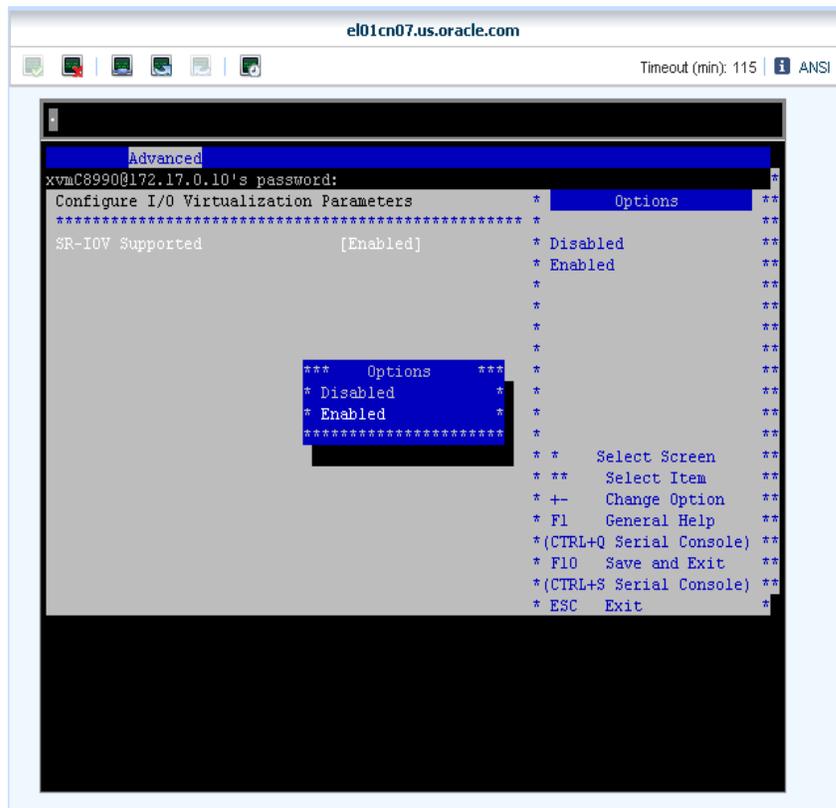
- Wait until the job is complete. The BIOS menu opens.



13. In the BIOS menu, using arrow keys, select Advanced, then select I/O Virtualization.



14. Change the SR-IOV Supported value to Enabled.



15. Press Esc key to go back to the Main menu. Using the arrow key, select Exit.

16. Click OK to save the changes and exit.



- The server reboots and the Operating System is started. This might take a few minutes. After the server has rebooted, the padlock icon on the OS disappears and the OS is ready to host the virtual guests.

17. Click Disable the Console Connection icon to disable the console.

Enabling Single-Root Input Output Virtualization using ILOM CLI Commands

If Oracle Enterprise Manager Ops Center is not installed, you can enable SR-IOV using ILOM CLI commands.

1. Login to the ILOM console using SSH and your admin login credentials.
2. Type `ssh root@<xxx.xx.xx.x>` to log in to the ILOM console (xxx.xx.xx.xx is the IP of the ILOM).

Note: The ILOM CLI console IP address is read from the ECU configuration spreadsheet.

Run the following commands after logging in to the server's LDOM CLI console.

1. Type `set /HOST boot_device=BIOS`.
2. Type `reset /SYS`.
3. Type `start /SP/console`.
 - It might take a few minutes for the BIOS menu to appear.
4. In the BIOS menu, using arrow keys, select Advanced, then select I/O Virtualization.
5. Change the SR-IOV Supported value to Enabled.
6. Press Esc key to go back to the Main menu. Using the arrow key, select Exit.
7. Click OK to save the changes and exit.

The server reboots and the Operating System is started. This might take a few minutes. After the server has rebooted, the padlock icon on the OS disappears and the OS is ready to host the virtual guests.

Related Articles and Resources

The following chapter in the *Oracle Enterprise Manager Ops Center Feature Reference Guide* contains more information:

- *Oracle Exalogic Elastic Cloud*

See the How To library at

<http://www.oracle.com/pls/topic/lookup?ctx=oc121&id=howto>

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