

# Oracle® Enterprise Manager Ops Center

Creating Server Pool for Oracle VM Server for SPARC Guide

12c Release 1 (12.1.0.0.0)

E27353-01

May 2012

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

## Introduction

Using Oracle Enterprise Manager Ops Center, you can create a server pool for Oracle VM Server for SPARC.

A server pool is a group of one or more virtualized hosts with the same processor architecture that has access to the same virtual and physical networks, and storage resources. Server pools provide load balancing, high availability capabilities, and sharing of some resources for all members of the pool.

You must select the policies in the server pool to manage the underutilized and overutilized servers in the pool:

- Placement Policy – This policy decides the preferred virtualization host in the server pool to place the logical domains.
- Auto Balancing Policy – This policy performs load balancing of the server pool automatically at set intervals.

The version of Oracle VM Server for SPARC that you install depends on the type of server hardware version installed. For a list of compatible hardware and software versions, see [Related Articles and Resources](#) for Oracle VM Server for SPARC documentation website.

## What You Will Need

You need the following before you can create a Server pool for Oracle VM Server for SPARC.

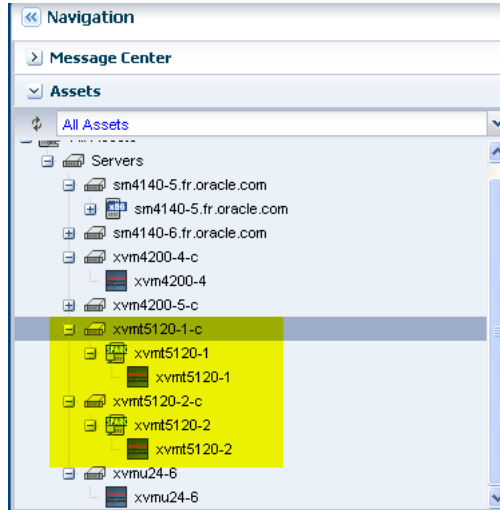
1. Two servers installed with Oracle VM Server for SPARC 2.1 in a healthy state and should not be associated with any server pool.
2. A NAS storage library to deal with the NFS file system and to store the logical domain metadata and a SAN storage library for virtual disk storage of logical domains.
3. Networks to be attached to the server pool are in default network domain.
4. Placement policy and Auto balancing policy to manage the load of the virtualization servers in the server pool.

See *Oracle Enterprise Manager Ops Center Feature Reference Guide* for more information on policies.

5. Virtualization administrator to create and manage the server pool.

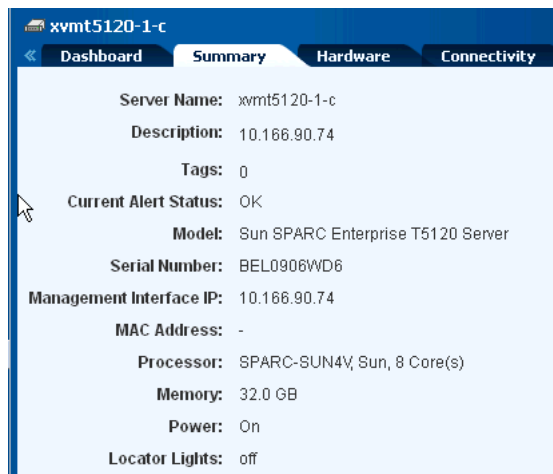
## Hardware and Software Configuration

This section defines the hardware and software details for installing Oracle VM Server for SPARC 2.1 version on Sun SPARC Enterprise T5120 Server. The configuration might change according to the hardware and firmware versions that you use.



### Hardware Configuration

- Server Model – Sun SPARC Enterprise T5120 Server
- Processor – SPARC-SUN4V, Sun, 1165 MHz, 64 Total CPU Threads, 8 Core(s)
- Memory – 32 GB
- System firmware – 7.4.0.b



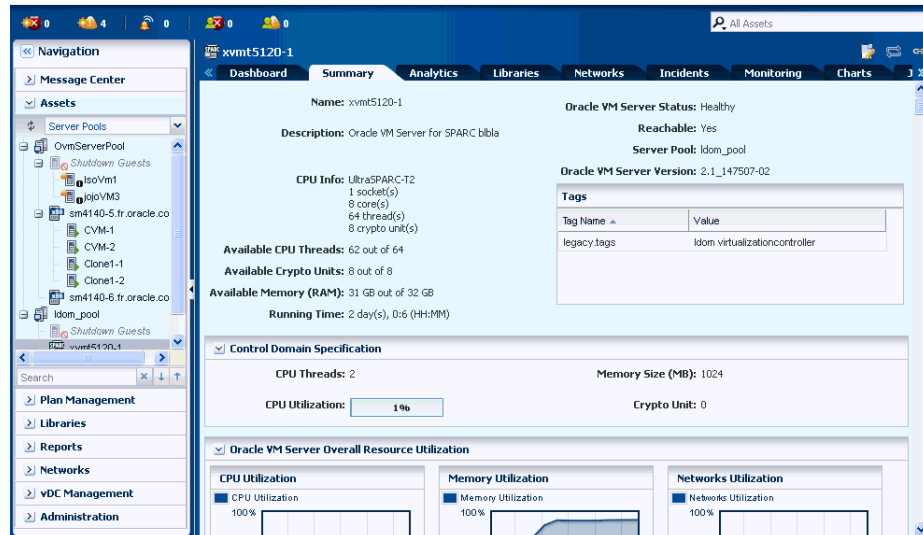
### Software Configuration

Use Oracle Solaris 10 operating system to install Oracle VM Server for SPARC 2.1 version. Upload or import the operating system image to a storage library in Oracle Enterprise Manager Ops Center.

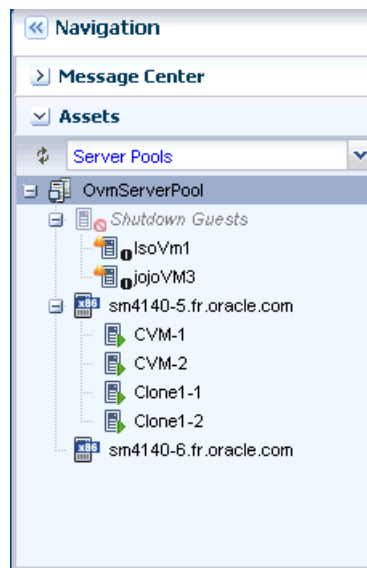
## Create a Server Pool for Oracle VM Server for SPARC

Oracle Enterprise Manager Ops Center initiates a wizard that collects information about the servers, storage and network resources, and placement policies to create a server pool.

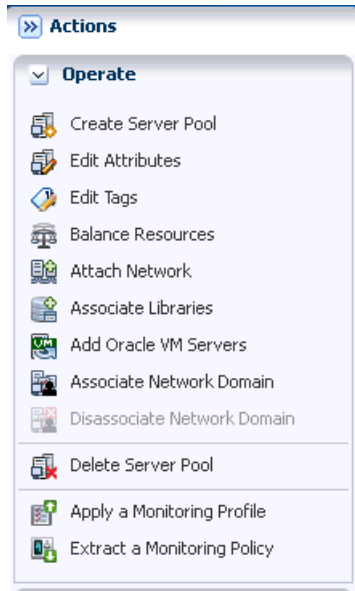
This example creates a server pool for Oracle VM Servers xvmt5120-1 and xvmt5120-2 for SPARC.



1. Select Server Pools in the Assets drawer of the Navigation pane.



2. Click Create Server Pool in the Actions pane. The Create Server Pool wizard is displayed.



3. Specify the following server pool identification information, then click Next.
  - Enter a name and description for the server pool.
  - Select Oracle VM Server - SPARC from the Virtualization Technology menu.

**Identify Server Pool** \* Indicates Required Field

\* **Server Pool Name:**

**Description:**

**Tags:** + × Search  x 🔍

Tag Name	Value

\* **Virtualization Technology:**

4. Select the two Oracle VM Servers to add to the server pool, then click Next.  
 Oracle VM Servers display the CPU architecture, type, and frequency. Select the Oracle VM Servers to add to the new server pool.

**Select Members**

Select one or more assets to add to the server pool.

Note - Select assets that are compatible with each other to allow migration of guests within the server pool.

Search

Member Name ▲	CPU Architecture	CPU Type	CPU Frequency
xvmt5120-1		UltraSPARC-T2	1165
xvmt5120-2		UltraSPARC-T2	1165

< Previous    Next >    Cancel

5. Select the default network domain to associate with the server pool, then click Next.

**Associate Network Domain**

Select the network domain to associate with the server pool. Select the physical interfaces for each asset used to connect to each fabric in the network domain.

Network Domain:  ▼

< Previous    Next >    Cancel

6. For default network domain, click the Add Network icon to add the networks that are declared and managed in Oracle Enterprise Manager Ops Center to associate with the servers in the server pool, then click Next.

### Associate Networks

Select the networks to associate with all of the servers in the server pool.

Network Domain: default

Network Name	P-Key / VLAN ID	Current Connections	Total Connections	Use for Migration?
10.166.85.0/24.1	260	0	1	<input type="checkbox"/>
10.166.86.0/24.1	-	0	1	<input type="checkbox"/>

< Previous    Next >    Cancel

7. For each network connection, provide the connection details, then click Next.
  - Specify the NIC and IP address for each network connection.
  - Select Use Static IP to allocate an IP address for the network connection.

### Configure Interfaces

Specify the configuration settings for each network connection. If no rows are displayed in the table below, the selected network connections have already been correctly configured.

Server Pool Name: ldom\_pool

Specify Configuration Settings for each Network Connection				
Hostname ▲	Network	NIC	Address Allocation Method	IP Address
xvmt5120-1	10.166.85.0/24.1	aggr1	Use Static IP	10.166.85.148
xvmt5120-1	10.166.86.0/24.1	aggr2	Use Static IP	10.166.86.61
xvmt5120-2	10.166.85.0/24.1	aggr1	Use Static IP	10.166.85.172
xvmt5120-2	10.166.86.0/24.1	aggr2	Use Static IP	10.166.86.147

< Previous    Next >    Cancel

8. Storage libraries that are reachable from the selected members of the pool are displayed. Select a NAS and a SAN storage library to associate with the server pool, then click Next.

### Associate Libraries

The storage libraries that are reachable from all the selected virtualization hosts are listed. Select the storage libraries to associate with the server pool.

Search

Library Type	Library Name	Description
Dynamic Storage	Dynamic Library (zs7120-1-ISCSI)	Dynamic Storage Library of zs7120-1-ISCSI ...
NAS	LDomNAS	nfs://10.166.74.193/x/VMShares/LDoms/
NAS	MyNasZoneLib	nfs://10.166.88.16/x/VMShares/Zones
SAN	SANLib-4262012-162956	fc://ce5dde24-e797-4092-83e6-3b2c8fedd...

< Previous    Next >    Cancel

9. Select the placement policy – Place guest on Oracle VM Server with lowest relative load and the auto balancing policy – Do not auto - balance the server pool, then click Next.

### Specify Policies

**Placement Policy:**  Place guest on Oracle VM Server with lowest relative load  
 Place guest on Oracle VM Server with lowest allocated CPU and memory  
 Place guest on Oracle VM Server minimizing overall power consumption  
 A Server is over-utilized when the following values are exceeded:  
 CPU Utilization exceeds:  % for:  minutes

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**Auto-Balancing Policy:**  Do not auto-balance the server pool  
 Automatic balancing of the server pool  
 Note: The date and time are in the Enterprise Controller's time zone.  
 Every:  Weeks on a  at

**Approval Policy**  
 Approval not required, automatically move the guests  
 Approval required, send notification

< Previous    Next >    Cancel

10. Review the server pool information, then click Finish to create the server pool.



After the creation of the server pool, you can see the server pool for Oracle VM Server for SPARC in the Navigation pane.



## What's Next?

After creating the server pool for Oracle VM Server for SPARC, the next step is to manage the resources in the server pool. Oracle Enterprise Manager Ops Center provides the following management features:

- Edit server pool parameters
- Add virtualization hosts
- Associate network domains
- Attach networks
- Associate libraries
- Create logical domains
- Migrate logical domains
- Balance resources



- Delete server pool

## Related Articles and Resources

For more information on creating a server pool for Oracle VM server for SPARC, see the following:

- *Oracle Enterprise Manager Ops Center Feature Reference Guide*
- *Oracle Enterprise Manager Ops Center Configuring and Deploying Oracle VM Server for SPARC Guide*
- *Oracle Enterprise Manager Ops Center Configuring and Installing Logical Domains Guide*
- See [http://docs.oracle.com/cd/E27363\\_01/index.htm](http://docs.oracle.com/cd/E27363_01/index.htm) for Oracle Enterprise Manager Ops Center documentation.
- See [http://docs.oracle.com/cd/E23120\\_01/index.html](http://docs.oracle.com/cd/E23120_01/index.html) for Oracle VM Server for SPARC 2.1 version documentation.

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