Oracle® Enterprise Manager Ops Center

Managing the Configuration of a Zone

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

Introduction

Oracle Enterprise Manager Ops Center provides operations for creating and managing zones. Zones are virtualized operating system environment created within a single instance of the Oracle Solaris operating system. You can create zones on Oracle Solaris 10 or 11 OS. You can also manage zones that are created using the native CLI from the Oracle Enterprise Manager Ops Center UI.

You can modify or add more resources for the zone configuration such as CPU, memory, storage, and network resources. You can also make a duplicate copy of the zone. Zone replication is similar to creating a new zone. You can use this option to retain the existing zone configuration or change the configuration while creating a copy of the zone. This guide shows you how to manage the configuration of a zone.

You can dynamically modify the zone configuration such as CPU shares and memory, and add storage resources. Whereas, you must shut down the zone to connect to a network.

This guide describes the required state of the zone to perform the actions. See Related Articles and Resources for more information about managing the state of the zone.

What You Will Need

You will need the following to manage the zone configuration:

- Virtualization admin role to access and manage the zones.
- Required storage and network resources are associated with the parent global zone.

Managing Zone Configuration

The following procedures are described in this example for managing the configuration of a zone:

- Editing Attributes and Configuration
- Adding Storage
- Connecting to Network
- Cloning Zones

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Editing Attributes and Configuration

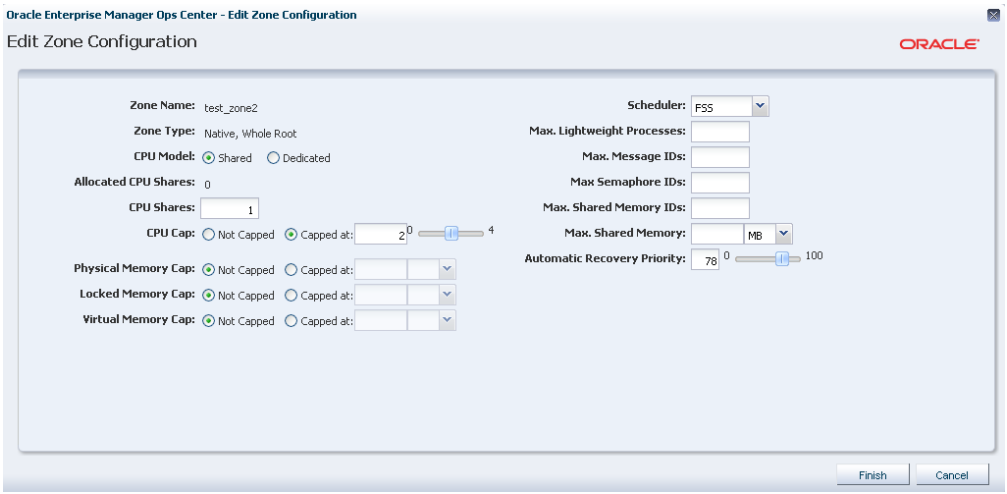
You can modify the following parameters of zone configuration:

- CPU model, resources and cap
- Memory caps
- Type of scheduler
- Lightweight processes
- Automatic recovery priority

In this example, the zone configuration is modified for CPU cap and automatic recovery priority value.

1. Select the zone from the Assets section.
2. Click Edit Configuration in the Actions pane.

   The Edit Configuration window is displayed.

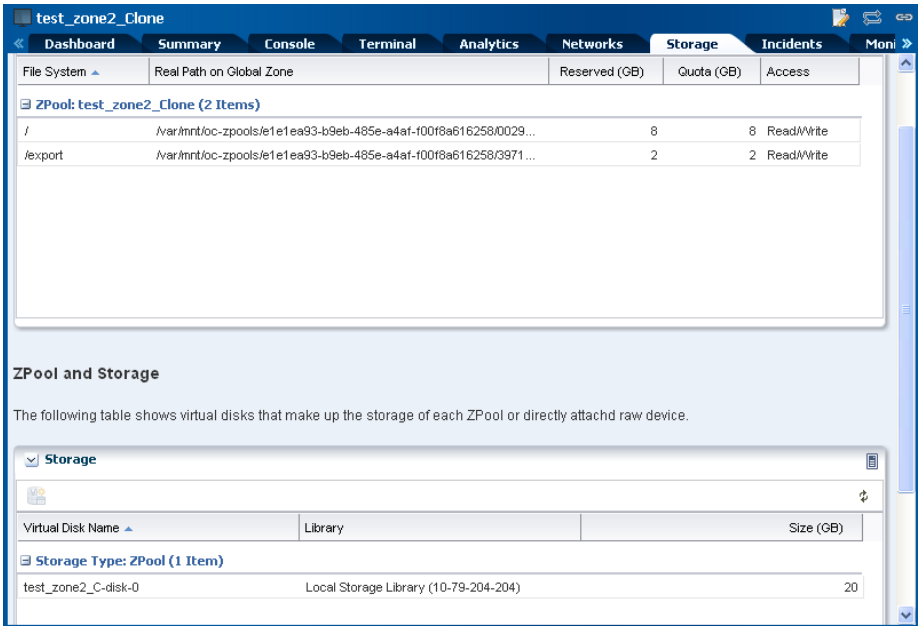


3. Enter the CPU shares to be capped to 2 and the Automatic Recovery Priority value to 78.
4. Click Finish to apply the changes.

You must reboot the zone only when you change the CPU model. In this example, the CPU model is retained and the other changes are dynamically applied to the zone.

Adding Storage

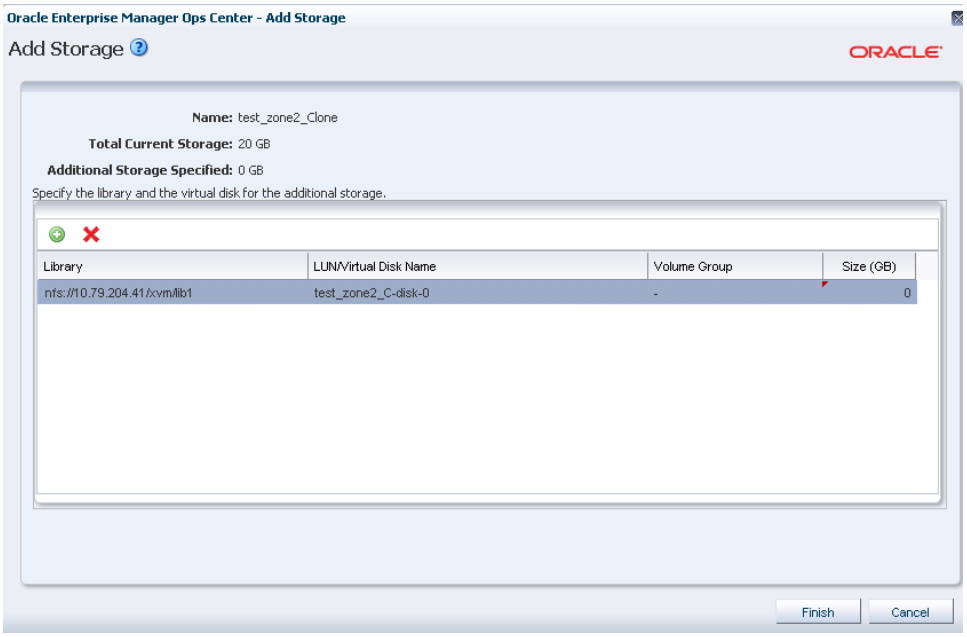
You can add more storage to the zone as required. The storage is added to the existing zpool of the zone. The existing zone storage is displayed as in the figure below:



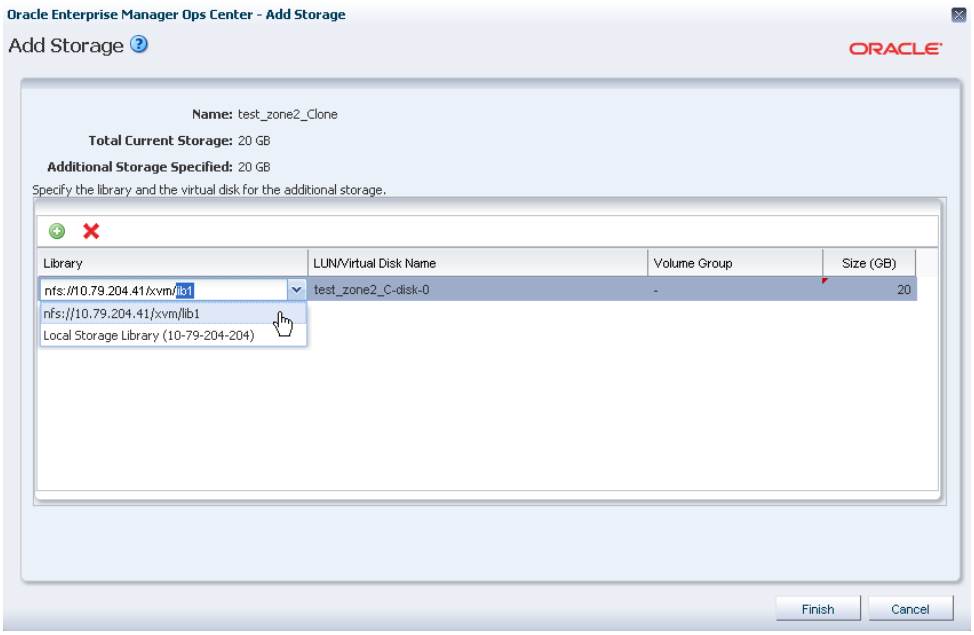
This example shows how to add more storage to a zone and the result. The zone can be in running or shutdown state to add storage to it. To add storage to zone, it is required that the storage libraries that constitute the storage are associated with the global zone.

1. Select the zone to which you want to add storage.
2. Click Add Storage in the Actions pane.

   The Add Storage window is displayed.

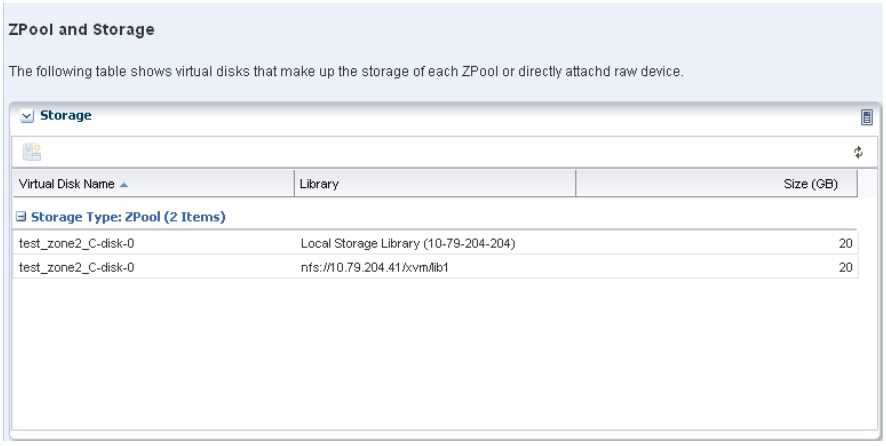


3. All the libraries associated with the corresponding global zone are listed in the Library. Select the NAS library from the list and add 20 GB as the size of the virtual disk to be added to the zone.



4. Click Finish to add the selected storage to the zone.

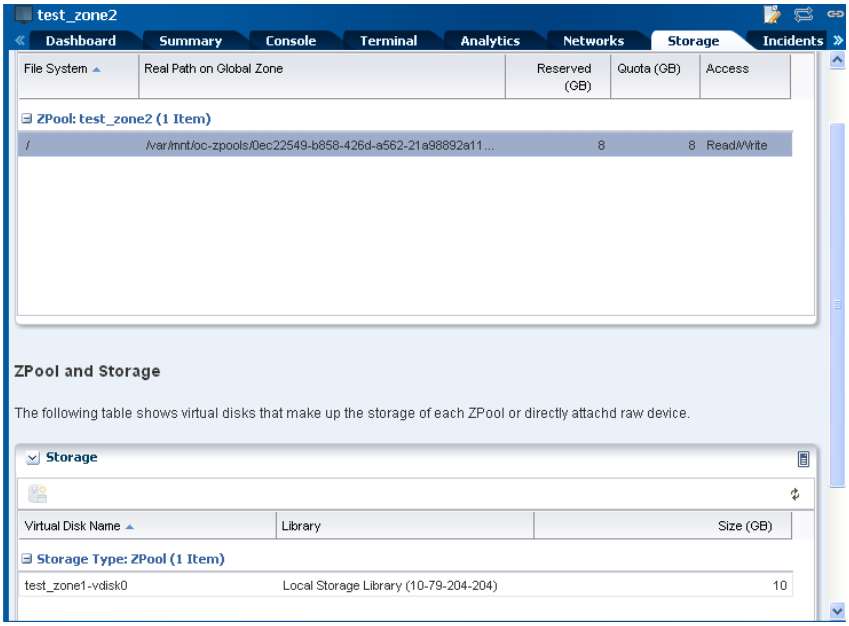
The selected storage is added to the zone and it is displayed in the Storage tab of the zone.



The storage is added to the existing zpool of the zone. You cannot delete or remove the added storage to the zone. You can add storage from Block Storage libraries provided they are associated with the global zone.

Adding File Systems

You can add file systems to a zone. The zone must be in shut down state to add a file system. The following figure shows the existing file system for a zone:

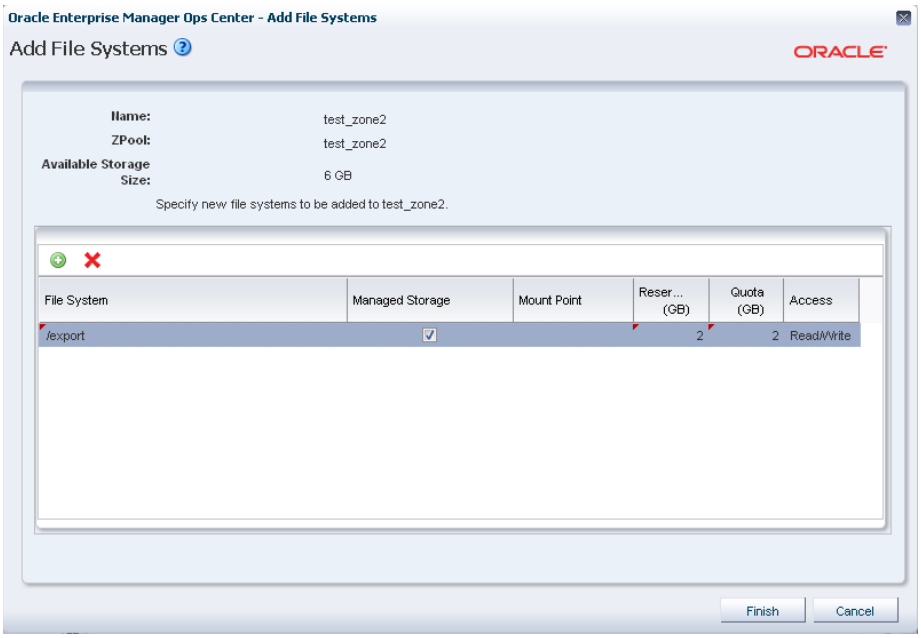


In this example, a file system is added on a managed storage resource. The file system will be added to the existing zpool of the zone.

1. Select the zone from the Assets section.
2. Click Shut down Zone from the Actions pane.

   The zone is shutdown and the Add File System option is enabled.
3. Click Add File System in the Actions pane.

   The Add File Systems window is displayed.

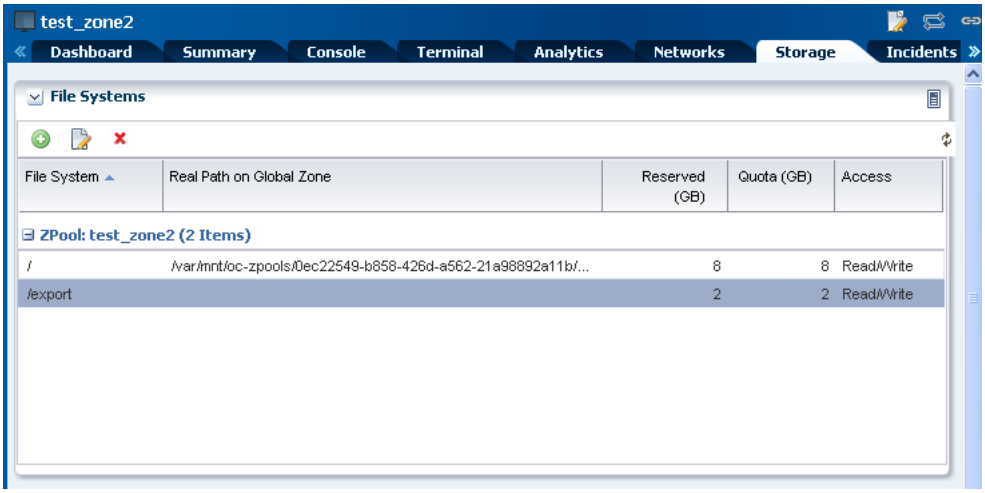


4. Define the following details for the file system:
   - Enter the file system.

- Select the storage source as Managed Storage.
- Enter the Reserved and Quota size of the file system.
- Set the Access to Read/Write.

5. Click Finish to add the file system to the zone.

The file system is added to the zone existing zpool. You must boot the zone for the changes to take effect.



Connecting to Network

You can connect or disconnect from networks from the zone. The networks that are attached to the global zone are available to be connected to the zone. The networks that are attached to the global zone in shared or exclusive mode. Depending on the type of the zone, the corresponding networks are available.

This example showcases a scenario of connecting a network to a zone in shared IP mode.

1. Select the zone from the Assets section.
2. Select Shutdown Zone in the Actions pane.

   The zone must be in shutdown state to connect networks to it.

3. Click Shutdown Zone in the Shutdown Zone window.

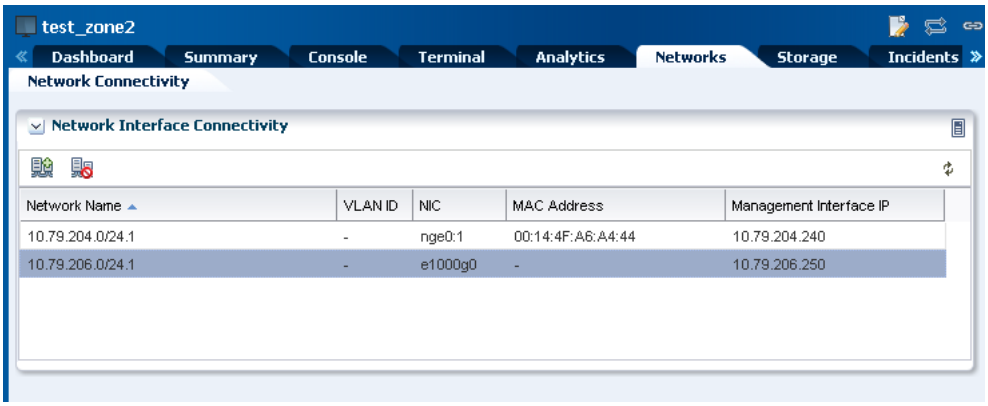
   The zone is shut down. The Connect Network option is enabled in the Actions pane.

4. Click Connect Networks in the Actions pane.

   The Connect Networks to Zone window is displayed.

5. Select the network from the list and enter the following details:
   - The NIC
   - Use Static IP as the Address Allocation Method
   - The IP address for the zone
6. Click Connect Networks to connect the network to the zone.

The network is connected to the zone and the Networks tab list the connected network as shown in the figure:



Boot the zone to change the state to running.

Cloning Zones

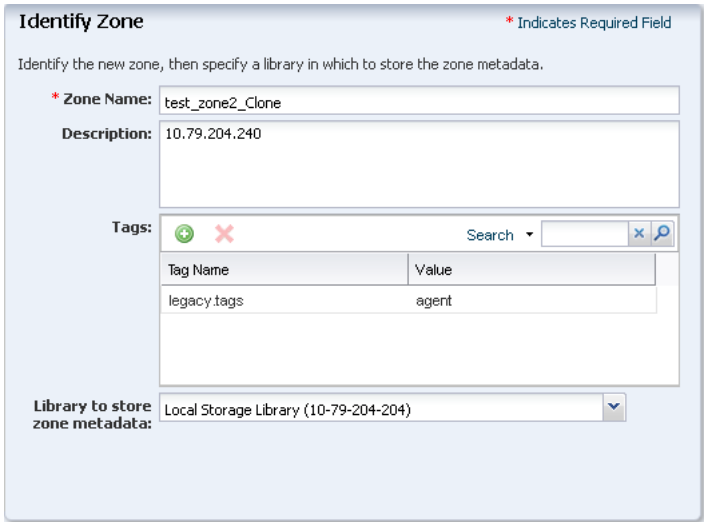
Zone replication also known as cloning zones are similar to creating new zones. You can retain the zone configuration of the existing zone or change the configuration of

the zone when you create it. You can make clones of zone and manage their configuration.

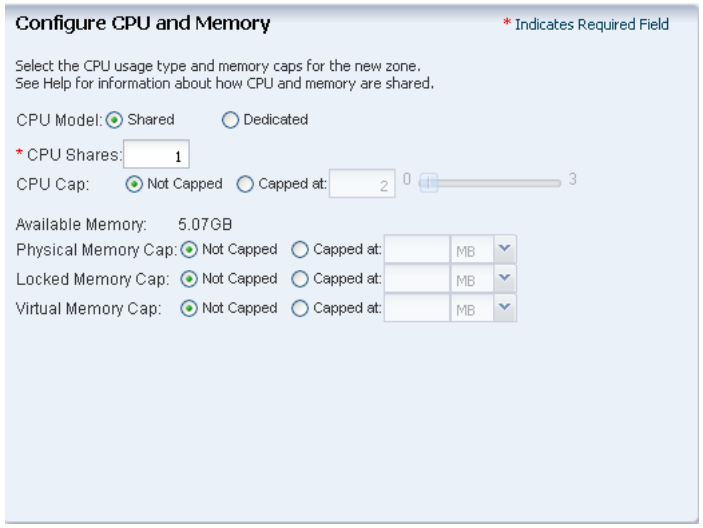
1. Select the zone that must be replicated from the Assets section.
2. Click Replicate Zone from the Actions pane.

   The Replicate Zone wizard is displayed.
3. Define the following zone details:
   - A default zone name is created. You can change the name. In this example, the default zone name is retained.
   - Select the library in which to store the cloned zone metadata.

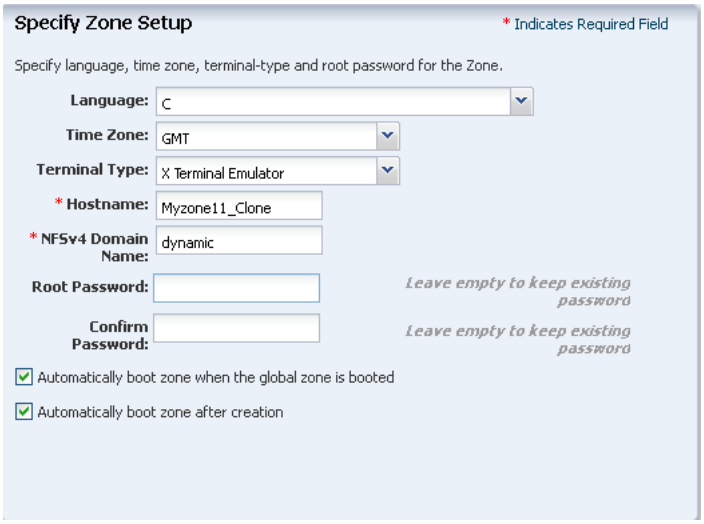
   Click Next.



4. Retain the CPU and memory specification as described for the zone and click Next.

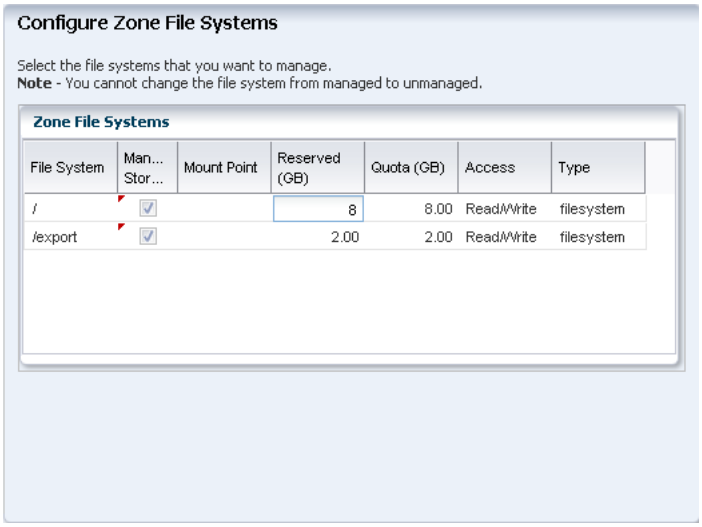


5. Retain the zone setup parameters and click Next.



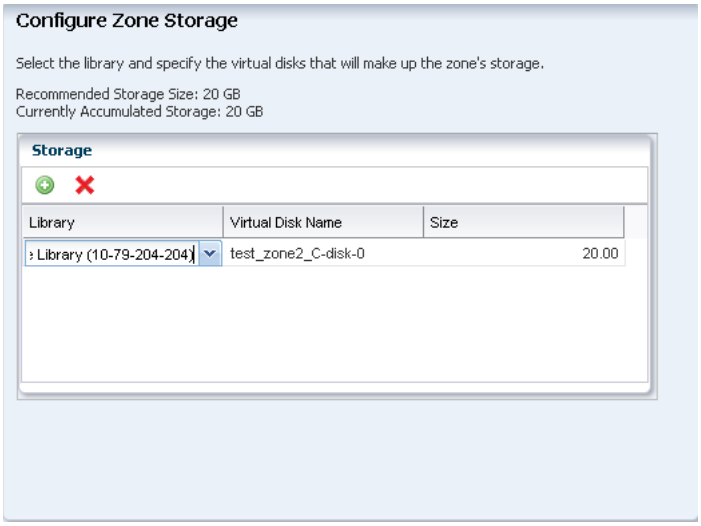
6. In the Configure Zone File Systems, retain the file system as described.

   If required, you can change only the Reserved and Quota size of the file system. Click Next.



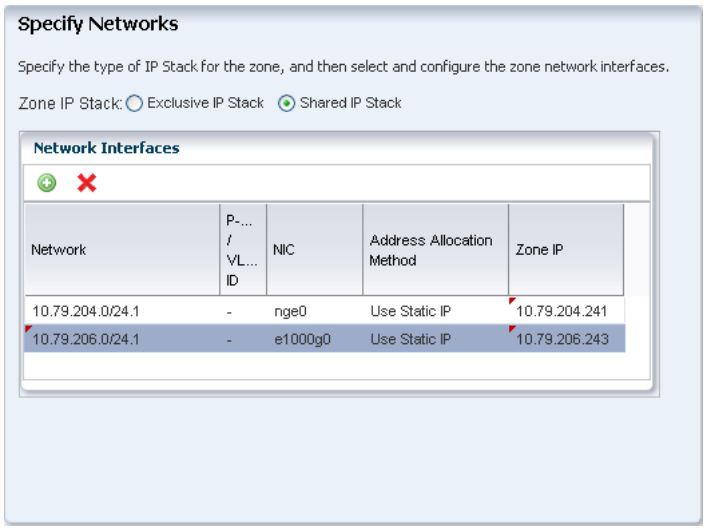
7. Select the library for the zone storage. Enter the size of the virtual disk.

   Click Next.



8. Select the IP stack and the networks that must be connected to the zone. In this example, maintain the network connections as described for the selected zone. Enter the IP address for the cloned zone to be connected to the networks.

   Click Next.

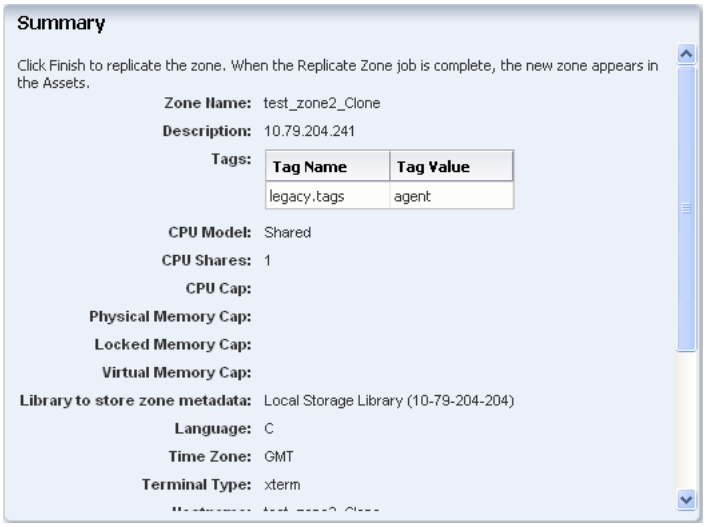


9. Select None for the name service.

   Click Next.

10. View the summary of the information provided for the replication.

Click Finish to replicate the zone.



The zone replication job is started and you can view the new zone in the Assets section as shown in the below figure:

What's Next?

You can manage the lifecycle of your zones. See Related Articles and Resources for more information about zones.

Related Articles and Resources

The Oracle Enterprise Manager Ops Center 12c documentation is located at http://www.oracle.com/pls/topic/lookup?ctx=oc121.

See the following guides for more information:

- *Oracle Enterprise Manager Ops Center Feature Reference Guide* for information about zones and server pools.
- *Oracle Enterprise Manager Ops Center Administration Guide* for information about user roles and permissions.

Other examples are available at http://docs.oracle.com/cd/E27363_01/nav/howto.htm.

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