

Manage the Life Cycle of an Oracle SOA Suite on Marketplace Instance

Objectives

After completing this lesson, you should be able to know how to:

- Scale out or in an Oracle SOA Suite on Marketplace Instance Cluster
- Scale an Oracle SOA Suite on Marketplace Instance up or down
- Stop or start an Oracle SOA Suite on Marketplace Instance
- Disable Server Restart during an Instance Reboot





Perform Life Cycle Operations on an Oracle SOA Suite Instance

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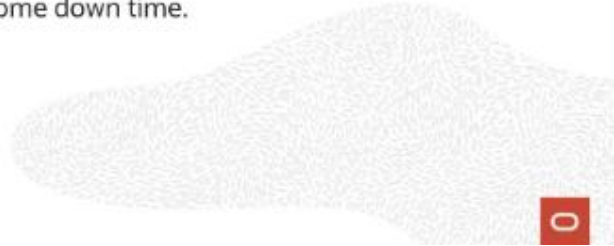


Perform Life Cycle Operations on an Oracle SOA Suite Instance



Overview of Scaling

- Scale an instance cluster out or in to add or remove nodes.
- Determine what you need to scale from metrics associated with the instance.
- Scale out and in operations support the addition and deletion of Managed Servers one node at a time.
- You can scale an Oracle SOA Suite on Marketplace instance up or down to change its compute shape or to add storage to a node..
- A scale up or down operation requires some down time.



Cluster Scale Out and Instance Up Oracle SOA Suite Instance



To scale out an Oracle SOA Suite on Marketplace instance cluster:

1. Go to the Stack Details page of the instance and click **Edit Stack**.
2. In the Edit Stack wizard, click **Next** to go to **Configure Variables**.
3. Change the shape as VM.Standard 2.4. Increment the CLUSTER NODE COUNT value by 1
4. Click **Next** to navigate to the Review page showing the new cluster node count value and click **Save Changes**.

Similarly, if you want to scale cluster down or shape down, change the details like decrease the node count or change the shape.

Execute the Terraform Plan Operation



Execute the Terraform Plan operation:

1. Go to the Stack Details page of the instance.
2. On the Stack Details page, click Terraform Actions and select Plan.
3. In the Plan dialog box, click Plan.

Execute the Terraform Apply Operation

The image consists of two screenshots from the AWS Management Console, illustrating the steps to execute a Terraform Apply operation.

Screenshot 5 (Left): Shows the 'SOADO_03' Terraform job page. A blue callout bubble with the text 'Click Apply' points to the 'Apply' button in the top right corner. The page displays job details, including the job ID 'SOADO_03', the provider 'aws', and the status 'Pending'. A table at the bottom shows the job's progress, with a red box highlighting the 'Succeeded' status.

Screenshot 6 (Right): Shows the 'Apply' dialog box. A blue callout bubble with the text 'Select the Plan' points to the 'Plan' dropdown menu. Another blue callout bubble with the text 'Click Apply' points to the 'Apply' button at the bottom of the dialog. The dialog also displays a warning message about resources that will not be deployed immediately.

Execute the Terraform Apply operation:

1. The Terraform Apply operation creates a new load balancer, along with the associated resources such as a listener, backend sets, and so on.
2. When the Terraform Plan job completes successfully, click Terraform Actions and select Apply.
3. In the Apply dialog box, click Apply.

Validate the Results - WebLogic Console

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Log in to WebLogic - Click Servers

Added 2 nodes (i.e., Managed Servers)

Name	Type	Target	Runtime	Status	Health	Log
ManagedServer1	ManagedServer	ManagedServer1	ManagedServer1	Running	OK	Log
ManagedServer2	ManagedServer	ManagedServer2	ManagedServer2	Running	OK	Log

Steps:

1. Access the WebLogic Administration Console using the URL.
2. Expand Environment under the Domain Structure and select Servers.
3. You can see there are two managed servers as you have increased the node as "2".

Validate the Results - Compute Instance

The screenshot displays the Oracle Cloud console interface. On the left, the navigation menu shows 'Compute' and 'Instances' highlighted. The main area shows a list of instances in the 'SOAOCIO2' compartment. Two instances are listed: 'SOAOCIO2-soa-0' and 'SOAOCIO2-soa-1', both in a 'Running' state. A callout box points to these instances, stating: 'Two nodes: SOAOCIO2-soa-0, SOAOCIO2-soa-1'. Below the list, the details for 'SOAOCIO2-soa-0' are shown. The 'Shape' is 'VM.Standard2.4', which is highlighted by a callout box stating: 'Shape updated to VM.Standard2.4 from 2.2'. The 'Primary VNIC' is 'vnic1'.

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Two nodes: SOAOCIO2-soa-0, SOAOCIO2-soa-1

Shape updated to VM.Standard2.4 from 2.2

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View the compute instance details:

1. From the OCI console, open the navigation menu and click Compute → Instances.
2. You can see there are two instances (example: in our case it is SOAOCIO2-soa-0, SOAOCIO2-soa-1) since you have increased node count as 2.
3. Click "SOAOCIO2-soa-0."
4. It displays the Instance Information as shown below. Notice that the shape is updated from "VM.Standard 2.2 to VM.Standard 2.4". Similarly, you can view the details of OAOICIO2-soa-1.




Stop or Start an Oracle SOA Suite on Marketplace Instance



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The next operation is stop or start an oracle SOA Suite Instance.

Stop or Start an Oracle SOA Suite on Marketplace Instance



SOA00002-000-0

Instance Information Oracle Cloud Infrastructure Compute

Availability Domain: AD-1
Fault Domain: FD-1
Region: us
VNIC: vnic1-00000000-0000-0000-0000-000000000000
Created: 10/24/2023 14:00:00
Operating System: Linux x86_64
Image: Oracle Linux 8.5

Instance Access
The instance is accessible via the public IP address. For more information, see the Oracle Cloud Infrastructure documentation.
Public IP Address: 10.10.10.10
Domain: us
Primary VNIC
Private IP Address: 10.10.10.10

1 Stop Instance


Stopping the instance sends a shutdown command to the operating system. After waiting 15 minutes for the OS to shut down, the instance is powered off.

If the applications on the instance take more than 15 minutes to shut down, they could be improperly stopped, resulting in data corruption. To avoid this, manually shut down the instance using the OS before you stop the instance in the Console.

Are you sure you want to stop the instance **SOA00002-000-0**?

☐ Force stop the instance by irreversibly powering off.

[Stop Instance](#) [Cancel](#)



SOA00002-000-0

Instance Information Oracle Cloud Infrastructure Compute

Availability Domain: AD-1
Fault Domain: FD-1
Region: us
VNIC: vnic1-00000000-0000-0000-0000-000000000000
Created: 10/24/2023 14:00:00
Operating System: Linux x86_64
Image: Oracle Linux 8.5

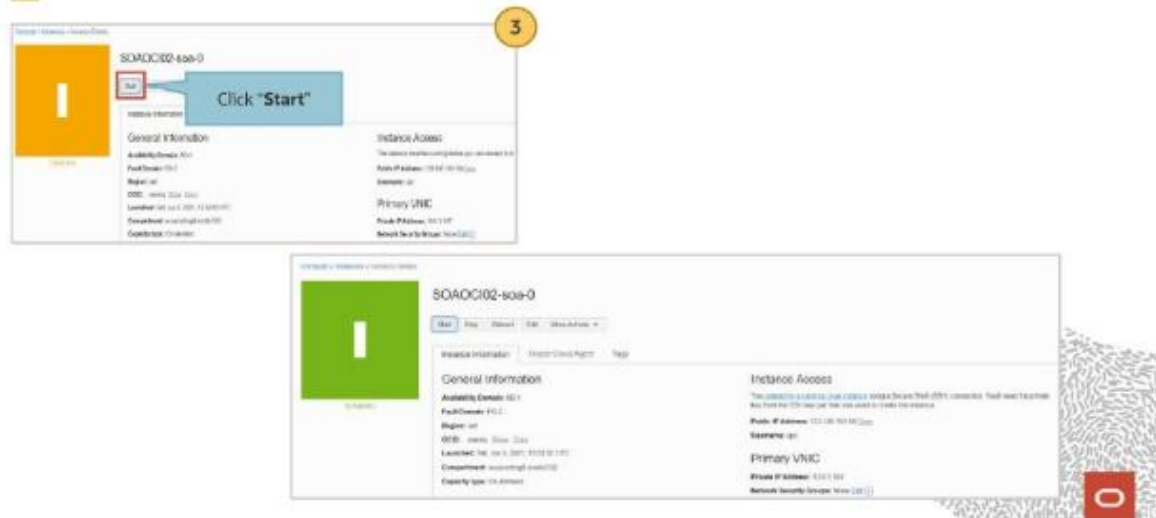
Instance Access
The instance is accessible via the public IP address. For more information, see the Oracle Cloud Infrastructure documentation.
Public IP Address: 10.10.10.10
Domain: us
Primary VNIC
Private IP Address: 10.10.10.10
Network Security Groups: None
State: **Running**
Power: **On**

Use the Oracle Cloud Infrastructure Console to stop or start an Oracle SOA Suite on Marketplace instance.

To stop or start an Oracle SOA Suite on Marketplace instance:

1. Sign in to OCI console
2. Open the navigation menu and click **Compute**. Under **Compute**, click **Instances**.
3. On the Compute page, at the far right of the row for the instance, click and select **Stop** or **start**.

Stop or Start an Oracle SOA Suite on Marketplace Instance



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To Start an Oracle SOA Suite on Marketplace Instance, On the details page, Click Start. Then the Lifecycle Status will be changed to running state.

Start Admin and Managed Servers

```
oracle@soaoc102-sca-0:~$ /opt/scripts/restart/restart_12c_servers.sh
2021-06-20 04:48:11.923609066 ==> Starting nodemanager
2021-06-20 04:48:11.926904736 ==> Starting Admin server
NODEMGR_HOME is already set to /u01/data/domains/soaoc102_domain/nodemanager
CLASSPATH=/u01/jdk/lib/tools.jar:/u01/app/oracle/middleware/wlserver/server/lib/weblogic.jar:/u01/app/oracle/middleware/wlserver/..oracle_common/modules/thirdparty/ant-contrib-1.0b3.jar:/u01/app/oracle/middleware/wlserver/modules/features/oracle.wls.common.nodemanager.jar:/u01/app/oracle/middleware/wlserver/modules/features/oracle.wls.common.grizzly.jar
* /u01/jdk/bin/java -server -Xms32m -Xmx200m -Djdk.tls.ephemeralDHKeySize=2048 -Dcoherence.home=/u01/app/oracle/middleware/wlserver/..coherence -Dbea.home=/u01/app/oracle/middleware/wlserver/.. -Doracle.security.jps.config=/u01/data/domains/soaoc102_domain/config/fmwconfig/jps-config-jse.xml -Dcommon.components.home=/u01/app/oracle/middleware/oracle_common -Dopss.version=12.2.1.3 -Dweblogic.RootDirectory=/u01/data/domains/soaoc102_domain -Djava.system.class.loader=com.oracle.classloader.weblogic.LaunchClassLoader -Djava.security.policy=/u01/app/oracle/middleware/wlserver/server/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/u01/jdk weblogic.NodeManager -v
Initializing WebLogic Scripting Tool (WLST) ...
```

Restart Servers

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After you start (or reboot) the instance, if the servers are not running, complete the following steps:

1. Change to the oracle user: **sudo su - oracle**
2. Run the restart script: **/opt/scripts/restart/restart_12c_servers.sh**

Wait for the servers to start before proceeding.

Stop and Start the Managed Server - WebLogic Administration Console



You can stop or start the Managed Servers for an Oracle SOA Suite on Marketplace instance through the WebLogic Server Administration Console.

To stop or start the Managed Servers:

1. Log in to the Weblogic Administration Console.
2. Under **Domain Structure**, expand **Environment** and select **Servers**.
3. On the Configuration page, note the state of the Administration Server and the Managed Servers.
4. Select the **Control** tab.
5. For each Managed Server: Click the check box to the left of a Managed Server name.
6. To stop a Managed Server: Click **Shutdown** and then select **Force Shutdown Now** or **When Work Completes**.
7. To start a Managed Server: Click **Start**.
8. On the Server Life Cycle Assistant, click **Yes**. The server state changes to SHUTTING DOWN (if stopping) or STARTING (if starting).
9. Click the **Refresh** icon. The server state changes to SHUTDOWN (if stopping) or RUNNING (if starting).



Disable Server Restart During an Instance Reboot

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Disable Server Restart During an Instance Reboot

```
[oracle@soaoci02-soa-0 ~]$ cd $DOMAIN_HOME
[oracle@soaoci02-soa-0 SOAOCI02_domain]$ vi soampRebootEnv.sh
1 export start_server_on_reboot=false
```

start_server_on_reboot=false

```
[oracle@soaoci02-soa-0 ~]$ cd $DOMAIN_HOME
[oracle@soaoci02-soa-0 SOAOCI02_domain]$ vi soampRebootEnv.sh
1 export start_server_on_reboot=true
```

start_server_on_reboot=true

- For Oracle SOA Suite on Marketplace instances provisioned on or after 20.4.2, if you need to reboot an instance, you can optionally disable the default automatic restart of the Administration Server and Managed Servers.

To disable the automatic restart of the Administration Server and Managed Servers when you reboot an Oracle SOA Suite on Marketplace instance (provisioned on or after 20.4.2), here are the steps:

1. In the **DOMAIN_HOME** directory, open **soampRebootEnv.sh** in a text editor:
vi \${DOMAIN_HOME}/soampRebootEnv.sh
2. Set the **start_server_on_reboot** variable to false: **export start_server_on_reboot=false**
export start_server_on_reboot=false
3. Save **soampRebootEnv.sh**. To enable the automatic restart of the servers again, open **soampRebootEnv.sh** and set the **start_server_on_reboot** variable to true: **export start_server_on_reboot=true**

Summary

In this lesson, you should have learned how to:

- Scale out or in an Oracle SOA Suite on Marketplace Instance Cluster
- Scale an Oracle SOA Suite on Marketplace Instance up or down
- Stop or start an Oracle SOA Suite on Marketplace Instance
- Disable Server Restart during an Instance Reboot



Practice 7: Manage the Life Cycle of an Oracle SOA Suite on Marketplace Instance

- Practice 7-1: Scale an Instance Up and Scale an Instance Cluster Out.
- Practice 7-2: Stop or Start an Oracle SOA Suite on Marketplace Instance.

