

**Practices for Lesson 7:
Manage the Life Cycle of an
Oracle SOA Suite on
Marketplace Instance**

Overview

A node is a virtual machine (VM) running a Managed Server instance that is a part of a cluster. Scale an Oracle SOA Suite on Marketplace instance cluster out or in to add or remove nodes in response to changes in the load on the cluster.

In these practices, you will learn to perform lifecycle operations such as Scaling, Starting, and Stopping on your Oracle SOA Suite on Marketplace Instance.

Practice 7-1: Scale an Instance Up and Scale an Instance Cluster Out

Overview

In this practice, you will learn how to scale an instance up by changing the shape .You will also scale out the cluster by increasing the node count.

Tasks

1. Open OCI console, from navigation menu, and click **Developer Services**. Under Resource Manager, click **Stacks**.
2. Click the name of your stack. (In our example, it is **SOAOCI_02**.)
3. On the Stack Details page, click **Edit**.

The screenshot shows the OCI Stack Details page for a stack named 'SOAOCI_02'. The page has a left sidebar with a navigation menu including 'Stacks', 'Jobs', 'Variables', and 'Stacks'. The main content area is titled 'SOAOCI_02' and includes a 'Stack Information' tab. The information section shows the stack is in a 'Failed' state. Below this, there is a 'Jobs' section with a table of jobs. The table has columns for 'Name', 'Type', 'State', 'Start Time', 'End Time', and 'Status File'. One job is listed with the name 'SOAOCI_02-2021-04-09-15:31:29-UTC' and a state of 'Failed'.

4. In the Edit Stack wizard, click **Next** to go to **Configure Variables** page.

The screenshot shows the 'Edit Stack' wizard in the OCI console, specifically the 'Configure Variables' page. The page has a left sidebar with a navigation menu including 'Stack Information', 'Configure Variables', and 'Stacks'. The main content area is titled 'Edit Stack' and includes a 'Stack Information' section. The 'Stack Information' section shows the stack is in a 'Failed' state. Below this, there is a 'Configure Variables' section with a table of variables. The table has columns for 'Name', 'Type', 'Value', and 'Status'. One variable is listed with the name 'SOAOCI_02' and a status of 'Failed'. At the bottom of the page, there is a 'Next' button.

5. Scaling out an Oracle SOA Suite on Marketplace instance cluster adds one node to the cluster. Change the Cluster Node count "2". Click **Next**.

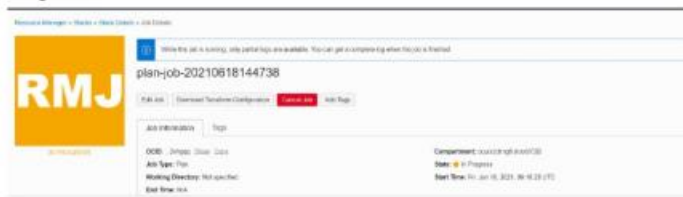
6. Click **Next** to navigate to the Review page; then click **Save Changes**.
7. Follow the below steps to scale out the shape or cluster.
 - a. Go to the Stack Details page of the instance; click **Plan**.



- b. In the Plan dialog box, accept the default name and click **Plan**.

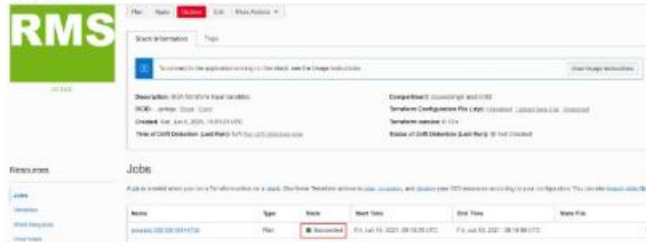


- c. Allow sufficient time for the plan job to complete. Initially, the status of the job will be **In Progress**.



The screenshot shows the 'plan-job-20210618144738' page in the RMJ Stacks interface. The job status is 'In Progress'. The page includes a 'Stack Information' tab and a 'Jobs' section. The job details show the job type as 'Plan', the status as 'In Progress', and the start time as 'Fri, Jun 18, 2021, 16:14:23 (UTC)'.

- d. Go back to Stacks Details page; you can see Terraform Plan job with **Succeeded** state.



The screenshot shows the 'Stacks' page in the RMS interface. The job status is 'Succeeded'. The page includes a 'Stack Information' tab and a 'Jobs' section. The job details show the job type as 'Plan', the status as 'Succeeded', and the start time as 'Fri, Jun 18, 2021, 16:14:23 (UTC)'.

- e. From Stacks page, click **Apply**.



The screenshot shows the 'Stacks' page in the RMS interface. The job status is 'Succeeded'. The page includes a 'Stack Information' tab and a 'Jobs' section. The job details show the job type as 'Plan', the status as 'Succeeded', and the start time as 'Fri, Jun 18, 2021, 16:14:23 (UTC)'.

- f. In the Apply dialog box, choose the plan job that you have created and click **Apply**.

[Help](#)

Apply

Name: *Optional*

Apply Job Plan Resolution

Customer automatically approves all items and sends successful plan job to apply

i Resources defined by this stack will be deployed immediately. If you want to remove these resources later, you can run the Destroy job for this stack.

[Show Advanced Options](#)

Apply
Cancel

- g. Allow sufficient time for the apply job to complete. Initially, the status of the job will be **In Progress**.

Resource Manager > Jobs > Stack Details > Job Details

RMJ

apply-job-20210618144955

[Edit Job](#) [Download Termination Configuration](#) Cancel Job [Add Tags](#)

Job Information		Tags
OCBET-KM2021 (2021-06-18)	Compartment: oca20210618144955	
Job Name: Apply	Plan Job ID: jn20210618144955	
Status: In Progress	Working Directory: Not specified	
Start Time: 18-Jun-2021 08:29:03 UTC	End Time: N/A	

- h. Go back to Stack Details page; you can view the **Apply** job with **Succeeded** state.

8. Click the **apply job** name, and it displays the Job Details page.
9. Under **Resources** in the left pane, click **Logs** to view the updated instance summary with the new node details.

```
Service_Consoles = {
  SOA Composer      : https://129.159.68.243/soa/composer
  B2B Console       : https://129.159.68.243/b2bconsole
  Service Bus Console : https://129.213.40.244:7002/servicebus
  Worklist Application : https://129.159.68.243/integration/worklistapp
}
Service_Instances = {
  Instance Id : ocid1.instance.oc1.iad.ammwclj5jci5njlcd6qpy5aethkrxstuxyzvvyfth3w6bqlsijvvoexiowaa,
  Instance name : SOAOCI10-soa-0,
  Private IP : 10.0.3.66,
  Public IP : 129.213.40.244
}
{
  Instance Id : ocid1.instance.oc1.iad.ammwclj5jci5njlcd6qpy5aethkrxstuxyzvvyfth3w6bqlsijvvoexiowaa,
  Instance name : SOAOCI10-soa-1,
  Private IP : 10.0.3.117,
  Public IP : 150.136.89.148
}
```

Add Ingress Rule to access WebLogic Server Administration Console:

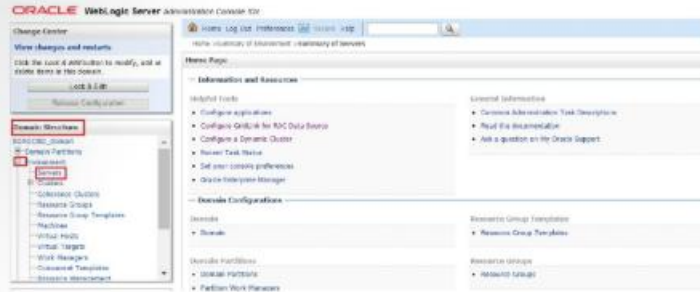
Add the following ingress rules in security list **SOAOCI02-wls-security-list**, which is under **"SOAOCI02-wls-subnet"** of your VCN. Detailed steps are listed in the practices for Lesson 3.

Rule1:

- SOURCE TYPE:** Select **CIDR**.
- SOURCE CIDR:** Enter **0.0.0.0/0**.
- IP PROTOCOL:** Select **TCP**.
- DESTINATION PORT RANGE:** **7002**.
- Description:** To access WebLogic and Enterprise Manager.
- Click **Add Ingress Rules**.

View the Cluster Count in WebLogic Server Admin Console:

1. Access the WebLogic Server Administration Console using the URL <https://132.145.191.58:7002/console> (this is an example URL in our case and it will be different for you) and provide the username as "weblogic" and password as "Wwelcome#123" and then click "Login".
It displays the WebLogic Server Administration console home page.
2. Expand **Environment** under the Domain Structure and select **Servers**.



3. You can see that there are two Managed Servers as you have increased the node as "2".



View the compute instance details:

1. From the OCI console, open the navigation menu and click **Compute → Instances**.
2. Select the compartment that is assigned to you, and you can see there are two instances (example: in our case it is **SOAOC102-soa-0**, **SOAOC102-soa-1**) since you have increased node count as 2.

Instances in C02 Compartment

The [Launch Instance](#) button lets you provision VMs and select their attributes to meet your compute and application requirements. An [Instance](#) is a virtual host. Choose between virtual machines (VMs) and bare metal instances. The wizard that you see to launch an instance determines its operating system and other software.

Name	State	Public IP	Shape	OCPU Count	Memory (GB)	Availability Domain	Fault Domain	Created
SOAOCI02-soa-1	Running	132.145.222.140	VM.Standard2.4	4	30	AD-1	FD-1	Thu, Jan 15, 2021, 08:25:53 UTC
SOAOCI02-soa-0	Running	132.145.222.141	VM.Standard2.4	4	30	AD-1	FD-2	Thu, Jan 15, 2021, 08:25:53 UTC
SOAOCI02-soa-2	Running	132.145.222.142	VM.Standard2.4	4	30	AD-1	FD-3	Thu, Jan 15, 2021, 08:25:53 UTC
SOAOCI02-soa-3	Running	132.145.222.143	VM.Standard2.4	4	30	AD-1	FD-4	Thu, Jan 15, 2021, 08:25:53 UTC
SOAOCI02-soa-4	Running	132.145.222.144	VM.Standard2.4	4	30	AD-1	FD-5	Thu, Jan 15, 2021, 08:25:53 UTC

- Click **"SOAOCI02-soa-0."**
- It displays the Instance Information as shown below (information that you see may vary). Similarly, you can view the details of **SOAOCI02-soa-1**. The details of the shape configuration are based on what is chosen during instance provisioning.

SOAOCI02-soa-0

Start Stop Restart OSB Show Actions

Instance Information

Overview Cloud Audit Logs Tags

General Information

Availability Domain: AD-1

Fault Domain: FD-1

Region: us1

OCPU: 4

Memory: 30 GB

Launched: Thu, Jan 15, 2021, 08:25:53 UTC

Compartment: soa-01

Capacity type: On-Demand

Instance Details

Virtual Cloud Network: [VCN-01](#)

Subnet: [Subnet-01](#)

Image: [Image-01](#)

Instance Access

You can connect to the instance using a Secure Shell (SSH) connection. You'll need the private key from the key pair that was used to create the instance.

Public IP Address: 132.145.222.140

Username: opc

Primary VNIC

Private IP Address: 10.0.1.10

Network Security Groups: [NSG-01](#)

Subnet: [Subnet-01](#)

Private IP Address: 10.0.1.10

Instance: soa-01

Internal FQDN: soa-01

Shape Configuration

Shape: VM.Standard2.4

OCPU Count: 4

Network Bandwidth (Gbps): 4.1

Memory (GB): 30

Local Disk: Block Storage Only

Boot Volume Type: (SCSI)

In-transit Encryption: Disabled

You have now successfully scaled out your SOA instance.

Practice 7-2: Stop or Start an Oracle SOA Suite on Marketplace Instance

Overview

You can stop or start an Oracle SOA Suite on Marketplace instance, which automatically stops or starts the Administration Server and Managed Server running on the instance.

In this practice, you will learn how to stop or start an Oracle SOA Suite on Marketplace Instances.

Tasks

Stop an Oracle SOA Suite on Marketplace Instance:

Stopping an Oracle SOA Suite on Marketplace instance frees up compute resources used by the instance.

1. From the OCI console, open the navigation menu and click **Compute** → **Instances**.
2. Select the compartment that is assigned to you, and you can see there are two instances (example: in our case it is **SOAOCI02-soa-0**, **SOAOCI02-soa-1**) since you have increased node count as 2.

Instances in C02 Compartment

The [Console](#) helps you provision VMs and bare metal instances to meet your compute and application requirements. An [instance](#) is a compute host. Choose between virtual machines (VMs) and bare metal instances. The images that you use to launch an instance determine its operating system and other software.

Oracle Instance								
Name	State	Public IP	Shape	OCPU Count	Memory (GB)	Availability Domain	Fault Domain	Created
SOAOCI02-soa-1	Running	152-136-222-140	VM.Standard2.4	4	30	AD-3	FD-3	Fri, Jan 18, 2021, 08:21:51 UTC
				1	8	AD-1	FD-2	Tue, Jan 15, 2021, 09:08:11 UTC
				1	8	AD-1	FD-1	Tue, Jan 15, 2021, 09:08:06 UTC
				1	8	AD-1	FD-2	Tue, Jan 15, 2021, 09:38:47 UTC
SOAOCI02-soa-0	Running	152-145-191-58	VM.Standard2.4	4	30	AD-1	FD-2	Sat, Jan 9, 2021, 15:52:02 UTC

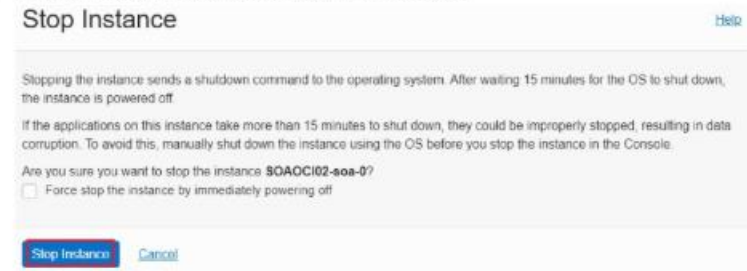
3. Click **"SOAOCI02-soa-0."**

4. On the Instance Details page, click **Stop**.



The screenshot shows the 'Instance Details' page for instance `SOAOC102-soa-0`. The instance is currently in the `Running` state. The `Stop` button is highlighted with a red box. The page displays general information such as Availability Domain, Fault Domain, Region, OS, and Launch time. It also shows instance access details like Public IP Address and Private IP Address.

5. You will be asked to confirm. Click **Stop Instance** again.



The screenshot shows the 'Stop Instance' confirmation dialog box. The dialog box contains the following text:

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 this 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 `SOAOC102-soa-0`?

☐ Force stop the instance by immediately powering off

The `Stop Instance` button is highlighted with a red box.

6. The lifecycle status will be **Stopping** as shown below:



The screenshot shows the 'Instance Details' page for instance `SOAOC102-soa-0`. The instance is now in the `Stopping` state. The `Stop` button is highlighted with a red box. The page displays general information such as Availability Domain, Fault Domain, Region, OS, and Launch time. It also shows instance access details like Public IP Address and Private IP Address.

- After the instance has stopped, the lifecycle status will be **Stopped**.



8. You can start this stopped instance if you want to use it again. To start an Oracle SOA Suite on Marketplace Instance, on the Instance Details page, click **Start**.

The screenshot displays the AWS Management Console interface for an Amazon EC2 instance. At the top, there is a navigation bar with 'Home' and 'Instances > Instance Details' links. Below this is a header for the instance 'SOAOC102-soe-0'. A status bar shows 'Start', 'Stop', 'Reboot', 'EBS', and 'More Actions' buttons, with 'Start' highlighted. The main content area is divided into two columns. The left column, titled 'Instance Information', includes 'General Information' such as 'Availability Domain: A-1', 'Public DNS: ec2-132-145-131-58.us-east-1.amazonaws.com', 'Region: us-east-1', 'OS: Amazon Linux 2', 'Launched: Sat, Jan 5, 2021, 10:52:00 UTC', 'Compartment: aws-ec2-us-east-1', and 'Capacity type: On-demand'. The right column, titled 'Instance Access', shows 'Instance Access' details like 'Public IP Address: 132.145.131.58 Copy', 'Username: ec2-user', and 'Primary VNC' information including 'Private IP Address: 10.0.3.10', 'Network Security Groups: sg-0a8c1e38', 'Subnet: subnet-0a8c1e38', 'Private DNS record: ec2-132-145-131-58.us-east-1.amazonaws.com', and 'Hostname: ec2-132-145-131-58.us-east-1.amazonaws.com'. The bottom section, 'Instance Details', shows 'Virtual Cloud Network: SOAOC102-VPC', 'Amazon EC2 VPC: ec2-132-145-131-58.us-east-1.amazonaws.com', and 'IP: 10.0.3.10'. The instance is shown as 'Running' with a green checkmark icon.

9. The lifecycle status will be **Starting** as shown below:

Compute > instances > instance details

SOAOC102-sos-0



SOAOC102

[Start](#) [Stop](#) [Reboot](#) [More Actions](#)

[Instance Information](#) [Oracle Cloud Agent](#) [Tags](#)

General Information

Availability Domain: AD-1
Fault Domain: FD-2
Region: us
OCI ID: ocid1.instance.oc1-us...
Launched On: Jan 8, 2021, 15:52:52 UTC
Compartment: ocuadmgmt-prod/CAS
Capacity Type: On-Demand

Instance VNIC

The instance must be running before you can connect it.

Public IP Address: 132.145.101.36 Copy
Username: oci

Primary VNIC

Private IP Address: 10.0.3.18/
Network Security Groups: None

10. After the instance has started, the lifecycle status will be changed to **Running**. Similarly, you can stop and start the **SOAOC102-soa-1** instance.

Complete > Instances > Instance console



SQAOC102-sqa-0

Start Stop Restart Edit More Actions

Instance Information [View Cloud Agent](#) [Logs](#)

General Information

Availability Domain: **AD-1**
 Fault Domain: **FD-0**
 Region: **us-east-1**
 OS: **CentOS Linux 7.6**
 Launched: **5/4/2021 10:50:00 AM**
 Cloudwatch: [View Cloudwatch Logs](#)
 Capacity type: **On-Demand**

Instance Access

You cannot [connect to a Linux instance](#) unless it is in the **Running** state. Visit [this page](#) for the steps you can take to connect to a Linux instance.

Public IP Address: **132.146.191.81** [View](#)
 Username: **ec2-user**

Primary VNIC

Private IP Address: **193.3.151**
 Network Security Groups: [View](#) [Edit](#)

This completes the Stop or Start operation of an Oracle SOA Suite on Marketplace Instance.