

**Practices for Lesson 3:
Provision Oracle SOA Suite
on Marketplace Instance**

Overview

In these practices, you will provision an Oracle SOA Suite on Marketplace instance, perform post provisioning tasks and view the instance details.

You will also access WebLogic Server Administration and Fusion Middleware consoles of the provisioned instance.

Practice 3-1: Provision an Oracle SOA Suite on Marketplace Instance


Overview

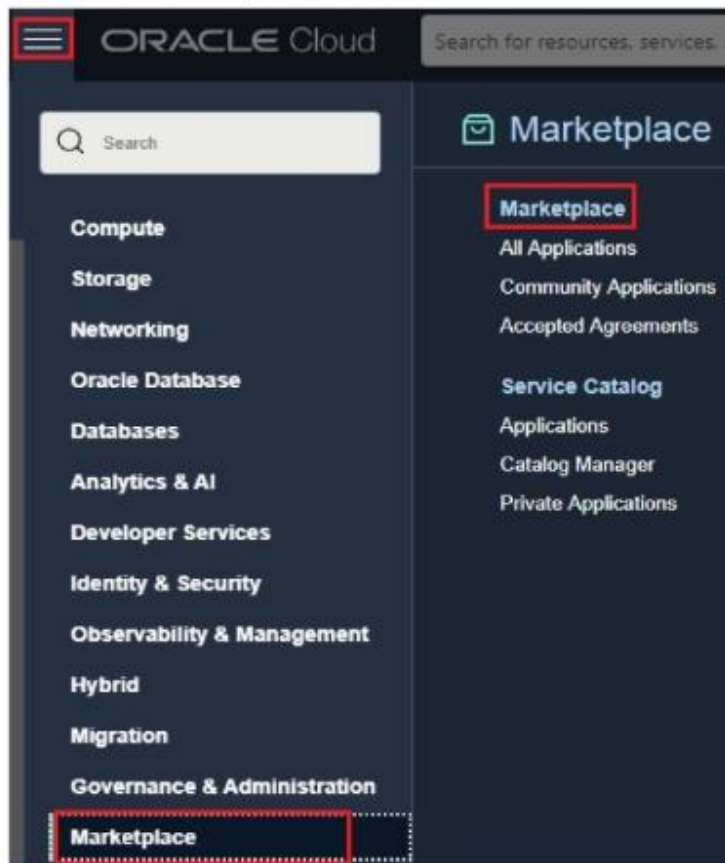
In this practice, you will provision an Oracle SOA Suite on Marketplace Instance.

Assumptions

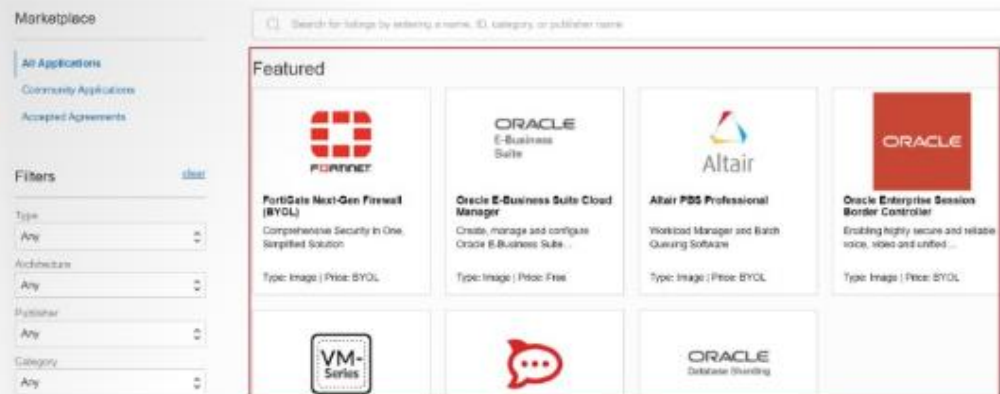
- You have completed the previous practice successfully.

Tasks

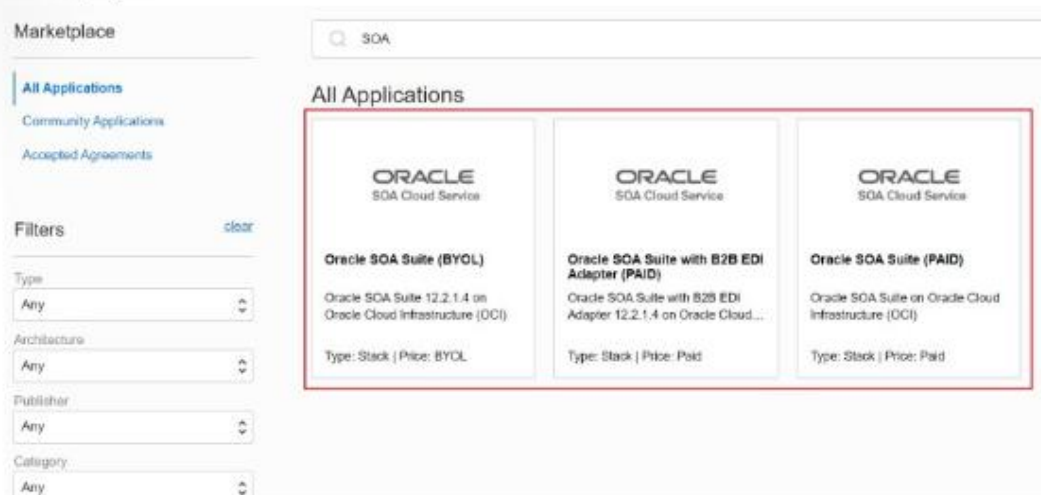
1. Launch the web browser from your Windows system and navigate to <https://console.us-ashburn-1.oraclecloud.com> or an equivalent link provided to you.
2. Log in to your assigned Cloud account as described in the previous practice. You should create all cloud resources in the OCI region assigned to you i.e **US East (Ashburn)**.
3. Expand the menu  located at the top-left corner. Select **Marketplace** in the Marketplace section in the left navigation menu.



4. In the side menu, under **All Applications**, you should be able to immediately find the **Featured Apps**.



5. In the Marketplace search field, enter **SOA**. The Marketplace listings for SOA Suite 12.2.1.4 are displayed.



6. Click the title for the listing you want to use (in this case - Oracle SOA Suite (BYOL)) to open the landing page and review the information on the **Overview** page.
7. Choose the following information and click **Launch Stack**:
 - a. **Version:** 23.3.2 -SOA 12.2.1.4(8/29/2023) - Default
 - b. **Compartment:** Select a compartment from the list of available compartments. Ensure that the compartment designated to you is selected.Select the **check box** to accept the Oracle standard Terms and Restrictions.

8. After clicking the **Launch Stack** instance on the Oracle SOA Suite on Marketplace page, fill in the required Stack information.
 - **Name:** (Optional) It has a default name. You can edit the name as **SOAOCI_XX** (where XX is your unique username to avoid a clash during the creation of artifacts)
Example: **SOAOCI_02** (In our example, the unique username we are using is lab.user02.)
 - **Description:** (Optional) – Leave it as is.
 - **Create in Compartment:** It defaults to the compartment you had selected on the Oracle SOA Suite on Marketplace page before clicking Launch Stack, for example, **C02**.
 - **Terraform Version:** It defaults to 0.12x.
 - **Tags:** (Optional) – Leave it as is.

Create Stack

1 Stack Information
2 Configure Variables
3 Review

Your application will launch as part of a stack that includes the infrastructure resources required to ensure that the application deploys and runs properly.

Stack Information

SOA Terraform Input Variables

Name: Optional
SOAOCI_02

Description: Optional
SOA Terraform Input Variables

Create in compartment
OCI2

Terraform version
0.12.x

Support for Terraform version 0.11.x ends in May 2021.

Tags

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.
[Learn more about tagging](#)

Tag Namespace	Tag Key	Value
None (add a free-form tag)		

+ Additional Tag

Next Cancel

9. Click **Next**. Enter the following information in the Oracle SOA Suite Configuration details.

Service Instance:

Instance Name: SOAOCIXX (where XX is your unique username to avoid a clash during the creation of artifacts)

Example: SOAOCI02 (In our example, the unique username we are using is lab.user02.)

- **Service Type:** Select **SOA with SB & B2B Cluster**.

- Instance Name Prefix
- SOAOCI02
- The names of all compute and network resources will begin with this prefix. It can only contain letters or numbers and must begin with a letter.
- Service Type
- SOA with SB & B2B Cluster
- The service type to provision:
- ☐ Enable SOA DB Schema Partitioning
- Enable the SOAINFRA DB Schema partitioning

- **SSH Public Key** – Paste/Choose SSH Public key that was generated and saved in the previous practice.
- **Cluster Node Count:** 1
- **Administration Username:** weblogic

SSH Public Key

☐ Choose SSH Key File ☒ Paste SSH Key

```
AAAAB3NzaC1yc2EAAAADAQABAAQDAQWwC1YKUSEGAgAAQj77wE0xar8E9m1cJ438rW6000u9fmm3mZn5FmW3Cn050ZS
9XS+plqSA+5iW2LNX3sYkZ2nXujXYsKIMZ9ZCHTcCCZQMm9qHkI84W4xukoz5sXau/Ml8JQSuNZ84V6y2R/SwreCe6Jv7J3f7
AUL59Funqu0ONihA79UqEJNQHFchiQDIMETA6Pqv+/UsGIC6B1SJJP2eBYWZ2dBD/1UB1BR+U2N76EbHMXxiL+nmWid8441dIYe
8tGuU4/4rdsSBZlaWIM9Y5OFyKpo29Rf5mma5iKpTWwxjpQ+hJww1svkv4zNYSVs6mgni7P lab_user02@7e92f70aa5bc
```

Use the corresponding private key to access the service instances

Cluster Node Count

1

The number of managed servers in the cluster

Administration Username

weblogic

The WebLogic Server administrator username

- **Administration Password:** Set the password for your WebLogic Server ADMINISTRATION username.

The password must meet the strong password complexity criteria based on Oracle Cloud security standards. Example for an Admin password: "**WwELCOME#123**".

Important: Do not use the special characters, double quotes ("), '@' and '!' as part of your **administration** user password.

- Confirm the password by re-entering the same admin password.
- **Domain Volume Size:** Leave it as is.

1 Stack Information
2 **Configure Variables**
3 Review

Administration Password

Enter the password

The password for the administrator user in the instance domain. Use a WebLogic Administrator password that starts with a letter, is between 8 and 36 characters long, contains at least one number, and, optionally, any number of the special characters (\$ # _). For example, Ash123@. If Key Management Service is configured, provide the encrypted password.

Re-enter the password

Domain Volume Size (GB)

The domain block volume size for the service instances. SOA Suite requires minimum 50GB of domain volume. You can only increase the domain block volume size post provisioning; decreasing of volume size not supported.

Instance Network:

- **Network Compartment:** Compartment assigned to you
- **Virtual Cloud Network Strategy:** Select "Create New VCN."
- **SOA Server Network:** **VCNSOA_02** (Give the unique username to avoid a clash during the creation of artifacts.)
- **Subnet Strategy:** Create New Subnet
- Leave the default values for the remaining fields.

Network Compartment

Choose the compartment in which to create the network resources such as virtual cloud network (VCN), security lists, route tables, and gateways.

Virtual Cloud Network Strategy

Create or use an existing VCN in which to create the instances, network resources, and load balancers.

SOA Server Network

The name of the new Virtual Cloud Network (VCN) to create for this service.

SOA Server Network CIDR *Optional*

The CIDR to assign to the new virtual cloud network (VCN) to create for this service. This field is not required if you want to use an existing VCN.

Subnet Strategy

Create or use existing subnet.

Database:

- **Database Strategy:** Autonomous Transaction Processing Database
- **Autonomous Database:** ATPSOA_02 (Choose the ATP database that was created in the previous practice)
- **Autonomous Database ADMIN Password:** Enter the Password that was set when you created the ATP database in the earlier practice.
- **Autonomous Database Service Level:** Default
- Leave the default values for the remaining fields.

Database

Database Strategy
Autonomous Transaction Processing Database

Choose the database strategy for WebLogic Server

Autonomous DB System Compartment
CO2
The compartment in which the DB System is found

Autonomous Database
ATPSOA_02
The Autonomous Transaction Processing (ATP) database in which to provision the schemas for a JRF-enabled WebLogic Server domain

Autonomous Database ADMIN Password

The password for the ADMIN user in the autonomous database. If Key Management Service is configured, provide the encrypted password

Autonomous Database Service Level: Optional
low
The service level that the WebLogic Server domain should use to connect to the autonomous database. The default is low

☐ Specify custom RCU Schema Prefix
If not selected, provisioner will create a random schema Prefix for RCU schemas.

☐ Specify RCU Schema custom Password
If not selected, provisioner will create a random Schema password for RCU schemas.

Previous **Next** Cancel

10. Click **Next**. On the Review page, review the information you provided, and then click **Create**.

Create Stack

1 Stack Information

2 Configure Variables

3 **Review**

Service Instance

Instance Name Prefix	SOAOCI02
Compute Shape	VM.Standard2.2
SSH Public Key	...0aa5bc Show Copy
Administration Username	weblogic
Administration Password	*****

Instance Network

Network Compartment	...gonula Show Copy
Virtual Cloud Network Strategy	Create New VCN
SOA Server Network	VCNSOA_02
Subnet Compartment	...gonula Show Copy

[Previous](#) [Create](#) [Cancel](#)

11. Initially, the status of the job will be in progress. Allow sufficient time for this to complete.

Resource Manager > Stacks > Stack Details > Job Details



ACCEPTED

While this job is running, only partial logs are available. You can get a complete log when the job is finished.

ormjob20210605155123

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

Job Information

Tags

To connect to the application running on this stack, see the Usage Instructions.

[View Usage Instructions](#)

OCID: ...mp3efla [Show](#) [Copy](#)

Job Type: Apply

State: Accepted

Start Time: Sat, Jun 5, 2021, 15:51:23 UTC

Compartment: ocuidmgf1 (root)C02

Plan Job ID: Automatically approved

Working Directory: Not specified

End Time: N/A

12. After clicking **Create**, you will be navigated to the **Stacks Job Details** page. You can monitor the creation of the Oracle SOA Suite using this page. The status of the job should read as "Succeeded".



This completes the provisioning an Oracle SOA Suite on Marketplace Instance.

Practice 3-2: View Oracle SOA Suite on Marketplace Instance Details

Overview

In this practice, you will view stack details, compute instance details, and Virtual Cloud Network details of the provisioned SOA instance.

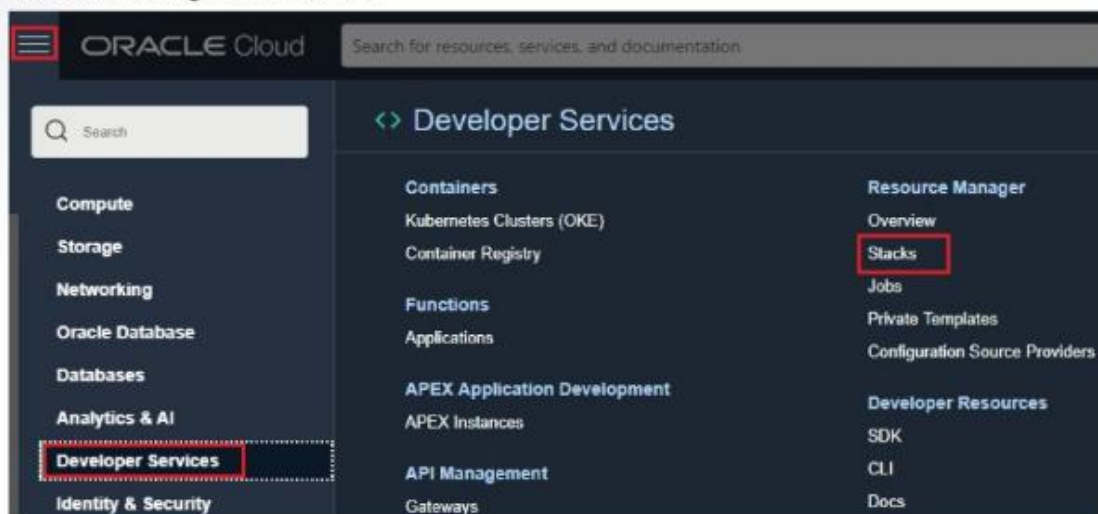
Assumptions

- You have completed practice 3-1 successfully.

Tasks

View stack details for an Oracle SOA Suite on Marketplace instance:

- From the OCI console, open the navigation menu and click **Developer Services**. Under Resource Manager, click **Stacks**.



- Select the **compartment** assigned to you.

List Scope

Compartment

C02

ocuoictrng6 (root)/C02

3. Click the name of your stack. (In our example, it is **SOAOCI_02**.)

Resource Manager

Overview

Stacks

Jobs

Private Templates

Configuration Source Providers

Last Scope

Compartment

C02

resourcegroup c02002

Stacks in C02 Compartment

1 Templates are now available for creating stacks. Use a template to deploy cloud resources from a provided Terraform configuration. A [stack](#) is a [Terraform configuration](#) that you can use to provision and manage your OCI resources. To provision the resources defined in your stack, [apply the configuration](#).

Create Stack

Name	Description	Status	Created
SOAOCI_02	SOA Terraform Input Variables	Active	Thu, Jun 3, 2021, 17:34:00 UTC

4. It displays the stack details such as :
- Stack Description
 - Compartment to which the stack is assigned.
 - OCID value that uniquely identifies the stack.
 - Created date and time.
 - Terraform version.

You have options to edit, move and delete stack.

Resource Manager > Stacks > Stack Details

SOAOCI_02

Plan Apply **Destroy** Roll Back More Actions

Stack Information

1 To connect to the application running in this stack, see the Usage Instructions. [View Usage Instructions](#)

Description: SOA Terraform Input Variables

OCID: [op-4ops](#) (Show Copy)

Created: Sat, Jun 5, 2021, 15:51:21 UTC

Time of Drift Detection (Last Run): N/A ([View drift detection log](#))

Compartment: resourcegroup (c02) OCID

Terraform Configuration File (.tf): [Upload](#) [Download](#) [New File](#) [Download](#)

Terraform version: 0.12.x

Status of Drift Detection (Last Run): Not Checked

Resources

Jobs

Variables

Work Requests

A job is created when you run a Terraform action on a [stack](#). Use these Terraform actions to [create](#) [update](#) [delete](#) your OCI resources according to your configuration. You can also [cancel](#) [delete](#) [Roll Back](#).

Name	Type	Status	Start Time	End Time	State File
armcd33713681c33122	Apply	Succeeded	Sat, Jun 5, 2021, 15:51:23 UTC	Sat, Jun 5, 2021, 16:16:30 UTC	View State

5. Click the associated job name (Example: **ormjob20210605155123**).



SOAOCI_02

Plan Apply **Succeeded** Edit More Actions

Stack Information Tags

To connect to the application running on this stack, see the Usage Instructions. [View Usage Instructions](#)

Description: SOA Termination Input Variables
OOD: [View](#) [Edit](#) [Copy](#)
Created: Sat, Jun 5, 2021, 15:51:23 UTC
Time of Drift Detection (Last Run): N/A ([View Details](#))

Compartment: orsccn001g0100000000
Terraform Configuration File (Lab): [Upload](#) [Upload New File](#) [Download](#)
Terraform version: 0.12.x
Status of Drift Detection (Last Run): Not Checked

Resources

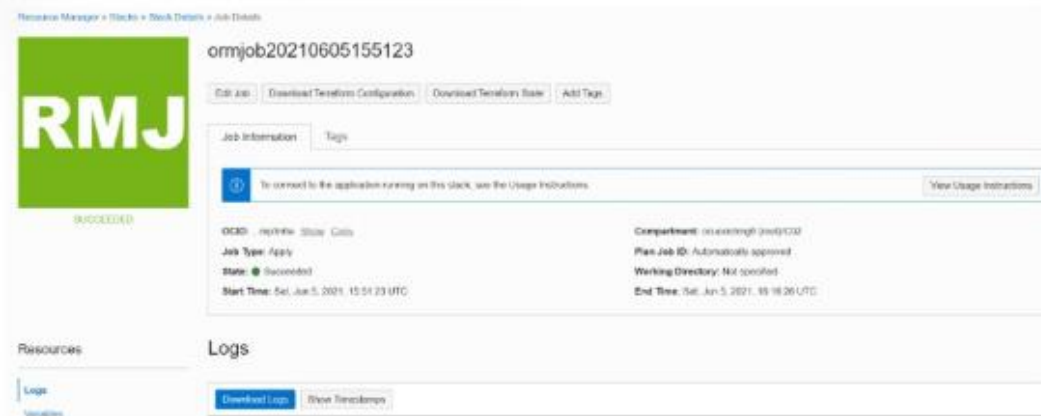
Jobs

A job is created when you run a Terraform action on a stack. Use these Terraform actions to [plan](#), [apply](#), and [destroy](#) your OCI resources according to your configuration. You can also [export state](#).

Name	Type	Status	Start Time	End Time	State File
ormjob20210605155123	Apply	Succeeded	Sat, Jun 5, 2021, 15:51:23 UTC	Sat, Jun 5, 2021, 16:18:28 UTC	View State

6. It displays the details about the job that includes logs, variables, associated resources, outputs and state.

The logs and outputs include URLs to work with the SOA instance. This page provides you with the option to download the logs (.log file)



Resource Manager > Stacks > Stack Details > Job Details

ormjob20210605155123

Edit Job Download Terraform Configuration Download Terraform State Add Tags

Job Information Tags

To connect to the application running on this stack, see the Usage Instructions. [View Usage Instructions](#)

OOD: [View](#) [Edit](#) [Copy](#)
Job Type: Apply
State: Succeeded
Start Time: Sat, Jun 5, 2021, 15:51:23 UTC

Compartment: orsccn001g0100000000
Plan Job ID: Automatically approved
Working Directory: Not specified
End Time: Sat, Jun 5, 2021, 16:18:28 UTC

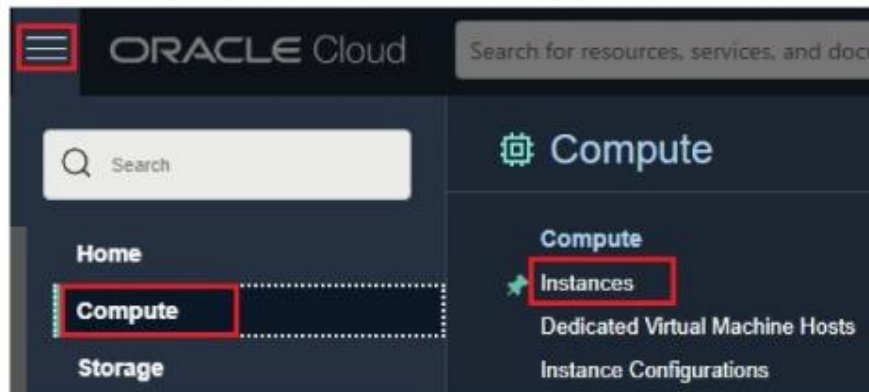
Resources

Logs

[Download Logs](#) [View Terraform](#)

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 click the instance name. (In our example, it is **SOAOCI02-soa-0**).

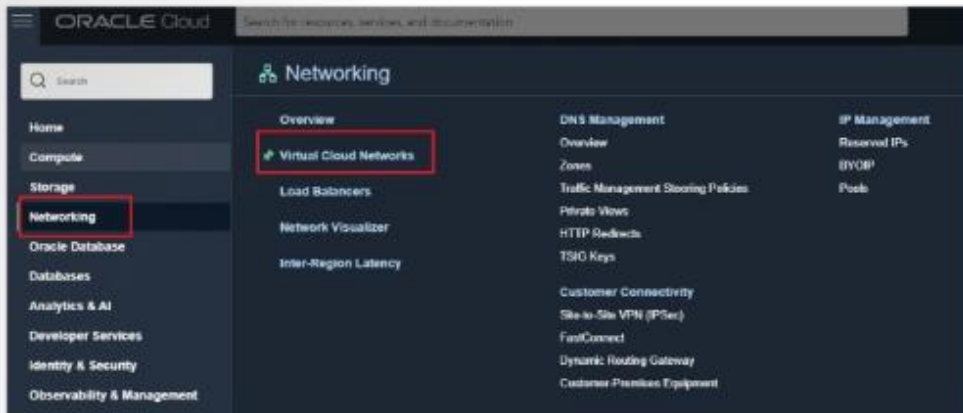


3. You can view the information of your instance.



View the Virtual Cloud Network (VCN) details:

- From the OCI console, open the navigation menu and click **Networking** → **Virtual Cloud Networks**.



- Select the compartment that is assigned to you, and click the instance name. (In our example, it is **SOAOCI02_VCNSOA_02**.)



- You can see the VCN details as shown in the following screenshot:



Practice 3-3: Complete Post-Provisioning Tasks

Overview

After provisioning an Oracle SOA Suite on Marketplace instance, you may need to complete post-provisioning tasks, depending on the requirements of the instance. In this practice, you will learn how to perform post-provisioning tasks.

Assumptions

- You have completed the previous practice successfully.

Tasks

Add Ingress Rules to Access WebLogic Server Administration and Other Consoles:

1. Navigate to the Virtual Cloud Networks page, select your VCN (Example: SOAOCI02-VCNSOA_02) from the list of VCNs.

Virtual Cloud Networks in C02 Compartment

Name	State	IPv4 CIDR Block	IPv4 CIDR Block	Default Route Table	DNS Domain Name	Created
SOAOCI02-VCNSOA_02	Available	10.0.0.0/16	---	Default Route Table for SOAOCI02-VCNSOA_02	soaoci02.oraclecloud.com	Fri, Jun 4, 2021, 15:51:55 UTC

2. Click **Security Lists** in the left pane.

Subnets in C02 Compartment

Name	State	IPv4 CIDR Block	Subnet Access	Created
SOAOCI02-wls-subnet	Available	10.0.3.0/24	Public (Regional)	Sat, Jun 5, 2021, 15:51:57 UTC

3. Choose security list "SOAOCI02-wls-ms-security-list" from the list of security lists.

Security Lists

Add Security List			
Name	State	Compartment	Created
SOAOCI02-wls-ms-security-list	Available	C02	Sat, Jun 5, 2021, 15:51:55 UTC
SOAOCI02-internal-security-list	Available	C02	Sat, Jun 5, 2021, 15:51:55 UTC
SOAOCI02-wls-security-list	Available	C02	Sat, Jun 5, 2021, 15:51:55 UTC

4. Click **Add Ingress Rules** to open the Add Ingress Rules dialog box.

Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Action
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	8074	TCP traffic for ports: 8074

1 Selected

5. In the Add Ingress Rules dialog box, create an ingress rule to access the WebLogic Server Administration Console:

Please Note - The Source CIDR is the IP of your local machine. This IP is dynamically assigned and can be fetched from ip4.me URL.

- SOURCE TYPE:** Select **CIDR**.
- SOURCE CIDR:** Enter the public IP address of the machine where the Administration Server URL is opened from a browser (for example, if the public IP address is 123.123.456.456 then enter 123.123.456.456/32)
- IP PROTOCOL:** Select **TCP**.
- DESTINATION PORT RANGE:** **7002**.
- Description:** **To access WebLogic and Enterprise Manager**
- Click **Add Ingress Rules**.

Add Ingress Rules Cancel

Ingress Rule 1

Allow TCP traffic 7002

☐ STATELESS ⓘ

SOURCE TYPE: CIDR SOURCE CIDR: 0.0.0.0/0 IP PROTOCOL: TCP

Specified IP addresses: 0.0.0.0-255.255.255.255 (4,294,967,296 IP addresses)

SOURCE PORT RANGE: OPTIONAL ⓘ: All DESTINATION PORT RANGE: OPTIONAL ⓘ: 7002

Examples: 80, 20-22

DESCRIPTION: OPTIONAL ⓘ: To access WebLogic and Enterprise Manager

Maximum 255 characters

Add Ingress Rules Cancel + Another Ingress Rule

6. You can see the added ingress rules as shown in the following:

Resources		Ingress Rules							
		<div><div>Add Ingress Rules</div><div>EditRemove</div></div>							
Ingress Rules (2)		<input type="checkbox"/>	Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows
Egress Rules (0)		<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	0074		TCP traffic for port at 0074
		<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	7002		TCP traffic for port at 7002

This completes the post-provisioning tasks for Oracle SOA Suite on Marketplace instance.

Practice 3-4: Accessing an Oracle SOA Suite on Marketplace Instance

Overview

In this practice, you will access the WebLogic Server Administration console, FMW Console, using Oracle SOA Suite on Marketplace Instance.

Tasks

1. Sign in to the Oracle Cloud Infrastructure Console.
2. Open the navigation menu and click **Developer Services**. Under Resource Manager, click **Stacks**.
3. Go to the Stack Details page of the instance you have provisioned and click **job** name.

The screenshot shows the 'Stack Details' page for a stack named 'SOAOCI_02'. The stack is in an 'ACTIVE' state. The 'Stack Information' tab is selected, showing details about the stack's configuration, including the description, OOD, creation time, and drift detection status. A 'Jobs' section is visible, showing a table of jobs. The first job, 'ormjob20210605155123', is highlighted in red and has a 'Succeeded' status.

Name	Type	State	Start Time	End Time	State File
ormjob20210605155123	Apply	Succeeded	Sat Jun 5, 2021, 10:04:23 UTC	Sat Jun 5, 2021, 10:16:26 UTC	View State

4. It displays the Job details page as shown in the following:

The screenshot shows the 'Job Details' page for the job 'ormjob20210605155123'. The job is in a 'Succeeded' state. The 'Job Information' tab is selected, showing details about the job's configuration, including the description, OOD, job type, state, start time, and end time. A 'Logs' section is visible, showing a table of logs. The first log, 'Installing weblogic...', is highlighted in red and has a 'Succeeded' status.

Name	Type	State	Start Time	End Time	State File
ormjob20210605155123	Apply	Succeeded	Sat Jun 5, 2021, 10:04:23 UTC	Sat Jun 5, 2021, 10:16:26 UTC	View State

5. Under **Resources** in the left pane, click **Outputs** to view the IP addresses and URLs that you can use to access the instance.

Key	Value
FWW_Console	https://132.145.191.58:7002/console
Instance_Subnet_Id	...ydlm1ng Subnet Copy
LoadBalancer_Public_Ip	
LoadBalancer_Subnets_Id	
Service_Consoles	...kvs1app Subnet Copy
Service_Instances	...191.58 Subnet Copy
Version	12.2.1.4 (JRF with ATP DB)
Virtual_Cloud_Network_Id	...dtk0s0dq Subnet Copy
Weblogic_Administration_Console	https://132.145.191.58:7002/console

6. Alternatively, click **Logs** and scroll through the log file until the end and identify IP addresses and URLs that you can use to access the instance.

```

Download Log Show Timestamps

Outputs:
FWW_Console = https://132.145.191.58:7002/console
Instance_Subnet_Id = ...ydlm1ng Subnet Copy
LoadBalancer_Public_Ip = ...kvs1app Subnet Copy
LoadBalancer_Subnets_Id = ...191.58 Subnet Copy
Service_Consoles = ...dtk0s0dq Subnet Copy
Service_Instances = ...191.58 Subnet Copy
Version = 12.2.1.4 (JRF with ATP DB)
Virtual_Cloud_Network_Id = ...dtk0s0dq Subnet Copy
Weblogic_Administration_Console = https://132.145.191.58:7002/console
  
```

7. Enter a URL in your browser to display the WebLogic Server Administration Console.
 - a. Log in to WLS admin console using the following credentials and by accepting the security exception:
 - **URL:** https://132.145.191.58:7002/console
 - **Username:** weblogic
 - **Password:** Password given during the provision (Example: **Wwe1come#123**)

- Click **Login**.

ORACLE WebLogic Server Administration Console 12c



- b. It displays the home page as shown below:



8. Enter a URL in another tab of your browser to display **Fusion Middleware (FMW) Console**.

- a. Log in to FMW console by using the following credentials:

- **URL:** <https://132.145.191.58:7002/em>
- **Username:** **weblogic**
- **Password:** **Wwelcome#123**
- Click **Sign In**.



Domain: Domain_90A0CKS2_domain

* User Name:

* Password:

☐ Login to Partition

b. It displays the home page as shown in the following screenshot:

Oracle Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain: weblogic

SOAOC02_domain

Information: Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

Servers
2 Up

Clusters
1 Up

Deployments
1 Down

Administration Server

Name: SOAOC02_adminserver
Host: soaoc02-
s01-01.s4pubs0202.oracle.com
Listen Port: 8071
SSL Listen Port: 8072

Servers

Name	Status	Cluster	Machine	State	Health	Listen Port	CPU Use
SOAOC02_adminserver(admin)	Up			Running	OK	8071	0
SOAOC02_server_1	Up	SOAOC02_cluster	SOAOC02_machine	Running	OK	8072	0

Similarly, you can access B2B Console, Service Bus Console, Worklist Application, and SOA Composer.

This completes the task of accessing WebLogic Server and FMW consoles of your SOA instance.

