ORACLE

Getting Started with Oracle SOA Suite on Marketplace

Objectives

After completing this lesson, you should be able to:

- Describe Oracle SOA Suite on Marketplace
- Explain the features of Oracle SOA Suite
- Explain the differences between Oracle SOA Cloud and Oracle SOA Suite on Marketplace
- Describe the components of Oracle SOA Suite
- Identify the different OCI Components for Oracle SOA Suite
- Describe Oracle SOA Suite on Marketplace Topologies

Oracle SOA Suite on Marketplace: Overview
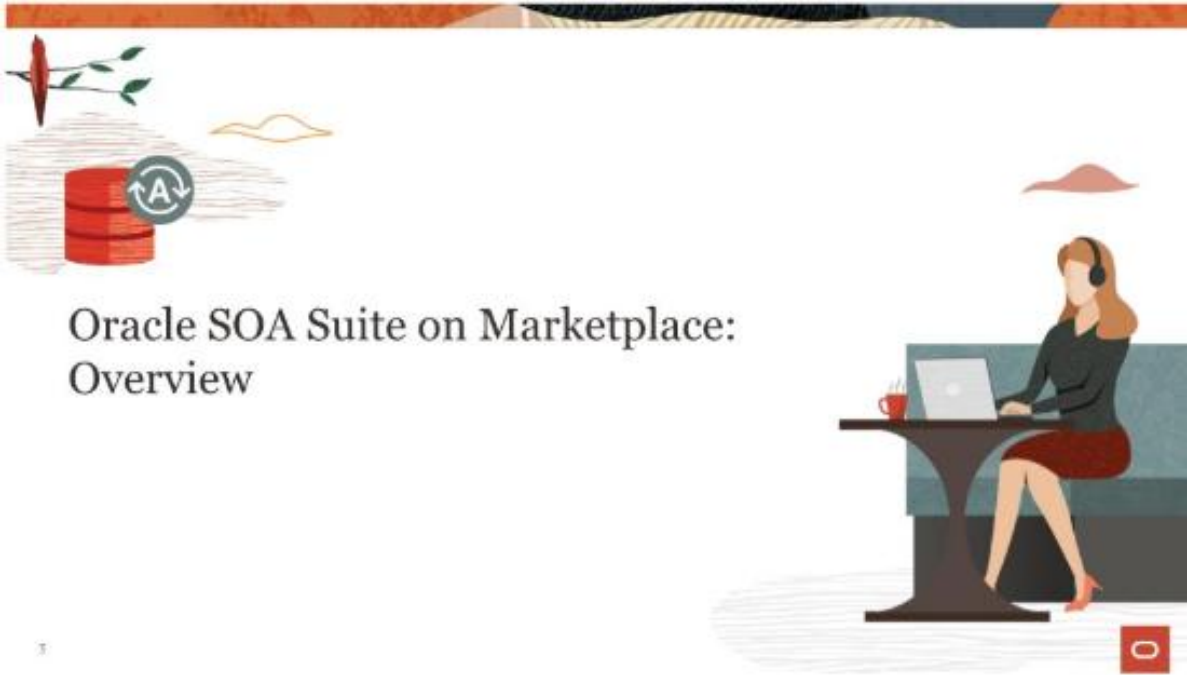
Introduction to Oracle SOA Suite on Marketplace

> Is based on Oracle SOA Suite 12c (12.2.1.4).

> Is provided as a VM-based solution on Oracle Cloud Infrastructure
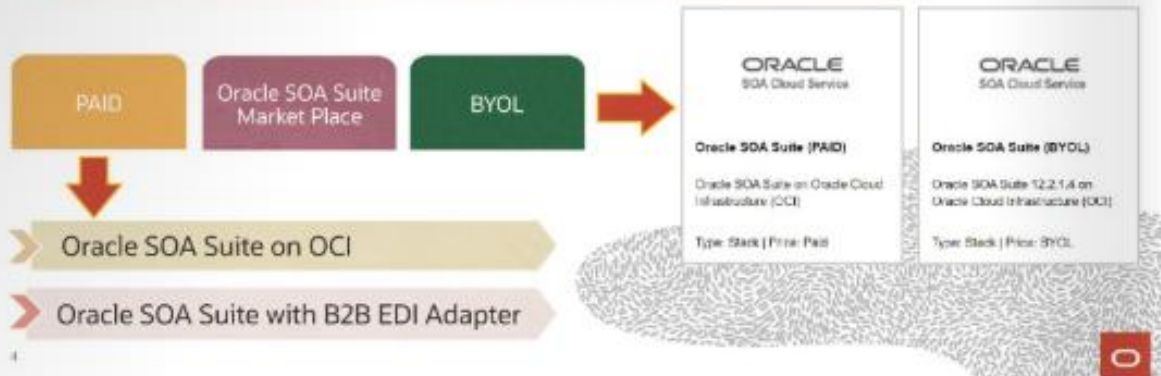
Oracle SOA Suite is available in two types of Marketplace offerings i.e PAID and BYOL.

There are 2 paid listings –

- Oracle SOA Suite on OCI
- Oracle SOA Suite with B2B EDI Adapter

You can use one of them inorder to use Universal Credits pricing.

Another one is BYOL, which means Bring Your Own License

Use the Oracle SOA Suite (BYOL) listing to Bring Your Own License using your existing Oracle SOA Suite 12c on-premises license, or you can purchase a new license for Oracle SOA Suite 12c.

When you activate Oracle SOA Suite on Marketplace using the BYOL listing, you are charged only for the OCI resources, which you have consumed. You need to make sure that you have sufficient supported on-premises licenses as required and specified in the Service Description for Oracle PaaS.

Once you have selected one of these options, you cannot later change it. For example, if you selected BYOL and later want to use PAID, then you need to delete the BYOL instance and re-create a new PAID instance.

Introduction to Oracle SOA Suite on Marketplace

- Provides PaaS (Platform as a Service) computing platform solution and includes different applications

  Oracle SOA Suite

  Oracle Service Bus

  Oracle B2B

  Oracle MFT

  Oracle BAM
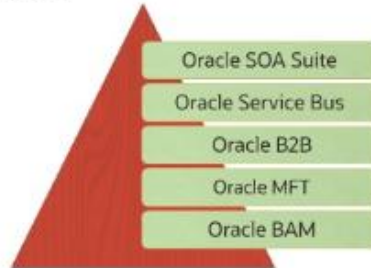
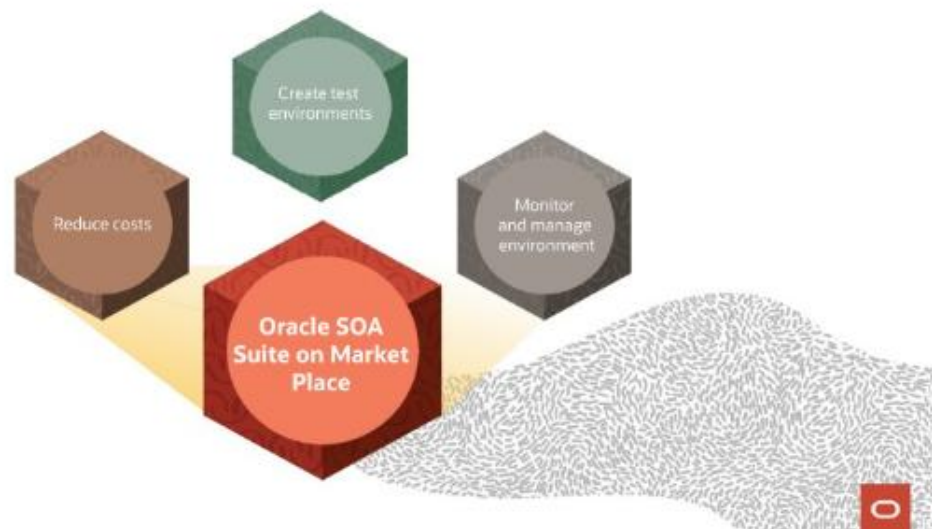- Provides a complete set of service infrastructure components

5

Oracle SOA Suite on Marketplace: Features

Features of Oracle SOA Suite on Marketplace

Oracle SOA Suite on Marketplace provides a salient features such as

Reduce costs:

- You can Reduce IT maintenance and administrative costs.
- Oracle handles all platform provisioning, installation, and domain configuration. No large investment in hardware and IT expertise is required.
- Is subscription-based and you pay only when using the service
- Let you focus on design, test, and deployment of solutions.

Create test environments:

- Create application test environments in the cloud.
- No need to provision and configure own servers

Monitor and manage environment:

- Initiate VM backups and restore with minimal configuration from the cloud.

You can also extend your enterprise to the cloud and deploy Oracle SOA Suite projects where you need them.

Oracle SOA Cloud Service Vs. SOA Suite on Marketplace

Oracle SOA Cloud Service	Oracle SOA Suite on Marketplace
Provisioned using the Oracle SOA Cloud Service Console and uses the Oracle SOA Cloud Service Console for all operations	Provisioned using the OCI Console and uses the OCI Console for all operations
SOA URLs displayed in the Oracle SOA Cloud Service Console	SOA URLs displayed in the job details
Supports fewer compute shapes	Supports a wide selection of compute shapes
Cluster size during initial provisioning is restricted to 1, 2, 4, or 8	Cluster size during initial provisioning can be any value from 1 to 8, and you can scale out a cluster up to 16 nodes
Supports only serverless deployments of the ATP database	Supports both serverless deployments and dedicated deployments of the ATP database
Requires a patch for Database Adapter connectivity with the ATP database	Supports the Database Adapter with the ATP database out of the box

Oracle SOA Cloud Service Vs. SOA Suite on Marketplace

Oracle SOA Cloud Service	Oracle SOA Suite on Marketplace
Does not support database schema partitioning	Supports database schema partitioning
All OCI resources must be in the same compartment.	Security lists and subnets can be defined in parent compartment subnets.
Supports provisioning with Oracle Database Exadata Cloud Service 18c, 12c Release 1 and 2, and 11g Release 2; does not support 19c	Supports provisioning with Oracle Database Exadata Cloud Service 19c, 18c, 12c Release 1 and 2, and 11g Release 2 on Oracle Cloud Infrastructure
Backups and recovery performed using the SOA Cloud Service Console	Backups and restores of data volumes performed using the OCI Console/terminal
Supports disaster recovery procedures	Disaster recovery procedures not available in the current release

Oracle SOA Suite on Marketplace: Components

Components of Oracle SOA Suite on Marketplace

Oracle SOA Suite	• Build, deploy, and manage integrations using service-oriented architecture (SOA) • Transform complex application integrations into agile and reusable service-based applications
Oracle WebLogic Suite	• Flagship Oracle WebLogic Server edition • Included with Oracle SOA Suite on Marketplace
Oracle Service Bus	• Backbone for SOA messaging • Connects, mediates, and manages interactions between heterogeneous services, legacy and packaged applications
Oracle B2B	• E-commerce gateway that enables the secure and reliable exchange of business documents between an enterprise and its trading partners

Components of Oracle SOA Suite on Marketplace

|	
Oracle MFT	• End-to-end managed file gateway • Design, deployment, and monitoring of file transfers using a lightweight web-based design-time console
Oracle BAM	• Enables you to monitor business processes for making tactical and strategic decisions • Provides high availability for Oracle BAM Composer and dashboards
Oracle Technology Adapters	• Standards-based integration framework for disparate applications to communicate with each other
Oracle Cloud Adapters	• Integration with SaaS applications
Oracle Enterprise Scheduler	• Enables you to define, schedule, and run jobs

12
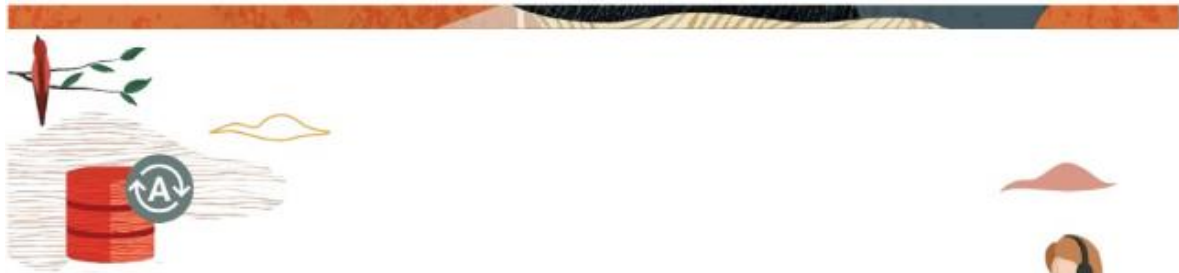
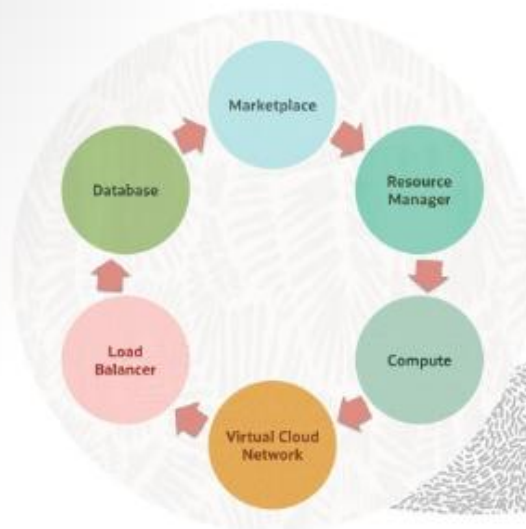# OCI for Oracle SOA Suite: Components

Components of OCI – For SOA Suite

The components of OCI that are used by Oracle SOA Suite on Marketplace are:

- Marketplace. An online store that's available in the Oracle Cloud Infrastructure Console.

- Resource Manager. An OCI service that uses Terraform to provision, update, and destroy a collection of related cloud resources as a single unit called a stack.

- Compute. An OCI service that lets you provision and manage compute hosts, known as instances.

- Virtual Cloud Network. A virtual, private network set up in Oracle data centers.

- Load Balancer. Provides automated traffic distribution from one entry point to multiple servers reachable from your virtual cloud network (VCN).

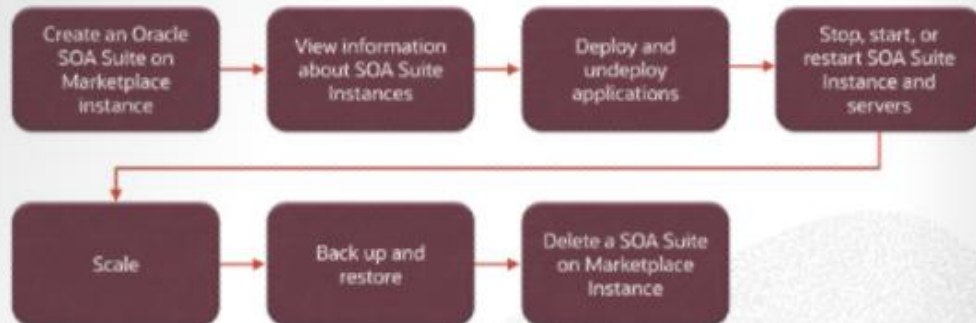- Database. To be preprovisioned and provided as an input when configuring the SOA instance

Managing the Life Cycle of Oracle SOA Suite onMarketplace Instances: Workflow

Workflow for Managing the Life Cycle of Oracle SOA Suite on Marketplace Instances

Here is the typical workflow to be followed to manage the life cycle of Oracle SOA Suite on Marketplace instances.

Create an Oracle SOA Suite on Marketplace instance:

- Create a new Oracle SOA Suite on Marketplace instance by stepping through the provisioning wizard in Oracle Cloud Infrastructure.

View information about SOA Suite Instances:

- View status, resource allocation, and other details for Oracle SOA Suite on Marketplace instances.

Deploy and undeploy applications:

- Deploy and undeploy applications to an Oracle SOA Suite on Marketplace instance using JDeveloper, Fusion Middleware Control, the WebLogic Server Administration Console, and WLST commands.

Stop, start, or restart SOA Suite Instance and servers:

- Stop an Oracle SOA Suite on Marketplace instance, Administration Server, and Managed Servers.
- Restart the Administration Server or individual Managed Servers if reboot is needed.

Scale:

- 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.
- Scale an Oracle SOA Suite on Marketplace instance up or down to change its compute shape in response to changes in workload or to add storage to a node that is running out of storage.

Back up and restore:

- Back up a block volume to preserve Oracle SOA Suite on Marketplace instance data in a particular state.
- If necessary, undo changes by restoring the data from a block volume backup.

**Delete a SOA Suite on Marketplace instance:**

- Manage access to an Oracle SOA Suite on Marketplace instance by deleting the instance.
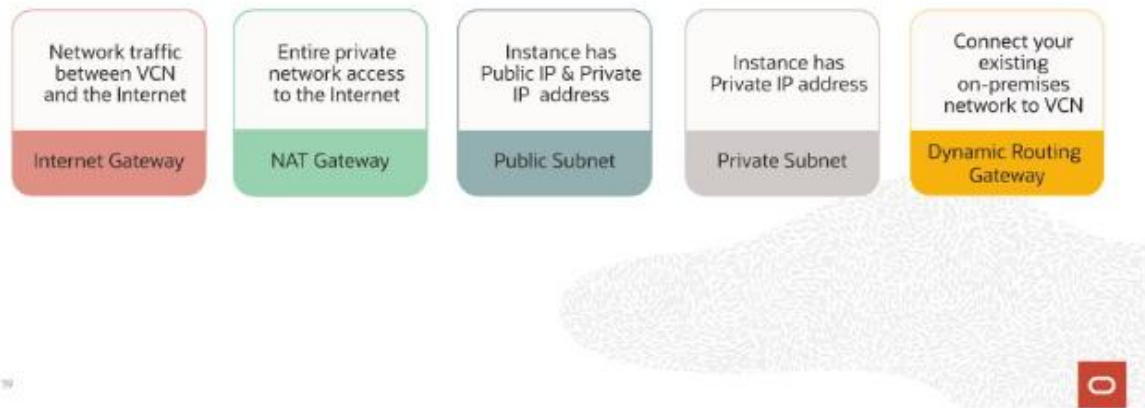
Back up and restore:

- Back up a block volume to preserve Oracle SOA Suite on Marketplace instance data in a particular state.
- If necessary, undo changes by restoring the data from a block volume backup.

Delete a SOA Suite on Marketplace instance:

- Manage access to an Oracle SOA Suite on Marketplace instance by deleting the instance.

Oracle SOA Suite on Marketplace Topologies
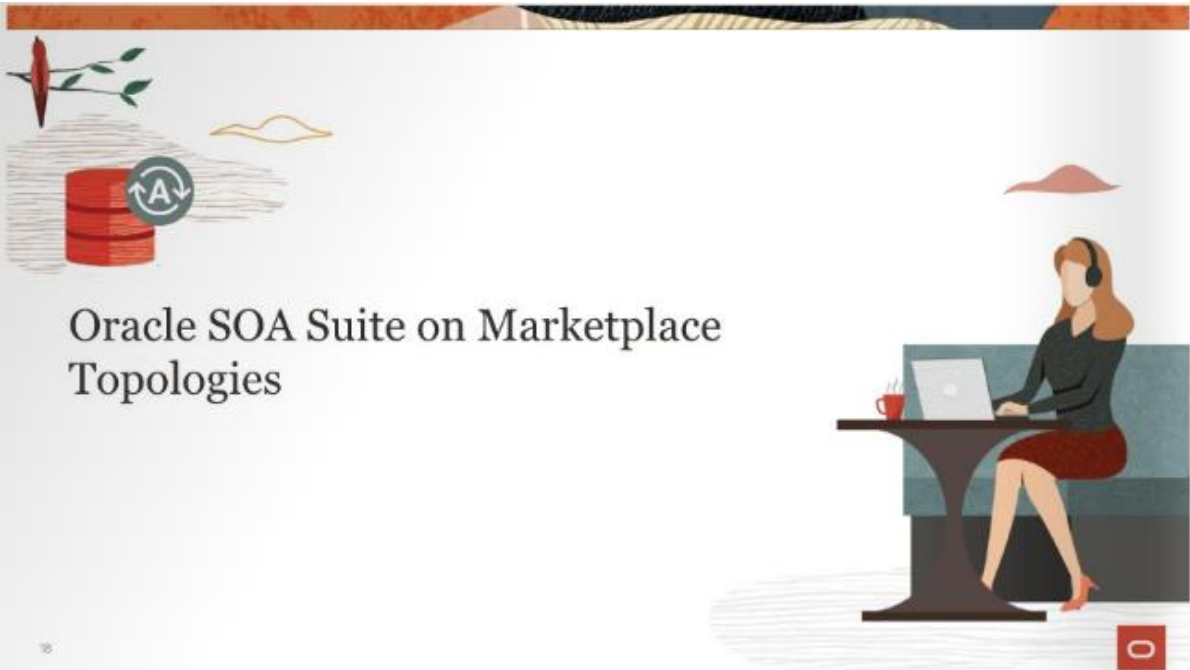
Oracle Cloud Infrastructure: Networking Basics

Network traffic between VCN and the Internet	Entire private network access to the Internet	Instance has Public IP & Private IP address	Instance has Private IP address	Connect your existing on-premises network to VCN
Internet Gateway	NAT Gateway	Public Subnet	Private Subnet	Dynamic Routing Gateway

- **Internet Gateway.** Internet gateway provides a path for network traffic between your VCN and the Internet.

- **NAT gateway** gives an entire private network access to the Internet without assigning each host public IP address

- When you create an instance using **public subnet**, it provides both **public IP address** and **private IP address**. These instances have direct access to the internet through an **internet gateway**.

- When you create an instance using **private subnet**, it provides only the private IP address with no internet access. These instances can initiate connections to the internet through a NAT gateway, but cannot receive inbound connections from the internet through that gateway

- The last one is **Dynamic Routing Gateway**, in short you can call it "**DRG**". It is a virtual router that provides a path for private network traffic between VCN and your existing network and it is used to connect your existing on-premises network to your VCN.

# Oracle SOA Suite on Marketplace Topologies: Scenario A
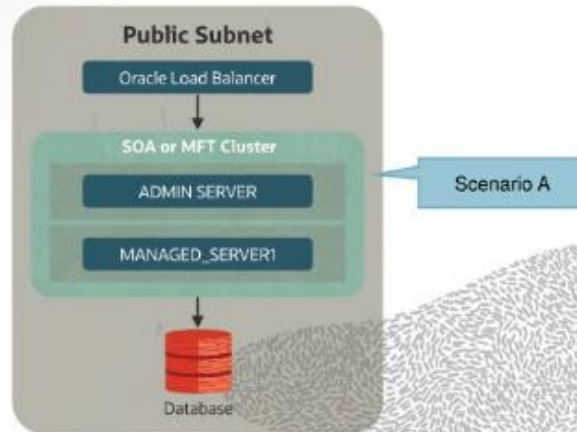
Scenario A: Public Subnet

In this scenario, the VCN is directly connected to the Internet through an Internet gateway.

The gateway is also used for connectivity to your on-premises network. Any resource in the on-premises network that needs to communicate with resources in the VCN must have access to the Internet. A SOA server, Database server, and optional load balancers are created in a public subnet. All these resources are assigned a public IP address and can be accessible from the internet. Your on-premises resources will communicate to cloud resources over the public internet.

After creating an instance, you can use SSH to connect to it over the Internet from your on-premises network or other location on the Internet. This setup has default routing rules that are designed to make it easy to get started with Oracle Cloud Infrastructure. When you set up a load balancer or SOA server in a public subnet, you allow SOA runtime traffic from the Internet.

# Oracle SOA Suite on Marketplace Topologies: Scenario B
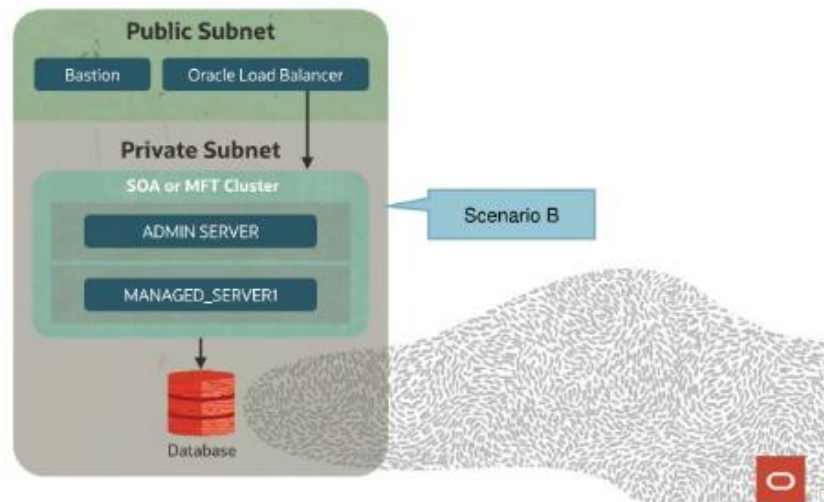
Scenario B: Public and Private Subnet

This scenario consists of a virtual cloud network (VCN) with a regional public subnet to hold public servers (such as load balancers) and a regional private subnet to hold private servers (such as a SOA server and Database server). Optionally, you can set up a load balancer and a SOA server on a public subnet and a Database server on a private subnet. Your on-premises resources communicate to cloud resources over the public Internet. After creating an instance, you can connect to instances in a public subnet over the Internet.

The VCN has a *dynamic routing gateway* (DRG) and *IPSec VPN* for connectivity to your on-premises network. After creating an instance, you can use SSH to connect to instances in a private subnet over a DRG/IPSecVPN. You cannot connect to instances in a private subnet over the Internet. You need to set up additional routing rules to route traffic from a private subnet to a DRG that allows communication with an on-premises network. When you set up a load balancer or a SOA server in a public subnet, you allow SOA runtime traffic from the Internet.

Oracle SOA Suite on Marketplace Topologies: Scenario C
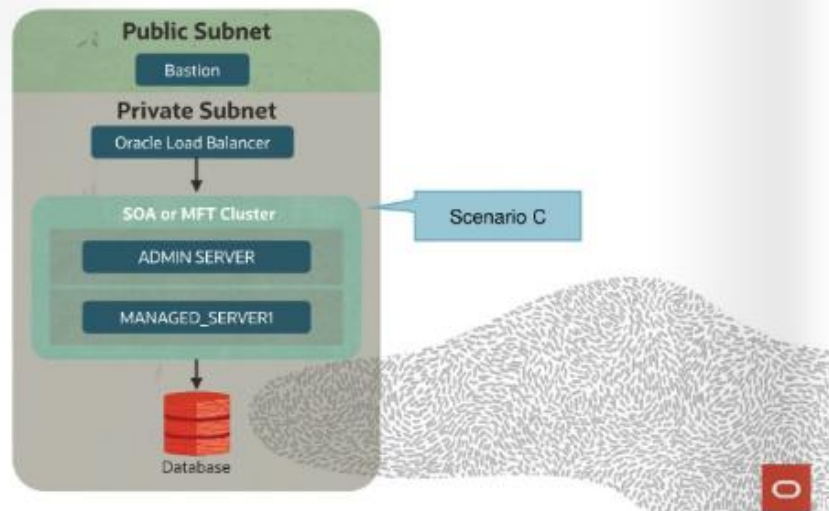
Scenario C: Private Subnet

This scenario consists of a virtual cloud network (VCN) with a regional private subnet to hold private servers (such as a SOA server, Database server, and load balancers). The VCN has a *dynamic routing gateway* (DRG) and *IPSec VPN* for connectivity to your on-premises network. The VCN has no direct connection to the Internet.

Any connection to the Internet would need to come indirectly through the on-premises network. You cannot connect to instances in a private subnet over the Internet. After creating an instance, you can use SSH to connect to instances in a private subnet over a DRG/IPSecVPN.

Summary

In this lesson, you should have learned about the following:

- What is Oracle SOA Suite on Marketplace?
- Different features of Oracle SOA Suite on Marketplace
- The differences between Oracle SOA Cloud and Oracle SOA Suite on Marketplace
- The components of Oracle SOA Suite on Marketplace
- The different OCI Components for Oracle SOA Suite
- Oracle SOA Suite on Marketplace Topologies