



Deploy a VOS Device in the Oracle Cloud



For supported software information, click [here](#).

This article describes how to deploy Versa Operating System™ (VOS™) instances in the Oracle Cloud Infrastructure (OCI) that is part of an Oracle virtual cloud network (VCN). You can deploy a VOS instance in standalone mode or in a high availability (HA) mode.

When there is not a strong requirement for HA, you can deploy VOS instances in standalone mode to ensure secure connectivity of cloud workloads.

For HA, you deploy different VOS instances in different availability domains (ADs) and then connect them with the different workloads through a dynamic routing gateway (DRG). You use protocols such as IPsec and BGP to achieve a seamless failover. This configuration allows you to achieve a reliable and distributed connectivity.

Oracle VCNs can be deployed across multiple geographical regions, which makes redundancy scenarios easier to deploy and configure.

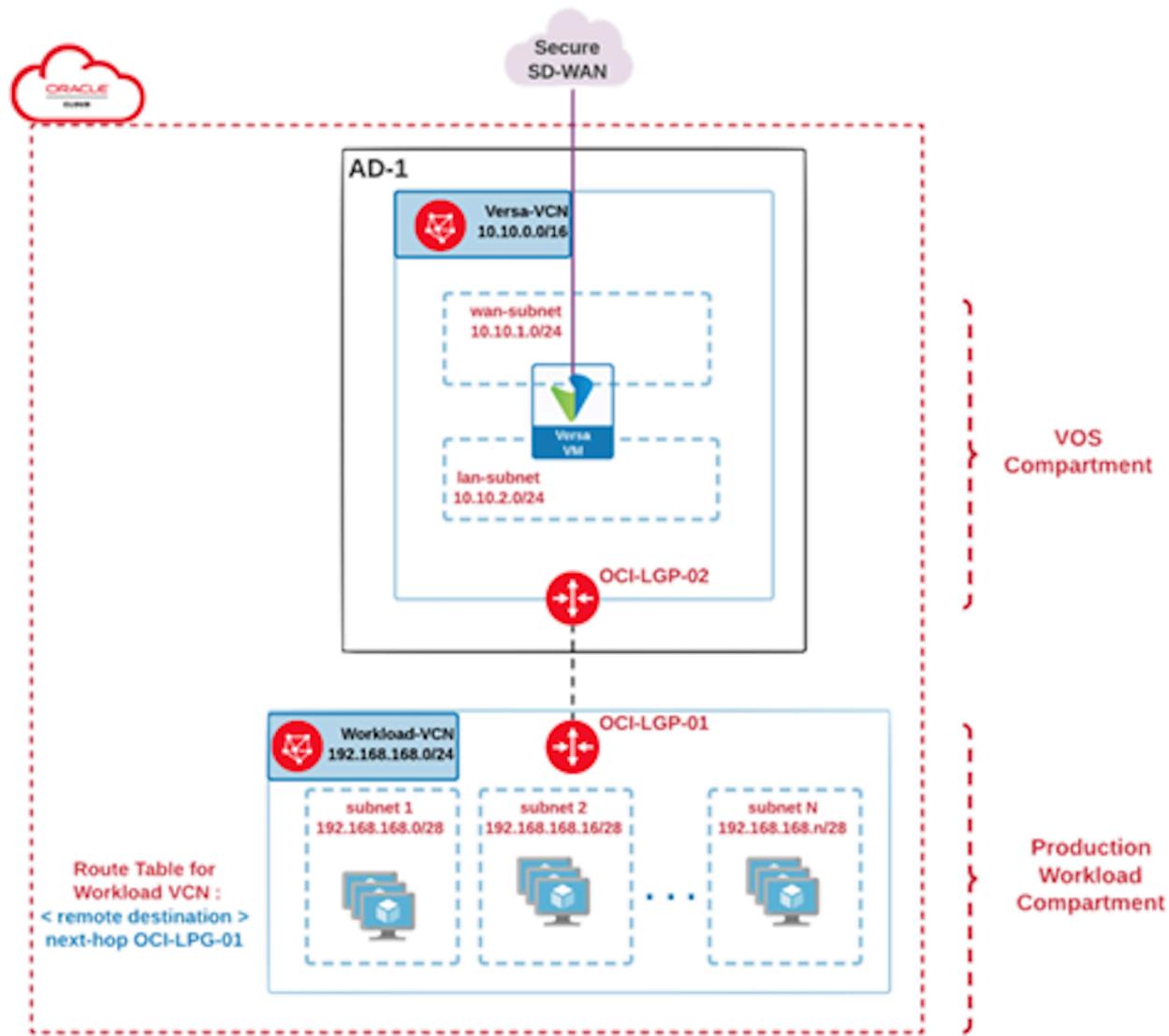
Note that the VOS software Releases 21.2 and earlier do not support integration with advanced networking functions such as DPDK. One result is that the expected throughput of a VOS instance in OCI might be less than expected. Releases 22.1 and later support DPDK.

To ensure the proper integration with OCI, Versa Networks can provide software images tailored for the OCI cloud environment.

Deploy a VOS Instance in Standalone Mode

When there is not a strong requirement for HA, you can deploy VOS instances in standalone mode to ensure secure connectivity of cloud workloads. A good practice is to always deploy the VOS instance in a compartment different from the compartment in which you deploy customer workloads. This design ensures that any cloud policy that you might apply to the workload's compartment is not accidentally applied to the VOS instance. For the same reason, it is recommended that VOS instances have a dedicated VCN for their connectivity. You can then establish different subnetworks to manage your public and private segments, which allows for granular control of your SD-WAN traffic. For connectivity between the VCN to which the VOS instance is connected and the VCN to which you connect the workloads, you can use a local VCN peering gateway (LGP), provided that the resources are in the same availability domain (AD). Alternatively, you can connect two different VCNs using a dynamic routing gateway (DRG). DRG connectivity can be established regardless of whether the VCNs are in the same availability domain. The following figure

illustrates the high-level architecture for deploying a VOS instance in standalone mode.



To deploy a standalone VOS instance in OCI, you do the following:

1. Create a compartment for the VOS instance.
2. Import the VOS image.
3. Create a VCN for the VOS instance.
4. Deploy the VOS instance in OCI.
5. Run the staging script on the VOS instance.
6. Configure peering with an LGP.

Create a Compartment for the VOS Instance

You create a new compartment for the VOS instance using the Oracle GUI.

To create a compartment:

1. Select Identity & Security> Identity > Compartment, and then click Compartment.

The screenshot shows the Oracle Cloud Identity & Security dashboard. On the left, there's a sidebar with various service links. A red box highlights the 'Identity & Security' link under 'Developer Services'. Another red box highlights the 'Compartments' link under the main 'Identity & Security' heading. The main content area is titled 'Identity & Security' and contains several sections: 'Identity' (Users, Groups, Dynamic Groups, Network Sources, Policies), 'Security Zones' (Overview, Recipes), 'Compartments' (highlighted by a red box), 'Federation', 'Authentication Settings', 'Cloud Guard' (Overview, Problems, Recommendations, Threat monitoring, Targets, Responder activity, Detector recipes), 'Threat Intelligence' (Overview, Threat Indicator Database), 'Firewalls' (Network Firewalls, Network Firewall Policies), 'Web Application Firewall' (Policies, Network Address Lists, Edge Policy Resources), and 'Certificates' (Overview).

The compartments display.

The screenshot shows the 'Identity' section of the Oracle Cloud interface, specifically the 'Compartments' list. A red box highlights the 'Compartments' link in the sidebar. The main table lists four compartments: 'versanetworks_(root)', 'ManagedCompartmentForPaaS', 'versa-dev-spack', and 'versa-system-engineering'. Each row includes columns for Name, Status, OCID, Authorized, Security Zone, and Subcompartments. The 'versa-dev-spack' compartment has 0 subcompartments, while the others have 3, 0, and 1 respectively.

Name	Status	OCID	Authorized	Security Zone	Subcompartments
versanetworks_(root)	Active	mmu6da	Yes	-	3
ManagedCompartmentForPaaS	Active	mn4w7q	Yes	-	0
versa-dev-spack	Active	dkh3ng	Yes	-	0
versa-system-engineering	Active	tcufsa	Yes	-	1

2. Create a new compartment. Enter a name and description for the compartment, and optionally enter tags to identify it.

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Create Compartment

Name
VOS-INSTANCE

Description
A Compartment to deploy a VOS instance

Security Zone: - [\(i\)](#)

Parent Compartment
versa-system-engineering
versanetworks (root)/versa-system-engineering

Add tags to organize your resources. [What can I do with tagging?](#)

Tag namespace	Tag key	Tag value
None (add a free-form tag) ▼		

[Create Compartment](#) [Cancel](#)

3. Click Create Compartment.

Import the VOS Image

You can import a custom VOS image to Oracle. For information about obtaining the custom VOS image, see [Obtain a VOS Image for OCI](#), below.

To import the VOS image:

1. In the Oracle GUI, go to Compute > Custom Images.

The screenshot shows the Versa Networks Compute interface. On the left, there's a navigation sidebar with links like Home, Compute (which is selected and highlighted with a red box), Storage, Networking, Oracle Database, Databases, Analytics & AI, Developer Services, Identity & Security, and Observability & Management. The main content area has a title 'Compute' with a gear icon. Below it, there are two columns: 'Compute' on the left and 'Secure Desktops' on the right. Under 'Compute', there are several sub-links: Overview, Instances (with a star icon), Dedicated Virtual Machine Hosts, Instance Configurations, Instance Pools, Cluster Networks, Compute Clusters, Autoscaling Configurations, Capacity Reservations, and Custom Images (also with a star icon). A red box highlights the 'Custom Images' link. At the bottom of the main content area, there's a section titled 'OS Management'.

2. Select the compartment that you created in the previous section.

The screenshot shows the 'Custom Images in VOS-INSTANCE compartment' screen. The left sidebar lists various compute-related options: Overview, Instances, Dedicated Virtual Machine Hosts, Instance Configurations, Instance Pools, Cluster Networks, Compute Clusters, Autoscaling Configurations, Capacity Reservations, and Custom Images (which is selected and highlighted with a red box). Below this, there's a 'List scope' section with a dropdown menu labeled 'Compartment' containing 'VOS-INSTANCE'. The main content area is titled 'Custom images in VOS-INSTANCE compartment' and contains a sub-section titled 'Import image'. It features a table with columns 'Name' and 'State', which currently has one entry: 'No results'. A cursor arrow points towards the 'Import image' button.

3. Click Import Image. In the Import Image screen, select the following options:
 - Operating System—Linux
 - Import from an Object Storage URL—Enter the URL provided by Versa Networks Customer Support when

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they provided the image.

- Image Type—qcow2
- Mode—Paravirtualized Mode

Import Image

Create in compartment
VOS-INSTANCE
gerandoversa (root)VOS-INSTANCE

Name
VOS-21-2-1

Operating system
Linux

Import from an Object Storage bucket
 Import from an Object Storage URL

Object Storage URL
Https://[...]

Learn more about [Direct Storage URLs](#). Also, see the instructions to [create a pre-authenticated request](#).

Image type
 VMDK
Virtual machine disk file format. For disk images used in virtual machines.
 QCOW2
For disk image files used by QEMU.
 OCI
For images that were exported from Oracle Cloud Infrastructure. The launch mode is specified in the .oci file and can't be changed in the Console.

Launch mode

Firmware: BIOS	NIC attachment type: PV NIC
Boot volume type: PV	Remote data volume: PV

Paravirtualized Mode
For virtual machines that [support paravirtualized drivers](#), created outside of Oracle Cloud Infrastructure.
 Emulated Mode
For virtual machines that [don't support paravirtualized drivers](#), created outside of Oracle Cloud Infrastructure from older on-premises physical or virtual machines.
 Native Mode

 **Import Image** [Cancel](#)

4. Click Import Image.

Create a VCN for the VOS Instance

For the VOS instance, you create a VCN that contains the required subnets.

To create the VCN:

1. In the Oracle GUI, go to the Networking > Virtual Cloud Networks.

The screenshot shows the Oracle Cloud interface with the 'Networking' section selected. The left sidebar has a red box around the 'Networking' item. The main content area shows the 'Virtual cloud networks' section highlighted with a red box. Other sections like 'Overview', 'Web Application Acceleration', 'Load balancers', and 'Customer connectivity' are also visible.

The Virtual Cloud Networks screen for the VOS instance displays.

The screenshot shows the 'Virtual Cloud Networks in VOS-INSTANCE Compartment' screen. The left sidebar has a red box around the 'Virtual cloud networks' item. The main content area shows a table with columns for Name, State, IPv4 CIDR Block, IPv6 Prefix, and Default Router. A message at the bottom says 'No items found.'

2. Click Create VCN.
3. In the Create a Virtual Cloud Network screen, enter a name, description, and CIDR block for the VCN. It is strongly recommend that you place the VOS instance in its own VCN and that you connect it to the workloads using only an LGP or a DRG.

Create a Virtual Cloud Network

Name
VOS-VCN

Create In Compartment
VOS-INSTANCE
versanetworks (root)/versa-system-engineering/VOS-INSTANCE

IPv4 CIDR Blocks

i You can assign up to 5 IPv4 CIDR blocks to a VCN. There must be at least one IPv4 CIDR block assigned to a VCN.

IPv4 CIDR Blocks
10.1.0.0/16

IPv4 Example: 10.0.0.0/16

DNS Resolution
 Use DNS hostnames in this VCN
Required for instance hostname assignment if you plan to use VCN DNS or a third-party DNS. This choice cannot be changed after the VCN is created.

DNS Label
VOSVCN
Generated from virtual cloud network name if not specified.

DNS Domain Name *Read-only*
VOSVCN.oraclevcn.com
Generated from virtual cloud network name if not specified.

Create VCN **Save as stack** [Cancel](#)

4. Click Create VCN. The VCN screen displays.

VOS-VCN



AVAILABLE

Move resource Add tags Delete

VCN Information Tags

Compartment: VOS-INSTANCE **OCID:** ...cjqcxq [Show](#) [Copy](#)
Created: Fri, Sep 1, 2023, 13:41:20 UTC **DNS Resolver:** [VOS-VCN](#)
IPv4 CIDR Block: 10.1.0.0/16 **Default Route Table:** [Default Roi](#)
IPv6 Prefix: - **DNS Domain Name:** vosvcn.oraclecloud.com

Resources Subnets in VOS-INSTANCE Compartment

Subnets (0)	Create Subnet
CIDR Blocks/Prefixes (1)	
Route Tables (1)	
Internet Gateways (0)	
Dynamic Routing Gateways	

No items found.

- Click Create Subnets to create subnets in the VCN. You create three subnets in the VCN: internet, LAN, and management.
- Create internet and management subnets in the VCN. You must deploy them as public subnets.
- Create the LAN subnets in the VCN. You must deploy them as private subnets. It is recommended you deploy the subnets as regional subnets in case you ever need to transition to an HA scenario.

Create Subnet

Name

VOS-LAN

Create In Compartment

VOS-INSTANCE

versanetworks (root)/versa-system-engineering/VOS-INSTANCE

Subnet Type

Regional (Recommended)

Instances in the subnet can be created in any availability domain in the region. Useful for high availability.

Availability Domain-specific

Instances in the subnet can only be created in one availability domain in the

IPv4 CIDR Block

IPv4 CIDR Block

10.1.1.0/24

Specified IP addresses: 10.1.1.0-10.1.1.255 (256 IP addresses)

Route Table Compartment in **VOS-INSTANCE** ([Change compartment](#))

Select a route table

Subnet Access

Private Subnet	Public Subnet
Prohibit public IP addresses for Instances in this Subnet	Allow public IP addresses for Instances in this Subnet

DNS Resolution

Use DNS hostnames in this Subnet
Allows assignment of DNS hostname when launching an Instance.

DNS Label

VOSLAN

Only letters and numbers, starting with a letter. 15 characters max.

8. Check that the three subnet images display.

VOS-VCN

Move resource Add tags Delete

VCN Information Tags

Compartment: VOS-INSTANCE **OCID:** ...cjqcxq [Show](#) [Copy](#)
Created: Fri, Sep 1, 2023, 13:41:20 UTC **DNS Resolver:** [VOS-VCN](#)
IPv4 CIDR Block: 10.1.0.0/16 **Default Route Table:** [Default Route Table for VOS-VCN](#)
IPv6 Prefix: - **DNS Domain Name:** vosvcn.oraclevcn.com

Resources

Subnets in VOS-INSTANCE Compartment

Create Subnet				
Name	State	IPv4 CIDR Block	IPv6 Prefixes	Subnet Access
VOS-MGMT	Available	10.1.3.0/24	-	Private (Regional)
VOS-WAN	Available	10.1.2.0/24	-	Public (Regional)
VOS-LAN	Available	10.1.1.0/24	-	Private (Regional)

9. In the VCN screen, select Internet Gateways, and then click Create Internet Gateway.

10. Create the subnet as a public subnet. It is recommended you deploy the subnet as a regional subnet in case you ever need to transition to an HA scenario. Enter a name and description for the internet gateway.

Create Internet Gateway

Name
INET-GW

Create In Compartment
VOS-INSTANCE

versanetworks (root)/versa-system-engineering/VOS-INSTANCE

11. Select Security Lists to create security lists in the VCN. OCI uses security lists to restrict inbound and outbound access. With security lists, you can harden your VOS instances in the cloud. The OCI security uses stateful firewall logic to limit directionality, protocols, ports, the Session Information Protocol (SIP), and the Distance Information Protocol (DIP). Note that to establish the overlay IPsec tunnels, the VOS device needs bidirectional communication on UDP ports 500, 4500, and 4790. For more information, see [VOS Device Firewall Requirements](#).

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The screenshot shows the VOS-VCN resource page. At the top left is a large green octagonal icon with the letters "VCN" in white. To its right, the title "VOS-VCN" is displayed. Below the title are three buttons: "Move resource", "Add tags", and a red "Delete" button. Underneath these buttons are two tabs: "VCN Information" (selected) and "Tags". The "VCN Information" tab displays the following details:

- Compartment:** VOS-INSTANCE
- Created:** Fri, Sep 1, 2023, 13:41:20 UTC
- IPv4 CIDR Block:** 10.1.0.0/16
- IPv6 Prefix:** -

On the left side of the page, there is a sidebar titled "Resources" with the following items:

- Subnets (3)
- CIDR Blocks/Prefixes (1)
- Route Tables (1)
- Internet Gateways (1)
- Dynamic Routing Gateways
- Attachments (0)
- Network Security Groups (0)
- Security Lists (1)** (highlighted with a red box)

In the main content area, the heading "Security Lists *in* VOS-INSTANCE Compartment" is shown. Below it, a note says "If you're having problems, use [Network Path Analyzer](#) to check your connections." A "Create Security List" button is present. A table lists the existing security list:

Name	State
Default Security List for VOS-VCN	● Available

12. In the Create Security List screen, configure the security lists.

Create Security List

A security list contains ingress and egress rules that specify the types of traffic allowed in and out of instances. [Learn more about Security Lists.](#)

Name

INTERNET-RULE

Create In Compartment

VOS-INSTANCE

versanetworks (root)/versa-system-engineering/VOS-INSTANCE

Allow Rules for Ingress

Ingress Rule 1

Allows UDP traffic 500,4790,4500

Stateless [\(i\)](#)

Source Type

CIDR

Source CIDR

0.0.0.0/0

IP Protocol [\(i\)](#)

UDP

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

Source Port Range [Optional \(i\)](#)

500,4790,4500

Examples: 80, 20-22

Destination Port Range [Optional \(i\)](#)

500,4790,4500

Examples: 80, 20-22

Description [Optional](#)

Allow IPSEC Overlay

Maximum 255 characters

Deploy the VOS Instance in OCI

1. To create the virtual instance, in the Oracle GUI, go to Instances > Create an Instance.

The screenshot shows the OCI Compute Instances interface. On the left, a sidebar menu includes 'Compute' (selected), 'Overview', 'Instances' (selected), 'Dedicated Virtual Machine Hosts', 'Instance Configurations', 'Instance Pools', 'Cluster Networks', 'Compute Clusters', and 'Autoscaling Configurations'. The main content area is titled 'Instances in VOS-INSTANCE compartment'. It displays a message: 'An instance is a compute host. Choose between virtual machines (VMs) and bare metal instances. The image' followed by a 'Create instance' button and a 'Table settings' button. Below this is a table with columns: Name, State, Public IP, Private IP, and Shape. A note at the bottom right says 'No resources found'.

2. Choose the appropriate image for your deployment. Currently, VOS devices support only the VM.Standard2.4, VM.Standard2.8, and VM.Standard2.16 images. The VM.Standard2.4 and VM.Standard2.8 instances are suitable

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for most applications that do not require UTM. It is recommended that you use the VM.Standard2.16 image for advanced security use cases.

3. Select the Availability Domain.

The screenshot shows the 'Create Compute Instance' configuration page. The 'Placement' section is expanded, showing the 'Availability domain' dropdown which contains 'AD 1 Always Free Eligible' and 'sCZE-US-SANJOSE-1-AD-1'. A 'Show advanced options' link is also present. The 'Image and shape' section is expanded, showing the 'Image' field set to 'vos-21_1_1' with a 'Change Image' button, and the 'Shape' field set to 'VM.Standard2.4' (Intel logo) with a 'Change Shape' button. Both sections have a 'Collapse' button in the top right corner.

4. Select the VOS image that was provided by Versa Networks Customer Support and that you imported in previous steps. You can select the image from the custom image pool.

Browse All Images

An Image is a template of a virtual hard drive that determines the operating system and other software for an instance.

Image source: Custom images

Compartment: VOS-INSTANCE

Create or import [custom images](#) into your Oracle Cloud Infrastructure environment.

Custom Image Name	Created
<input checked="" type="checkbox"/> vos-21_1_1	Fri, Jul 30, 2021, 19:14:00 UTC

1 Selected

Showing 1 Item < 1 of 1

- Select the management subnet as the primary subnet. It is recommended that you assign a public IP address for this network, to make the onboarding process easier. It is important to save the SSH key that is generated during this process; it is impossible to retrieve it later, and you need it later to SSH to the VM.

Networking

[Networking](#) is how your instance connects to the internet and other resources in the Console. To make sure you can [connect to your instance](#), assign a public IP address to the instance.

Primary network: Select existing virtual cloud network Create new virtual cloud network Enter subnet OCID

Virtual cloud network in VOS-INSTANCE ([Change Compartment](#))

VOS-VCN

Subnet: Select existing subnet Create new public subnet

Subnet in VOS-INSTANCE ([Change Compartment](#))

MANAGEMENT-VOS (Regional)

Public IP Address: Assign a public IPv4 address Do not assign a public IPv4 address

 Assigning a public IP address makes this instance accessible from the internet. If you're not sure whether you need a public IP address, you can always assign one later.



- Create the VNICs for the WAN and LAN networks. While it is not possible to create these networks when you are creating the instance, you can add the two networks on the Virtual Instance menu. You must restart the VN for the changes to take effect.

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Attached VNICs

A [virtual network interface card \(VNIC\)](#) lets an instance connect to a virtual cloud network (VCN) and determines how the instance connects with endpoints inside and outside the VCN.

Name	Subnet or VLAN <small>(i)</small>	State	FQDN <small>(i)</small>	VLAN Tag	MAC Address
VOS-TEST (Primary VNIC)	Subnet - Subred pública-VOS-Mgmt	Attached	-	1530	02:00:17:09:55:FE

Showing 1 item < 1 of 1



Create VNIC

VNIC Information

Name Optional

Select a virtual cloud network in **gerardo (root)** [\(Change Compartment\)](#)

Network

Normal Setup: Subnet

The typical choice when adding a VNIC to an instance. ✓

Advanced Setup: VLAN

Only for experienced users who have purchased the Oracle Cloud VMware Solution.

Select a subnet in **gerardo (root)** [\(Change Compartment\)](#)



Save Changes [Cancel](#)

- On the LAN VNIC menu, disable the Source/Destination Check on the LAN network to enable communication with an LGP or DRG.

Create VNIC

Select a Subnet in your VPC group

VOS-LAN (Regional)

Use network security groups to control traffic (optional) *i*

Skip source/destination check *i*

Primary IP Information

Private IP Address *Optional*

10.140.3.1

Must be within 10.140.3.0 to 10.140.3.255. Must not already be in use.

Assign public IP address (cannot create public IP addresses in a private Subnet)

DNS record

Assign a private DNS record Do not assign a private DNS record



Save Changes [Cancel](#)

After the instance is deployed, a user can log in to the public IP address of the management interface using the SSH key used in Step 6 when creating the instance creation above:

```
ssh -i ssh-key-filename admin@management_interface_public_ip_address
```

Please create new section after this like below:

Copy & paste the steps 1-3 from this article.

https://docs.versa-networks.com/Getting_Started/Deployment_and_Initial_Configuration/Branch_Deployment/Initial_Configuration

Prepare the VOS Instance To Be Activated

You activate the VOS instance automatically and remotely using zero-touch provisioning (ZTP).

To prepare the VOS instance to be activated:

1. Log in to VOS instance using the following command.

```
ssh -i id_rsa admin@external-IP-address
```

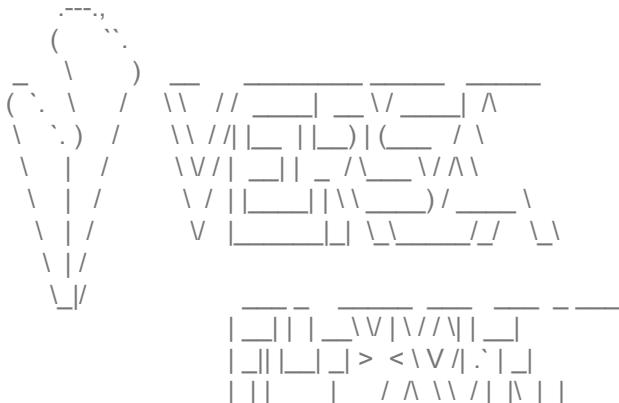
For example:

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```
% ssh -i id_rsa admin@35.230.47.165
```



```
Versa FlexVNF software  
Release : 21.1.1 (GA)  
Release date: 20200822  
Package ID : 6e4e455
```

```
Last login: Mon Sep 28 01:22:22 2020  
[admin@vos-gcp-instance-1: ~] $
```

2. At the end of the `sshd_config` file, add the IP addresses of the Versa Director northbound and southbound interfaces as match address exceptions. Doing so allows the Director node to log in to the node using a password and to perform the ZTP process by using the `staging.py` script. For example:

```
$ sudo vi /etc/ssh/sshd_config  
  
Match address 10.192.220.193/32,192.168.220.193/32  
    PasswordAuthentication yes  
Match all
```

3. Restart the SSH service:

```
$ sudo service ssh restart
```

Run the Staging Script

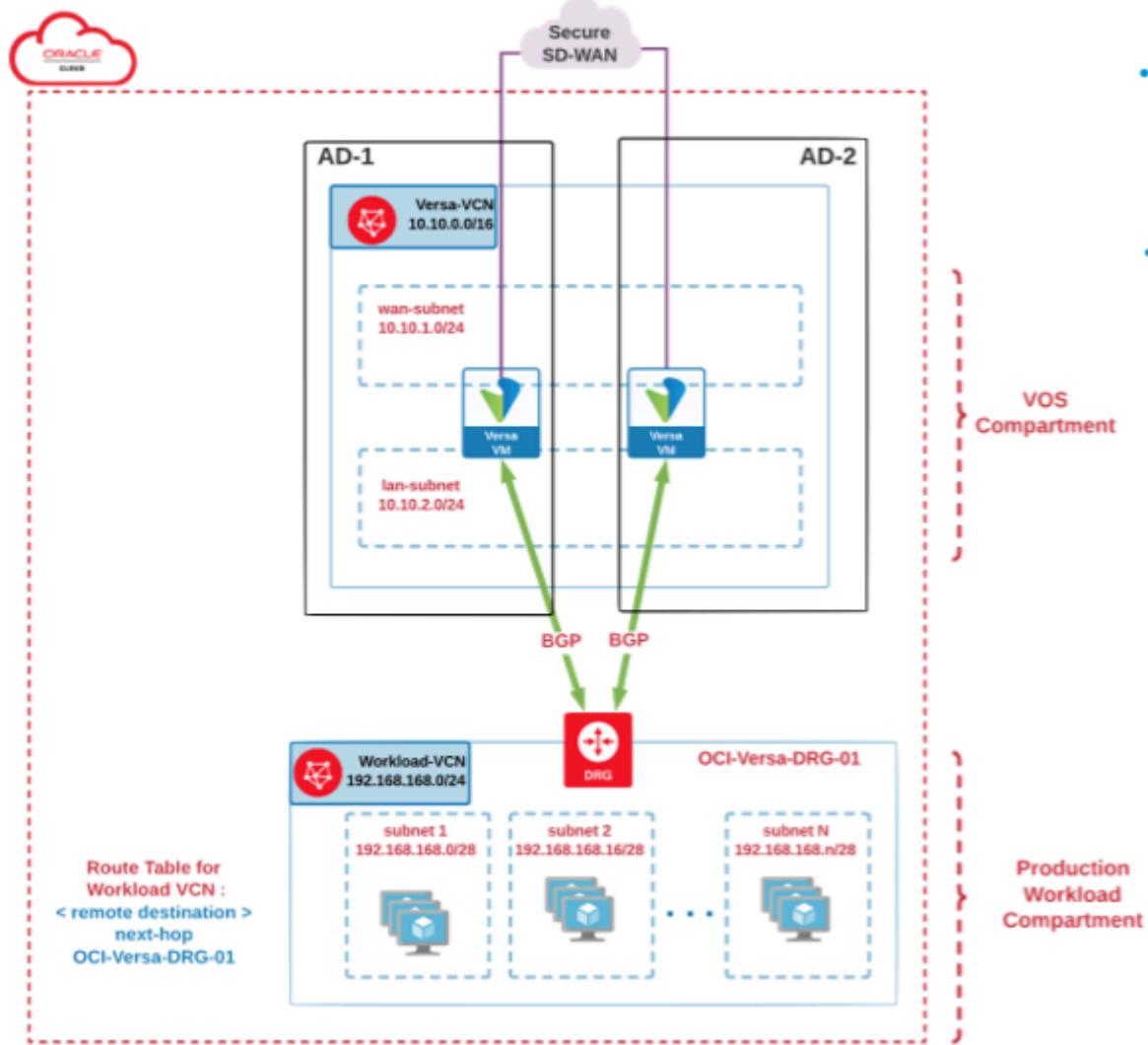
Run the staging script on the VOS instance to attach it to a Versa headend. For more information, see [Activate VOS Devices](#).

Configure LGP Peering

To complete the deployment of a VOS instance in OCI, configure a local VCN peering gateway (LGP).

Deploy a VOS Instance in HA Mode

To increase the resilience of the network and offer users better and more reliable access to their workloads in Oracle Cloud, you can deploy more than one VOS instance, with each instance in a different availability domain. You can also deploy two VOS instances in different availability domains to increase the footprint of the services in case of any regional failure. In these cases, you must connect VCNs across multiple availability domains and regions, and so you must peer the VOS VCN with the workload's VCN using a DRG. To enable peering options in the DRG, you use protocols such as IPsec and BGP. You can configure these two protocols both in the VOS instance and the DRG, to allow fast and reliable failover in case of any failure. The following figure shows the high-level architecture of an HA scenario.



To deploy a VOS instance in HA mode:

1. Follow Steps 1 through 4 in the process for deploying a VOS instance in standalone mode, but here, create two VOS instances:

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- a. Create a compartment for each VOS instance. See [Create a Compartment for the VOS Instance](#), above.
 - b. Import the VOS image. See [Import the VOS Image](#), above.
 - c. Create a VCN for each VOS instance. See [Create a VCN for the VOS Instance](#), above.
 - d. Deploy the VOS instances in OCI. In this step, place the second VOS instance in a different availability domain from the first one if this option is available in the Oracle region. See [Deploy the VOS Instance in OCI](#), above.
2. Follow Step 5 in the process for deploying a VOS instance in standalone mode, to run the staging script. See [Run the Staging Script](#), above.
 3. Create a BGP-over-IPsec peering using DRG:
 - a. Go to Oracle UI > Networking > VPN Connection > Start VPN Wizard.
 - b. Select the required options in Oracle Workflow. For an on-premises network, ensure that the remote destination's aggregate address is reachable through the SD-WAN network. Also note that each VPN connection creates two IPsec tunnels.
 - c. Repeat this process for the second VOS instance.
 4. Create a BGP-over-IPsec workflow on the Director node. Depending on the VOS software version, you can do this using Workflow templates or service templates. For more information, see [Overview of Configuration Templates](#). In the workflow, set the tunnel mode to ikev1 (main), and enable PFS group 5.

Obtain a VOS Image for OCI

Currently, Versa Networks does not make OCI-specific VOS images publicly available. However, each Versa Networks customer or partner can obtain a certified VM image for Oracle by opening a support case with Versa Network Customer Support, through the support page at <https://support.versa-networks.com>. When you open a case, specify that you want an OCI-specific image and provide the following information:

- VOS software version
- Name of the partner, MSP, or reseller who is asking for the OCI-specific image
- Name of the end customer

Supported Software Information

Releases 220.2 and later support all content described in this article.

Additional Information

[Activate VOS Devices](#)

[Firewall Requirements](#)