

Cisco Catalyst 8000V and Oracle Cloud Infrastructure

This document provides information about deploying Cisco Catalyst 8000V Edge Software on Oracle Cloud Infrastructure (OCI). This document covers:

- a brief introduction of what OCI is,
- the prerequisites you must know before you begin the deployment,
- the deployment workflow, and
- troubleshooting issues after the deployment.

Deploying Cisco Catalyst 8000V on OCI

Cisco Catalyst 8000V is a virtual router that offers routing, security, and network management functionalities as cloud services with multitenancy. As an end-user, you can boot this virtual router in the desired mode and then deploy this router on various clouds to enable and use the available solutions.

Starting from the Cisco IOS XE 17.18.1a release, you can deploy Cisco Catalyst 8000V on OCI, a cloud service provider that provides services for building and running applications in a hosted environment.

By deploying Cisco Catalyst 8000V on OCI, you can leverage all the Cisco IOS XE features and deploy the same networking services in this cloud similar to the features available in on-prem networks. The IOS XE CLI and RESTful API functionalities also ensure easy deployment, monitoring, troubleshooting, and service orchestration.

Refer to this document to know how to deploy and manage Cisco Catalyst 8000V instances on OCI.

Supported modes

Cisco Catalyst 8000V on OCI is supported in the following modes:

- Autonomous mode: Boot your router in this mode to access the Cisco IOS XE functionalities.
- Controller mode: Boot your router in this mode to access the SD-WAN capabilities.
- SD-Routing mode: Boot your virtual in this mode to manage your traditional and SD-WAN routing deployments.

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Supported Instances

Cisco Catalyst 8000V Edge Software supports the VM.Standard.E5.Flex instance with the performance tuned configurations listed in this table:

Table 1: Supported instances for OCI deployment

Cisco IOS XE release	Supported instance type	Instance type	Number of OCPUs	RAM in GB
Cisco IOS XE 17.18.1a	VM.Standard.E5.Flex	Small	4	8
Cisco IOS XE 17.18.1a	VM.Standard.E5.Flex	Medium	16	16

Note Cisco Catalyst 8000V on OCI supports Instance Metadata Service version 2 (IMDSv2).

Limitations

See this list to know the limitations and restrictions before you deploy Cisco Catalyst 8000V in OCI. The sub-section also specifies the functionalities that are not supported in this deployment.

- You cannot launch a virtual machine (VM) with additional interfaces at first boot. To add additional interfaces, you must wait until the first boot is complete.
- DHCP does not work for secondary interfaces. You must find out the IP address assigned to the interface from OCI and then configure the secondary interface with the IP address.
- The number of OCPUs limits the maximum number of vNICs for your deployment. For example, for a 4vCPU deployment, you can have a maximum of 4 VNICs. Similarly, for a 16vCPU deployment, you can have a maximum of 16 vNICs only.
- The cloud-init script field is limited to 32 KB.
- You can add only one interface during the initial onboarding process. When you use a generic vManage template or the **Configuration Groups** option for the initial Cisco Catalyst 8000V on-boarding in OCI, ensure the template or configuration and the respective bootstrap configurations are limited to a single interface.
- You can only hot-add and hot-delete the secondary interfaces.
- On OCI, IP traffic forwarded through IPsec or GRE tunnels is not accelerated. Thus, Cisco Catalyst 8000V autonomous-mode deployments involving an IPsec or GRE tunnel uses slow-path forwarding and thereby results in lower throughput.

Functionalities not supported in OCI deployment

This list specifies all the features and functionalities that are not supported for this deployment.

- Cloud on Ramp is not supported.
- High Availability is not supported in autonomous mode.
- Pay As You Go (PAYG) licensing model is not supported for this deployment.
- Multiple edits on the VM are not supported. You can only perform one edit and save the changes before you proceed to the next edit.
- Multiple interface types are not supported on the VM for this deployment. For example, if you have multiple interfaces added, and you want to change the primary interface type to SRIOV, you must delete all the secondary interfaces before you modify the interface type for your primary interface. When you add the secondary interfaces back, only SRIOV interface type will be supported in this scenario.

Licensing

You can purchase a subscription-based license for Cisco Catalyst 8000V running on OCI. After you decide to purchase the Cisco Catalyst 8000V image from the OCI Marketplace, you must obtain a DNA license from Cisco.

For information on how to obtain and use Cisco Catalyst 8000V DNA licensing, see the Cisco DNA Software Routing Subscription Guide.