

Frequently Asked Questions Oracle OpenStack Release

Questions and Answers

General Questions

- Q:** What is OpenStack?
- A:** [OpenStack](#) is open source software for creating private and public clouds. OpenStack software controls large pools of compute, storage, and networking resources throughout a data center, managed through a dashboard or via the OpenStack API. OpenStack works with popular enterprise and open source technologies making it ideal for heterogeneous infrastructures.
- Q:** What are the new features in Oracle OpenStack Release 5 compared to Release 4?
- A:** Oracle OpenStack's Docker containers for the control plane have been updated to the upstream Queens release. Refer to the [announcement](#) for details. Some of the new capabilities supported include:
- In-place upgrade from Release 4 (Pike) to Release 5 (Queens)
 - Ironic - bare metal service
 - Ceilometer - a data collection service
 - Aodh - an alarming service
 - Gnocchi - a time-series database and resource indexing service
 - Designate - DNS service
- Q:** Where do I download Oracle OpenStack and what is the licensing cost?
- A:** Please refer to chapters 2 through 4 of the Installation and Deployment Guide for important steps to take prior to downloading the Docker images. Oracle OpenStack is available for free from [Oracle Container Registry](#), [Docker Hub](#) and [Oracle Software Delivery Cloud](#). Oracle Linux packages are required to perform the Oracle OpenStack deployment. These packages are available on the [Oracle](#)

[Linux yum server](#) and the [Oracle Unbreakable Linux Network \(ULN\)](#). There is no licensing cost.

- Q:** What hypervisor is supported in R5?
- A:** KVM hypervisor included with the Unbreakable Enterprise Kernel Release 5 for Oracle Linux 7.
- Q:** Is Xen hypervisor in Oracle VM Server supported in R5?
- A:** Xen hypervisor is not supported in R5.
- Q:** Where can I find configuration information regarding Oracle Database and Oracle Real Application Clusters (RAC) with R5?
- A:** Refer to the Application Deployment Guide for Release 5 which is available on the [Oracle OpenStack community page](#).

Technical Questions

- Q:** What is the recommended configuration in R5 for Oracle Database?
- A:** Recommended configuration in R5:
Single instance of Oracle Database 12c
Oracle RAC: 2, 3 or 4 node
Hypervisor: KVM hypervisor included with the Unbreakable Enterprise Kernel Release 5 for Oracle Linux 7
Network: several options via Neutron ML2 plugin
Storage: ZFSSA via Cinder
Contact Oracle sales if you need specific third-party networking and storage support.
- Q:** Are ACFS and ASM file systems supported in Oracle RAC?
- A:** Yes
- Q:** Is ASM supported in Oracle Database 12c single instance?
- A:** Yes
- Q:** Is multitenancy supported for Oracle Database?
- A:** Multitenancy is not currently supported. PDBs (Pluggable Databases) can be configured for a CDB (Container Database). However each tenant is assigned the full CDB.
- Q:** Can I use the following services after launching Oracle Database 12c?
- 1) Oracle Data Guard for data protection, DR for availability domain failover, rolling patches, active sites

for reporting

2) Oracle GoldenGate for active-active replication, online upgrades, data migration

3) Database lifecycle management:

- Clone complete DB environment (binaries, data & configuration)
- Wizard for Data cloning based on a library of backups
- Support TDE at source and destination

A: Today, the above services cannot be launched from Oracle OpenStack. However, if you are currently using these services, it is possible for you to manually associate them with the newly launched Oracle Database instance or Oracle RAC.

Q: Are Node VIP and SCAN IPs supported for Oracle RAC?

A: Node VIP and 1 SCAN IP are supported. We are working on supporting 3 SCAN IPs as required by Oracle RAC. Contact Oracle sales for status updates.

Q: Is automated deployment of Oracle Database 12c and Oracle RAC feasible only with Oracle OpenStack? Is this same capability available if using a third-party OpenStack distribution?

A: For Oracle OpenStack:

Automated deployment for Oracle Database 12c and Oracle RAC is feasible, using proven building blocks, including:

- 1) Oracle Linux and Oracle VM templates for Oracle Database 12c and Oracle RAC
- 2) OpenStack Murano application catalog to build a package that invoke the Oracle VM templates
- 3) Tech Preview of Terraform (alternative to Murano service) for automated deployment of Oracle Database 12c single instance

For Third-party OpenStack Distributions:

1) Automated deployment of Oracle Database 12c and Oracle RAC is feasible. Nova/Cinder multi-attach capability, required for Oracle RAC, is now supported upstream in the Queens release. Refer to the Application Deployment Guide for Release 5 on the [Oracle OpenStack community page](#) for configuration details using Murano, Terraform and Oracle VM templates. Oracle VM templates can be accessed from [Oracle Technology Network](#).

Q: Is VM high availability supported?

A: Oracle is monitoring the OpenStack upstream project "Masakari" for providing VM high availability. Masakari project was officially launched in the upstream Queens release.

Contact Oracle sales with your requirements for this feature.

Q: Can I use Oracle Clusterware for high availability of Applications?

A: Yes. Oracle Linux Support customers at the Basic or Premier level are entitled, at no additional license and support costs, to download and deploy Oracle Clusterware in a Linux cluster. This provides customers with the ability to enable applications running in the cluster to be monitored and managed by [Oracle Clusterware](#) for high availability.

Q: What "Tech Preview" features are included in Release 5?

A: Release 5 includes "Tech Previews" of the following features:

- Magnum – Container-as-a-Service (CaaS)
- Automated deployment of Oracle Database 12c using Terraform

Q: Are the "Tech Preview" features ready for production deployment and supported by Oracle?

A: The "Tech Preview" features are available for testing and non-production use only. Oracle does not provide support for "Tech Preview" features. If your use case needs these features, Oracle encourages you to explore them as "early access" in a non-production environment. Testing the functionality and providing feedback to us can help improve the capabilities and readiness for the general release.

Q: Can Oracle VM templates be deployed on Oracle KVM compute nodes in an OpenStack environment?

A: In many cases, these may work without changes, but they are not currently tested with the Oracle KVM hypervisor. Additionally, since they were designed for deployment on Oracle VM compute nodes, relevant product certifications could be invalidated when running on KVM compute nodes. Inquire with the relevant product group to ascertain support status on KVM.

Q: What are the configuration limits?

A: Configuration limits for Oracle OpenStack have not been published. Various guidelines can be found throughout the installation manual.

Q: Do I need to create a local Docker Registry?

- A:** No. A local Docker Registry is optional.
- Q:** Are third-party networking and storage plugins included in Oracle OpenStack?
- A:** Yes. Plugins submitted by third parties for the upstream Neutron and Cinder releases are included.
- Q:** How do I find which third-party plugins are included in Oracle OpenStack?
- A:** For Cinder driver check `./cinder/cinder/volume/drivers` in a DockerContainer running an `"ol-openstack-cinder-volume"` DockerImage. For Neutron ML2 plugins see the `"plugins"` directory for a Docker Container running the `"ol-openstack-neutron-server"` DockerImage.
- Q:** Does Oracle OpenStack support all features in the same upstream release?
- A:** User documentation and Release Notes for Oracle OpenStack provide the list of features tested and supported along with known issues. Oracle intends to stay compliant with the OpenStack upstream (OpenStack Powered) releases. Contact Oracle if there is a specific feature required for your deployment that is not listed in the user documentation.
- Q:** After I deploy Oracle OpenStack, what do I need to do to install my application image in the OpenStack VM?
- A:** The OpenStack Image Service, Glance, provides functionality for discovering, registering, and retrieving virtual machine images. The service includes a RESTful API that allows users to query VM image metadata and retrieve the actual image with HTTP requests. You can also use the Glance command-line tool or the Python API to accomplish the same tasks.
- Q:** VM images made available through the OpenStack Image Service can be stored in a variety of locations. How do we change the networking for the guest VMs that we copy to OpenStack?
- A:** No change is required on the guest. OpenStack supports flexible network configurations. Guest networks need to be created in OpenStack before moving them.
- Q:** OpenStack Cinder is the block storage component and it can use Oracle ZFS Storage Appliance (ZFSSA). Is there any risk to connecting OpenStack to an existing ZFS Storage Appliance or is a separate ZFSSA required?
- A:** The ZFSSA Cinder driver can easily be used on an existing appliance. Consider whether the appliance needs to handle more iSCSI clients and/or supply more storage. Cinder should be configured to use a separate project for

Cinder shares to simplify maintenance and performance analysis. A Cinder admin user should also be created with a role that can only do management on the Cinder project. Refer to [the ZFSSA Cinder Driver README](#) for details.

- Q:** What does the Horizon dashboard in Oracle OpenStack provide? Is Oracle VM Manager supported?
- A:** The Horizon dashboard is an extensible web application that allows cloud administrators and users to control their compute, storage, and networking resources.

As a cloud administrator, the Horizon dashboard provides an overall view of the size and state of your cloud. You can create users and projects, assign users to projects and set limits on the resources for those projects.

The dashboard provides users a self-service portal to provision their own resources within the limits set by administrators.

Oracle VM Manager is not supported.

Support Questions

- Q:** What is the support pricing for Oracle OpenStack?
- A:** Support for Oracle OpenStack is included as part of Oracle Premier Support for Oracle Linux and Oracle Premier Support for Systems. There is no additional support cost for Oracle OpenStack. More details are available [here](#).
- Q:** Is Oracle OpenStack certified as "OpenStack Powered"?
- A:** Yes.

Additional Information and Resources

- Q:** Where can I find training resources for Oracle OpenStack?
- A:** Currently two training classes are offered:
- 1) [Oracle OpenStack for Oracle Linux: Getting Started Ed 1](#): One day seminar. This course teaches students that are new to OpenStack about this cloud computing architecture, core and optional services, Docker images and containers, a multi-node deployment, and troubleshooting deployments.
 - 2) [Oracle OpenStack: Administration Essentials Ed 1](#): 2 Day Class. Oracle OpenStack: Administration Essentials teaches students about essential OpenStack services for creating and managing cloud resources as a cloud administrator and identifies tasks cloud operators perform.

Q: Where can I find more information and technical documentation on Oracle OpenStack?

A: At these webpages:

[Oracle OpenStack](#), which includes: data sheet, video, white papers, software download, documentation and blogs.

[Oracle Technology Network \(OTN\)](#) which includes:

documentation, other resource links and an Oracle VM VirtualBox VM which has Oracle OpenStack installed, configured and ready to use.



Oracle Corporation, World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065, USA

Worldwide Inquiries
Phone: +1.650.506.7000
Fax: +1.650.506.7200

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