Oracle OpenStack for Oracle Linux Release 1.0 (Icehouse)

Release Notes

Introduction

The Oracle Linux distribution of OpenStack uses Oracle Linux as the foundation for deploying the OpenStack cloud management software, and provides deployment and support to deliver a complete product based on OpenStack.

This release is based on the OpenStack *Icehouse* release. This document is in addition to the *OpenStack 2014.1 (Icehouse) Release Notes*, available at:

https://wiki.openstack.org/wiki/ReleaseNotes/Icehouse

Supported Services

The OpenStack services included in Oracle OpenStack for Oracle Linux are listed in the table below.

SUPPORTED OPENSTACK SERVICES

Service	Description
Nova	Compute service. Controls the creation, placement, and lifecycle of virtual machines.
Glance	Image registry. Controls the images, and their permissions and attributes.
Keystone	Authentication service. Responsible for user and service authentication.
Cinder	Block storage service. Allows users to connect storage devices to virtual machines.
Neutron	Network service. Controls the network creation, and integration of network services.
Horizon	OpenStack official dashboard.
Swift	Object storage service.

The OpenStack services that are available for download and install, but are not yet supported by Oracle are listed in the following table.

OPENSTACK SERVICES NOT SUPPORTED IN THIS RELEASE

Service	Description
Trove	Database deployment and management service.
Heat	Orchestration service.
Ceilometer	Monitoring service.

Deployment Configurations

This release of Oracle OpenStack for Oracle Linux supports compute nodes based on Oracle VM, or Oracle Linux 6 (KVM). The services may be deployed on a single node, or distributed on several nodes. For production purposes, compute and control functions are always on different nodes. You can maintain flexibility in deploying the services according to your own requirements. Deploy the database and message queue appropriately for your scale, security

and performance requirements. To simplify the deployment, the recommended configurations for the control nodes are:

- » **Single Control Node**: All the control services are on one node, including the database and message queue.
- » **Two Control Nodes (One as Dedicated Network Node)**: In this configuration there is a dedicated node for the network traffic and control services, and the rest of the services are on the second control node.
- » **Dedicated Database Node**: The database can be run on a dedicated node, and the other control functions can be either on a single node, or on two nodes as described in the previous option.

Supported Capabilities

The following technologies are supported in this release of Oracle OpenStack for Oracle Linux:

- » **Networking**: The Open vSwitch plug-in with VLANs as L2 isolation mechanism. VXLAN and GRE tunneling may work, but are not yet supported.
- » **Compute**: The hypervisors that are supported are Oracle VM Server Release 3.3, or the KVM hypervisor on Oracle Linux 6.5 or a later version of Oracle Linux 6. Both are available for download from the Oracle Software Delivery Cloud at https://edelivery.oracle.com.
- » **Guest Operating Systems**: The same guest operating systems supported by Oracle VM today, which includes Oracle Linux, Oracle Solaris, Microsoft Windows, and other flavors of Linux. For a complete list of supported guest operating systems, see the Oracle VM Release Notes for Release 3.3 at:

  http://docs.oracle.com/cd/E50245_01/E50246/html/vmrns-guest-os-x86.html

Oracle is working with its partners to make sure customers have a choice of storage and networking. For specific storage and network plug-ins please contact Oracle or the plug-in vendor.

Where Can I get the Software?

Oracle OpenStack for Oracle Linux is available on the Oracle Public Yum Server at http://public-yum.oracle.com/, and on the Oracle Unbreakable Linux Network (ULN) at https://linux.oracle.com/. To configure and install Oracle OpenStack for Oracle Linux, follow the instructions in the *Getting Started with Oracle OpenStack for Oracle Linux 1.0 Guide* (link provided below). Oracle OpenStack is free to download and use, including all Oracle Linux patches and updates.

Hardware and Software Requirements

Oracle OpenStack for Oracle Linux is tested and supported on Oracle Linux Release 6.5 and later, and Oracle Linux Release 6 and later using the Unbreakable Enterprise Kernel Release 3 (UEK R3). For compute nodes, you can use either Oracle VM Server, or KVM running on Oracle Linux. The control service should be installed on Oracle Linux.

The list of supported hardware is the same as that for Oracle Linux and Oracle VM Server, listed on the official hardware certification list, and subject to the same restrictions. See the *Hardware Certification List for Oracle Linux and Oracle VM* at http://linux.oracle.com/hardware-certifications.

Support

Support for Oracle OpenStack for Oracle Linux is provided as part of the Oracle Premier Support for Oracle Linux and Oracle VM. For example, if a deployment consists of one control node installed with Oracle Linux, and 10 compute nodes installed with Oracle VM Server, to be fully supported, you need one subscription of Oracle Linux

Premier Support and 10 subscriptions of Oracle VM Premier Support. For more information about Oracle Linux and Oracle VM support, see the Oracle Knowledge Management article that describes the support policy.

Resources and Documentation

The following documentation and technical resources are available for Oracle OpenStack for Oracle Linux:

» *Oracle OpenStack for Oracle Linux Release 1.0 Datasheet*

http://www.oracle.com/technetwork/server-storage/openstack/linux/documentation/datasheet-oracle-openstack-2296038.pdf

» *Oracle OpenStack for Oracle Linux Installation and User's Guide*
http://www.oracle.com/technetwork/server-storage/openstack/linux/documentation/oracle-openstack-user-guide-2296176.pdf

» *Active-Passive High Availability Guide for Oracle OpenStack for Oracle Linux Release 1.0*
http://www.oracle.com/technetwork/server-storage/openstack/linux/documentation/ha-guide-oracle-openstack-2296039.pdf

» *Oracle Linux and Oracle VM Support Policies*
http://www.oracle.com/us/support/library/enterprise-linux-support-policies-069172.pdf

» *OpenStack 2014.1 (Icehouse) Release Notes*
https://wiki.openstack.org/wiki/ReleaseNotes/Icehouse

» *Oracle VM Release Notes for Release 3.3*
http://docs.oracle.com/cd/E50245_01/E50246/html/vmrns-guest-os-x86.html

» *Hardware Certification List for Oracle Linux and Oracle VM*
http://linux.oracle.com/hardware-certifications

The following resources are available for Oracle software downloads:

» Oracle Software Delivery Cloud
https://edelivery.oracle.com

» Oracle Public Yum Server
http://public-yum.oracle.com/

» Oracle Unbreakable Linux Network (ULN)
https://linux.oracle.com/

Known Issues and Limitations

This section lists the known issues and limitations for Oracle OpenStack for Oracle Linux Release 1.0.

Non Synchronized Servers May Cause Health Checks to Fail

If the time on servers is not synchronized, server health checks may fail.

Workaround: Synchronize the time on all servers using one or more NTP servers. This can be done by using the --ntp-servers option in packstack or by manually configuring the NTP servers. See more details in the *Installation and User's Guide*

RabbitMQ Goes into Blocking State Due to Insufficient Disk Space

If there is insufficient disk space on the RabbitMQ server, all queues may be blocked, and messages cannot be passed between the services. As a result no operation can be performed

Workaround: Free up disk space on the RabbitMQ server, or lower the free disk space requirement in the RabbitMQ configuration file.

Console Fails Display Content for HVM Guest

If the image used to launch an instance is a hardware virtualized (HVM) guest, and an incorrect configuration parameters are set, the guest may start as a paravirtualized (PV) guest. In such case, the guest console will launch but no content will be displayed.

Workaround: Set the vm_mode=hvm parameters in Glance the image. See *Installation and User's Guide* for instructions on how to correctly set the startup parameters for an HVM guest.

Horizon Fails to Launch an Instance from Volume

When trying to launch an instance from volume, using the Horizon dashboard, the operation fails with an error.

Workaround: Use the command line to start the instance.

Packstack Installation Fails with error '*Could not set 'directory' on ensure'*

If the packstack installation fails with the *Error: Could not set 'directory' on ensure: File exists*', it may be that puppet has be run more than once.

Packstack Installation Fails with error '*Cannot retrieve repository metadata*'

Workaround: Make sure that a yum command can be performed on all servers. Possible reasons for failure may be wrong proxy setup or connectivity issues to the yum repository

Ceilometer installation may fail on Oracle VM server fails

Trying to install Ceilometer on Oracle VM server may fail due to broken dependency when using oracle vm 3 repository file

Workaround: Install Ceilometer without oracle VM yum repository file in the yum.repos directory

Cannot attach a volume to an instance when running KVM and SELinux is set and using default libvirt

When SELinux is set an attempt to connect a volume to an instance may fail

Workaround: disable SELinux, use libvirt from the ol6_latest channel instead of the default option

This release does not support live migration when using oracle vm hypervisor

Workaround: none

This release does not support SSL encryption with RabbitMQ

Workaround: none

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