Oracle OpenStack

Many companies are choosing private cloud solutions for sensitive workloads with strict security and privacy regulations and workloads requiring low latency. In these environments, database clouds are key to achieving greater autonomy and agility for application developers, enabling faster time to market for enterprise applications. OpenStack is a popular choice for managing these environments due to its open source benefits including no vendor lock-in, open APIs, and a vibrant ecosystem. However, customers are concerned that in reality there is a vendor lock-in with some OpenStack distributions and demonstrating ROI from OpenStack deployments can be a challenge. Improving ROI requires support of mainstream business applications, which is difficult without easily deploying the databases supporting these applications.

INCREASE ROI AND AGILITY BY BROADENING OPENSTACK USE

Oracle OpenStack is the **first** in the industry to support automated deployment of Oracle Database 12c and Oracle Real Application Clusters (RAC) to enable enterprise applications in OpenStack. New advancements in Oracle Database can be introduced independent of the release schedule of OpenStack services to accelerate development, deployment, and security of business applications. Automated deployment of Oracle Database simplifies deployment of these enterprise applications, significantly increasing ROI.

DOCKER CONTAINERS FOR SIMPLIFIED, FAST AND RELIABLE DEPLOYMENT AND OPERATION

For more than two years, Oracle OpenStack has included the OpenStack control plane in Docker containers, using the upstream Kolla project. Kolla enables simple and reliable deployment, updates, and upgrades driving cost out of the operations. It is supported by many vendors, which helps protect customers from vendor lock in. OpenStack services are designed to operate independently. With Docker containers, each service is packaged and configured as a separate microservice and deployed as a container. When a configuration changes, a new container is created to replace the old container. New containers are easy to create and do not impact other containers. One or more cloud controller nodes, compute, network, or storage nodes can be deployed in a simple, efficient way. In-place

Key Features

- Docker container-based deployment and upgrades for simplified, reliable, and fast deployment
- In-place upgrades with a single command, from Release 4 to Release 5, without requiring additional hardware
- Accelerated deployment of business critical enterprise applications
- Included as part of Oracle Linux Premier Support and Oracle Premier Support for Systems at no extra charge
- End-to-end support for infrastructure components
- Certified as "OpenStack Powered," supports the OpenStack ecosystem
- Support for KVM hypervisor included with the Unbreakable Enterprise Kernel Release 5 for Oracle Linux 7

Key Business Benefits

- Increase ROI of OpenStack deployments by easily supporting mission-critical business applications
- Drive costs out of operations
- Substantially reduce system integration and support cost
- No vendor lock in

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upgrades can be performed without requiring additional hardware. This can be done from one release to the next—service by service, or all at once with a single command—with no instance downtime.

As part of its OpenStack work, Oracle also developed and contributed a command line interface (CLI) called kollacli to the OpenStack upstream project Kolla. Kollacli provides a simple, common, intuitive and consistent user interface, further simplifying OpenStack deployments.

SUBSTANTIALLY REDUCE SYSTEM INEGRATION AND SUPPORT COSTS

Oracle OpenStack and Oracle Linux can be downloaded and used for an unlimited time without cost. Support for Oracle OpenStack is available at no additional cost with a premier support subscription for Oracle Linux, or Oracle Premier Support for Systems. 24x7 technical support is provided by dedicated experts via My Oracle Support, the well-established support infrastructure used by all Oracle products and backed by an industry-leading OpenStack engineering team. Support for Oracle Linux can be purchased at the Oracle Store or by contacting your Oracle sales representative.

With Oracle OpenStack, system integration costs can be significantly reduced as it is an integrated solution with end-to-end support from a single vendor—from the OpenStack platform to the base operating system, database and applications. Oracle OpenStack is certified as "OpenStack Powered" and can easily integrate with OpenStack's large ecosystem. Oracle OpenStack is installed on Oracle Linux, which is tested with a large number of hardware platforms. These validated configurations provide a broad range of hardware options for deploying Oracle OpenStack. Customers building from upstream and "rolling their own" OpenStack environments have realized that this can be a time and resource intensive endeavor. Oracle OpenStack is a tested, hardened, and supported distribution that can be deployed in hours and not days or months, providing a jump start to developers. This can free up IT staff for more value-added contributions and innovation versus dealing with operational and support issues.

ORACLE OPENSTACK RELEASE 5

Oracle OpenStack Release 5 is based on the latest OpenStack 'Queens' release using the KVM hypervisor included with the Unbreakable Enterprise Kernel Release 5 for Oracle Linux 7.

OpenStack is comprised of a number of independent services that work together. Oracle OpenStack offers all of the OpenStack services needed to build a cloud infrastructure. Supported services in Oracle OpenStack Release 5 are listed below.

Service Name	Description
Nova	Compute service
Glance	Image management service
Keystone	Authentication service
Cinder	Block storage service
Neutron	Network service
Horizon	OpenStack dashboard
Swift	Object storage service
Heat	OpenStack orchestration service
Murano	OpenStack application catalog
Barbican	Key manager service
Ironic	Bare Metal-as-a-Service
Ceilometer	Telemetry data collection
Aodh	Alarming service
Gnocchi	Time-series database and resource indexing service
Designate	DNS-as-a-Service

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