OPENSTACK

Components Overview And Horizon Demo

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Lightning Talks

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WHOAMI

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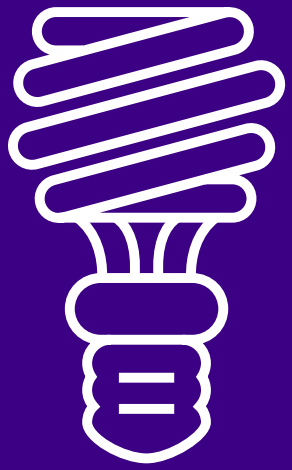
This Lightning Talk
focuses on OpenStack,
OpenStack Components
and the Horizon Dashboard.



WHAT IS OPENSTACK?

OpenStack is a **set of software tools** for building and managing cloud computing platforms for private and public clouds.

http://opensource.com/resources/what-is-openstack

WHY OPENSTACK?

The top 3 reasons companies deploy OpenStack: **cost savings**, **open platform**, and **ability to innovate**.

Source: OpenStack User Survey Insights: November 2014. Retrieved from http://www.redhat.com/openstack

OPENSTACK KNOWLEDGE SPEED RUN

OPENSTACK COMPONENT CATEGORIES

- **Compute**: Provision and manage large networks of virtual machines
- **Storage**: Object and block storage for use with servers and applications
- **Networking**: Pluggable, scalable, api-driven network and IP management
- **Shared services**: Services that make it easier to implement and operate your cloud

OPENSTACK COMPONENTS

- **Nova**: designed to provide and power massively scalable, on demand, self service access to compute resources
- **Glance**: service where users can upload and discover data assets that are meant to be used with other services (images, etc)
- **Swift**: highly available, distributed, eventually consistent object/blob store
- **Horizon**: provides a web based user interface to OpenStack services including Nova, Swift, Keystone, etc.
- **Keystone**: provides Identity, Token, Catalog and Policy services for use by OpenStack projects
- **Neutron**: provides “network connectivity as a service” between interface devices managed by other OpenStack services

OPENSTACK COMPONENTS

- **Cinder**: provides “block storage as a service”.
- **Ceilometer**: delivers a service to acquire and deliver metering data about the OpenStack cloud
- **Heat**: service to orchestrate multiple composite cloud applications
- **Trove**: Database as a Service for OpenStack
- **Sahara**: provides users with simple means to provision a Hadoop cluster
- **Ironic**: project which provisions bare metal machines by leveraging common technologies such as PXE boot and IPMI to cover a wide range of hardware

OPENSTACK ACCESS

- **RESTful API**: OpenStack APIs and extensions to launch server instances, create images, assign metadata to instances and images, create containers and objects, and complete other actions in your OpenStack cloud.
- **Command Line Interface**: each OpenStack project provides a command-line client, which enables you to access the project API through easy-to-use commands
- **Web Interface**: The Horizon component provides a web-based user interface for use as an OpenStack Dashboard

HORIZON DEMO

HELPFUL LINKS

- OpenStack Website:
  http://www.openstack.org
- OpenStack Components:
  http://docs.openstack.org/developer/openstack-projects.html
- RDO:
  http://www.rdoproject.org/
- RHELOSP:
  http://www.redhat.com/openstack

Thank You