Module 11

Basic Automated OpenStack Deployment

Module 11 Objectives

By the end of this lecture module, you should be able to explain:

- Manual deployment process
- DevStack
- Automation based OpenStack deployments (RackN, OSP Director (RDO Manager), Fuel (+Community edition), Juju (and Conjure-Up)), Suse Cloud, TripleO
- Kolla (OpenStack as containers)
- Big Tent tools - Puppet/Chef/Ansible/Salt

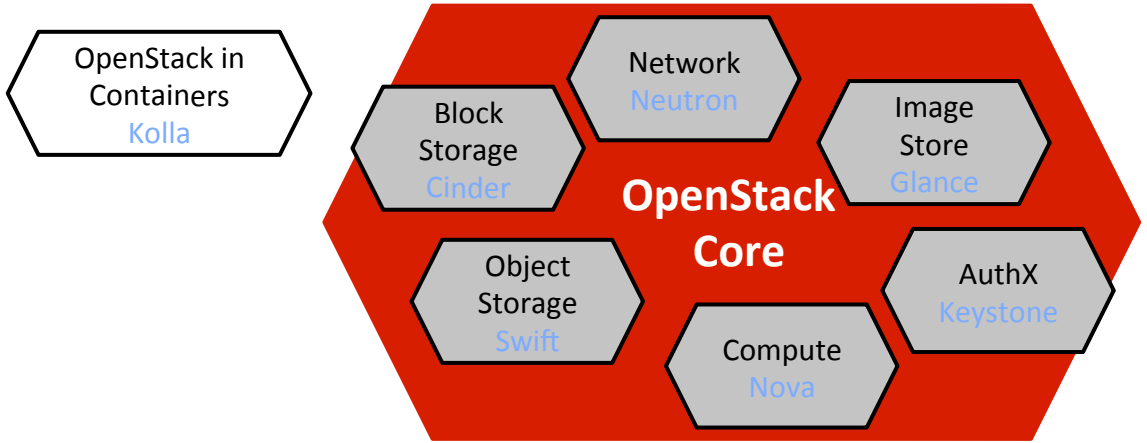
Manual Installation

- Specifics are found in the OpenStack docs
- Useful as a learning tool to understand install process and integrations
- Not intended (or really good for) production deployments

Automation-based Deployments

- RackN
- OSP Director
- Fuel (and Community edition)
- Juju (and Conjure-Up)
- Suse Cloud
- OpenStack TripleO Project (~RDO Manager)

OpenStack Deployment in Containers (Kolla)



What is it?

- Production-ready containers and deployment tools for operating OpenStack clouds
- Provides Docker containers and Ansible playbooks to deploy Openstack

What can it do?

- Allows operators with minimal experience to deploy OpenStack quickly
- Simplifies modification of deployed OpenStack configurations

DevStack

- Developer toolset
- Single scripted interface
- Flexible ‘per service’ download of code from git repositories
- All logs broken out in separate screen sessions
- Not intended (or really good for) production deployments

Distribution solutions

- Each distribution has it's own method of installation:
  - RedHat (RedHat, CentOS, Fedora)
    - PackStack - scripted puppet runs
  - Canonical (Ubuntu)
    - Juju/MaaS - Canonical specific scripting and management toolset
  - SUSE Linux
    - Suse Cloud - Chef-based toolset
  - And more…

CAPS and the Big Tent

- Chef/Ansible/Puppet/Salt (CAPS) Big Tent
  - Tools for installing on your own
  - A project under OpenStack CI that includes many “pieces” of projects
  - Puppet based options (e.g. Puppetlabs pieces, other contributed modules)
  - Chef based options (Crowbar, etc.)
  - Other non-incubated projects