

CEPH-101 Openstack Storage Administration with CEPH

Course Length: 2 days

Course Description:

CEPH is an open-source distributed and fault tolerant storage system widely used in cloud environments like in Openstack.

Participants of this training will learn about the main concept and architecture of Ceph, its installation and daily operation as well as using it in Openstack environments.

Besides in-depth theoretical coverage students also do hands-on exercises in their own Openstack + CEPH lab system.

Structure: 50% theory 50% hands on lab exercises

Target audience: System administrators, developers and Devops who want to understand and use Ceph in Openstack environments

Prerequisites: Linux system administration, networking and storage knowledge

Detailed Course Outline:

Module 1: Introduction

- Storage Introduction
- Ceph introduction
- Ceph node types
- Ceph architecture
- Cluster maps
- Object placement
- Ceph installation
- Ceph installation
- Lab 1

Module 2: Managing the Ceph cluster

- Monitoring the Ceph cluster
- Managing pools
- Configuring Ceph
- Customizing the CRUSH map
- Adding and removing OSDs
- Best practices
- Lab 2

Module 3: Working with Ceph

- Ceph Block Device
- Working with the Ceph Block Device
- Working with RBD snapshots
- Ceph object gateway
- Ceph File system
- Lab 3

Module 4: Openstack support

- Ceph – Glance config example
- Ceph – Cinder config example
- Ceph – Nova config example