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Learning Style: Virtual Classroom

Technology: Cisco

Difficulty: Beginner

Course Duration: 3 Days

Deploying OpenStack Cloud - Fundamentals v3.0 (OCDCU)

About this course:

Deploying OpenStack Cloud - Fundamentals (OCDCU) v3.0 is a 3-day instructor-led Cisco training course designed for Systems and Field Engineers, Consulting Systems Engineers, Technical Solutions Architects, Integrators, and Partners. The

course is targeted towards individuals who are responsible for installation, configuration, and the implementation of an OpenStack Cloud. This OpenStack course covers the key components and procedures needed to install, configure, and deploy OpenStack Cloud using Cisco Unified Computing System hardware.

This course will provide hands-on lab exercises utilizing Cisco Unified Computing System (UCS) hardware. Students will perform hands-on lab exercises that were created to teach the necessary skills to install, configure, and deploy an OpenStack Cloud on Cisco UCS hardware.

Read more below to get started with this valuable Cisco OpenStack course from QuickStart!

Course Objective:

Upon completing this course, the learner will be able to meet these overall objectives:

- Describe the basic business advantages of an OpenStack Cloud
- Describe the basic function of an OpenStack Cloud
- Describe Cisco's UCS Accelerator Paks for OpenStack deployments
- Describe the services in OpenStack (Keystone, Nova, Glance, Cinder, Neutron, Swift, Trove, Ceilometer, Heat and Horizon)
- Describe additional services of OpenStack Cloud.
- Install the appropriate services for an OpenStack Cloud in a Multi-node deployment
- Create Virtual Machines using OpenStack

Audience:

The primary audience for this course is as follows:

- Network and Server deployment engineers
- Network and Server deployment design engineers
- Program managers and project managers

Prerequisite:

The knowledge and skills that the learner should have before attending this course are as follows:

- Internetworking Fundamentals
- Basic Linux Skills
- Basic Server Virtualization Technology familiarity
- Basic Server Implementation knowledge
- Basic familiarity with the function of Rabbit MQ
- Basic familiarity with the function of SQL Database technology
- Basic familiarity with Cisco Unified Computing System (UCS)

Course Outline:

Course Introduction

- Overview
- Course Goal and Objectives
- Course Flow

Module 1: Cloud Fundamentals

- Cloud Computing Definition
- Cloud Computing Key Concepts
- CapEx VS. OpEx
- Three Types of Cloud Service

Module 2: OpenStack Fundamentals

- Overview
- Orchestration
- Openstack Release Timeline
- OpenStack Components
- Messaging
- Cloud Orchestration Tools

Module 3: Keystone

- Overview
- Keystone Architecture
- Keystone Components
- Keystone Concepts
- Keystone Installation

Module 4: Glance

- Overview
- Glance Architecture
- Glance Components
- Glance Concepts
- Glance Installation

Module 5: Neutron

- Overview
- Neutron Architecture
- Neutron Components
- Neutron Concepts
- Neutron Installation

Module 6: Nova

- Overview
- Nova Architecture
- Nova Components
- Nova Concepts: VM Instances
- Nova Installation

Module 7: Cinder

- Overview
- Cinder Architecture
- Cinder Components
- Cinder Concepts
- Cinder Installation

Module 8: Horizon

- Overview
- Horizon Architecture
- Horizon Concepts
- Horizon Installation

Module 9: Operating

- Overview
- Keystone Identity Provisioning
- Glance Image Provisioning
- Neutron Network Provisioning
- Cinder Volume Provisioning
- Nova Instance Provisioning

Module 10: Swift

- Overview
- Swift Architecture
- Swift Components
- Swift Installation
- Swift Provisioning

Module 11: Ceilometer

- Overview
- Ceilometer Architecture
- Ceilometer Components
- Ceilometer Concepts
- Ceilometer Installation

Module 12: Heat

- Overview
- Heat Architecture

- Heat Components
- Heat Concepts
- Heat Installation

Module 13: Trove

- Overview
- Trove Architecture
- Trove Components
- Trove Concepts

Module 14: Cisco UCS Accelerator Packs

- Overview
- UCS Accelerator Paks Benefits
- Accelerator Paks Configurations
- Solution Components

Lab Outline

- Lab 1: Initial Controller Setup
- Lab 2: Installing Keystone
- Lab 3: Installing Glance
- Lab 4: Installing Neutron
- Lab 5: Installing Nova
- Lab 6: Installing Cinder
- Lab 7: Installing Horizon
- Lab 8: OpenStack Operations
- Lab 9: Installing and Operating Swift
- Lab 10: Installing Ceilometer
- Lab 11: Installing Heat