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IBM Cloud Manager with OpenStack 4.3 and IBM Cloud Orchestrator 2.5 - Cloud Administration and Orchestration Workshop

Information

Length:4.5 Days

__Ref:CQ012G-X

Delivery method:Classroom

Price:EUR

Overview

In this workshop, you learn how to administer and use the major functions of IBM Cloud Manager with OpenStack and IBM Cloud Orchestrator. The primary focus is on using the product-provided features to get the most value from your investment. You learn how to perform common administrative tasks like restarting the software stack and creating users and groups. You create OpenStack Heat orchestration templates (HOTs) to model groups of virtual machines so that they can be deployed as a single entity. You use OpenStack Neutron to create a software defined network, with options for a firewall and load balancer. This workshop focuses on taking full advantage of the workflow and orchestration capabilities that are provided to IBM Cloud Orchestrator through Business Process Manager. You also explore self-service offerings and orchestration with Business Process Manager.

Public

IBM employees, business partners, and customers who need to create content to customize IBM Cloud Orchestrator to address use cases not provided with the product. The course is also recommended for IBM employees, business partners, and customers who create and customize workflows for IBM Cloud Orchestrator users.

Prerequisites

Before taking this course, you should have the following skills:

- Basic understanding of cloud and virtualization technologies
- Basic VMware skills
- Basic Linux skills
- Basic understanding of OpenStack Kilo is beneficial
- Basic understanding of IBM Cloud Manager with OpenStack 4.3 and IBM Cloud Orchestrator, including what is new in each product (recorded video)
- Experience with Business Process Manager orchestration and workflows is beneficial

Objective

After you complete this course, you can perform the following tasks:

- Manage the IBM Cloud Manager with OpenStack and IBM Cloud Orchestrator components and environment
- Access the IBM Cloud Manager with OpenStack Horizon Dashboard and explore the key features
- Use the Horizon Dashboard to create, deploy, and manage Heat orchestration templates
- Access the IBM Cloud Orchestrator user interface and explore the key features
- Create and manage domains, projects, users, and Neutron network components in a multitenant environment
- Use Business Process Manager artifacts to customize and extend IBM Cloud Orchestrator:
- Build process workflows for use with IBM Cloud Orchestrator using product-provided toolkits and custom content
- Build custom user interfaces for self-service offerings
- Build custom user actions
- Troubleshoot problems when creating workflows and deploying Heat orchestration templates

Topics

Administration

- IBM Cloud Manager with OpenStack 4.3 level set
- Brief review of OpenStack core components
- Introduction to the OpenStack Horizon Dashboard
- Using the Horizon Dashboard to deploy virtual machines
- Manage virtual machine settings
- On-board existing virtual machines
- Customizing the Horizon Dashboard
- Security model and terminology
- Regions, availability zones, and quotas
- Operating the IBM Cloud Manager with OpenStack environment
- Classroom environment

Building Images

- cloud-init details before we discuss current tables in A&O and PAM slides
- Image management with OpenStack Glance

Networking with OpenStack Neutron

- Neutron components
- Network and subnetwork
- Router definition
- Firewall as a Service
- Load Balancer as a Service
- Neutron configuration for VMware environments
- Basic network troubleshooting

Block storage with OpenStack Cinder

- Various Storage types in OpenStack
- Coherence of Nova, Cinder, Glance & Cinder
- Cinder Operation & Configuration

Deploying OpenStack Heat templates

- Heat overview and components
- Advanced Heat orchestration template
- Troubleshooting

IBM Cloud Orchestrator add-ons

- What's new in IBM Cloud Orchestrator 2.5 - a brief review
- Orchestration overview
- IBM Cloud Orchestrator extensions and security model
- Public Cloud Support
- Bring your own OpenStack
- Operating the IBM Cloud Orchestrator environment
- Classroom environment

Self-service user interface

- Introduction to the IBM Cloud Orchestrator self-service user interface
- Overview of Self-service offerings
- Actions Registry
- Defining and deploying Heat templates
- Introduction to modifying an offering
- Customizing the IBM Cloud Orchestrator self-service user interface (re-branding)

Orchestration with Business Process Manager

- IBM Business Process Manager architecture and overview
- IBM Process Designer

- Business Process Manager artifacts
- Overview of IBM Cloud Orchestrator toolkits
- Business process details
- Human service and coach details
- Variables and data mapping
- Information flow in IBM Cloud Orchestrator
- Operation context details
- Managing the process application lifecycle

ICO as an Integration Layer

- Accessing a legacy backend from BPM workflows
- Invoking ICO functionality from external sources

Troubleshooting

- Platform troubleshooting
- Business Process Manager Troubleshooting