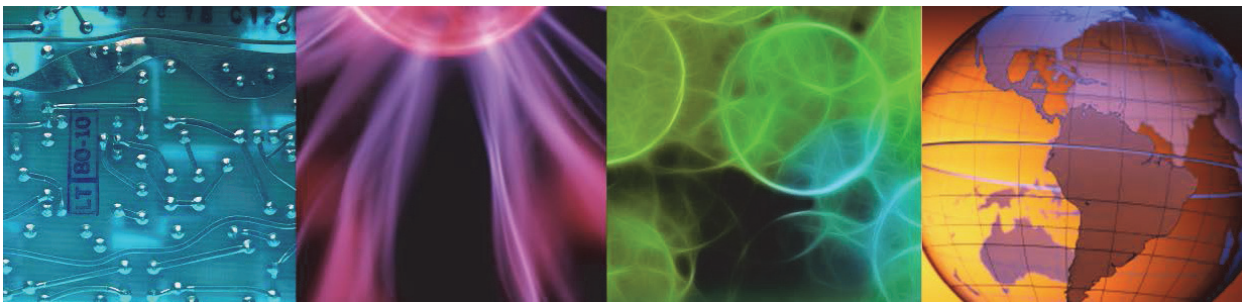
About this course

IBM Cloud Orchestrator 2.4 Practical Application Methods



In this four-day workshop, you learn how to get the most out of a customized implementation of IBM® Cloud Orchestrator. You learn to address common use cases such as configuring a multitenancy network, working with Heat and the new virtual system patterns, customizing self-service offerings, working with approvals, interacting with users, and creating and sharing IBM Cloud Orchestrator content.

This workshop focuses on taking full advantage of the workflow and orchestration capabilities that Business Process Manager provides to IBM Cloud Orchestrator.

The lab environment for this course uses the CentOS and Windows platforms.

Highlights

- Intermediate to advanced training for cloud and domain administrators
- Neutron networking
- Provisioning with Heat
- New virtual system pattern capabilities>

For information about other related courses, visit the Cloud & Smarter Infrastructure education training paths website:

ibm.com/software/software/tivoli/education/

	Details
Delivery method	Classroom
Course level	ERC 1.0
	This course is an update of TP330: IBM SmartCloud Orchestrator 2.3 Practical Application Methods ERC 1.0
Product and version	IBM Cloud Orchestrator 2.4
Duration	4 days
Skill level	Intermediate-Advanced

About the student

This course is designed for IBM employees, business partners, and customers who perform the following tasks:

- Demonstrate IBM Cloud Orchestrator
- Deliver an IBM Cloud Orchestrator Proof of Technology
- Contribute content to an IBM Cloud Orchestrator Proof of Concept
- Create content to customize IBM Cloud Orchestrator to address use cases not provided with the product.

Before taking this course, make sure that you can act as administrator for IBM Cloud Orchestrator and are familiar with OpenStack and infrastructure as a service. Alternative prerequisites are taking the following courses:

- TP303 IBM Cloud Orchestrator 2.4 Administration and Operations Instructor Led Training, TOD22 IBM Cloud Orchestrator 2.4 Administration and Operations Self Paced Virtual Training, or TOD23 IBM Cloud Orchestrator 2.4 Administration and Operations Replay Only.

Learning objectives

Objectives

In this course, you learn to perform the following tasks:

- Create and deploy Heat stacks, virtual system patterns, and virtual system classic patterns with IBM Cloud Orchestrator
- Build a multitenant Neutron network environment for use with IBM Cloud Orchestrator
- Invoke REST calls to IBM Cloud Orchestrator's REST endpoints
- Build process workflows for IBM Cloud Orchestrator with the product-provided toolkits and custom content
- Build custom user interfaces for self-service offerings
- Build self-service offerings that include required approvals
- Troubleshoot problems when creating workflows and patterns
- Create IBM Cloud Orchestrator toolkits

Course agenda

The course contains the following units:

1. Unit 1, “IBM Cloud Orchestrator V2.4” on page 1

   In this unit, you review the IBM Cloud Orchestrator 2.4 architecture, the pattern types and their capabilities, the various interfaces and their use, and the interaction between the pattern engine, OpenStack, and IBM Cloud Orchestrator.

2. Unit 6, “Networking with OpenStack Neutron” on page 219

   In this unit, you explore the use of the OpenStack Neutron project to build a Software Defined Network. The exercises build a new tenant for the domain. The tenant has separate networking resources that consist of two private networks, production and test networks, that are isolated from each other. The last, optional, exercise defines a load balancer for a web server.

3. Unit 7, “Orchestration with OpenStack Heat” on page 274

   This unit describes the different variable types in Business Process Manager and how to use them in process definitions.

   The exercises in this unit show how to use the OpenStack Heat component to create software-defined compute, storage, and network components.

4. Unit 2, “REST API in IBM Cloud Orchestrator” on page 30

   This unit describes IBM Business Process Manager business process and human services and how you use them with IBM Cloud Orchestrator.

   This unit exercises explore the usage of REST calls in IBM Cloud Orchestrator. The REST call examples use a web Browser and curl tool. You run the REST calls to the IBM Cloud Orchestrator API, BPM API, and OpenStack API.

5. Unit 3, “Working with data objects” on page 77

   This unit describes some of the ways that IBM Business Process Manager coaches can be customized.

   This unit contains exercises for building and testing business processes to be run with IBM Business Process Manager Standard V8.5.

6. Unit 9, “Troubleshooting” on page 361

   This unit describes how to perform some basic troubleshooting and the primary log files.

   In this set of exercises, you correct various problems in an imported toolkit to create a working self-service offering. The self-service offering is intended to build and deploy a classic virtual system pattern. It collects the instance name and date, and then in the second window, requests the pattern root password. The business process deploys the virtual system instance and prompts an administrator for intervention if the deployment fails.

7. Unit 4, “Human service and business process details” on page 130

   This unit describes the Heat architecture in OpenStack and how to create and deploy a Heat template.

   In this set of exercises, you take the basic skills that you learned and enhance some of the original business processes and human services that you previously created.

8. Unit 5, “Dynamic coach” on page 173

   This unit describes the different ways to deploy the IBM Cloud Orchestrator pattern types.

   In this set of exercises, you use some of the advanced capabilities for coach definitions.

9. Unit 8, “Deploying various patterns” on page 307

   This unit describes how to perform some basic troubleshooting and the primary log files.

   This exercise unit shows various aspects of deployment and operations of different pattern types. The main focus is on the new virtual system classic and OpenStack Heat pattern.

10. Unit 10, “Configuring approvals” on page 386

    In this unit, you learn how to work with approvals in business processes.

    These exercises add approvals to advanced pattern deployment requests that are made from an IBM Cloud Orchestrator self-service offering.

11. Unit 11, “Configuring notifications” on page 413

    This unit explains the email notification toolkit and how to configure IBM Cloud Orchestrator to send emails on task assignment.

    In this set of exercises, you use the email notification toolkit that is provided with IBM Cloud Orchestrator to send an email to user from the Self-service interface. You also configure business process manager to send a notification to the domain administrator when a task is assigned to them.

12. Unit 12, “IBM Cloud Orchestrator content creation and publishing” on page 423

    This unit describes how to create and publish content for IBM Cloud Orchestrator.

    In this set of exercises, you create an IBM Cloud Orchestrator toolkit that you can reuse in Business Process Manager applications.