



NCTA Cloud Operations

Class Code: CT-NCTAO

Who should attend

This course is designed for system administrators or cloud technologists who wish to further develop their skills for evaluating, deploying and administering cloud services.

Prerequisites

To ensure your success in this course, you should have experience with basic network and server administration, as well as a strong understanding of cloud technologies. In addition, you should be familiar with evaluating, selecting and implementing Software as a Service (SaaS) solutions. You can obtain this level of skills and knowledge by taking the following courses:

- [NCTA Cloud Technologies \(NCTA-CT\)](#)

Course Objectives

- Describe cloud operations
- Plan cloud services implementation
- Deploy a cloud application with Digital Ocean
- Deploy a cloud application with Heroku
- Deploy websites with Microsoft Azure
- Implement Azure Cloud Services and virtual machines
- Manage Azure applications with Visual Studio
- Deploy applications to Opscode Chef
- Manage server state with Puppet

- Implement Rackspace Cloud Servers
- Import and export data from cloud services
- Manage security and compliance in cloud solutions
- Plan and execute a phased cloud migration

Course Content

In this course, you will research cloud operations and what it means to be a certified cloud master; deploy and configure various Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS) cloud services; employ automation tools such as Chef™ and Puppet® to manage cloud services; explore data import/export techniques and considerations; manage security and compliance in the cloud; and plan and execute a phased cloud migration.

Detailed Course Outline

Module 1: Overview of Cloud Operations

- Overview of Cloud Computing Technologies and Roles
- Requirements for Cloud Services
- Cloud Service Administration

Module 2: Planning Cloud Service Implementation

- Hardware, Software and Network Requirements
- Risks of a Cloud Deployment
- End Users and Business Stakeholders

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**CLOUD
ADOPTION
CHALLENGE**

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- Automation and Configuration Management
- Cloud Service Support Resources

Module 3: Deploying a Cloud Application with DigitalOcean

- Cloud Application Implementation Requirements
- Droplet on DigitalOcean

Module 4: Deploying a Cloud Application with Heroku

- Cloud Application Features of Heroku
- Heroku App
- Scale and Update Applications on Heroku
- Heroku Applications with Git Bash

Module 5: Deploying Websites and Apps with Microsoft Azure

- Overview of Microsoft Azure
- Websites and Apps
- Data Storage

Module 6: Implementing Azure Cloud Services and Virtual Machines

- Azure Cloud Services
- Azure Virtual Machines
- Manage Microsoft Azure Cloud Services

Module 7: Managing Azure Applications with Visual Studio

- Visual Studio
- .NET Applications to Azure with Visual Studio

Module 8: Introduction to AWS

- Components
- Deployment

Module 9: Deploying Applications to Opscode Chef

- Overview of Opscode Chef
- Chef Client
- Chef Cookbooks

Module 10: Managing Cloud Services with Chef

- Manage Azure Services with Chef
- Manage AWS with OpsWorks

Module 11: Introduction to Puppet

- Streamline Cloud Management
- Components of Puppet

Module 12: Implementing Rackspace Cloud Servers

- OpenStack
- Rackspace Cloud Services
- Rackspace Cloud Server
- QoS

Module 13: Importing and Exporting Data from Cloud Services

- Cloud Data Import and Export Requirements
- Import and Export Data from a Cloud Network

Module 14: Managing Security and Compliance in Cloud Solutions

- Secure Cloud Solutions
- Compliance for Cloud Solutions

Module 15: Planning and Executing a Phased Cloud Migration

- Phased Migration
 - Cloud Assessment
 - Deploy a Proof of Concept
 - Data Migration
 - Application Migration
 - Implement Cloud Features
 - Optimize Cloud Implementations