Enterprise Computing Solutions - Education Services

# TRAINING OFFERING

**Du kan nå oss här**

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# Integrating Hybrid Clouds with Amazon Web Services

| CODE: | LENGTH: | PRICE: |
|---|---|---|
| NEP_DF-HCL-I | 16 Hours (2 days) | kr24,000.00 |

## Description

Learn to implement a hybrid cloud solution with Amazon Web Services by using NetApp® Cloud Volumes ONTAP®. Connect an AWS Virtual Private Cloud and an on-premises data center to unify your infrastructure. Use NetApp Cloud Manager to move data and manage storage in the hybrid cloud. Learn about how NetApp cloud services are integrated into Cloud Manager to provide persistent storage for Kubernetes containers and enhance data protection, security, and compliance. Learn to optimize capacity and performance of Cloud Volumes ONTAP

## Objectives

• Describe how NetApp technologies can be used to build your data fabric
• Configure a AWS VPC and connect it to an on-premises data center with VPN Internet Protocol security (IPsec)
• Describe Cloud Volumes ONTAP architecture
• Install a Connector and deploy Cloud Volumes ONTAP
• Explain basic system administration tasks with Cloud Manager
• Copy data between an ONTAP based system and Cloud Volumes ONTAP for AWS for disaster recovery
• Use data tiering to Amazon S3 for Cloud Volumes ONTAP
• Use Cloud Volumes ONTAP as persistent storage for Kubernetes containers
• Identify performance and sizing options for Cloud Volumes ONTAP

## Audience

- Administrators
- Operators
- Architects
- Implementation Engineers

## Prerequisites

For a successful learner experience, we recommend that you have knowledge of the following concepts before you attend the course.

- Cloud computing concepts - Cloud characteristics, Service delivery methods, Cloud deployment models
- Networking concepts and definitions - Classless Inter-Domain Routing (CIDR)/Network address translation (NAT)
- AWS concepts - AWS VPC, subnets, Internet Gateway, NAT Gateway, route tables, security groups, Amazon EC2, and Amazon Simple Storage Service (Amazon S3)

In addition to the 5 day class below.. **OT-CLU-DPA - ONTAP Cluster Administration and Data Protection**
Also the 1 day introductory class.. **IHCF - Integrating Hybrid Clouds Foundation**

## Programme

**Module 1: Data Fabric Overview**

- Data fabric
- Solutions for the hybrid cloud
- NetApp Public Cloud Products
- Cloud Storage
- Cloud Services and Analytics
- Cloud Controls

**Module 2: Public Cloud Essential Concepts**

- AWS Networking and Other Concepts
- AWS Cloud Formation

**Module 3: Connectivity from the Public Cloud to Other Networks**

- Amazon Web Services Virtual Public Cloud Connectivity to an On-Premises Network

**Module 4: NetApp Cloud Manager**

- NetApp Cloud Manager Overview

**Module 5: NetApp Cloud Volumes ONTAP: Single-Node Architecture**

- Cloud Volumes ONTAP
- Cloud Volumes ONTAP Use Cases
- Cloud Volumes ONTAP Architecture
- Deploying Cloud Volumes ONTAP
- Cloud Volumes ONTAP Supported Features

**Module 6: NetApp Cloud Volumes ONTAP: High-Availability Architecture**

- Highly Available Cloud Volumes ONTAP in AWS

**Module 7: Administration of NetApp Cloud Volumes ONTAP and NetApp Cloud Manager**

- Administering Cloud Volumes ONTAP
- Administering Cloud Manager

**Module 8: Implementing Disaster Recovery with NetApp Cloud Volumes ONTAP**

- Disaster Recovery with NetApp Cloud Volumes ONTAP Overview

**Module 9: Data Tiering for NetApp Cloud Volumes ONTAP**

- Data Tiering for NetApp Cloud Volumes ONTAP Overview

**Module 10: Using NetApp Cloud Manager to Provision Persistent Storage for Kubernetes Clusters**

- Using NetApp Cloud Manager to Provision persistent Storage for Kubernetes Clusters Overview

**Module 11: Using Integrated Services from NetApp Cloud Manager**

- Using Cloud Backup Service from Cloud Manager
- Using Cloud Sync from Cloud Manager
- Using Cloud Compliance from Cloud Manager
- Using Cloud Tiering Service from Cloud Manager

**Module 12: Sizing NetApp Cloud Volumes ONTAP**

- An Introduction to Sizing
- Capacity Sizing
- Performance Sizing
- Single Node versus High Availability
- Key Differences between Cloud Volumes ONTAP and On-Premises ONTAP software
- Performance Tuning
- Frequently Seen Sizing Mistakes

**Labs:**

- Controlling cloud resources with CLI
- Controlling cloud resources with Powershell Toolkit
- Controlling NetApp ONTAP (On-Premises) Resources with NetApp Powershell Toolkit
- Configuring Resources in AWS with AWS CloudFormation

- Reviewing Resources in the AWS Console
- Verifying Connectivity to the EC2 instances in Public and Private Subnets
- Connecting AWS VPC to Your On-Premises Network
- Configuring your On-Premises DNS and Domain Controller for your Amazon EC2 Instances
- Deploying a connector
- Deploying a Single-Node Cloud Volumes ONTAP Instance
- Accessing the SMB Share from an SMB Client
- Creating an NFS Volume and Accessing It from an NFS Client
- Deploying a Cloud Volumes ONTAP High-Availability Pair
- Connecting an SMB Client from Within the Same VPC
- Performing Failover and Failback of the High-Availability Pair of Nodes
- (Optional) Connecting an SMB Client from Outside the VPC Using a Transit Gateway
- Using Cloud Manager for Basic Administration of Cloud Volumes ONTAP
- Doing Basic Administration of Cloud Manager
- Configuring and Managing Disaster Recovery in the Data Fabric
- Tiering Backup Data to Amazon Simple Storage Service
- Exploring the TCO Calculator and Sizer Tools

## Follow on courses

The following 2 x 2 day courses are recommended.. **OCI-BI - OnCommand Insight: Business Insights**
**OCI-IO - OnCommand Insight: Intelligent Operation**

## Test and Certification

This course is part of the following certifications:

- NetApp Certified Hybrid Cloud Architect
- NetApp Certified Hybrid Cloud Implementation Engineer
- NetApp Certified Hybrid Cloud Administrator

## Session Dates

| Date | Location | Time Zone | Language | Type | Guaranteed | PRICE |
|---|---|---|---|---|---|---|
| 15 Apr 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 14 May 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 10 Jun 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 08 Jul 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 19 Aug 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 09 Sep 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 07 Oct 2024 | Virtual Classroom (GMT) | BST | English | Instructor Led Online | | kr24,000.00 |
| 11 Nov 2024 | Virtual Classroom (GMT) | GMT | English | Instructor Led Online | | kr24,000.00 |
| 09 Dec 2024 | Virtual Classroom (GMT) | GMT | English | Instructor Led Online | | kr24,000.00 |

## Ytterligare information

Denna utbildning finns också som utbildning på plats. Kontakta oss för mer information.