



Arrow ECS Finland Oy - Education Services

## TRAINING OFFERING

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# Integrating Hybrid Clouds with Microsoft Azure

| CODE:       | LENGTH:           | PRICE:    |
|-------------|-------------------|-----------|
| NEP_UNCMMAZ | 16 Hours (2 days) | €2,040.00 |

## Description

Learn to implement a hybrid cloud solution with Microsoft Azure by using NetApp® Cloud Volumes ONTAP®. Connect an Azure Virtual Network (VNet) 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

This course focuses on enabling you to do the following:

- Describe how NetApp technologies can be used to build your data fabric
- Configure a VNet 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 Azure for disaster recovery
- Use data tiering to Azure Blob storage 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 learning experience, NetApp recommends that you know 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) and network address translation (NAT)
- **Azure concepts** - Subscriptions, VNet, virtual machines (VMs), Azure storage accounts, and Azure Blob storage

## Programme

Lesson 1: Data Fabric  
Lesson 2: Solutions for the Hybrid Cloud  
Lesson 3: NetApp Public Cloud Products  
Lesson 4: Cloud Storage  
Lesson 5: Cloud Services and Analytics

**Module 1: Data Fabric Overview**

Lesson 1: Azure Networking and Other Concepts  
Lesson 2: Terraform Introduction

**Module 2: Public Cloud Essential Concepts**

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

Lesson 1: Microsoft Azure VNET Connectivity to an On-Premises Network **Module 4: NetApp Cloud Manager**

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

Lesson 1: Cloud Volumes ONTAP  
Lesson 2: Cloud Volumes ONTAP: Use Cases  
Lesson 3: Cloud Volumes ONTAP Architecture  
Lesson 4: Deploying Cloud Volumes ONTAP  
Lesson 5: Cloud Volumes ONTAP Supported Features

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

Lesson 1: Highly Available Cloud Volumes ONTAP in Azure

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

Lesson 1: Administering Cloud Volumes ONTAP  
Lesson 2: Administering Cloud Manager

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

Lesson 1: Disaster Recovery with Cloud Volumes ONTAP Overview

**Module 9: Data Tiering for NetApp Cloud Volumes ONTAP** Lesson 1: Data Tiering for Cloud Volumes ONTAP Overview

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

Lesson 1: Using Cloud Manager to Provision Persistent Storage for Kubernetes Cluster Overview

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

Lesson 1: Using Cloud Backup Service from Cloud Manager  
Lesson 2: Using Cloud Sync from Cloud Manager  
Lesson 3: Using Cloud Compliance from Cloud Manager  
Lesson 4: Using Cloud Tiering Service from Cloud Manager

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

Lesson 1: An Introduction to Sizing  
Lesson 2: Capacity Sizing  
Lesson 3: Performance Sizing  
Lesson 4: Single Node versus High Availability  
Lesson 5: Key Differences between Cloud Volumes ONTAP and On-Premises ONTAP software  
Lesson 6: Performance Tuning  
Lesson 7: Frequently Seen Sizing Mistakes

## 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     |
|-------------|-------------------------------|-----------|----------|-----------------------|------------|-----------|
| 20 Aug 2024 | Virtual Classroom (GMT / UTC) |           | English  | Instructor Led Online |            | €3,060.00 |
| 10 Sep 2024 | Virtual Classroom (GMT / UTC) |           | English  | Instructor Led Online |            | €3,060.00 |
| 08 Oct 2024 | Virtual Classroom (GMT / UTC) |           | English  | Instructor Led Online |            | €3,060.00 |
| 12 Nov 2024 | Virtual Classroom (GMT / UTC) |           | English  | Instructor Led Online |            | €3,060.00 |
| 10 Dec 2024 | Virtual Classroom (GMT / UTC) |           | English  | Instructor Led Online |            | €3,060.00 |

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)