



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

Arrow Enterprise Computing Solutions Ltd, Part 1st Floor, Suite 1D/1, Central House, Otley Road, Harrogate, HG3 1UG

Email: educationteam.ecs.uk@arrow.com

Phone: 0870 251 1000



Integrating Hybrid Clouds with Microsoft Azure

CODE:	LENGTH:	PRICE:
NEP_UNCMMAZ	16 Hours (2 days)	£1,795.00

Description

In this course, you learn to implement a hybrid cloud solution with Microsoft Azure by using NetApp® Cloud Volumes ONTAP®. You connect an Azure Virtual Network (VNet) and an on-premises data center to unify your infrastructure. You use NetApp BlueXP™ (formerly Cloud Manager) to move data and manage storage in the hybrid cloud. You learn how NetApp cloud services are integrated into BlueXP to provide persistent storage for Kubernetes containers and enhance data protection, security, and compliance. You also learn to optimize the capacity and performance of Cloud Volumes ONTAP.

Objectives

This course focuses on enabling you to do the following:

- 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 BlueXP
- 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

- NetApp Employees
- NetApp Partners
- Customer Storage Administrators of any experience level

Prerequisites

Understanding of the following is required..

- Cloud computing concepts: Cloud characteristics, service delivery methods, and 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

In addition to attendance on the following one day course.. [**IHCF - Integrating Hybrid Clouds Foundation**](#)

Programme

Lesson 1: Azure networking and other concepts

Module 1: Public cloud essential concepts Lesson 2: Terraform introduction

Exercise 1: Controlling cloud resources with CLI

Exercise 2: Controlling cloud resources with PowerShell

Exercise 3: Controlling NetApp ONTAP (on-premises) resources with NetApp PowerShell Toolkit

Exercise 4: Configuring resources in Azure by using Terraform

Exercise 5: Reviewing resources by using Azure Portal

Exercise 6: Verifying connectivity to the VMs in front-end and back-end subnets

Module 2: Connectivity from the public cloud to other networks

Lesson 1: Microsoft Azure VNet connectivity to an on-premises network

Exercise 1: Connecting Azure VNet to an on-premises network
Exercise 2: Configuring on-premises DNS for Azure VMs
Exercise 3: (Optional) Joining an Azure VM to Active Directory in the on-premises environment **Module 3: Deploying a connector**
Lesson 1: Review a connector Exercise 1: Deploying a connector **Module 4: NetApp Cloud Volumes ONTAP**
Lesson 1: NetApp Cloud Volumes ONTAP architecture review
Lesson 2: Deploying Cloud Volumes ONTAP
Lesson 3: Highly available NetApp Cloud Volumes ONTAP in Azure
Exercise 1: Deploying a single-node Cloud Volumes ONTAP instance
Exercise 2: Creating an NFS volume and accessing it from an NFS client
Exercise 3: Creating an SMB volume and accessing it from an SMB client
Exercise 4: Deploying a Cloud Volumes ONTAP high-availability pair
Module 5: Administration of NetApp Cloud Volumes ONTAP Lesson 1: Administering Cloud Volumes ONTAP
Exercise 1: Using BlueXP for basic administration of Cloud Volumes ONTAP
Exercise 2: Doing basic administration of BlueXP **Module 6: Data protection**
Lesson 1: Data protection Exercise 1: Configuring and managing ransomware protection
Lesson 2: Administering Cloud Volumes ONTAP Exercise 2: Configuring and Managing Disaster Recovery in the Data Fabric
Module 7: Tiering Lesson 1: Tiering in Azure Exercise 1: Tiering backup data to Azure Blob storage

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
06 May 2025	Virtual Classroom	BST	English	Instructor Led Online		£1,795.00
16 Jun 2025	Virtual Classroom	BST	English	Instructor Led Online		£1,795.00
14 Jul 2025	Virtual Classroom	BST	English	Instructor Led Online		£1,795.00
26 Aug 2025	Virtual Classroom	BST	English	Instructor Led Online		£1,795.00
15 Sep 2025	Virtual Classroom	BST	English	Instructor Led Online		£1,795.00
13 Oct 2025	Virtual Classroom	BST	English	Instructor Led Online		£1,795.00
10 Nov 2025	Virtual Classroom	GMT	English	Instructor Led Online		£1,795.00
15 Dec 2025	Virtual Classroom	GMT	English	Instructor Led Online		£1,795.00
06 May 2025	Arrow ECS Harrogate	BST	English	Instructor Led Online		£1,795.00
16 Jun 2025	Arrow ECS Harrogate	BST	English	Instructor Led Online		£1,795.00
14 Jul 2025	Arrow ECS Harrogate	BST	English	Instructor Led Online		£1,795.00
26 Aug 2025	Arrow ECS Harrogate	BST	English	Instructor Led Online		£1,795.00
15 Sep 2025	Arrow ECS Harrogate	BST	English	Instructor Led Online		£1,795.00
13 Oct 2025	Arrow ECS Harrogate	BST	English	Instructor Led Online		£1,795.00
10 Nov 2025	Arrow ECS Harrogate	GMT	English	Instructor Led Online		£1,795.00
15 Dec 2025	Arrow ECS Harrogate	GMT	English	Instructor Led Online		£1,795.00

Additional Information

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