Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Cluster Administration and Data Protection

CODE:	LENGTH:	PRICE:
NEP_OT-CLU-DPA	40 Hours (5 days)	€5,000.00

Description

This 5 day class is a combination of the 3 day Cluster Administration Class and the 2 day Data Protection Administration Class.
Cluster Administration
Learn how to perform the basic administration tasks of a NetApp® ONTAP® 9.16 cluster. Use the clustershell and NetApp ONTAP System Manager to manage cluster storage and network resources. Discover how to configure basic data protection and data efficiency functions and common cluster maintenance tasks.
Data Protection Administration
Explore key concepts and techniques for protecting data on NetApp® ONTAP® based storage systems. Learn about the data protection solutions that are integrated in ONTAP software and examine the tools to manage ONTAP data protection features. In the hands-on exercises, use NetApp ONTAP System Manager and the ONTAP CLI to perform key data protection tasks. This course is updated for ONTAP 9.16.1 software.

Objectives

ONTAP Cluster Administration

- Define ONTAP cluster components
- Describe the role of a storage VM (storage virtual machine, also known as SVM) in the NetApp storage architecture
- Configure an ONTAP cluster
- Configure and manage both networking and storage resources
- Create and configure a storage VM
- Create, manage, and protect NetApp FlexVol® volumes
- Implement storage efficiency features
- Manage ONTAP administrator access and user accounts
- Manage NetApp storage systems

ONTAP Data Protection Administration

- Describe and distinguish the data protection features in ONTAP software
- Administer the appropriate ONTAP data protection feature to address your data protection concern
- Configure NetApp SnapMirror® relationships for disaster recovery and data backup
- Demonstrate storage VM disaster recovery (SVM DR)
- Illustrate NDMP-enabled operations to back up NAS data to tape
- Integrate the cloud-based data protection solutions that complement your ONTAP based storage systems
- Structure NetApp MetroCluster components and functionality
- Illustrate SnapMirror active sync components and functionality

Audience

Administrator, architect, and operator

Prerequisites

ONTAP Cluster Administration

- ONTAP Cluster Fundamentals (web-based training [WBT]) or ONTAP Cluster Foundation (ILT)
- ONTAP NAS Fundamentals (WBT)
- ONTAP SAN Fundamentals (WBT)

ONTAP Data Protection Administration

- ONTAP Cluster Administration
- ONTAP NAS Fundamentals
- ONTAP SAN Fundamentals
- ONTAP Data Protection Fundamentals

Programme

ONTAP Cluster Administration

Module 1: ONTAP 9 clusters

- ONTAP deployment options
- ONTAP cluster
- Storage VMs
- Software-defined storage

Module 2: Cluster setup

- Supported ONTAP cluster configurations
- Setting up a cluster
- Administration interfaces
- ONTAP licenses
- Policies and schedules

Exercises

- Deploying an ONTAP cluster
- Exploring ONTAP management UIs

Module 3: Physical storage management

- Drives, RAID, and aggregates
- Advanced Disk Partitioning
- Flash Cache and Flash Pool features
- FabricPool aggregates
- Managing physical storage

Exercises

- Exploring RAID-TEC

Module 4: Logical storage management

- Flexible volumes
- Moving storage resources
- FlexGroup volumes
- FlexCache volumes

Exercises

- Managing data volumes
- Creating a FlexGroup volume

Module 5: Storage efficiency

- Thin provisioning
- Deduplication and compression
- Flash efficiency
- Volume and file clones

Exercises

- Managing storage efficiency
- Managing FlexClone volumes

Module 6: Network management

- ONTAP network review
- Network ports
- Network traffic segregation
- Logical network interfaces
- Nondisruptive LIF configuration
- Routing management

Exercises

- Managing physical and logical network resources
- Managing virtual network resources

Module 7: NAS data access

- Use NAS protocols to access data
- Use the NFS protocol to access data
- Use the SMB protocol to access data
- Use the S3 protocol to access data

Exercises

- Monitoring with ONTAP File System Analytics
- Configuring the NFS protocol in a storage VM
- Configuring the SMB protocol in a storage VM
- Configuring the S3 protocol in a storage VM

Module 8: SAN data access

- Use SAN protocols to access data
- Use the iSCSI protocol to access data
- Use the FC protocol to access data
- Use the NVMe protocol to access data

Exercises

- Configuring iSCSI in a storage VM
- Configuring NVMe in a storage VM

Module 9: Data protection

- Manage Snapshot copies
- Restore data from a Snapshot copy
- Back up and replicate data
- Compliance

Exercises

- Managing Snapshot copies

Module 10: ONTAP security

- Access control
- Storage encryption
- Ransomware protection

Exercises:

- Managing ONTAP administrators

Module 11: Cluster maintenance

- Data collection, monitoring, and automation tools
- Upgrading your cluster
- Technical support

Exercises

- Installing and configuring Active IQ Config Advisor

ONTAP Data Protection Administration

Module 1: SnapMirror fundamentals

- Introduction to SnapMirror
- Configuring SnapMirror relationships
- Guidelines for intercluster networking
- Cluster and storage VM peering

Exercises
Configuring cluster peering and storage VM peering

Module 2: SnapMirror for disaster recovery and backup

- SnapMirror for FlexVol volumes
- SnapMirror configuration considerations
- SnapMirror for disaster recovery
- SnapMirror for backup
- Interaction between SnapMirror and other ONTAP features
- S3 SnapMirror
- FabricPool

Exercises

- Using SnapMirror to mirror FlexVol volumes
- Performing SnapMirror disaster recovery
- Configuring SnapMirror for unified replication
- Restoring data from a Snapshot copy
- Configuring cluster and storage VM peering for a cascade relationship (optional)
- Configuring a cascade relationship (optional)

Module 3: SnapMirror synchronous for disaster recovery

- SnapMirror synchronous
- Configuring SnapMirror synchronous for disaster recovery
- Additional SnapMirror synchronous configuration

Exercises

- Configuring a SnapMirror synchronous relationship

Module 4: SVM DR

- Introduction to SVM DR
- SVM DR requirements and configuration
- SVM data mobility

Exercises

- Configuring SVM DR

Module 5: ONTAP backup and archive solutions

- NDMP fundamentals
- NDMP topologies
- NDMP management

Module 6: Cloud-based data protection

- SnapMirror cloud
- Cloud Volumes ONTAP
- Data protection with NetApp BlueXP

Module 7: ONTAP business continuity solutions

- Consistency group management
- Introduction to SnapMirror active sync
- SnapMirror active sync configurations
- Failover operations and failure scenarios
- MetroCluster fundamentals

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
23 Nov 2026	Virtual Classroom (GMT / UTC)	GMT	English	Instructor Led Online	Yes	€5,000.00
14 Dec 2026	Virtual Classroom (GMT / UTC)	GMT	English	Instructor Led Online		€5,000.00
25 Jan 2027	Virtual Classroom (CET / UTC+1)	CET	English	Instructor Led Online		€5,000.00
22 Feb 2027	Virtual Classroom (CET / UTC+1)	CET	English	Instructor Led Online		€5,000.00
15 Mar 2027	Virtual Classroom (CET / UTC+1)	CET	English	Instructor Led Online		€5,000.00
19 Apr 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
17 May 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
21 Jun 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
05 Jul 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
02 Aug 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
20 Sep 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
25 Oct 2027	Virtual Classroom (CET / UTC+1)	CEDT	English	Instructor Led Online		€5,000.00
22 Nov 2027	Virtual Classroom (CET / UTC+1)	CET	English	Instructor Led Online		€5,000.00
06 Dec 2027	Virtual Classroom (CET / UTC+1)	CET	English	Instructor Led Online		€5,000.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.