

Product code: NEP_OT-CLU-DPA

Duration: 5 days

Regular price: 23 350 PLN

Description:

This 5 day course comprises the ONTAP Cluster Administration followed by the 2 day ONTAP Data Protection Administration courses.

The first 3 days teaches the basic administration tasks of a NetApp® ONTAP® 9.12 cluster. You use the clustershell and NetApp ONTAP System Manager to manage cluster storage and network resources. The course explains the configuration of basic data protection and data efficiency functions and common cluster maintenance tasks .

Students spend the final 2 days learning about key concepts and techniques for protecting data on NetApp® ONTAP based storage systems. You learn about the data protection solutions that are integrated in ONTAP software. You also learn about tools to manage ONTAP data protection features.

In the hands-on exercises, you use NetApp ONTAP System Manager and the ONTAP CLI to perform key data protection tasks. This course is updated for ONTAP 9.12.1 software.

Purpose of the training:

- 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 storage resources
- Configure and manage networking 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
- Maintain NetApp storage systems
- 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 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 NetApp SnapMirror Business Continuity components and functionality

Participants:

- NetApp Administrators
- Architects and Operators

Prerequisites:

Completion of the following web based training modules accessed free of charge via the NetApp Learning Centre

- ONTAP Cluster Fundamentals
- ONTAP NAS Fundamentals
- ONTAP SAN Fundamentals

Training program:

3 day Cluster Administration

Module 1:NetApp ONTAP 9 clusters

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

Module 2: Cluster setup

- Supported ONTAP cluster configurations
- Setting up a cluster
- Administration interfaces

Exercises

Exploring ONTAP management UIs

Module 3: Cluster management

- Access control
- ONTAP licensing
- Policies and schedules

Exercises

Managing ONTAP clusters

Managing ONTAP administrators

Configuring multi-admin verification

Module 4:Network management

- NetApp ONTAP network review
- Network ports
- Network traffic segregation
- LIFs
- Nondisruptive LIF configuration
- Network security
- Routing management

Exercises

Managing physical and logical network resources
Managing virtual network resources

Module 5: Physical storage management

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

Exercises

Managing physical storage
Exploring RAID-TEC
Creating a Flash Pool aggregate
Creating a FabricPool aggregate

Module 6: Logical storage management

- Managing physical storage
- Exploring RAID-TEC
- Creating a Flash Pool aggregate
- Creating a FabricPool aggregate

Exercises

Managing data volumes
Creating a FlexGroup volume

Module 7: Data access

- Use NAS protocols to access data
- Use SAN protocols to access data
- Use object protocols to access data

Exercises

Configuring the NFS protocol in a storage VM
Configuring the SMB protocol in a storage VM
Configuring iSCSI in a storage VM
Configuring NVMe in a storage VM
Configuring the S3 protocol in a storage VM
Managing NAS storage VMs

Module 8: Data protection

- Manage Snapshot copies
- Restore data from a Snapshot copy
- Back up and replicate data
- Compliance
- Storage encryption
- Ransomware protection

Exercises

Managing Snapshot copies
Encrypting a volume
Enabling anti-ransomware protection

Module 9: Storage efficiency

- Thin provisioning
- Deduplication and compression
- Flash efficiency
- Logical space reporting
- Volume and file clones

Exercises

Managing storage efficiency

Managing FlexClone volumes

Module 10: Cluster maintenance

- Data collection, monitoring, and automation tools
- Backing up and restoring your cluster configuration
- Upgrading your cluster
- Recommended practices for performance
- Technical support

Exercises

Installing and configuring Active IQ Config Advisor

2 day Data Protection

Module 0: Welcome and Getting Started

- Data protection introduction
- ONTAP data protection solutions
- ONTAP management solutions

Exercises

Checking the exercise equipment

Module 1: SnapMirror Fundamentals

- SnapMirror overview
- 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: Storage VM Disaster Recovery (SVM DR)

- SVM DR introduction
- SVM DR requirements and configuration
- SVM data mobility

Exercises

Configuring storage VM data recovery

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

- MetroCluster fundamentals
- MetroCluster operations
- Consistency group management
- SnapMirror Business Continuity introduction
- SnapMirror Business Continuity configuration
- Failover operations and failure scenarios

Test and Certification:

This course supports part of the following NetApp certifications:

- NetApp Certified Storage Installation Engineer (NCSIE)
- NetApp Certified Data Administrator (NCDA)

Term:

Contact with us:

e-mail: biuro@signati.pl

tel. +48 124466780