

ONTAP Cluster Administration



Delivery: Instructor-led training (ILT)

Duration: 3 days

Course Description

Learn the basic administration tasks of a NetApp® ONTAP® 9.14 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.

Role

Administrator, architect, and operator

Prerequisites

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

Objectives

This course focuses on enabling you to do the following:

- 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

Course Content

This course includes the following modules, lessons, and exercises:

Module	Lessons	Exercises
Module 1: ONTAP 9 clusters	<ul style="list-style-type: none"> • ONTAP deployment options • ONTAP cluster • Storage VMs • Software-defined storage 	
Module 2: Cluster setup	<ul style="list-style-type: none"> • Supported ONTAP cluster configurations • Setting up a cluster • Administration interfaces • ONTAP licenses • Policies and schedules 	<ul style="list-style-type: none"> • Deploying an ONTAP cluster • Exploring ONTAP management UIs • Configuring ONTAP clusters
Module 3: Physical storage management	<ul style="list-style-type: none"> • Drives, RAID, and aggregates • Advanced Disk Partitioning • Flash Cache and Flash Pool features • FabricPool aggregates 	<ul style="list-style-type: none"> • Managing physical storage • Exploring RAID-TEC
Module 4: Logical storage management	<ul style="list-style-type: none"> • Flexible volumes • Moving storage resources • FlexGroup volumes • FlexCache volumes 	<ul style="list-style-type: none"> • Managing data volumes • Creating a FlexGroup volume
Module 5: Storage efficiency	<ul style="list-style-type: none"> • Thin provisioning • Deduplication and compression • Flash efficiency • Volume and file clones 	<ul style="list-style-type: none"> • Managing storage efficiency • Managing FlexClone volumes
Module 6: Network management	<ul style="list-style-type: none"> • ONTAP network review • Network ports • Network traffic segregation • Logical network interfaces • Nondisruptive LIF configuration • Network security • Routing management 	<ul style="list-style-type: none"> • Managing physical and logical network resources • Managing virtual network resources
Module 7: NAS data access	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Monitoring with ONTAP File System Analytics • Configuring the NFS protocol in a storage VM • Configuring the SMB protocol in a storage VM

Module	Lessons	Exercises
		<ul style="list-style-type: none"> Configuring the S3 protocol in a storage VM
Module 8: SAN data access	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Configuring iSCSI in a storage VM Configuring NVMe in a storage VM
Module 9: Data protection	<ul style="list-style-type: none"> Manage Snapshot copies Restore data from a Snapshot copy Back up and replicate data Compliance 	Managing Snapshot copies
Module 10: ONTAP security	<ul style="list-style-type: none"> Access control Storage encryption Ransomware protection 	Managing ONTAP administrators
Module 11: Cluster maintenance	<ul style="list-style-type: none"> Data collection, monitoring, and automation tools Upgrading your cluster Technical support 	Installing and configuring Active IQ Config Advisor

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