

# ONTAP Cluster Administration (NA-ONTAPADM)

## 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.

## Course Duration:

3 days

## 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 Outline:

- **Module 1: NetApp ONTAP 9 clusters**
  - ONTAP deployment options
  - ONTAP clusters
  - Storage VMs
  - Software-defined storage

- **Module 2: Cluster setup**
  - Supported ONTAP cluster configurations
  - Setting up a cluster
  - Administration interfaces
  - ONTAP licenses
  - Policies and schedules
- **Module 3: Physical storage management**
  - Drives, RAID, and aggregates
  - Advanced Disk Partitioning
  - Flash Cache and Flash Pool features
  - FabricPool aggregates
- **Module 4: Logical storage management**
  - Flexible volumes
  - Moving storage resources
  - FlexGroup volumes
  - FlexCache volumes
- **Module 5: Storage efficiency**
  - Thin provisioning
  - Deduplication and compression
  - Flash efficiency
  - Volume and file clones
- **Module 6: Network management**
  - ONTAP network review
  - Network ports
  - Network traffic segregation
  - Logical network interfaces
  - Nondisruptive LIF configuration
  - Routing management
- **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
- **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
- **Module 9: Data protection**
  - Manage Snapshot copies
  - Restore data from a Snapshot copy
  - Back up and replicate data
  - Compliance

- **Module 10: ONTAP security**
  - Access control
  - Storage encryption
  - Ransomware protection
- **Module 11: ONTAP security**
  - Data collection, monitoring, and automation tools
  - Upgrading your cluster
  - Technical support

## Who Should Attend:

Administrator, architect, and operator

