

# **ONTAP Administration: What's New in ONTAP 9.0 (ADMIN90)**

**Modality:** Virtual Classroom

**Duration:** 1 Day

**NATU:** 12 Units

## **About this course:**

In this course you will learn about the new features that are included in the ONTAP 9 Data Management Software release. You also configure many of these features with hands-on exercises using a lab environment that will be provided to you. This course is meant to update those that have taken the current Clustered Data ONTAP 8.3 administration courses.

Note: This course does not cover fundamental or basic administration topics. A working knowledge of clustered Data ONTAP 8.3 is required.

The average salary for NetApp Storage Administrator is **\$128,000** per year.

## **Course Objectives:**

By the completion of this course, you will be able to:

- List the new features included in the ONTAP 9 release
- Identify the different ONTAP 9 deployment options
- Identify feature enhancements to the FAS, All Flash FAS, and OnCommand software
- Configure SMB workgroup authentication, SnapLock, RAID-TEC, onboard key management, and SnapMirror for Storage Virtual Machine

## **Audience:**

- Network Engineers
- Managers
- Sales Engineers
- Partners

## **Prerequisites:**

- A working knowledge of clustered Data ONTAP 8.3 is required.

## **Course Outline:**

### **Module 1: ONTAP 9 Software**

- ONTAP 9 overview

- Hardware platforms
- Supported platforms
- Software-defined ONTAP
- ONTAP Select
  - Single node configuration
  - 4-node configuration
  - Features
  - ONTAP Edge to ONTAP Select evolution
  - High availability
  - Storage design
  - Network communication
  - Data path
- ONTAP Cloud
  - Advantages
  - Licensing
  - AWS high availability
  - HA architecture

## **Module 2: Management Software Enhancements**

- OnCommand management portfolio
- System manager enhancements
- SnapCenter 2.0
  - Application agents
  - Clone management
  - Plug-ins

## **Module 3: Unified Storage Enhancements**

- CIFS workgroup support
- SMB authentication methods
- Unsupported features
- CIFS server
- Storage performance
- OnCommand performance manager
- Rehosting a volume

## **Module 4: All Flash FAS Enhancements**

- Overview
- Write acknowledgment
- Read performance
- Efficiency features
- Inline data compaction
- Storage consumption
- Drive partitioning
- AFF efficiency calculator
- SAN-optimized provisioning

- NAS-optimized provisioning

## Module 5: Data Availability and Protection Enhancements

- SnapLock software
  - WORM volumes
  - Primary storage
  - Compliance clock
  - Enterprise volume
  - File types
  - Replication
  - SnapVault
- RAID-TEC
  - Features
  - Resiliency
  - Triple-parity
  - Usage
  - Active-passive
  - High availability
- Onboard key manager
- Data protection enhancements
- SnapMirror for SVMs
- SVM DR enhancements

### Labs:

- Ensure connectivity to your ONTAP clusters
- Synchronize system time for windows domains
- Assign an NTP server to the clusters
- Explore CLI management enhancements
- Update the login banner
- Modify the MOTD
- Navigate OnCommand system manager
- Update OnCommand system manager administration settings
- Verify the CIFS server configuration and stop the server
- Modify the CIFS server configuration from a domain to a workgroup
- Verify and test a workgroup configuration
- Create a data aggregate
- Create a SVM for an SMB workgroup
- Verify and test a workgroup configuration
- Create aggregates that are compatible with SnapLock software
- Create SnapLock volumes
- Create SnapLock volume shares
- Manage a SnapLock enterprise volume
- Manage a SnapLock compliance volume
- Create an SVM peer relationship
- Create SnapLock for SnapVault relationship
- Manage the source and destination volumes

- Manage SnapLock for SnapVault relationship
- Create a RAID-TEC aggregate
- Convert a RAID-DP aggregate to a RAID-TEC aggregate
- Verify the operability of a degraded RAID-TEC aggregate
- Examine source SVM configuration
- Prepare the clusters for a disaster recovery relationship
- Create a disaster recovery SVM
- Create an SVM Peer relationship
- Create an SVM SnapMirror relationship
- Fail over to the disasterrecovery SVM
- Reverse the SnapMirror relationship
- Recover the primary SVM