

# **ONTAP Cluster Administration (ONTAP 9.5) (ONTAP9ADM)**

**Modality: Virtual Classroom**

**Duration: 3 Days**

**NATU: 36 Units**

## ***About this course:***

This is a three-day course for the learning of ONTAP 9.5 cluster. The course provides you with the opportunity of learning with an instructor. The course pertains to the acquiring basic techniques of managing administrative tasks of ONTAP 9.5 cluster. This course will be delivered to you in the form of lectures by the instructors as well as through practical demonstration exercises. Two features of NetApp, cluster shell and OnCommand System Manager, will be used to manage storage related matters and maintain the resources. You will find the ONTAP Cluster Administration course to be of an intermediate difficulty level. This course is beneficial to get as it gives you a concise and compact training in ONTAP Cluster Administration. This course provides with a professional certification to the learners therefore it will prove as an added benefit for NetApp customers, partners and employees.

On average, a NetApp Software Engineer has an earning of up to \$99,827 per annum.

## ***Learning Objectives:***

By the end of the course, the learner will have covered the following learning objectives:

- Managing and maintaining of an ONTAP administrator
- Configuring and managing storage resources and other storage related matters
- Configuring and managing network resources and other network related matters
- Devising and configuring a storage virtual machine (SVM)
- Devising and managing FlexVol volumes
- Enforcing of features of smooth storage working
- Creating protocol servers within an SVM
- Configuring the fundamental data protection features
- Demonstrating administrative and preventive maintenance tasks

## ***Audience:***

This course has been devised for professionals like Network engineers, Channel partners, System engineers, and NetApp customers.

## **Course Outline:**

### **Module 1: NetApp ONTAP 9 Clusters**

- ONTAP deployment options
- The cluster

- SVMs
- ONTAP select learning resources
- NetApp cloud volumes learning resources

## **Module 2: Cluster Setup**

- Supported FAS and AFF configurations
- Cluster setup
- Administration interfaces
- OnCommand System Manager: Guided cluster setup

## **Module 3: Cluster Management**

- Manage access control
- Cluster node date and time
- ONTAP software licenses
- Manage jobs and schedules

## **Module 4: Network Management**

- NetApp ONTAP Network Review
- Network ports
- Network traffic segregation
- LIFs
- Nondisruptive LIF configuration
- Routing management
- Failover group commands
- Routing management commands
- BGP and VIP LIFs

## **Module 5: Physical Storage Management**

- Drives, RAID and aggregates
- Advanced drive portioning
- Flash cache and flash pool features
- FabricPool aggregates
- FabricPool in OnCommand System Manager

## **Module 6: Logical Storage Management**

- Flexible volumes
- Provisioning storage resources
- Moving storage resources
- FlexGroup and FlexCache volumes
- Autobalance aggregate

## **Module 7: Data Access**

- Use NAS protocols to access data
- Use SAN protocols to access data
- NVMe and NVMe/FC

## **Module 8: Data Protection**

- Manage Snapshot copies
- Restore data from a Snapshot copy
- Backup and replicate data
- Compliance
- Storage encryption
- Secure purge and secure boot

## **Module 9: Storage Efficiency**

- Thin provisioning
- Deduplication and compression
- Flash efficiency
- Volume and file clones
- Inline deduplication status
- Inline data compaction

## **Module 10: Cluster Maintenance**

- Data collection, monitoring and automation tools
- Backing up and restoring your cluster configuration
- Upgrading your cluster
- Performance recommended practices
- Technical support
- Documentation
- ONTAP software upgrades

## **Module 11: Course Review**

### **Labs:**

- Exploring ONTAP Management UIs
- Managing ONTAP clusters and administrators
- Managing physical and logical network resources
- Managing virtual network resources
- Managing physical storage
- Exploring RAID-TEC and creating a flash pool
- Managing data volumes
- Configuring NAS protocols in an SVM
- Configuring iSCSI in an SVM
- Managing Snapshot copies
- Encrypting a volume
- Managing storage efficiency

- Managing FlexClone volumes
- Bonus Exercise: creating a FlexGroup volume
- Installing and configuring Config Advisor