

Configuring and Monitoring NetApp E-Series and EF-Series Storage Systems (CMESERIES)

Modality: Virtual Classroom

Duration: 4 Days

NATU: 48 Units

About this course:

In this course, you learn how to recommend configurations based on a predeployment assessment for a new NetApp E-Series or EF-Series storage system. In the deployment phase, you use both the NetApp SANtricity® storage management and system management software to create the configuration, perform administrative tasks, and employ data protection features. During post-deployment, you use SANtricity system management software to collect storage system information for trend analysis, troubleshooting, performance monitoring, and tuning.

The average salary for a NetApp storage administrator is **\$122,000** per year.

Course Objectives:

In this course, you learn how to configure and monitor E-Series and EF-Series storage systems, including:

- Identify and use administrative and support tools for E-Series storage systems
- Install SANtricity Storage Manager software on a host platform
- Recommend and create logical configurations on E-Series storage systems
- Manage volume group and dynamic disk pools using SANtricity System Manager
- Perform routine E-Series administrative tasks using SANtricity System Manager
- Configure and administer E-Series features such as SANtricity Snapshot image, volume copy, and mirroring technologies
- Collect E-Series storage system information such as the event log, profile, and support bundle

Audience:

- This course is designed for Professional Services workers who are NetApp employees, NetApp partners, or NetApp customers.

Prerequisite:

- Basic Windows or Linux administrative experience

Course Outline:

Module 1: Introduction to E-Series and EF-Series Storage

- E-Series and EF-Series storage products
- SANtricity management interfaces
- SANtricity storage manager
- SANtricity unified manager
- System manager overview

Module 2: E-Series and EF-Series Functionality

- Configuration and I/O Operations
- Cache and battery operation
- Data assurance
- Media scan
- Drive security

Module 3: Configuration Concepts and Initial Setup

- Host-Side configuration concepts
- Disk-side configuration concepts
- Pool and volume group configuration concepts
- Initial setup steps
- Additional setup steps

Module 4: Volume Group Administration

- Volume groups
- Creating volume groups and volumes
- System administration tasks
- Managing volume group disks

Module 5: Pools Administration

- Pools
- Creating unsecured disk pools and volumes
- Creating secure pools
- System administration tasks
- Managing disk pool disks

Module 6: SSD Cache Administration

- SSD Cache overview
- SSD Cache administration

Module 7: Snapshot Administration

- The SANtricity Snapshot Feature
- Snapshot administration
- Snapshot volume operational sequences
- Snapshot volume administration
- Snapshot consistency group administration

Module 8: Copy Volume Function

- Copy volume function overview
- Copy volume administration

Module 9: Mirroring Administration

- Mirroring technology
- Synchronous mirroring
- Synchronous mirroring administration
- Asynchronous mirroring
- Asynchronous mirroring administration
- SANtricity feature considerations

Module 10: Data Collection and Monitoring

- Resources for collection and monitoring
- Storage array component information
- AutoSupport support tool
- Informational files
- Performance monitoring

Module 11: General Administrative Tasks

- General administrative tasks
- Alert management
- Storage array, controller and drive tasks
- Managing upgrades

Appendix A: E-Series Configuration tools and Resources

- Interoperability matrix tool
- Performance sizing
- Config advisor
- Synergy
- SANtricity Unified Manager support center
- SANtricity system manager support center
- SANtricity cloud connector

Labs:

- Installing SANtricity storage manager
- Adding a storage array to the EMW management domain
- Exploring SANtricity system manager
- Using the setup wizard to configure the storage array
- Creating volume group configurations
- Managing volumes in volume groups
- Managing hot spares
- Creating volume groups from the command line
- Deleting a volume group configuration
- Creating pool configurations
- Managing volumes in pools
- Managing failed drives
- Using the command line to create pools
- Creating an SSD cache drive
- Creating and preparing pool volumes for I/O
- Creating a Snapshot environment
- Rolling back a file system
- Creating a Snapshot volume
- Mounting and accessing a Snapshot volume
- Performing an online volume copy operation
- Performing an offline volume copy operation
- Collecting data
- Taking a controller offline for servicing
- Installing SANtricity unified manager software
- Exploring SANtricity unified manager functions
- Exploring E-Series and EF-Series resources