

OVERVIEW

This Specialist-level course is targeted for storage/cloud infrastructure administrators requiring in depth knowledge and practical lab work with EMC VNX Unified Storage systems. This training covers all the key elements of VNX Block, File, and Unified deployments. It covers integrating VNX block access for open systems hosts (Linux, Windows and VMware ESXi) through FC, iSCSI and, FCoE, and VNX file level access for Windows and Linux user/application environments via NFS and CIFS. Lastly, the course also covers configuration of local replications solutions for VNX systems.

AUDIENCE

This course is intended for professionals responsible for the configuration, deployment, and management of VNX Block, File, and/or Unified storage systems in heterogeneous host environments.

PREREQUISITE KNOWLEDGE/SKILLS

To understand the content and successfully complete this course, a student should have knowledge and skills associated with the following:

- VNX system architecture
- EMC PowerPath operations
- SAN configurations and TCP/IP networking
- Ethernet switch configuration
- Basic Microsoft Windows and UNIX administration skills (Managing users/groups, files and directories)
- Basic VMware ESX/ESXi operations and management

COURSE OBJECTIVES

Upon successful completion of this course, participants should be able to:

- Configuring Unisphere security and notifications
- Provision and manage VNX block-level storage
- Configure and manage VNX storage features such as LUN migration and expansion, FAST VP, FAST Cache, and deduplication
- Configure and manage VNX Block local replication solutions—SnapView, VNX
- Snapshots, SnapSure
- Configure VNX File storage services for Linux/Unix/ESXi environments via NFS, and Windows environments via CIFS
- Manage and monitor file systems, Virtual Data Movers, and Usermapper
- Configure and manage VNX File local replication solutions with VNX SnapSure

COURSE OUTLINE

Module 1: Introduction to VNX Management

Module 2: Unisphere Security and Basic Management

- Unisphere GUI and CLI Interface
- Unisphere Security Features
- Notifications and Event Monitoring
- Unisphere Storage Domains

Module 3: Storage System Configuration

- SP Networking and Cache Settings

Module 4: Host Integration to Block Storage

- Storage Networking Topologies and Requirements
- Storage Networking with Fibre Channel and iSCSI
- Host Registration and Storage Architecture
- Configure Storage

Module 5: Managing Block Host Connectivity

- Data Path Management
- Managing Block Host Connectivity
- VNX and VMware API Integration

Module 6: Advanced Storage Features

- LUN Migration and LUN Expansion
- FAST VP and FAST Cache
- Block Space Efficiency Features
- Data-At-Rest Encryption (D@RE)

Module 7: Local Replication for Block

- SnapView Snapshots and SnapView Clones
- Managing VNX Snapshots

Module 8: VNX File Configuration

- Introduction to VNX File
- Basic IP Networking Configuration for VNX File
- Virtual Data Movers
- Configuration of VNX File Systems – NFS and CIFS

Module 9: VNX File Content and Space Efficiency Features

- File System Quotas
- File Level Retention and File Deduplication
- Thin LUN File System

Module 10: Networking Features

- Networking Features Overview and Configuration
- Complex Examples and Considerations

Module 11: VNX SnapSure

- Writable Checkpoints
- Configuring SnapSure
- Planning SnapSure and Managing Checkpoints

Module 12: Data Mover Failover

- Data Mover Failover Operations
- Testing Data Mover Failover and Failback