NETAPP LEARNING SERVICES

ONTAP SAN Administration

Delivery: Instructor-Led Training | Duration: 2 Days | Training Units: 24

Course Description

In this course, you learn to configure NetApp® ONTAP® 9 data management software for a SAN environment. The course provides information about block-level protocols, including FC, FCoE, iSCSI, and NVMe, on Microsoft Windows Server and Linux host operating systems. Management of SAN storage provisioning, protocols, hosts, availability and data protection, and using best practices are also discussed. An introduction to NVMe over Fibre Channel (NVMe/FC) is provided. This course focuses on ONTAP 9 functionality and includes lecture and a hands-on exercise environment.

Audience

SAN storage administrators who use ONTAP based storage systems

Prerequisites

- A working knowledge of ONTAP 9 software and storage area networking
- Completion of the following courses:
  - *ONTAP Cluster Fundamentals*
  - *ONTAP SAN Fundamentals*
  - *ONTAP SAN Implementation*

Objectives

This course focuses on enabling you to do the following:

- Summarize SAN architecture
- Demonstrate SAN configuration and LUN provisioning
- Use iSCSI, FC, FCoE, and NVMe over Fibre Channel (NVMe/FC) features and recommendations
- Manage ONTAP availability strategies and data protection for LUNs
- Illustrate management concepts for SAN environments
- Explore Foreign LUN Import

Course Content

This course includes the following modules, lessons, and exercises:

Module	Lessons	Exercises
Module 1: NetApp ONTAP SAN fundamentals	• Introduction to SAN • SAN scalability and maximums	• Examine licenses and SAN-specific hardware • Discover SAN objects in ONTAP System Manager
Module 2: NetApp ONTAP SAN resource provisioning	• Volume and LUN provisioning	• Create two LUNs with System Manager • Create a space-reserved LUN with CLI • Create a non-space-reserved LUN with CLI
Module 3: ONTAP storage virtual machine administration	• Storage virtual machine creation workflow • LUN creation • NVMe namespaces and subsystems • iSCSI, FC, FCoE, and NVMe/FC recommended guidelines • iSCSI security and networking	• Connect an iSCSI LUN to Windows • Connect an iSCSI LUN to Linux
Module 4: SAN availability and data protection	• High availability and host multipathing • Data protection in SAN environments	Examine multipathing
Module 5: Management of NetApp ONTAP SAN environments	• LUN mobility • Volume and LUN reconfiguration • SAN performance recommendations	• Write data to a LUN • Move a LUN • Resize a LUN and extend a volume
Appendix A: SAN migration with Foreign LUN Import	Foreign LUN Import overview	None