Data ONTAP SAN Implementation (SANIMP)

Modality: Virtual Classroom

Duration: 3 Days

NATU: 36 Units

About this course:

In this course you will learn the installation process for ONTAP 9 Data Management Software for a SAN environment. The course provides information about block-level protocols, including FC, FCoE, NVMe, and iSCSI, on Microsoft Windows Server, Linux and VMware ESXi host operating systems. The learning will be reinforced through hands-on guided labs. The course materials include a lab workbook that will serve as an on-the-job reference guide.

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

Course Objectives:

By the end of this course you should be able to:

- Define and Describe SANs using iSCSI, FC, FCoE and NVMe protocols
- Discuss FC switch fabric, LUN masking and zoning
- Create and configure Storage Virtual Machines to use FC and iSCSI protocols
- Configure Microsoft Windows Server, Red Hat Enterprise Linux, VMware ESX, and NetApp Data ONTAP systems for iSCSI connectivity
- Configure Microsoft Windows Server, Red Hat Enterprise Linux, VMware ESX, and NetApp Data ONTAP systems for FC connectivity
- Create and access a LUN from Windows Server and Red Hat Server
- Troubleshoot SAN connectivity issues

Audience:

- Professionals who implement SAN solutions that use NetApp storage systems

Prerequisites:

- Certification as a NetApp Data Management Administrator
- Completion of two courses:
    - ONTAP SAN Fundamentals WBT (OSFWBT)
    - Either NA-D7ADM or ONTAP 9 Cluster Administration (ONTAP9ADM) or NetApp CDOTDP9

Course Outline:

Module 1: ONTAP SAN Fundamentals

- Implementing iSCSI, FCP, and FCoE SAN in ONTAP
- SAN Architecture
- IMT
- SAN Scalability and Maximums

Module 2: ONTAP SAN Resource Provisioning

- IP SAN Configurations
- FC SAN Configurations
- LUN Provisioning

Module 3: ONTAP iSCI Configuration Concepts

- iSCSI Configuration Recommendations
- iSCSI Feature Overview
- iSCSI Configuration Workflow

Module 4: ONTAP FC Configuration Concepts

- FC Configuration Recommendations
- FC and FCoE Zoning
- Cisco Switches
- Brocade Switches

Module 5: High-Performance and Scalable Network Storage Using NVMe over Fabrics

- NVMe
- NVMe-oF
- NVMe Integration into ONTAP

Module 6: Host Integration

- Host Considerations
- Windows Hosts
- Linux and UNIX Hosts
- LUN Offset

Module 7: Windows IP SAN Connectivity

- Configuring a Windows Host for iSCSI
- iSCSI Configuration

Module 8: Linux IP SAN Connectivity

- Linux iSCSI Configuration
- Linux iSCSI Implementation

Module 9: Windows FC SAN Connectivity

- Configure a Windows Host for FC
- Identify the WWNN and WWPN on a Windows Host
- Implement and Verify Multipath FC Connectivity between a Windows Host and ONTAP Software

Module 10: Linux FC SAN Connectivity

- Configure a Linux Host for FC
- Identify WWPNs on a Linux Host
- Implement and Verify Multipath FC Connectivity between a Linux Host and ONTAP Software