

# ONTAP SAN Implementation 9.14 (NA-SANIMP)

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## Course Description

Learn how to install NetApp® ONTAP® 9 data management software for a SAN environment. Explore block-level protocols on Microsoft Windows Server and Linux host operating systems, including FC, FCoE, NVMe, and iSCSI. Apply your knowledge through hands-on guided exercises in a lab environment and through an exercise workbook that serves as an on-the-job reference guide

## Course Duration

3 days.

## Prerequisites

- Certification as a NetApp Data Management Administrator
- Working knowledge of ONTAP 9 software and storage area networking
- ONTAP Cluster Fundamentals
- ONTAP SAN Fundamentals
- ONTAP Cluster Administration

## Objectives

This course focuses on enabling you to do the following:

- Discuss SAN fundamentals for ONTAP software
- Explain ONTAP SAN resource provisioning
- Describe iSCSI, FC, and FCoE configuration in ONTAP software
- Explain the NVMe over Fabrics (NVMe-oF) implementation in ONTAP software
- Discuss host configuration requirements
- Explain Windows and Linux configuration for iSCSI
- Describe Windows and Linux configuration for FC

## Course Outlines

### Module 0: Introduction

- Classroom logistics
- Course prerequisites
- Course agenda

### Module 1: ONTAP SAN fundamentals

- Implementing iSCSI, FCP, FCoE, and NVMe-oF SAN in ONTAP software
- SAN architecture
- Interoperability Matrix Tool
- SAN scalability and maximums

## **Module 2: ONTAP SAN resource provisioning**

- IP SAN configurations
- FC SAN configurations
- LUN provisioning

## **Module 3: ONTAP iSCSI 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: NVMe-oF configuration**

- NVMe
- NVMe-oF
- NVMe integration into ONTAP software

## **Module 6: Host integration**

- Host considerations
- Windows hosts
- Linux and UNIX hosts
- LUN offset

## **Module 7: Microsoft 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**

- Configuring a Windows host for FC
- Identifying the WWNN and WWPN on a Windows host
- Implementing and verifying multipath FC connectivity between a Windows host and ONTAP software

## **Module 10: Linux FC SAN connectivity**

- Configuring a Linux host for FC
- Identifying WWNPs on a Linux host
- Implementing and verifying multipath FC connectivity between a Linux host and ONTAP software

## **Who Should Attend**

Administrator, engineer, architect