

ONTAP SAN Implementation



Delivery: Instructor-led-training (ILT)

Duration: 3 days

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.

Role

- Administrator, engineer, architect

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 Content

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

Module	Lessons	Exercises
Module 0: Introduction	<ul style="list-style-type: none">• Classroom logistics• Course prerequisites• Course agenda	Checking the exercise equipment
Module 1: ONTAP SAN fundamentals	<ul style="list-style-type: none">• Implementing iSCSI, FCP, FCoE, and NVMe-oF SAN in ONTAP software• SAN architecture• Interoperability Matrix Tool• SAN scalability and maximums	Verifying licenses and configuring broadcast domains
Module 2: ONTAP SAN resource provisioning	<ul style="list-style-type: none">• IP SAN configurations• FC SAN configurations• LUN provisioning	Creating a LUN
Module 3: ONTAP iSCSI configuration concepts	<ul style="list-style-type: none">• iSCSI configuration recommendations• iSCSI feature overview• iSCSI configuration workflow	Creating an initiator group and mapping a LUN to it
Module 4: ONTAP FC configuration concepts	<ul style="list-style-type: none">• FC configuration recommendations• FC and FCoE zoning• Cisco switches• Brocade switches	Renaming initiator groups
Module 5: NVMe-oF configuration	<ul style="list-style-type: none">• NVMe• NVMe-oF• NVMe integration into ONTAP software	Configuring Linux and NetApp ONTAP software for NVMe/TCP

Module	Lessons	Exercises
Module 6: Host integration	<ul style="list-style-type: none"> • Host considerations • Windows hosts • Linux and UNIX hosts • LUN offset 	Installing host utilities
Module 7: Microsoft Windows IP SAN connectivity	<ul style="list-style-type: none"> • Configuring a Windows host for iSCSI • iSCSI configuration 	Configuring NetApp ONTAP software for a Windows iSCSI LUN
Module 8: Linux IP SAN connectivity	<ul style="list-style-type: none"> • Linux iSCSI configuration • Linux iSCSI implementation 	Configuring NetApp ONTAP software for a Linux iSCSI LUN
Module 9: Windows FC SAN connectivity	<ul style="list-style-type: none"> • 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 	Configuring a Brocade switch for a Windows FC environment
Module 10: Linux FC SAN connectivity	<ul style="list-style-type: none"> • 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 	Configuring a Brocade switch for a Linux FC environment

Course ID: STRSW-ILT-SANIMP-REV04
10JUL24