⋀⋀⋃⊔⋁⋁ | Enterprise Computing Solutions - Education Services

TRAINING OFFERING

Du kan nå oss här

Kronborgsgränd 7, 164 46 Kista

Email: edu.ecs.se@arrow.com
Phone: +46 8 555 188 00

NetApp   SAN Implementation (36 Training Units)

CODE:	LENGTH:	PRICE:
NEP_SANI	24 Hours (3 days)	kr26,400.00

Description

In this workshop course, you learn how to connect Windows® and Linux® hosts via Fibre Channel (FC) and iSCSI protocols to NetApp® SANs.

Objectives

By the end of this course you should be able to:
• Define and describe SANs that use FC, FCoE, and iSCSI protocols
• Configure Windows Server 2012, Red Hat® 6.4, and Data ONTAP® systems for iSCSI connectivity
• Configure Windows Server 2012, Red Hat 6.4, and Data ONTAP systems for FC and FCoE connectivity
• Use FC and iSCSI protocols to create and access LUNs from Windows Server 2012 and Red Hat 6.4 systems Install and use SnapDrive® for Windows and SnapDrive for Linux software to create LUNs and Snapshot™ LUNs, to restore LUNs from Snapshot copies, and to remove LUNs
• Size, clone, back up, and recover LUNs on Windows Server 2012 and Red Hat 6.4 systems
• Troubleshoot SAN connectivity and performance issues

Audience

Professionals who implement SAN solutions that use NetApp storage systems.

Prerequisites

• Certification as a NetApp Data Management Administrator

• Completion of the following courses:
-SAN Fundamentals on Data ONTAP WBT
-NetApp Portfolio: Exploring SAN Architectures and Configurations (SANARCH)
-Either !NA-D7ADM or Clustered Data ONTAP 8.2 Administration or !NA-CDOTDP

Programme

Module 1 SAN Concepts
• Describe the difference between SAN and NAS
• Explain the SCSI architecture model
• List the NetApp SAN technologies
• Define basic SAN terminology
• List the basic steps for implement a Data ONTAP SAN
• Describe the educational lab environment for this Course
Module 2 Windows IP Connectivity
• Describe multiple path implementation with iSCSI connectivity
• Configure network ports on Windows and NetApp systems
• Identify the node name on Windows and NetApp systems
• Implement and verify multiple path iSCSI connectivity between Windows and NetApp systems
Module 3 Windows LUN
• Discuss LUN access for Windows Server 2012
• Create a LUN by using wizards
• Explore techniques to configure a LUN for Windows Server 2012
• Explain how SnapDrive for Windows simplifies LUN management

Module 4 Linux IP
• Describe multiple path implementation with iSCSI connectivity for Red Hat and NetApp systems
• Configure network ports on Red Hat systems Identify the node name on Red Hat systems
• Set up and verify multiple path IP connectivity between Red Hat and NetApp systems
Module 5 Linux LUN Access
• Describe the steps that you take to allow a Red Hat initiator to access a LUN on a storage system
• Review the Data ONTAP LUN configuration steps
• Find and prepare a LUN on a Linux operating system
• Configure multipath I/O on Linux
• Create and protect LUNs by using SnapDrive for UNIX

Module 6 FC Architecture
• Describe the architecture of the FC topology
• Explain the FC initialization process
• Identity the layers in the FC protocol

Module 7 FC Fabrics
• Discuss fabric layouts
• Describe FC switch concepts
• Explain fabric services
• Describe routing in FC switches
• Examine zoning in FC switches

Module 8 Windows FC Connectivity
• Describe multiple path implementation with FC connectivity
• Configure FC ports on Windows and Data ONTAP storage systems
• Use commands and utilities to identify the worldwide node name (WWNN) and worldwide port name (WWPN) on Windows and Data ONTAP storage systems
• Use commands and utilities to examine FC switch Activity
Module 9 Unified Connect
• Describe NetApp Unified Connect
• Examine the FC over Ethernet (FCoE) enabling technologies
• Configure FCoE on a host, a switch, and a NetApp storage system
• Explain how to leverage older FC technologies with FCoE
Module 10 Linux FC
• Describe multiple path implementation with FC connectivity for Red Hat and NetApp systems
• Configure FC ports on Red Hat systems Identify the worldwide node name (WWNN) and worldwide port name (WWPN) on Red Hat systems
• Set up and verify multiple path FC connectivity between Red Hat and NetApp systems
Module 11 LUN Provisioning
• Describe how and when a LUN consumes space from its containing volume
• Discuss backup guarantees through NetApp Snapshot reserve
• Discuss the overwrite guarantee for space-reserved LUNs
• Analyze the default LUN configuration and two thinprovisioning Configurations
Module 12 Host Considerations
• Explore the disk structure of popular file systems
• Describe flow-control issues on a host
• Identify techniques for growing and shrinking a LUN
• Discuss copy offload capacities

Module 13 SAN Management
• Perform administrative tasks on FC target ports
• Perform administrative tasks on LUNs
• Discuss LUN protection schemes

Module 14 SAN Troubleshooting
• Explain how to diagnose a problem within a SAN environment
• Review diagnostic tools and techniques for NetApp
• Data ONTAP software

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
17 Feb 2025	Virtual Classroom (GMT)	GMT	English	Instructor Led Online		kr26,400.00
07 Apr 2025	Virtual Classroom (GMT)	BST	English	Instructor Led Online		kr26,400.00
06 May 2025	Virtual Classroom (GMT)	BST	English	Instructor Led Online		kr26,400.00
16 Jun 2025	Virtual Classroom (GMT)	BST	English	Instructor Led Online		kr26,400.00
15 Sep 2025	Virtual Classroom (GMT)	BST	English	Instructor Led Online		kr26,400.00
15 Dec 2025	Virtual Classroom (GMT)	GMT	English	Instructor Led Online		kr26,400.00

Ytterligare information

Denna utbildning finns också som utbildning på plats. Kontakta oss för mer information.