

SNIA - Storage Network Industry Association - Syllabus

Module 1:

Introduction to FC SAN / FC Basics

What is Fiber Channel?

What is SAN?

SAN comparison with Network-attached and direct-attached storage solution.

Fibre Channel layer.

Connectors & HBA.

Fibre Channel Addressing.

WWN World Wide Name.

Module 2:

FC Arbitrated Loop

SAN topologies.

What is FCAL?

FCAL Characteristics.

FC-SW Switched fabric topology.

FC-AL Switches / FC-SW Switches

Zoning

Single Initiator Zoning

Port & WWN Zoning.

VSAN.

Distance Extension Options.

Clariion Storage

Module 1

Overview of prerequisite modules

- CLARiiON CX-Series Architecture
- CLARiiON Features
- List the new CLARiiON storage system model numbers
- Compare and contrast CX-series model architecture
- List allowable RAID types for the CX-series
- List available layered applications for the CX-series
- Explain how the CLARiiON design guarantees data integrity
- Explain the operation of CLARiiON read and write cache
- Explain CLARiiON cache organization
- Describe CLARiiON data availability features
- Discuss the features that contribute to CLARiiON performance
- Describe CLARiiON storage objects and their use

Module 2

Basic CLARiiON Management

Module Objectives

- List the utilities used to manage CLARiiON storage systems
- Describe the structure of the Navisphere Manager GUI
- Describe the storage object management menu choices
- Determine where CLARiiON faults have occurred
- Create and manage storage objects with Navisphere Manager
- Display properties of CLARiiON storage objects
- Describe the syntax of Navisphere CLI
- Create and manage storage objects with Navisphere CLI
- Display properties of CLARiiON storage objects with Navisphere CLI

Module 3

Access Logix

Module Objectives

- Explain Access Logix functionality
- Explain why Access Logix is needed in a shared environment
- Define the term 'Storage Group'
- List the object types associated with Storage Groups
- Enable Access Logix on a CLARiiON storage system
- Manage Storage Groups on a CLARiiON storage system

Module 4

PowerPath

Module Objectives

- Describe the features and functionality offered by PowerPath
- Explain that PowerPath is host based software that performs path failover
- Explain that PowerPath provides load balancing
- Describe the failover process should an HBA, cable or SP fail
- Explain the benefits that PowerPath provides to improve performance
- Describe the CLARiiON configurations supported by PowerPath and Access Logix in different environments

Module 5

Windows Integration

Module Objectives

- Compare and contrast Windows disk types
- Explain the Windows partitioning procedure
- Explain the Windows formatting procedure
- Describe requirements for CLARiiON connectivity
- Describe CLARiiON best practices for Windows
- Configure a Windows environment for CLARiiON attach

Module 6

Solaris Integration

Module Objectives

Explain the Solaris device addressing scheme

Explain the Solaris partitioning procedure

Explain the Solaris formatting procedure

Describe requirements for Solaris integration

Describe CLARiiON best practices for Solaris

Configure a Solaris environment for CLARiiON attach

Module 7

Advanced LUN Management

Module Objectives

List the procedures for managing metaLUNs

List the procedures for migrating LUNs

Module 8

Event Monitor

Module Objectives

Explain the operation of Event Monitor

List the benefits of Event Monitor

Configure Event Monitor in an enterprise environment

Module 9

Navisphere Analyzer

Module Objectives

Configure Navisphere Analyzer views

Obtain performance data from a storage system

Analyze performance data

Recommend configuration changes to improve performance

Module 10

SnapView Snapshots

Module Objectives

Explain the operation of SnapView Snapshots

Explain the operation of the Reserved LUN Pool

Explain SnapView Snapshot consistency operations

Calculate the required size of the Reserved LUN Pool

Configure the Reserved LUN Pool

Configure and manage Snapshots and Sessions

Module 11

SnapView Clones

Module Objectives

Explain how SnapView makes Clones of LUNs

Explain the operation of the Clone Private LUN

Discuss where Clones might be used in an environment

Compare and contrast Clones and Snapshots

Explain consistent Clone operations

Module 12

SAN Copy

Module Objectives

- Describe SAN Copy operation
- Describe Incremental SAN Copy operation
- Configure and manage SAN Copy
- Configure and manage Incremental SAN Copy

Module 13

MirrorView

Module Objectives

- Describe MirrorView/S and MirrorView/A connectivity options
- Explain the operation of the MirrorView/S Fracture Log
- Explain the operation of the MirrorView/S Write Intent Log
- Explain how MirrorView/S and MirrorView/A make remote copies of LUNs
- List the required steps in MirrorView/S and MirrorView/A administration
- Describe how MirrorView/S, or MirrorView/A, and SnapView can be used together
- Describe Consistency Group functionality

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