

Course description

HP P4000 SAN Configuration and Administration (HK364s)



The P4000 SAN course is a comprehensive technical-based training course that teaches the skills needed for planning, installing, configuring, and managing HP P4000 storage area networks (SANs). Learning concepts are reinforced through a series of comprehensive lab assignments.

Audience

Storage Administrators

Prerequisites

- Basic networking
- Advanced knowledge of Windows Servers

Course objective

- Explain the architecture of the P4000 SAN solution
- Plan and install networks of Storage Systems, including multi-site installations providing High Availability / Disaster Recovery
- Configure Storage Systems for initial connection
- Install and use the P4000 Consolidated Management Console (CMC)
- Configure and manage the P4000 SAN
- Mount the SAN Volumes from Windows 2003, Windows 2008 R2, or VMware vSphere 4.1i

Benefits to you

- Students will get comfortable with HP StorageWorks P4000 SAN so that you can go back into your environments and engineer a solution using all the features of P4000 SAN systems and SAN/iQ software.
- Participants will be able to understand & implement Best Practices of HP StorageWorks for HP SAN/iQ implementation/administration process in Windows.

Course title: HP P4000 SAN Configuration and Administration

HP product number: HK364s

Category/Subcategory: Storage

Course length: 2 days

Level: Beginner/Intermediate

Delivery language: English

To order: You can order this course online at <http://www.hp.com/learn>. At the site, select a country, then choose "registration" or "Book a course" and fill out the online registration form.

Why education services from HP?

- Focus on job-specific skills
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- Customized on-site delivery

Detailed course outline

Course Introduction

- General Information

Centralized Management Console

- Install the Centralized Management Console
- Understand Management Console user interface
- Use the Content Pane to verify the status of modules
- Recognize how to use the Management Console to: Upgrade software, reboot or shutdown a Storage System, manage RAID or individual drives, manage network configurations; add, edit, delete administrative users/groups, enable monitoring

Basic Configuration

- Install and set IP/hostname
- Verify RAID and disks
- Manage the Networks settings
- Understand how to configure and use SNMP
- Set monitoring parameters and view reports

Management Group and Clusters

- Managers and Management Groups
- How to create, edit, and delete Management Groups
- How to create local administrative groups and users
- Identify the purpose and requirements for a virtual Manager
- Understand the purpose of Managers
- Explain the purpose of Clusters
- How to create, edit, delete, and view Clusters
- Understand the virtual IP address and its use
- Single site vs. Campus SAN or Multi-site Clusters
- Understand other Cluster-related configuration functions

Working with Volumes

- Planning Volumes
- Prerequisites for Volumes

- Volume growth capacity
- Create and view Volumes
- Edit/delete Volumes
- Server Profiles

Connecting the Volume via iSCSI

- Understanding iSCSI
- Installing the initiator
- Creating "Server Profiles"
- Adding the target portal
- Connecting the Volume
- Formatting the drive

HP Storage P4000 SAN & Microsoft MPIO support

- HP Storage DSM for MPIO improves SAN performance
- HP Storage MPIO relies on Microsoft MPIO
- Configure NICs for failover

SAN/iQ Snapshots

- Snapshot Overview
- Snapshot Architecture
- Using a Snapshot
- Creating a Snapshot Single
- Rolling back a Snapshot
- Scripting Snapshot operations

SmartClone Volumes

- HP Storage P4000 SAN/iQ SmartClone
- SmartClone Introduction

Remote Copy

- Snapshot technology
- Basic overview
- Create, edit, delete, view, or cancel a remote copy operation
- Describe uses for the SAN/iQ Remote Copy feature

Using HP SAN/iQ with VMware vSphere

- HP Storage and VMware advantages

HR/DR Solution Pack

- HR/DR Solution Pack

Onboard Performance Monitoring

- Understanding performance statistics
- Adding, removing statistics
- Exporting data
- Statistics log

Performance Tuning

- Important performance factors
- Use HP Storage performance guidelines when planning and implementing an IP SAN solution

ISCSI SAN for applications – Exchange, SQL and SAN concepts

- Recognize best practices when setting up MS Exchange and SQL on the SAN
- Recognize advantages of using Snapshots and Remote IP Copy

Best Practices

- Best Practices

Appendix A

- Accessing P4000 SANs from Windows 2003

Appendix B

- Service and Troubleshooting

Appendix C

- Introduction to the P4800 BladeSystem-based P4000 SAN

Appendix D

- P4800 Troubleshooting

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