



HP Accelerated SAN Essentials UC434S

In dem Kurs HP Accelerated SAN Essentials (UC434S) erlangen sie ein umfassendes und fortgeschrittenes Verständnis von SAN-Technologien und Konzepten. Sie lernen, wie Sie Herausforderungen in der Arbeit mit SAN-Umgebungen der Enterprise-Klasse bewältigen. Der Kurs enthält zu 60% Vorträge und 40% praktische Übungen mit HP-Servern.

Voraussetzungen:

Grundlegendes technisches Verständnis von Netzwerk und Storage-Konzepten und der Terminologie sowie Erfahrung in dem Managen von Windows oder UNIX Systemen.

Empfohlenes kostenfreies Online-Training: SAN Fundamentals (U5527AAE)

Zielgruppe

Der Kurs richtet sich an Systemadministratoren, welche einen Fortgeschrittenen Kurs suchen, in welchem sie sowohl konzeptionelle Kenntnisse der Fibre-Channel-SAN-Technologien als auch in heterogenen SAN-Umgebungen erhalten.

Course Outline

Introduction

- SAN definition, benefits, and goals
- High-speed backup and availability
- Server and storage consolidation
- DAS, NAS, and SAN concepts and comparisons
- Host, target, and interconnect device characteristics
- Power-on sequence

Fibre Channel (FC) Basics

- FC terminology, port types, topologies, and layers
- Class of service

Fibre Channel Switches

- Switch configuration parameters
- Principal switch selection
- Frame routing within a fabric
- Trunking and port channels
- Virtualization within the fabric

SAN Hosts

- Host role within SAN and virtualization
- Host installation checklist and bus connections
- Boot from SAN and load balancing
- Multi-path SAN connections and software
- Multi-path I/O (MPIO) components within OS

Disk Targets

- Disk drives and associated technologies
- How disks are connected to controllers
- LUN masking and array management

Fibre Channel Advanced

- Fibre channel addressing and reserved addresses
- Ordered sets
- Primitive signals and sequences
- Flow control and zoning
- Link and fabric services
- Fabric login and segmentation
- SAN Management
- SAN management choices and considerations
- Technologies driving SAN management
- HP SAN management today
- HP storage essentials

iSCSI

- IP storage
- iSCSI stack, packet construction, and name convention
- iSCSI connection, hardware options, and security
- HP Storage SAN as a sample of a iSCSI system

SAN Extension

- SAN extension technologies and implementations
- Fibre channel over IP (FCIP)
- FCIP and its role in SAN extension
- FCIP performance and security
- Fibre routing implementations in a SAN

FCoE / CEE

- FCoE and CEE standards
- FCoE I/O consolidation and terminology
- Lossless ethernet
- FCIP, iSCSI, and FCoE protocols

SAN Security

- Basic storage security model and access points
- Planning security in a SAN
- Core components for securing SAN data management
- Security in practice
- Authentication and encryption

Data Protection

- Backup types and their differences
- Accelerated and dynamic de-duplication
- Synchronous and asynchronous replication
- Split mirror and snapshot replication

Performance

- Factors affecting SAN, disk, and drive speed performance
- Fibre channel technology and how it affects storage performance
- Planning a disk system that accounts for effects of RAID, cache, and chunk size on performance
- I/O profiling
- SAN Design
- Architecture choices and design considerations
- HP standard SAN topologies and topology design rules
- Core and edge architecture
- Levels of high availability in SAN architecture

Dauer

5 Tage