

HK911S: HP StoreFabric B-Series Switch Professional

Course Summary

Description

This course provides a comprehensive understanding of complex configurations within an HP B-series SAN solution covering technologies and concepts. Students gain the experience needed to tackle the challenges of working in enterprise class SAN environments. The course is 70 percent lecture and 30 percent hands-on labs using HP servers. Please note this course does not prepare for certification. Additional study may be required.

Objectives

By the end of this course, students will be able to:

- Explain 10bit addressing mode
- List the steps to implement a Virtual Fabric
- Configure and implement NPIV
- Configure and deploy Access Gateway
- Identify commands and tools used to verify routing connectivity
- Add a FCIP tunnel dialog box and circuit
- Implement Traffic Isolation (TI) zoning in the fabric
- Interpret Top Talkers output
- Monitor Brocade FC SANs to help in the detection of bottlenecks
- Distinguish the differences between security policies
- Apply policy distribution
- Understand the differences between FCIP, iSCSI, and FCoE protocols

Topics

- Virtual Fabrics
- Virtual Connectivity NPIV and Access Gateway
- FC-FC Routing Theory
- FCIP Theory and Administration
- Adaptive Networking Traffic Management
- Adaptive Networking Fabric Profiling
- Security
- FCoE/CEE

Audience

Technical professionals seeking a learning path that includes both conceptual knowledge of Fibre Channel SAN technologies and experience in HP B-series SAN environments.

Prerequisites

- Accelerated SAN Essentials (UC434S) or
- HP StoreFabric B-series Switch Administration (HK910S) or
- A good technical understanding of networking and storage concepts and
- Experience managing Windows or UNIX systems
- Recommended free web-based training at <http://education.itrc.hp.com>: SAN Fundamentals (U5527AAE)

Duration

Three days

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Course Outline

- I. Virtual Fabrics**
 - A. Brocades Virtual Fabric terminology
 - B. Logical Switches (LS)
 - C. Virtual Fabrics (VF)
 - D. ISL definitions
 - E. 10bit addressing mode
 - F. Steps to implement a Virtual Fabrics
- II. Virtual Connectivity NPIV and Access Gateway**
 - A. Implementation and configuration of NPIV
 - B. Configuring and deploying Access Gateway
 - C. Configuring failover and failback
 - D. Use of F_Port trunking and trunk areas
- III. FC-FC Routing Theory**
 - A. Fibre channel - to - fibre channel routing terminology, concepts, and theory
 - B. FC – FC routing implementation using CLI and DCFM
 - C. Commands and tools used to verify routing connectivity
- IV. FCIP Theory and Administration**
 - A. FCIP circuits, trunking, and tunnels
 - B. Adaptive rate limiting and FCIP QoS
 - C. Configure and verify a VE_port-to-VE_port connection
 - D. CLI and DCFM configuration procedures
- V. Adaptive Networking Traffic Management**
 - A. Brocade FC adaptive networking
 - B. Features of Brocade FC adaptive networking related to traffic management
 - C. Quality of Service (QoS) SID/DID traffic prioritization in the fabric
 - D. QoS traffic prioritization for Brocade HBAs
 - E. Ingress Rate Limiting (IRL) in the fabric
 - F. Target Rate Limiting (TRL) for Brocade HBAs
 - G. Traffic Isolation (TI) zoning in the fabric
- VI. Adaptive Networking Fabric Profiling**
 - A. Top Talkers output
 - B. Brocade FC SANs
- VII. Security**
 - A. Switch Connection Control (SCC)
 - B. Device Connection Control (DCC)
 - C. Fabric Configuration Server (FCS)
 - D. Security policies and their differences
 - E. Policy distribution
 - F. IP Filter Policies (IPFILTER)
 - G. Advanced Device Security (ADS) for Access Gateway
- VIII. FCoE/CEE**
 - A. FCoE and CEE standards
 - B. FCoE I/O consolidation benefits
 - C. FCoE terminology
 - D. Lossless Ethernet
 - E. FCIP, iSCSI, and FCoE protocols