



# HPE StoreFabric B-Series Switch Administration HK910S

This course provides a comprehensive understanding of everyday administration within an HPE B-series SAN solution covering technologies and concepts. Students gain experience needed to tackle the challenges of working in enterprise class SAN environments. The course is 60 percent lecture and 40 percent hands-on labs using HPE servers.

## HPE StoreFabric B-Series Switch Administration

**Price** USD \$2,700

**Links to local schedules, pricing and registration** [US/Canada](#)  
[Mexico/Latin America](#)  
[Brazil](#)

**HP course #** HK910S

**Category** Storage

**Duration** 3 days

## Audience

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

## Prerequisites

- Basic technical understanding of networking and storage, concepts and terminology
- Experience managing Windows or UNIX systems
- Recommended free web-based training: SAN Fundamentals WBT (U5527AAE)

## Course objectives

At the conclusion of this course you should be able to:

- Describe features and functionality of the switch hardware
- Discuss ICL technology
- Describe blade, HB/CAN, SFP and cable options
- Discuss FC theory
- Identify switch configurations parameters
- List the steps for port initialization
- List Fabric services and features
- Perform an out of box initial configuration
- Perform common administrative tasks
- List basic security features
- Work with ports
- Identify routing capabilities
- Discuss trucking
- Manage Inter Switch Link (ISL)
- Zoning theory
- New zoning features

- Implement zoning using the CLI syntax
- Activate and deactivate a default zone
- List zoning tools
- Identify when a long distance license is required
- List SAN extension technologies
- Configure long distance connection
- Describe buffer concepts
- Administer using different interfaces
- List SNMP capabilities
- Backup and manage configuration files
- Upgrade firmware
- Create a diagram of a fabric using collected data
- Perform basic troubleshooting and performance monitoring

## Next steps

- HPE StoreFabric B-series Switch Professional (HK911S)

## Course outline

### Brocade Switches

- Brocade fibre channel switch family overview
- Features and functionality of the switch hardware
- Switch blades and compability
- ICL connectivity
- Different Brocade FC HBAs
- Brocade CNAs
- Different types of fibre optic cable and SFPs

### Fibre Channel Theory

- SA theory and introduction
- FC layers
- Fibre channel networking model
- Different class of service
- Frame structure
- WWN format
- Node and port types
- Basic switch parameters
- Steps for port initialization
- FC addressing
- Fabric services well-known addresses
- Fabric and N Port login sequence
- RSCN
- Name server and other Fabric services
- NPIV implementation and support
- Fabric and port name
- Interoperability

**Installation and Configuration**

- Out of box initial configuration
- Checking switch status
- Basic management tools
- Important fabric parameters
- Initial configuration
- IP settings
- Time settings
- Login banner
- Activating licenses
- Setting switch and chassis name
- Working with syslog server settings
- Working with security
- Switch and port status
- Booting a switch

**Brocade FCP Routing**

- Terminology review
- Principle switch role and up/downstream links
- Fabric initialization
- ISL oversubscription
- Virtual channels
- Port-based routing
- Exchange-based routing
- Dynamic Load Sharing (DLS)
- In-Order Delivery (IOD)
- Inter Switch Link (ISL)
- Working and checking routing
- Trunking theory, benefits and configuration

**Zoning**

- Basic concepts associated with zoning
- Zoning elements
- Zoning hierarchy
- New zoning features
- Zoning using the CLI syntax
- How to check the maximum size of a zoning database
- Displaying zoning information
- Activate and deactivate a default zone
- Zoning configuration example
- Hardware and session enforcement differences
- Zoning tools
- Issues when adding a switch to an existing fabric with zoning enabled
- Best practices when implementing a zone
- Fabric segmentation

**Long Distance Connectivity**

- Cabling
- Extension options
- Use and effects of buffer credits on distance and speed
- Long distance modes, settings, and supported distances for Brocade switches
- Configuration
- When a long distance license is required
- Limitations of long distance connection when using trunking
- Long distance commands
- Buffer monitoring

**Administration - Firmware**

- Interfaces and management tools to manage Brocade switches and fabrics
- Using BNA, Web Tools, and Telnet/SSH/HTTP/SSL/SNMP
- Host Connectivity Manager (HCM) to manage Brocade HBAs
- Brocade SAN Health
- Fabric watch
- SNMP management
- SNMP commands
- Backup and manage configuration files
- Firmware upgrade steps

**Basic Troubleshooting**

- Troubleshooting techniques
- Data gathering process
- Supportsave and supportshow
- How to create a diagram of a fabric using collected data
- Documentation tools
- Brocade SAN health
- HPESAN visibility tool
- Common SAN problems
- Switch and Field Replaceable Units (FRU) status
- Performance monitoring and troubleshooting
- Diagnostic tools

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