ST104-EN Brocade FOS 8.x / 9.x Admin Advanced

Kurzbeschreibung:

Troubleshooting and maintenance of an open SAN

Zielgruppe:

Storage and SAN administrators, engineers and support staff

Voraussetzungen:

Participation in the workshop ST101-EN Brocade FOS 8.x / 9.x Admin Basics or many years of experience with the administration of SAN switches

Sonstiges:

Dauer: 5 Tage

Preis: 4150 Euro plus Mwst.

Ziele:

A central focus of the course is the monitoring, analysis and elimination of errors in the SAN. Practical examples are used to show how problems in the SAN can be proactively prevented and errors can be detected and eliminated. For this purpose, in-depth knowledge of the FC protocol is built up and the interrelationships and interaction of the individual components in the SAN are presented.

The course provides practical exercises to help you understand log files, hardware diagnostic output and PortLog dumps. In the course of practical exercises the participant will get an understanding of how problems and performance bottlenecks in the SAN can be identified and if necessary eliminated.

The presentation of security in the SAN and especially the implementation of advanced security like SCC, DCC and DHCHAP is another focus of the course.

The complex heterogeneous test environment consists of:
-Server : Windows, Linux or VMware
-Storage : All-Flash Storage System
-Switches: Brocade G720/ G620/ 6505/ 6510

This training serves as a practical supplement for the "Brocade GEN 7 SAN Specialist" certification.

Inhalte/Agenda:

- ♦ Brocade Product Introduction
  - ♦ ◊ Hardware 8/16/32/64 GB Brocade Products
    ◊ Brocade Support Link

♦ **FOS 9.0 – 9.2 Features:**
- ♦ ◊ Traffic Optimizer (TO) (only Gen7)
  ◊ Fabric Congestion Notification
  ◊ New Web Tools
  ◊ Fabric Zone Locking
  ◊ Maintenance Account
  ◊ Flow Monitoring
  - ◊ · sys_flow_monitor
    · Support für VF
    · VM Insight
    · VMID+
    · Real Time Hardware Violation Streaming
  - ◊ MAPS: ·
  - ◊ · FPI Profiles
    · Global Quiet Time
    · dflt_always_active_policy
    · Adaptive MAPS Notifications
  - ◊ Introduction TruFOS certificate (9.1)
  - ◊ Need for TruFOS certificates for all Gen6/7 Switches (9.2)
  - ◊ Better integration of Cisco UCS
  - ◊ Default Secure Configuration (9.2)
  - ◊ Firmware Patch

♦ Overview **Brocade SANnav** (BNA successor)

♦ **NVMe over FC**
- ♦ ◊ Implementation with Windows

♦ SAN Design

♦ Installation and configuration
- ♦ ◊ Initial configuration
  - ◊ · Fabric Parameters
    · TimeServer
    · Syslog
  - ◊ Initial security settings
  - ◊ · Password Rules
    · RBAC
    · LDAP
    · RADIUS
    · ACL's
    · IP filter

♦ Reporting and monitoring
- ♦ ◊ Fabric Vision Technology
  - ◊ · Definition
    · Components
    - · • MAPS
      • Flow Vision
      • ClearLink Diagnostics (D_Port)
    - · SAN monitoring with SNMP
    - · • SNMP Components
      • SNMP Version Authentication

♦ Administration and maintenance
- ♦ ◊ Backup/Restore of the switch configuration
  ◊ Firmware Maintenance
  ◊

- ◊ Firmware Upgrade

- ♦ Advanced Zoning
  - ♦ ◊ Zoning Enforcement
  - ◊ Advanced Zoning Commands
  - ◊ Traffic Isolation Zoning
  - ◊ QoS Zoning
  - ◊ Peer Zoning

- ♦ Fibre Channel Theory
  - ♦ ◊ FC protocol architecture (FC-0 to FC-4)
  - ◊ Communication channels

- ♦ FC Routing
  - ♦ ◊ Principal Switch
  - ◊ Virtual Channel
  - ◊ FSPF Link Cost / DLS / IOD
  - ◊ Exchange Based Routing
  - ◊ Port Based Routing
  - ◊ FC-to-FC Routing (LSAN)

- ♦ Trunking
  - ♦ ◊ Functionality
  - ◊ Port Based Routing
  - ◊ Exchange Based Routing

- ♦ FC Long Distance
  - ♦ ◊ Distance Connectivity Options
  - ◊ Extended Fabric Configuration
  - ◊ E_Port Credit Recovery
  - ◊ Inflight Encryption and Compression
  - ◊ Diagnostic Port (D_Port)

- ♦ Troubleshooting
  - ♦ ◊ Switch Status Commands
  - ◊ Analysis of Switch Error Messages, Fabric-Log and PortlogDump
  - ◊ Procedure for firmware download and connectivity problems
  - ◊ Performance Analysis
  - ◊ HBA Configuration

- ♦ FOS Software Features
  - ♦ ◊ LSAN Zoning
  - ◊ Access Gateway

- ♦ ◊