Hewlett Packard Enterprise

Managing HPE 3PAR StoreServ III H9P97S

HPE course number	H9P97S
Course length	3 days
Delivery mode	ILT, VILT
View schedule, local pricing, and register	**View now**
View related courses	**View now**

Why HPE Education Services?

- IDC MarketScape leader 4 years running for IT education and training*

- Recognized by IDC for leading with global coverage, unmatched technical expertise, and targeted education consulting services*

- Key partnerships with industry leaders OpenStack®, VMware®, Linux®, Microsoft®, ITIL, PMI, CSA, and (ISC)[2]

- Complete continuum of training delivery options—self-paced eLearning, custom education consulting, traditional classroom, video on-demand instruction, live virtual instructor-led with hands-on lab, dedicated onsite training

- Simplified purchase option with HPE Training Credits

This 3-day training covers advanced topics that a storage administrator will encounter after performing the tasks covered in the 3PAR basic courses (HK902 and HK904). Topics included are: Space Explained, Performance, Alerts, Troubleshooting, Upgrading, Adaptive Flash Cache (AFC) and Configuration Rebalancing. The course is 50% lecture with 50% hands-on labs. Additional Scenario Labs compliment the Module Labs. These Lifecycle Labs include Adaptive optimization, Quality of Service and Adaptive Flash Cache.

Audience

A storage administrator who has been managing 3PAR StoreServ arrays on a daily basis for at least a year. This training is not for an individual who has no experience managing a 3PAR array.

Prerequisites

Students must have attended HK902 and HK904

Course Objectives

After completing this course, students will be able to:

- Explain how space is allocated and mapped

- Understand performance bottlenecks and best practices to overcome them

- Size an array for adaptive optimization

- Explain 3PAR events and alerts and how to get notifications about them

- Use CLI and GUI to troubleshoot your storage system

- Perform rebalancing

- Use Adaptive Flash Cache to increase performance

- Upgrade your hardware and software of your storage system

- Employ tools that can be used to troubleshoot and respond to 3PAR performance issues

Detailed course outline

Module 1: Overview	• Course Introduction • Course Agenda • Lab roadmap
Module 2: Space Explained	• Understand space utilization • Volume space • Logical disk space • CPG space • Distributed sparing • Thin deduplication • Space reclaimation • Mapping space
Module 3: Performance	• Understanding performance bottleneck • Servicing I/O • RAID • Initiators • Front end vs back end • Back end writes • CPU • Cache • Adaptive Flash Cache • SSD Performance • Express writes • Component Benchmarks • Hardware FC Links • Benchmarks • Interactive response law • CLI Counters • Troubleshooting discussion • CLI performance stats • System reporter SSMC PD stats • System reporter CLI stats.
Module 4: Lifecycle Discussion	• Lifecycle of a System • Introduction Lab • Introduction to the Ninja Stars output • Include a copy of the Roadmap here.
Module 5: Alerts	• View, interpret, and manage system events and alerts • Use the checkhealth command for troubleshooting • Alert notifications for System Reporter • SSMC email notifications • Event log monitoring and management • SNMP settings and capabilities • SMI-S standard, WBEM Initiative, and 3PAR CIM Support • Local Notification Service on the HPE 3PAR Service Processor (SP) setup
Module 6: Rebalancing	• Balanced HPE 3PAR array definition • Phases and options of the tunesys command • System tuning and related tasks from the HPE 3PAR SSMC and the CLI

	• Tunesys and tunevv options and limitations
	• Tuning operations troubleshooting
	• Tuning scenarios
Module 7: Adaptive Flash Cache	• AFC benefits
	• What can/cannot be moved into AFC
	• Different LRU (Least Recently Used) queues description and the concept of LRU queue demotion
	• CLI commands to setup, enable, disable, remove, and monitor AFC
	• Guidelines and rules regarding AFC
	• Working with AFC using SSMC
	• Monitoring AFC using the statcache and srstatcache commands
Module 8: Upgrading 3PAR	• Servicing options for your HPE 3PAR 7000/8000 components
	• Repair/replace procedures of CSR components
	• Storage system disks upgrade
	• Best practices when upgrading
	• HPE 3PAR OS update operation

Learn more at
hpe.com/ww/learnstorage

Follow us:

f 𝕏 in ⟫ ✉

Hewlett Packard Enterprise