Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Managing HPE 3PAR StoreServ I: Management and local replication

CODE:	LENGTH:	PRICE:
HPE_HK902S	24 Hours (3 days)	kr18,000.00

Description

The Managing HPE 3PAR StoreServ I course is designed for the new or entry-level HPE 3PAR administrator. The goal of the class is to acquaint the 3PAR administrator with the most common day-to-day tasks and best practices associated with administration of the 3PAR array. The levels of provisioning storage are emphasized.
This training reflects the newest release of the HPE 3PAR OS: 3.3.1. The course is approximately 50% lecture and 50% hands-on labs using HPE 3PAR arrays. NOTE: Hosts used in the lab environment are MS Windows.

Objectives

At the conclusion of this course, the student should be able to:
• Explain the numbering schemes for the HPE 3PAR hardware components: controllers, ports, and physical disks
• Use the StoreServ Management Console (SSMC) GUI and the CLI to perform administrative tasks
• Create and work with a Common Provisioning Group (CPG)
• Administer Virtual Volumes using the SSMC and the CLI
• Understand the advantages of Thin Provisioning and create a Thin Provisioned Virtual Volume (TPVV)
• Understand the advantages of Dedup and Compression for storage allocated from SSDs
• Export and un-export virtual volumes from hosts
• Use HPE 3PARinfo to analyze luns presented to hosts
• Use Host Explorer to simplify addition of hosts
• Use Host Sets and Volume Sets to simplify provisioning storage
• Create a Snapshot and promote (restore) from a Snapshot
• Create a Clone and promote a Clone
• Convert a Virtual Volume (i.e. from fully provisioned to thin provisioned or thin provisioned to thin dedup or vice versa)
• Use the SSMC reporting feature to monitor capacity and performance

Audience

HPE 3PAR administrators who desire training on basic concepts and best practices needed to administer the array.

Prerequisites

• An understanding of general storage concepts including fibre channel technology and RAID
• Operator level functionality in a Windows environment

Programme

HPE 3PAR Solution Introduction and Review
• HPE 3PAR Hardware Current models
• Hardware overview for the 7000, 8000, and 20000 models:controllers, drive cages, and disks
• Controller port number naming conventions for the 7000, 8000, and 20000 models
• Disk number naming convention for disks in the HPE 3PAR arrays
• ASIC chip functionality
• HPE 3PAR virtual storage architecture benefits
• Big Picture HPE 3PAR component connectivity
• SSMC GUI introduction and functionality overview
• HPE 3PAR CLI overview and introduction

Storage Concepts and Terminology
• HPE 3PAR provisioning terminology
• HPE 3PAR concept of a disk chunklet and Logical Disk (LD)
• HPE 3PAR concept of a Common Provisioning Group (CPG)
• HPE 3PAR Virtual Volumes (VV) types: full provisioning and thin provisioning
• HPE 3PAR provisioning terminology
• HPE 3PAR concept of a disk chunklet and Logical Disk (LD)
• HPE 3PAR concept of a Common Provisioning Group (CPG)
• HPE 3PAR Virtual Volumes (VV) types: full provisioning and thin provisioning
Storage Configuration
• CPGs using SSMC and the CLI
• Working with virtual volume templates
• Working with fully provisioned and thin provisioned volumes using SSMC and the CLI
Host Connectivity and Storage Allocation
• How to prepare a host to access an HPE 3PAR storage array
• HPE 3PAR Port Persistence
• Adding hosts in an HPE 3PAR storage array
• Adding FC ports to a host
• Export virtual volumes to hosts as VLUNs
• Unexport VVs/VLUNs from a host
• Using SSMC and CLI to work with hosts and storage
• Working with Smart SAN
• Use Host Explorer to add hosts and explore host details
• Use HPE 3PARInfo to gather storage information
Host Sets and Virtual Volume Sets
• Host and virtual volume sets advantages
• Host and virtual volume sets use cases
• Creating and maintaining host and volume sets using SSMC and the CLI
• Host and volume sets guidelines and rules
Thin Features: A Deep Dive
• Benefits of the Zero Detection/Thin Persistence
• Zero Detection use cases
• Space reclamation: UNMAP and other utilities
• Compaction ratio explanation and thin overprovisioning
• Thin provisioning: seeing what is allocated vs. used by a host
• Online Virtual Volume conversion: converting volumes from full to thin or thin to full using SSMC and the CLI
• Compacting a CPG to free up space
Adaptive Data Reduction for Flash: Dedup and Compression
• Thin Dedup: saving space using deduplication and dedup detail
• Thin Dedup: what to dedup: good candidates and bad candidates
• Compression and how it works
• Compression: what to compress--good candidates and bad candidates
• Data Packing: packing data for space and cost savings
• DECO: Dedup and Compression together
• Working with Dedup and Compression using the SSMC GUI and the CLI
• Performing a Dedup Estimate and a Compression Estimate
• Seeing if Dedup and Compression are working
• Analyzing Adaptive Data Reduction ratios: Dedup ratio, Compression ratio and overall Data Reduction ratio
• Online Virtual Volume conversion: converting volumes to thin-dedup, compressed or DECO
Snapshots and Clones
• Snapshots and Clones: benefits
• Creating, exporting, unexporting, and deleting a snapshot
• Rules and relationships regarding snapshots
• Restore from a snapshot
• Scheduling the creation of a snapshot
• Using the Virtual Lock feature to delete outdated snapshots
• Resynchronize a clone to a base volume
• Promote a clone to a base volume
• Use SSMC and the CLI to manage snapshots and clones

Reporting: Performance and Capacity
• The on-node database: the .srdata database volume
• Using SSMC reports to analyze capacity needs and trends
• Using SSMC reports to analyze performance
• Using SSMC default reports and creating custom reports
• Scheduling and emailing reports
• Using the Excel client
• Using the CLI stat commands to analyze performance and capacity
• Using the CLI sr* commands to analyze performance and capacity

Session Dates

På begäran, kontakta oss

Ytterligare information

Denna utbildning finns också som utbildning på plats. Kontakta oss för mer information.