Szkolenie: HPE
Managing HPE Primera

Cel szkolenia:

The Managing HPE Primera course provides an overview of the HPE Primera portfolio. The course teaches how to perform common day-to-day management tasks with handson labs (HOL), including creating the right data-efficient volumes on an all-flash HPE Primera array, and leveraging the power of HPE InfoSight. This course also provides knowledge of the advanced capabilities of the HPE Primera storage array, including lower level data reduction features, reporting, monitoring and alerting, and QOS, as well as local and remote replication options. You gain a practical understanding of HPE Primera array capabilities using extensive hands-on lab exercises. This course is the combination of:

- HM9Q5S: HPE Primera I: Management and Connectivity (1 day)
- HM9Q6S: HPE Primera II: Monitoring and Replication (2 days)

After completing this course, the student should be able to:

- Discuss Primera hardware offerings
- Describe HPE Primera family features
- List management options
- Describe the HPE Primera Storage software portfolio
- Explain provisioning terminology
- Understand the concepts of chunklets and logical disks
- Explain the HPE Primera concepts of a common provisioning group (CPG)
- Explain thin provisioned virtual volumes (VV)
- Overview Primera data reduction technologies
- Prepare a host to access an HPE Primera storage array
- Create hosts in an HPE Primera storage array
- Explain how to add fibre channel (FC) ports to a host
- Explain the advantages of HPE Smart SAN for Primera
- Export virtual volumes (VV) to a host as VLUNs unexport virtual volumes (VV) from a host
- Describe the advantages of host sets and volume sets
- Create and maintain host sets and volume sets
- Use SSMC and the CLI to create and manage host sets and volume sets
- Discuss the guidelines and rules regarding host sets and volume sets

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- Describe app volume sets
- Describe the use of InfoSight to monitor Primera and its surroundings
- Describe the benefits of data reduction technologies
- Perform space reclamation
- Describe data reduction technologies: deduplication, compression, and data packing
- Perform a data reduction estimation
- Perform an online virtual volume conversion
- Describe System Reporter capabilities
- Use SSMC and the CLI to run reports
- Use the CLI stat commands to look at real time statistics
- Use HPE Primera app volume sets (AppVVset) in performance context
- Use the SSMC Workload Insights feature for performance reasons to isolate application
- Spikes and trends
- Understand the SSMC Workload Insights concept of a performance score
- Understand the advantages of the Topology Insights feature to pinpoint performance
- Bottlenecks
- Describe basic Primera UI monitoring
- View, interpret, and manage system events and alerts
- Use the checkhealth command for troubleshooting
- Work with alert notifications for System Reporter
- Monitor and manage the event log
- Forward events to syslog server
- Explain SNMP settings and capabilities
- Describe the SMI-S standard, WBEM initiative, and Primera CIM support
- Explain REST API use
- Describe the advantages of Priority Optimization and Quality of Service (QoS)
- Discuss the performance implications of Priority Optimization
- Administer Priority Optimization
- Monitor the impact of Priority Optimization
- Create a scheduled and immediate snapshot
- Export a snapshot
- Perform a recovery using a snapshot
- Work with a clone
- Describe the key features, benefits, and advantages of Remote Copy
- Explain different types of Remote Copy implementations
- Explain the differences between synchronous and periodic asynchronous replication modes

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- Discuss different failure scenarios
- Perform a failover of a Remote Copy group
- Briefly describe data migration and high availability and disaster tolerance solutions

Audience

- Customers, administrators and channel partner sales or technical sales
- Storage administrators who desire additional training on the advanced features of HPE Primera

Plan szkolenia:

- Solution Overview
  - Hardware
  - Software and Features
- Storage Concepts and Terminology
  - HPE Primera OS virtualization—logical view
  - HPE Primera OS virtualization concepts
  - HPE Primera OS virtualization advantages
  - Chunklet concepts
  - System wide sparing
  - Loigical disk concepts
  - HPE Primera high availability
  - CPG concepts
  - Virtual volume overview
  - Thin provisioning overview
  - HPE Primera data reduction overview
- Host Connectivity and Storage Allocation
  - Host to HPE Primera front-end configuration—FC example
  - HPE Primera block I/O connectivity
  - HPE Primera Persistent Ports
  - HPE Primera WWN format
  - HPE Primera OS 4.x host OS support
  - HPE Primera implementation guide
  - Host HBAs and WWNs—commands/utilities
  - HPE Smart SAN for Primera
  - HPE Primera zoning overview
  - Adding hosts in SSMC—SMART SAN enabled

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- Making VLUNs visible to hosts
- HPE Host Explorer
- HPE LunInfo

- Host, Volume, and App Volume Sets
  - Host sets and virtual volume sets overview and advantage
  - Virtual volume set—other use cases
  - Host sets and virtual volume sets— SSMC and CLI examples
  - App volume sets overview
  - App volume sets— SSMC examples
  - SSMC dashboard—top app vol sets
- HPE InfoSight Introduction
  - HPE InfoSight sees and predicts behind the scene
  - Get the full picture with HPE Primera and InfoSight
  - The AI process for HPE self-healing storage
  - HPE Primera—dashboard
  - HPE Primera—systems view
  - HPE Primera—detailed systems view
  - HPE Primera—system performance view
  - HPE Primera—performance insights view
  - HPE Primera—PDF report
  - HPE InfoSight Cross-Stack Analytics for VMware environments
- HPE Primera On-Node Management
  - Discovering the HPE Primera array
  - HPE Primera initial setup
  - Checking hardware
  - Creating user on the array and configuring the network
  - Initializing the array
  - Configuring date/time, Infosight and system support contact
  - InfoSight
  - Enabling remote support data scrubbing
  - First time login
  - Primera UI dashboard—overview, alerts, and tasks
  - On-node management performance dashboard
  - Customer self-update option
  - Customer self-repair option

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Wymagania:

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

Poziom trudności



Certyfikaty:

The participants will obtain certificates signed by HPE (course completion).

Prowadzący:

Authorized HPE Trainer.

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