

HPE Primera I: Management and Connectivity HM9Q5S

HPE course number	HM9Q5S
Course length	1 day
Delivery mode	ILT, VILT
View schedule, local pricing, and register	View now
View related courses	View now

The HPE Primera I: Management and Connectivity course provides an overview of the HPE Primera portfolio. The course reviews how to perform common day-to-day management tasks with hands-on labs, including creating the right data efficient volumes on an all-flash HPE Primera array, and leveraging the power of HPE InfoSight.

The course prepares learners for deeper follow-on training from HPE, including the HM9Q6S: HPE Primera II: Monitoring and Replication course.

Why HPE Education Services?

- Comprehensive worldwide [HPE technical, IT industry and personal development training](#)
- [Training and certification preparation](#) for ITIL®, Security, VMware®, Linux, Microsoft and more
- Innovative [training options](#) that match individual learning styles
- Anytime, anywhere remote learning via [HPE Digital Learner](#) subscriptions
- Verifiable [digital badges](#) for proof of training, skill recognition and career development
- Simplified purchase options with [HPE Training Credits](#)

Audience

Customers, administrators and channel partner sales or technical sales

Prerequisites

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

Course objectives

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

- Describe the objectives and purpose of this course
- Discuss the topics addressed in this course
- Discuss the HPE Primera family
- Discuss HPE Primera hardware building blocks
- Discuss the data-in-place upgrade
- Describe controller enclosures, nodes, and HBA's
- Describe controller node architecture and port numbering
- Describe high availability features of HPE Primera
- Discuss HPE Primera software and management options
- Describe data protection and security features
- Explain provisioning terminology
- Understand the concepts of chunklets and logical disks
- Explain the HPE Primera concept of common provisioning groups (CPGs)
- Explain thin provisioned virtual volumes (VVs)
- Overview HPE Primera data reduction technologies
- State HPE Primera management options
- Describe Data Services Cloud Console and steps to onboard HPE Primera
- Describe HPE Primera initial setup, HPE Primera UI, and customer self-update/repair options
- Describe on-premises administration tools, features and the third-party integration portfolio
- 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
- Describe iSCSI configuration
- Explain the advantages of HPE Smart SAN for HPE Primera
- Export virtual volumes (VVs) to a host as VLUNs
- Unexport virtual volumes (VVs) from a host
- Use SSMC and the CLI to work with hosts and storage
- Describe the advantages of host sets and volume sets
- Create and maintain host sets and volume sets using Data Services Cloud Console, SSMC and CLI.
- Discuss the guidelines and rules regarding host sets and volume sets
- Describe application volume sets
- Describe advantages of HPE InfoSight

Detailed course outline

Module 0: Introduction	<ul style="list-style-type: none"> • Course Introduction 	<ul style="list-style-type: none"> • Course agenda
Module 1: Solution Overview:	<ul style="list-style-type: none"> • Hardware <ul style="list-style-type: none"> – HPE Primera technical specifications – HPE Primera hardware building blocks – Data-in-place upgrade – HPE Primera controller enclosure – HPE Primera drives – HPE Primera hardware architecture 	<ul style="list-style-type: none"> – Software and features overview – HPE Primera persistency and high availability features – HPE Cabling Tool – HPE product information – Documentation and resources – HPE storage interoperability – HPE SAN certification and support
Module 2: HPE Primera Management	<ul style="list-style-type: none"> • HPE Primera manageability • HPE StoreServ Management Console (SSMC) • Data Services Cloud Console • HPE Primera UI 	<ul style="list-style-type: none"> • HPE Primera command line interface (CLI) • HPE Primera integration portfolio overview • HPE Primera initial setup • Customer self-install
Module 3: Storage Concepts and Terminology	<ul style="list-style-type: none"> • HPE Primera OS virtualization—logical view • HPE Primera OS virtualization concepts • HPE Primera OS virtualization advantages • Chunklet concepts • Logical disk (LD) concept and controller node ownership • Logical disk concepts 	<ul style="list-style-type: none"> • HPE Primera high availability • Common provisioning group (CPG) concepts • Virtual volume overview • Thin provisioning overview • HPE Primera data reduction overview
Module 4: Host Connectivity and Storage Allocation	<ul style="list-style-type: none"> • Host to HPE Primera front-end configuration: fibre channel (FC) example • HPE Primera block I/O connectivity • Persistent checksum based on T10-DIF • HPE Primera persistent ports • HPE Primera OS 4.x host OS support • HPE Primera Implementation Guide • Obtaining host HBA WWNs • Host bus adapters (HBAs) and worldwide names (WWN)s • HPE Primera—iSCSI support 	<ul style="list-style-type: none"> • HPE Smart SAN for HPE Primera • HPE Primera zoning overview • HPE Smart SAN for HPE Primera overview • Adding hosts in SSMC: Smart SAN • Making VLUNs visible to hosts • HPE Host Explorer • HPE LunInfo • Host configuration and storage allocation
Module 5: Host, Volume, and App Volume Sets	<ul style="list-style-type: none"> • Host and 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 • Data Services Cloud Console—host group and volumes 	<ul style="list-style-type: none"> • App volume sets overview • App volume sets— SSMC examples • SSMC dashboard—top app vol sets • App sets vs virtual volume (VV) sets

Module 6: HPE InfoSight Introduction

- HPE InfoSight sees and predicts behind the scene
- Get the full picture with HPE Primera and HPE InfoSight
- The artificial intelligence (AI) process for HPE self-healing storage
- HPE InfoSight—artificial intelligence operations (AIOps)
- HPE Primera—PDF report
- HPE InfoSight cross-stack analytics for VMware® environments
- HPE Primera UI—HPE InfoSight software recommendations
- Managing HPE Primera software updates
- HPE Primera wellness filters
- HPE InfoSight unified tenancy

Appendix 1: HPE Primera Virtual Domains

- HPE Virtual Domains software
- HPE Virtual Domains for multitenancy security
- What are the benefits of virtual domains?
- Priority Optimization
- Data protection solutions overview
- HPE Primera leadership—replication
- Peer Persistence
- VMware vSphere® disaster recovery with Site Recovery Manager

Detailed lab outline**Lab 0: HPE vLabs Access**

- Task 1: Accessing the HPE vLab

Lab 1: Working with SSMC and CLI

- Exercise 1: Reviewing the SSMC GUI and online help
- Exercise 2: Reviewing the dashboard and changing output views
- Exercise 3: Accessing the SSMC settings screen
- Exercise 4: Adding a user
- Exercise 5: Working with the SSMC activity screen
- Exercise 6: SSMC hardware introduction
- Exercise 7: Launching the CLI

Lab 2: Storage Configuration

- Exercise 1: Log in to SSMC
- Exercise 2: Working with CPGs in SSMC
- Exercise 3: Working with virtual volumes (VVs) in SSMC
 - Exercise 3-1: Creating thin provisioned virtual volumes
 - Exercise 3-2: Creating thin volumes (TPVV) with data reduction enabled
 - Exercise 3-3: Creating multiple virtual volumes using a count
 - Exercise 3-4: Displaying/editing/removing virtual volumes
- Exercise 4: Working with VVs using the CLI

Lab 3: Host Configuration and Storage Allocation

- Exercise 1: Identify the HBA type (Windows)
- Exercise 2: Determining host port WWNs
- Exercise 3: Adding a host using HBA WWNs in SSMC
 - Exercise 3-A: Adding a host using Host Explorer in SSMC
 - Exercise 3-B: Adding a host manually using HBA WWNs in SSMC
- Exercise 4: Export/unexport VLUNs in SSMC
- Exercise 5: Windows host configuration formatting and mounting VLUNs
- Exercise 6: Online virtual volume increase
- Exercise 7: Working with default reports
- Exercise 8: Working with HPE LUNInfo for HPE Primera and HPE 3PAR
- Exercise 9: Working with hosts and storage using the CLI

Lab 4: Host, Volume and App Volume Sets

- Exercise 1: Working with host sets and virtual volume sets
 - Exercise 1-1: Working with host sets in SSMC
 - Exercise 1-2: Working with virtual volume sets in SSMC
 - Exercise 1-3: Export virtual volume sets to hosts sets in SSMC
 - Exercise 1-4: Unexport virtual volume sets from hosts sets in SSMC
 - Exercise 1-5: Delete virtual volume sets and hosts sets in SSMC
- Exercise 2: Working with app volume sets using SSMC
- Exercise 3: Working with host sets and volume sets using CLI

Lab 5: Using HPE InfoSight

- Exercise 1: Logging in and dashboard
 - Exercise 2: Access HPE InfoSight support
 - Exercise 3: Array overview
 - Exercise 4: Physical disk details
 - Exercise 5: Reports
 - Exercise 6: HPE InfoSight scenarios (optional)
 - Exercise 6-1: Health check
 - Exercise 6-2: Planning for growth
 - Exercise 6-3: Using HPE InfoSight to troubleshoot
-

Learn more at
hpe.com/ww/learnstorage

Follow us:

© Copyright 2023 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

All other third-party marks are property of their respective owners.