

H61M3S

HPE Storage Solutions, Rev. 22.11

The HPE Storage Solutions course teaches students how to identify, recommend, and explain HPE storage solution architectures and technologies. Students learn to translate business requirements into storage solution designs that support applications and data across physical, virtual, and cloud environments with a common architecture and converged management. The course also teaches how to design HPE backup solutions, including the right backup, recovery, and archive (BURA) strategies for various customer scenarios. The course uses participant-centered learning and HPE 3PAR and HPE Primera hands-on lab exercises.

Kursinhalt

- Course Overview and Introduction
- Technologies
- HPE Storage Products Overview
- Data Protection
- HPE StoreOnce
- HPE Tape Solutions
- Backup and Archiving Software Solutions—Part 1
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- Advanced Administering and Monitoring
- Staging an Effective Storage Consulting Engagement
- Planning and Designing HPE Storage Solutions
- Customer scenario
- Planning and Designing HPE Backup Solutions - Theory
- Planning and Designing HPE Backup Solutions - Practice
- HPE Storage and Backup Solutions

Zielgruppe

This course is for channel partners, customers, and HPE employees who interpret customer requirements to design, install, configure, and manage HPE storage and backup solutions. The candidate needs to demonstrate critical-thinking skills required to design, optimize, deploy, manage, and troubleshoot storage solutions.

Voraussetzungen

Learners need a working knowledge of HPE SAN infrastructure components, including servers, storage, networking, IT operations, software, security, and services.

Kursziel

This course helps candidates prepare for the ASE. HPE Storage Solutions exam HPE0-J68 and HPE0-J69 (delta exam).

Dieser Kurs im Web



Alle tagesaktuellen Informationen und Möglichkeiten zur Bestellung finden Sie unter dem folgenden Link: www.experteach.at/go/H63S

Vormerkung

Sie können auf unserer Website einen Platz kostenlos und unverbindlich für 7 Tage reservieren. Dies geht auch telefonisch unter 06074 4868-0.

Garantierte Kurstermine

Für Ihre Planungssicherheit bieten wir stets eine große Auswahl garantierter Kurstermine an.

Ihr Kurs maßgeschneidert

Diesen Kurs können wir für Ihr Projekt exakt an Ihre Anforderungen anpassen.

Training	Preise zzgl. MwSt.	
Termine in Österreich	5 Tage	€ 3.795,-
Online Training	5 Tage	€ 3.795,-
Termine auf Anfrage		

Stand 05.03.2024



Inhaltsverzeichnis

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Module 0: Course Overview and Introduction

- Describe the purpose and content of the HPE Storage Solutions course
- Discuss the exam preparation checklist

Technologies

- Customer scenario
- Disk drive technologies
- HPE storage tiers
- Interface types
- HPE hard drives and SSDs and associated technologies
- HPE SSD portfolio alignment
- Activity: NVME for solid state drives video
- Intel® Optane technology and memory-driven flash cache/storage class memory
- Activity: Storage Class Memory video
- Selective storage presentation
- Array virtualization
- Data reduction technologies
- Data tiering

Module 2: HPE Storage Products Overview

- Customer scenario
- HPE storage strategy and product positioning
- HPE MSA hardware, architecture and management
- Activity: HPE reference architecture for SAP HANA TDI using HPE MSA 2052 SAN storage
- HPE SimpliVity hardware, architecture and management
- HPE Nimble and HPE Alletra 6000 storage hardware, architecture and management
- Activity: Google Cloud's Anthos on HPE Nimble storage dHCI
- HPE 3PAR, HPE Primera and HPE Alletra 9000 storage hardware, architecture and management
- Activity: HPE Primera UI video
- HPE XP storage hardware, architecture and management
- HPE software-defined storage

Technologies

- Customer scenario
- SAN protocols
- Fibre channel
- Worldwide names
- FC-SAN topologies
- Switch identifiers and fibre channel addressing
- iSCSI theory and building blocks
- iSCSI name support and identifiers
- iSCSI target discovery and operations
- Activity: HPE Primera supported protocols and adapters
- FCoE/CEE overview and terminology
- Converged network adapters
- FCoE integrated with FC SAN fabric
- Lossless Ethernet
- FC, iSCSI, and FCoE summary
- FC routing
- ISL bandwidth aggregation
- Fibre channel services
- Fabric segmentation
- Hosts in FC-SAN context
- Activity: Smart SAN video
- HPE StoreFabric portfolio

Module 4: Data Protection

- Customer scenario
- Data protection introduction
- Data availability definitions and metrics
- Data security and protection theory
- Activity: HPE reference architecture for tiered backup solution for hybrid IT with Veeam
- Backup and restore theory
- What is ransomware?
- Activity: Counter Ransomware with HPE video
- Microsoft Volume Shadow Copy Service
- Local replication
- Minimize risk with a comprehensive end-to-end approach to data protection

Module 5: HPE StoreOnce

- Customer scenario
- HPE StoreOnce family, hardware, and architecture
- Target types
- HPE StoreOnce Catalyst integration partners
- HPE StoreOnce Catalyst ransomware protection benefit
- Deduplication
- Activity: HPE reference architecture for tiered backup solution for hybrid IT with Veeam
- HPE StoreOnce Gen 4 management
- HPE StoreOnce security
- HPE StoreOnce licensing

Module 6: HPE Tape Solutions

- Customer scenario
- Advantages and use cases of HPE StoreEver
- HPE StoreEver product portfolio
- HPE LTO Cartridges
- Activity: HPE StoreEver MSL6480 Tape Library
- HPE StoreEver features
- HPE StoreEver Tape Library management software

Module 7: Backup and Archiving Software Solutions—Part 1

- Customer scenario
- HPE Recovery Manager Central introduction and architecture
- HPE Recovery Manager Central operations
- HPE Recovery Manager Central integrations overview
- HPE Recovery Manager Central licensing
- Activity: An introduction to HPE Recovery Manager Central video
- Veeam backup and replication introduction and architecture
- Veeam backup and replication backup and restore
- Veeam backup and replication integrations overview
- Agent backup
- Backup copy
- Veeam recovery
- Verification and On-Demand Sandbox/DataLabs
- HPE and Veeam: Integrations summary
- Veeam licensing
- Activity: HPE reference architecture for tiered backup solution for hybrid IT with Veeam

Module 8: Backup and Archiving Software Solutions—Part 2

- Customer scenario
- Micro Focus Data Protector introduction and architecture
- Backup types
- Restore considerations
- Backup-to-disk device, HPE StoreOnce and deduplication integration concepts
- VSS integrations overview
- Commvault introduction and architecture
- Commvault integrations overview
- HPE complete program for Commvault
- Activity: IntelliSnap support matrix
- iTernity software-defined solution: iCAS and iCAS FS overview
- iCAS introduction and architecture
- iCAS FS introduction and architecture
- Features and functionalities summary
- Licensing
- Activity: iTernity and HPE video

Module 9: Advanced Administering and Monitoring

- Customer scenario
- Monitoring protocols and standards (SNMP, SMI-S, REST) review
- Storage management and monitoring
- HPE MSA SMU v3
- HPE Nimble and HPE Alletra 6000 WebUI
- Activity: HPE Nimble REST API Reference
- HPE Primera and HPE 3PAR management, monitoring and reporting
- Activity: SSMC Topology Insights video
- HPE Primera UI on-node management
- HPE 3PAR Service Processor Console
- HPE Alletra 9000 management, monitoring and reporting

- HPE Alletra 9000, HPE Primera and HPE 3PAR CLI
- HPE Data Services Cloud Console and its services
- HPE StoreOnce version 4 GUI
- SAN management and monitoring of B-/C-/M-Series
- Activity: SANnav Management Platform Overview video
- HPE InfoSight

Module 10: Staging an Effective Storage Consulting Engagement

- Customer scenario
- Goals of presales consultants and storage architects
- Updated positioning
- Measuring business financial value
- Activity: HPE TCO and ROI calculators
- Resources and tools
- Activity: HPE SAN Design Reference Guide
- HPE Assessment Foundry
- Activity: Assessment Foundry Invitation Process video
- What quality information provides
- HPE One Config Advanced
- HPE Services

Module 11: Planning and Designing HPE Storage Solutions • Customer scenario

- Planning and sizing HPE 3PAR/HPE Primera/HPE Alletra 9000
- Planning and sizing HPE Nimble/HPE Alletra 6000
- Data migration overview
- Activity: Peer Motion Support Matrix 2.3
- Planning and designing a SAN topology
- Activity: Core-edge fabric topology
- Performance aspects of SAN design
- Activity: Topology migration
- SAN availability
- HPE SAN Design Reference Guide—review
- Solution design and complexities
- Infrastructure documentation

Module 12: Planning and Designing HPE Backup Solutions - Theory

- Customer scenario
- Data protection planning
- Activity: HPE Storage Platforms for Your Enterprise video
- Ransomware protection
- Most common backup topologies

Module 13: Planning and Designing HPE Backup Solutions - Practice

- Customer scenario
- Using the HPE NinjaProtected+ sizing tool and working with the report
- Using the HPE Storage Sizer input files
- Using the HPE Data Domain Analyzer Sizing Tool
- Activity: Data Domain Assessment report
- Sizing an HPE StoreOnce solution
- Planning an HPE StoreOnce solution
- Activity: HPE StoreOnce Installation Planning and Preparation Guide
- Planning and deploying an HPE Recovery Manager Central solution

HPE Storage and Backup Solutions

- Customer scenario
- HPE 3PAR, HPE Primera and HPE Alletra 9000 data reduction optimization
- HPE 3PAR, HPE Primera and HPE Alletra 9000 initial configuration and upgrade best practices
- Activity: Adding a Node Pair in HPE Primera 600 video
- HPE 3PAR/HPE Primera/HPE Alletra 9000 rebalancing
- HPE 3PAR/HPE Primera/HPE Alletra 9000 software updates
- Activity: HPE Primera Customer Self-Update video
- HPE Nimble/HPE Alletra 6000 hardware scaling
- HPE Nimble/HPE Alletra 6000 storage OS upgrade
- Activity: Array Configuration Matrix
- HPE StoreOnce Backup system tuning and best practices
- Activity: HPE reference configuration for Veeam v.10 on HPE StoreOnce with Catalyst
- HPE StoreOnce Backup system software upgrade

