

Tytuł szkolenia: Managing HPE StoreOnce Backup Solutions

Kod szkolenia: HK766S

Wprowadzenie

Managing HPE StoreOnce Backup Solutions covers the HPE StoreOnce backup products, including single node appliances, clustered appliances, and the Virtual SAN Appliance (VSA). In this course, we discuss the range of products in the product line, and explain concepts, installation, and use. The course includes hands-on labs using HPE StoreOnce appliances. This course is updated to include the new, advanced features of the products.

Adresaci szkolenia

StoreOnce customers, HPE services field engineers, call center personnel, presales and channel partners, and other field personnel who provide installation and/or operational support assistance

Prerequisites

Before attending this course, students must have:

- Basic Windows administration experience
- Basic understanding of SCSI, iSCSI, RAID, fibre channel, backup, and SAN technologies

Cel szkolenia

After completing this course, students will be able to:

- Describe major hardware and software components of the StoreOnce product line
- Describe important StoreOnce product concepts
- Explain the importance and advantages of deduplication
- Configure StoreOnce devices for initial use
- Create Virtual Tape Libraries (VTL) and NAS shares
- Configure replication between two StoreOnce devices
- Configure Catalyst Stores
- Perform basic troubleshooting and maintenance procedures

Czas i forma szkolenia

- 14 godzin (2 dni x 7 godzin), w tym wykłady i warsztaty praktyczne.

Plan szkolenia

Module 0: Managing HPE StoreOnce Backup Solutions

- Course introduction
- Managing HPE StoreOnce Solutions class agenda

Module 1: Product Introduction

- StoreOnce backup systems
- New StoreOnce product features and benefits
- HPE StoreOnce family comparison - features in HPE StoreOnce models

Module 2: Installation

- Installing StoreOnce devices

- Available connections
- Network/iSCSI modes of operation
- Single port and dual port modes
- Fibre channel
- Initial configuration process
- StoreOnce Gen4 firmware

Module 3: Web Management Interface

- StoreOnce GUI
- StoreOnce GUI - left-hand menu
- StoreOnce GUI - federation dashboard
- StoreOnce GUI - system dashboard
- StoreOnce GUI - event log
- StoreOnce GUI - settings
- StoreOnce GUI - hardware
- StoreOnce GUI - settings - security

Module 4: Virtual Tape Libraries

- HPE StoreOnce (D2D) backup systems
- Choosing VTL vs. NAS
- Virtual Tape Libraries (VTL)
- iSCSI and fibre channel connections to VTL
- Flexible emulations

Module 5: Basic Catalyst

- HPE StoreOnce Catalyst overview and API
- ISV control of replication
- HPE StoreOnce Catalyst with Veeam
- HPE StoreOnce Catalyst with Commvault
- HPE StoreOnce Catalyst in Data Protector
- Deduplication options for low and high bandwidth transfers
- What is new in Catalyst?

Module 6: NAS Shares

- NAS shares and server configuration
- NAS share authentication
- StoreOnce NAS limitations

Module 7: HPE StoreOnce Deduplication

- Deduplication - what is it and key benefits?
- Deduplication - data locality and ratios
- Housekeeping

Module 8: Replication of VTL and NAS Shares and Catalyst Copy

- Definition and replication granularity
- Replication fan-out and fan-in
- Bi-directional replication
- Seeding the replication target
- Catalyst Copy
- Replication recovery
- Making replication targets visible to host
- NAS replication and 'seeding'
- VTL and NAS replication and configuration
- Low-bandwidth - multi-hop

Module 9: StoreOnce Reporting and Appliance Federation

- Reporting
- Device selection example
- Viewing reports
- Infosight
- Next generation StoreOnce - management federation

- Overlapping federation scenario
- Creating a federation
- Different federation topologies
- Recommended networking topology
- System dashboard
- StoreOnce High Availability Manager overview (version 4.2)

Module 10: Cloud Bank and Catalyst Advanced Features

- HPE StoreOnce Catalyst Cloud Bank and advanced features
- CloudBank use cases
- CloudBank configuration
- CloudBank disaster recovery
- StoreOnce Catalyst Copy over fibre channel
- Catalyst Copy over fibre channel - use cases

Module 11: Best Practices

- General best practices
- Flexible emulations best practices
- StoreOnce replication best practices
- NAS share best practices
- Physical tape offload methods
- Security
- Active Directory

Module 12: Troubleshooting and Remote Support

- Backup or disk space problems
- Capacity thresholds
- Remote support via STATS (RSvS)
- Tools and updates
- Configuration and software updates - improved processes
- StoreOnce Gen4 software upgrade
- REST API developer kit
- Reference documentation

Appendix A: StoreOnce Generation 3

- HPE StoreOnce portfolio - comparing Gen4 and Gen3
- StoreOnce emulation specifications
- HPE StoreOnce - web management GUI
- StoreOnce integrated graphical reporting
- Discuss StoreOnce B6000 operations
- StoreOnce B6000 terminology

Appendix B: Recovery Manager Central (RMC)

- What is Recovery Manager Central (RMC)?
- HPE StoreOnce Recovery Manager Central - key benefits
- Recovery Manager Central concepts and components
- RMC architecture
- Element Recovery (ERT) with StoreOnce data path
- RMC data protection deployment
- HPE 3PAR/StoreOnce storage integration
- What is new in RMC?

Appendix C: High Availability Manager

- High Availability Manager overview (version 4.2)
- HA Manager concept
- HA Manager limits
- Validation pre-checks
- Monitored status
- HA Manager Warranty Serial Number (WSN)
- HA Manager failover check

- HA VSA - failover triggers
- Logging for HA Manager

Lab 1: Configure an HPE StoreOnce Backup System with Storage and First-Time Configuration

Lab 2: Configure the StoreOnce Backup System

- License the StoreOnce appliance

Lab 3: Backup to a VTL on StoreOnce Using Veeam and NAS Using Windows Backup

- HPE StoreOnce configuration using the Management GUI
- Creating a NAS share

Lab 3a: Back up to a VTL on the StoreOnce Using Veeam

Lab 3b: Back up the files in Veeam

- Let's do more backups

Lab 4: Data Deduplication

Lab 5: Use the StoreOnce GUI to Create a Catalyst Store and add it to Veeam as a backup repository

- Introduction to HPE StoreOnce Catalyst
- Terminology
- Hands-on lab introduction
- Hands-on lab sequence
- HPE StoreOnce Catalyst licensing
- Add the Catalyst Store to Veeam and perform backups
- Create a backup job to back up data to a StoreOnce Catalyst store

Lab 6: Data Replication

- Overview
- Creating VTL and NAS shares on the target replication appliance
- Configure replication from your local StoreOnce appliance
- Virtual Tape Library (VTL) mapping
- Configure replication of all the files on the NAS share
- Testing the replication of NAS and VTL

Lab 7: Catalyst Copy within Veeam Lab 8: Reports and Federation

- Custom graphs
- Federation