Szkolenie: HPE
Managing HPE Alletra dHCI

Cel szkolenia:

This course covers the general concepts of Hyperconverged Infrastructure (HCI) and disaggregated Hyperconverged Infrastructure (dHCI), as well as HPE offerings from the HCI portfolio with focus on HPE Alletra dHCI using HPE Alletra 6000 or HPE Alletra 5000, or HPE Nimble Storage. Hands-on labs are used to reinforce selected content discussed in the lecture.

The course covers HPE Alletra dHCI features and theory of operation, including building blocks, available deployment options, and networking aspects. It also lists HPE Alletra dHCI management options, such as on-premises integration with VMware vSphere® client and HPE GreenLake cloud-based management. HPE InfoSight support for dHCI is covered as well.

In addition, the course discusses use cases and integration of HPE Alletra dHCI with VMware (vCenter® plug-in, vSphere® Virtual Volumes™(vVols), and vSphere Metro Storage Cluster with HPE Peer Persistence, plus VMware Site Recovery Manager™ (SRM) and VMware Cloud Foundation™) as well as integration with Kubernetes® (including overview, CSI driver, and architecture). The course then presents the Intelligent Upgrade process.

Course objectives

After completing this course, you should be able to:

- Understand the concepts of HCI and dHCI
- Describe HPE Alletra dHCI features and theory of operation
- List HPE Alletra dHCI building blocks, variants, and options, as well as solution installation
- Discuss networking of HPE Alletra dHCI
- Overview HPE Alletra dHCI management options
- List HPE Alletra dHCI main use cases and integrations
- Explain the HPE Alletra dHCI upgrade Process

Audience

This course is for anyone who manages the HPE Nimble Storage or HPE Alletra dHCI solutions.

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Plan szkolenia:

- (d)HCI Introduction
  - (d)HCI definition
  - Drivers for hyperconvergence
  - Drivers for converged adoption
  - dHCI advantages
  - HPE HCI offerings
- HPE Alletra dHCI Technical Introduction
  - Architectural principles
  - HPE ProLiant servers for private cloud
  - Traditional three-tier vs HPE Alletra dHCI deployment
  - Traditional HCI vs HPE Alletra dHCI efficiency
  - HPE Alletra dHCI architecture
  - HPE Alletra dHCI scalability
  - Non-dHCI hosts compatibility
  - HPE Alletra dHCI use cases
- HPE Alletra dHCI Solution Building Blocks
  - HPE Alletra dHCI platform building blocks
  - HPE Alletra dHCI: Greenfield and Brownfield deployment paths
  - Stack setup flow with Greenfield and Brownfield
  - HPE Alletra dHCI reference configurations
  - dHCI + HPE Services installation and startup service
- HPE GreenLake and (d)HCI
  - HPE GreenLake consumption on-premises concept
  - HPE GreenLake for HPE Alletra dHCI
  - HPE GreenLake for Private Cloud Business Edition
  - FAQ
- dHCI Networking Recommendations
  - Networking considerations
  - Selecting the right switch
  - Third-party switch support
  - Cabling topologies
  - The use of dHCI compute nodes’ ports
  - Cabling and networking examples
- Network Automation

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- Network automation overview
- Network automation flow
- Network automation supported network topology
- Stack setup with network automation

- VMware vSphere Distributed Switch Support
  - VMware vSphere Distributed Switch-Greenfield support
  - VMware vSphere Distributed Switch-Stack setup changes
- dHCI Stack Manager
  - dHCI Stack Manager
    - Home
    - Datastores
    - vVol VMs
    - Inventory
    - Inventory: network
    - Inventory: server
    - Adding compute
    - Inventory: storage
    - Events
    - Configuration checks
  - HPE InfoSight Welcome Center
  - dHCI applicable HPE InfoSight features
- HPE Alletra dHCI: Main Use Cases and Integrations
  - HPE Storage Integration Pack for VMware vCenter
  - VMware vVols
  - VM recycle bin
  - VMware vSphere Metro Storage Cluster with HPE Peer Persistence
  - VMware vCenter Site Recovery Manager
  - VMware Cloud Foundation
  - Containers and Kubernetes
  - Containers vs VMs
  - HPE CSI Driver for Kubernetes
  - Implementation using the native VMware vSphere CSI Driver
- Intelligent Upgrades
  - Upgrades and lifecycle management
  - dHCI Intelligent Upgrades
  - Intelligent Upgrades for full-stack automation

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- Software update catalog
- dHCI Intelligent Upgrades flow overview
- Catalog matching
- HPE Alletra dHCI upgrade process
- One-click upgrades in action
- dHCI Intelligent Upgrade example

- Additional Resources
  - Useful information
  - Lightboard
  - Video demos
- Appendix
  - Stack setup with network automation-Greenfield
  - Stack setup-Brownfield
  - VMware Cloud Foundation-HPE dHCI integration setup
- Lab 1: Initial Configuration
  - Task 1: Discovering and initializing the storage array
  - Task 2: Configuring the dHCI stack
- Lab 2: Managing the dHCI Environment from within vCenter
  - Task 1: Touring the HPE Storage vCenter plug-in
  - Task 2: Storage system information
  - Task 3: Configuration check
- Lab 3: Storage System Management from the Plug-in
- Lab 4: VMFS Datastores
  - Task 1: Creating a VMFS datastore
  - Task 2: Growing a VMFS datastore
  - Task 3: Snapshots and snapshot schedules
  - Task 4: Zero-copy clones
  - Task 5: Deleting VMFS Datastores
- Lab 5: HPE Alletra/HPE Alletra dHCI and VMware vVols
  - Task 1: Create a vVol datastore
  - Task 2: Create a VMware storage policy
  - Task 3: Create a vVol VM by using a storage policy
  - Task 4: vVol delete and restore from recycle bin
  - Task 5: Create manual snapshots for vVols from VMware
  - Task 6: Restore or create a clone from a snapshot
- Lab 6: One Button Upgrade (read-only lab, do not perform)

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- Overview
- Procedure

Wymagania:

Prior to taking this course, we recommend knowledge and experience with HPE Alletra 6000 or HPE Alletra 5000, or HPE Nimble Storage.

Poziom trudności

Certyfikaty:

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

Prowadzący:

Authorized HPE Trainer.

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