

HPE OneView Administration

Learn via: **Classroom**

Duration: **3 Gün**

<https://bilginc.com/tr/egitim/hpe-oneview-administration-2934-egitimi/>

Overview

This course equips participants with HP OneView skills for environment planning, installation, configuration and management of HP Converged Infrastructure (CI) components. Skills include: HP Converged Infrastructure provisioning, firmware management, configuration management, environment visualization, alerting and notification.

Prerequisites

HP recommends that students have attained the following credentials or levels of experience before taking this course:

- Introduction to HP ProLiant Servers (HE643s)
- HP BladeSystem Administration (HE646s)
- Recommended completion of HP Virtual Connect (HK758s)
- Recommended VMware ESXi or Microsoft Hyper-V general knowledge
- Familiarity with general networking terminology and basic network security concepts

Audience

Administrators, engineers, and consultants who will provision, administer and maintain data centers with HP ProLiant environment.

What You Will Learn

After completing this course, students should be able to describe or perform:

- Describe HP OneView positioning, resource model and licensing
- Install and configure HP OneView on supported hardware
- Explain HP OneView connectivity model, networking resources and templates
- Explain HP OneView 3PAR storage system management, resources, pools, volumes and templates
- Describe the process of adding enclosures with server blades or ProLiant DL servers to HP OneView
- Describe, configure and apply HP OneView Server Profiles
- Describe HP OneView maintenance tasks
- Describe basic HP OneView troubleshooting
- Describe HP OneView REST API calls and scripts
- Use Windows PowerShell library for HP OneView scripting

Outline

Module 1: HP OneView Overview

- Describe HP OneView and its positioning
- List what is new in HP OneView 1.10
- Describe the HP Insight Management to HP OneView transition
- Describe the HP OneView Resource model
- Describe HP OneView licensing
- List HP OneView URLs for reference documentation and more information

Module 2: HP OneView Installation

- Describe HP OneView Localization
- Describe the HP OneView Support Matrix
- List the HP OneView supported hardware
- List the HP OneView configuration limits

- Describe the HP OneView deployment on a VMware ESXi host
- Describe the HP OneView deployment on a Microsoft Hyper-V host
- List and describe the HP OneView deployment support issues
- Describe the HP OneView firmware repository for HP Service Pack for ProLiant (SPP)
- List HP OneView documentation deliverables

Module 3: Network Creation and Management

- Describe Connectivity Resource Manager
- Describe Networks
- Explain HP Virtual Connect Manager vs. HP OneView networks
- Describe Network Sets
- Configure the Active/Standby networking implementation and convert to Active/Active

Module 4: Storage Management

- Describe supported storage hardware
- Describe the Storage Resource Manager, Storage administrator role and use cases
- Add a SAN Manager and associated SAN fabrics
- Add and configure the Storage system and storage pools
- Create or add virtual Volumes and Volume templates
- Attach Volumes to the Server Profiles
- Understand basic storage diagnostics and alerts

Module 5: Connectivity Management

- Describe:
 - HP OneView Domains, Enclosure Groups, and Logical Interconnect
 - Groups
 - Logical Interconnects and Interconnects
 - The HP OneView Address and Identifier Service
- Explain importing an enclosure
- Explain the interconnect firmware update process in HP OneView

Module 6: HP OneView Server and Enclosure Management

- Describe these HP OneView resources:
 - Enclosure groups and Enclosures
 - Server Hardware Type and Server hardware
- Describe the process of adding enclosures and server blades to HP OneView
- Describe the process of adding HP ProLiant BL and DL servers to HP OneView
- Describe the refresh procedures
- Describe server licensing in HP OneView

Module 7: HP OneView Profile Management

- Describe HP OneView Server Profiles
- Describe HP OneView Server Profile Connections
- Describe HP OneView Server Profile Boot Order configuration
- Describe HP OneView Server Profile BIOS settings
- Describe HP OneView Server Profiles attaching to 3PAR Storage
- Describe how HP OneView server profiles can be created, copied, edited, and deleted

Module 8: Health and Environmental Monitoring

- Describe the server health monitoring in HP OneView
- Explain iLO4 status traps and polling
- Describe enclosure and server connectivity alerts
- Describe G7 server health monitoring with HP OneView
- Describe server and enclosure removal from management
- Describe the basic environment components

Module 9: HP OneView Maintenance and Troubleshooting

- Describe how to administer user accounts and roles in HP OneView
- Describe how to perform backup and restore of the HP OneView configuration
- Describe how to update/upgrade the HP OneView appliance
- Describe HP licensing and how to apply licenses to HP OneView
- Describe the basic monitoring and troubleshooting tools available in HP OneView
- Describe the process of creating and uploading the support dump files for HP OneView and Logical Interconnects
- Describe the process of resetting the Administrator password
- List the HP services available to support the HP OneView installation and integration

Module 10: HP OneView REST API Overview

- Describe the basic concepts of the REST API in HP OneView
- Understand the HP OneView API design goals, resources, and operations
- Describe how to use the cURL command line utility to access the HP OneView REST API functionalities
- Describe the web browsers REST API extensions for web programming development and debugging
- Describe the HP OneView REST API by means of a PowerShell wrapper (library with REST API functions)

Lab 0: Navigating the HPVL training environment

- Access the HP Virtual Lab (HPVL) environment, log in and identify the components in HPVL for course exercises
- Prepare your working CMS VM computer for the exercises
- Locate information and download support files from the HP website for your environment
- Exit the HPVL environment

Lab 1: Installing and configuring HP OneView

- Prepare the HP OneView image files for deployment
- Deploy the appliance on a VMware ESXi host
- Access the appliance using a web browser
- Perform first time setup of the HP OneView appliance

Lab 2: Configuring Networks

- Create Ethernet networks
- Create Fiber Channel networks
- Create Network Sets

Lab 3: Configuring Storage

- Access Brocade Network Advisor (BNA) and discover fabrics
- Add BNA as a supported SAN Manager to HP OneView
- Connect HP OneView with a 3PAR Storage System
- Create Fibre Channel networks associated with the managed SAN ports
- Create new Volumes and add existing Volumes from a 3PAR Storage System

Lab 4: Configuring Logical Interconnect Groups

- Create Logical Interconnect Groups in an Active/Standby networking configuration
- Create Logical Interconnect Groups in an Active/Active networking configuration

Lab 5: Managing Enclosures

- Create Enclosure Group
- Add Enclosure to the HP OneView management
- Examine imported Enclosure resources
- Upgrade infrastructure firmware

Lab 6: Managing Server Profiles

- Create the server profile templates
- Assign the server profiles to supported servers
- Move and copy server profiles between servers
- Add volume attachments from a 3PAR storage systems
- Create and add new networks to the existing HP OneView managed environment

Lab 7: Reconfiguring Logical Interconnect Group to Active/Active

- Reconfigure an existing Active/Standby network configuration to Active/Active
- Apply a new Active/Active configuration on imported Logical Interconnect
- Edit Server Profiles to use the Active/Active configuration and increased bandwidth

Lab 8: Health and Environmental Monitoring

- Understand the SNMP trap path to HP OneView Activity notifications
- Import the Intelligent Power Delivery Device information
- Specify Rack configuration and enclosure position when Location
- Discovery Services are not available
- Configure your Data Center layout, and monitor power and cooling data

Lab 9: Maintaining HP OneView

- Update the HP OneView appliance
- Create and administer local users of the HP OneView appliance
- Create a backup of the configured HP OneView appliance
- Enable or disable HP Services access
- Add Service Pack for ProLiant to the appliance firmware repository
- Work with the certificates

Lab 10: Troubleshooting HP OneView

- Search and download the MAC addresses table
- Download and review an audit log file
- Create, download, and unpack an HP OneView appliance Support Dump file
- Download a logical interconnect support dump file
- Reset the Administrator password
- Restore the appliance configuration by using a backup file

Lab 11: Accessing HP OneView by using REST API calls

- Understand REST API basic concepts and programming style
- Use a browser with development extension to handle REST API requests and responses
- Use cURL command line utility for REST API calls to access HP OneView server
- Use a browser with development extension to record the communication between HP OneView Graphical User Interface with the server

Lab 12: Managing HP OneView with PowerShell library for REST

API scripting

- Understand basics about the PowerShell library, made for REST API in HP OneView
- Access the HP OneView server by using PowerShell scripting environment
- Use PowerShell scripts to create Ethernet networks, Network Sets, and FC networks
- Use PowerShell scripts to create Logical Interconnect Groups, Uplink
- Sets and Enclosure Groups
- Remove the existing servers and Enclosures from the HP OneView management
- Add Enclosures by using PowerShell scripts
- Create and assign Server Profiles by using PowerShell scripts