

HPE Digital Learner Server Management Content Pack

HPE Content Pack number	CP002
Content Pack category	Category 1
Content Pack length	20 Hours
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This Content Pack provides information and skills related to implementing and managing HPE ProLiant, HPE BladeSystem, and Apollo servers using a suite of tools and utilities. From single server management, using embedded server management tools and iLO, to managing the data center using HPE OneView. Includes pointers to primary reference resources necessary to support HPE infrastructure.

Why HPE Education Services?

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Audience

This Content Pack is recommended for System administrators, engineers and consultants who will install, manage and monitor HPE ProLiant and HPE BladeSystem servers, as well as customers planning a move to Composable Infrastructure.

Content Pack components

This content pack consists of 6 courses, which are:

- HPE Server Solutions Overview
- HPE ProLiant Gen10 Embedded Server Management Overview
- Mastering HPE ProLiant Gen10 Embedded Server Management
- Getting Started with HPE iLO 5
- Mastering HPE iLO 5 for Remote Server Management
- HPE OneView Administration

Recommended learning

HPE recommends that students starting this Content Pack have general server industry experience and appreciate the need for infrastructure management.

Content Pack objectives

By the end of the course, you should be able to meet the following objectives:

- Explain the HPE server portfolio and primary reference resources necessary to support HPE infrastructure
- Identify and correctly position HPE ProLiant Gen10 embedded management tools
- Understand the function and proper use of iLO 5, UEFI ROM, agentless management, intelligent provisioning, active health systems viewer, SUM, SUT and SPP
- Develop the skills to connect to and configure iLO 5 and use it to monitor server health and locate logs for server events
- Have the knowledge to install HPE OneView appliance to manage and maintain firmware, implement compute and networking configurations, monitor the data center, and respond to issues

Detailed Content Pack outline

HPE Servers Solutions Overview

This self-paced course provides an overview of HPE servers and software tools. The course presents information on the primary HPE reference resources available for anyone responsible for supporting the use of HPE servers and server management tools, and then provides simulators that enable the student to interact with their primary features.

Outline

Module 1: Course Overview	<ul style="list-style-type: none"> • Overview of the HPE WBT GUI • Welcome to the HPE server solutions overview course 	<ul style="list-style-type: none"> • Learning checkpoint • Key takeaways
Module 2: HPE Reference Resources	<ul style="list-style-type: none"> • Welcome to the HPE reference resources module • Product-specific websites • HPE support center • CSR media library 	<ul style="list-style-type: none"> • HPE Enterprise Information Library • HPE quick reference mobile experience • Learning checkpoint • Key takeaways
Module 3: HPE Servers	<ul style="list-style-type: none"> • Welcome to the HPE servers module • HPE ProLiant Servers Overview of ProLiant Servers • Tower servers - ProLiant ML350 Gen10 • Rack servers - DL380 Gen10 server • Learning checkpoint • Key takeaways • Density Optimized Servers Overview of HPE density optimized Servers • Apollo 6000 Gen10 server • Learning checkpoint • Key takeaways 	<ul style="list-style-type: none"> • HPE Mission Critical Servers Overview of HPE Mission Critical Servers • HPE Superdome Flex • HPE SGI 8600 • Learning checkpoint • Key takeaways • HPE Converged Systems Overview of HPE Converged Systems • Synergy System • Learning checkpoint • Key takeaways
Module 4: HPE Server Management Tools	<ul style="list-style-type: none"> • Welcome to the server management tools module • IT infrastructure management tools Overview of IT infrastructure management tools • HPE OneView • HPE Insight remote support • Learning checkpoint • Key takeaways • HPE server embedded management tools Overview of HPE server embedded management tools • HPE Integrated Lights Out (iLO) • HPE Active Health System (AHS) • HPE Intelligent Provisioning • UEFI • Learning checkpoint • Key takeaways 	<ul style="list-style-type: none"> • HPE server management utilities overview of HPE server management utilities • RESTful Interface tool • HPE SUM (Smart Update Manager) • Service packs • HPE SUT (System Update Tool) • Learning checkpoint • Key takeaways • HPE HPC management tools Overview of HPE HPC management tools • Insight CMU (Cluster Management Utility) • SGI Management Suite • Learning checkpoint • Key takeaways

HPE ProLiant Gen10 Embedded Server Management Overview

This self-paced course introduces HPE ProLiant Gen10 Embedded Management tools and software. The course provides a high-level tour of each tool's theory of operations and unique functions and features. HPE embeds tools on the system ROM and iLO ASIC to allow customers to manage servers remotely. Management features include authentication and health monitoring, updating firmware and software, threshold settings and profiles for specific workload types.

Outline

Module 1: Overview	<ul style="list-style-type: none"> • Overview of the products 	
Module 2: Agentless Management	<ul style="list-style-type: none"> • Overview • Features • Comparison 	<ul style="list-style-type: none"> • Theory of operations • Key takeaways
Module 3: Active Health System Viewer	<ul style="list-style-type: none"> • Walkaround • Features & functions 	<ul style="list-style-type: none"> • Theory of operations • Key takeaways
Module 4: iLO	<ul style="list-style-type: none"> • Walkaround • Server Health Summary • Features & functions 	<ul style="list-style-type: none"> • Comparison to previous • Theory of operations • Licensing • Key takeaways
Module 5: iLO Amplifier Pack	<ul style="list-style-type: none"> • Features & functions 	
Module 6: Intelligent Provisioning	<ul style="list-style-type: none"> • Walkaround • Features & functions • Comparison to previous 	<ul style="list-style-type: none"> • Theory of operations • Key takeaways
Module 7: RESTful	<ul style="list-style-type: none"> • iLO RESTful API • RESTful Interface Tool 	<ul style="list-style-type: none"> • Key takeaways
Module 8: Smart Update	<ul style="list-style-type: none"> • Service Pack for ProLiant • Smart Update Manager 	<ul style="list-style-type: none"> • integrated Smart Update Tools
Module 9: UEFI	<ul style="list-style-type: none"> • Walkaround • Pop quiz • Features & functions 	<ul style="list-style-type: none"> • Comparison with previous • Theory of operations • Key takeaways
Module 10: Services & Warranty	<ul style="list-style-type: none"> • List of services 	

Mastering HPE ProLiant Gen10 Embedded Server Management

This self-paced course picks up from the HPE Gen10 ProLiant embedded management overview and takes a deeper dive into installation and configuration tasks, management and maintenance.

Outline

Module 1: What's New

Module 2: Install and Configuration

- About
- What's new for installation and startup
- Where to find products
- UEFI configuration
- iLO configuration
- Scripting tools
- Intelligent provisioning
- Key takeaways

Module 3: Software Management and Use

- About
- What's new for software management and use
- Tasks and products
- Monitoring
- Maintaining
- Performance and tuning
- Key takeaways

Module 4: Resources

- What's new
- Information library resources
- Activities

Getting Started with HPE iLO 5

This self-paced course covers the features and functions available in the newest generation of integrated Lights-Out (iLO 5) with HPE ProLiant Gen10 Servers. Students will tour the web browser interface and practice tasks to learn how to configure, maintain, and monitor their server.

Outline

Module 1: Tour of HPE iLO 5

- Introducing HPE iLO 5
- Reviewing the features of iLO 5
- Navigating around iLO 5
- Comparing the licenses
- Key takeaways

Module 2: Setting Up HPE iLO 5

- Reviewing the phases of setup
- Locating the iLO ports on your server
- Preparing to set up iLO
- Setting up iLO using the configuration utility
- Logging in to iLO the first time
- Setting up user roles
- Applying the license key
- Installing the iLO driver
- Key takeaways

Module 3: Securing the Server

- Reviewing iLO 5 security features
- Comparing licensed security features
- Exploring the meaning of Silicon Root of Trust
- Securely updating the server
- Key takeaways

Module 4: Using iLO 5 Every Day

- Using remote features
- Performing common tasks
- Updating the firmware
- Key takeaways

Module 5: Responding to System Events

- Troubleshooting workflow
- Recognizing issues
- Running diagnostics
- Viewing System Health Summary
- Downloading and viewing AHS logs
- Consult HPE Support Site
- Common issues
- Key takeaways

Module 6: Resources for More Information

- Links to documents in this site and more
- Links to activities provided in this course

Mastering HPE iLO 5 for Remote Server Management

This self-paced course picks up from Getting started with HPE iLO 5 for those who need to develop a deeper understanding of iLO 5 key features, including security, scripting tools, and iLO 5 Federation. You will examine and then practice advanced tasks to secure your server and work with multiple servers and users.

Outline		
Module 1: Review	<ul style="list-style-type: none"> Review quiz Assumption of iLO 5 setup 	<ul style="list-style-type: none"> Reviewing network configuration concepts Key takeaways
Module 2: Configuring iLO 5	<ul style="list-style-type: none"> Exploring advanced security concepts Configuring security - overview of tasks Understanding security access concepts Configuring access Setting user privileges, and passwords and access Configuring security modes and extended capabilities with licensed features Securing network communications Enabling the system maintenance switch Configuring hardware security features Verifying security Securely erasing data 	<ul style="list-style-type: none"> Configuring for platform management tools Overview of other tools for system management Configuring Agentless Management Service Enabling IPMI Configuring SNMP alerts Reviewing Onboard Administrator and OneView Configuring for Active Directory Configuring Kerberos Key takeaways
Module 3: Exploring Scripting Tools	<ul style="list-style-type: none"> Overview of the scripting tools Reviewing the iLO 5 RESTful API Using the RESTful Interface Tool 	<ul style="list-style-type: none"> Using ILOrest every day and scripting modes Using other scripting tools Key takeaways
Module 4: Keeping the Server Up to Date	<ul style="list-style-type: none"> Examining the content and use of SPP and SUM Performing common tasks Flashing firmware Setting up server for updates 	<ul style="list-style-type: none"> Troubleshooting failed updates Key takeaways
Module 5: Configuring and Using iLO 5 Federation	<ul style="list-style-type: none"> Understanding iLO 5 Federation concepts recognizing issues Before you set up iLO 5 Federation Reviewing the iLO Federation page 	<ul style="list-style-type: none"> Touring iLO Federation menu page Key takeaways
Module 6: Troubleshoot and Recover	<ul style="list-style-type: none"> Utilizing the iLO Service Port Recovering an iLO license 	<ul style="list-style-type: none"> Backing up and recovering iLO
Module 6: Resources for More Information	<ul style="list-style-type: none"> Links to documents for more information 	<ul style="list-style-type: none"> Links to activities provided in this course

HPE OneView Administration

HPE OneView is an integrated converged management platform that provides software-defined intelligence across the entire HPE family of infrastructure solutions, providing embedded management in HPE Synergy and delivering attributes of composability to HPE BladeSystem and ProLiant servers. This web-based course is essential training for system, network, and storage administrators using HPE OneView, and for system architects implementing HPE OneView in the data center.

Outline

Installing and Configuring HPE OneView

- Deploying the HPE OneView appliance
 - Administrative credentials
- Configuring initial HPE OneView settings
 - OneView tutorial
 - Time and locale
 - Uploading a firmware bundle
- Networking
- Web browser access
- EULA, HPE Support access

Using HPE OneView

- Creating networks
 - Ethernet
 - Network sets
 - FCoE
 - FC
- Configuring storage
 - Adding SAN managers
 - Adding storage systems and pools
 - Creating volume templates and volumes
- Creating Logical Interconnect Groups
 - Active/Standby and Active/Active configurations
- Single LIG and Multi-LIG templates
- Configuring Uplink Sets and Internal Networks
- Top of the rack logical switch integration
- Adding enclosures
 - Creating enclosure groups
 - Creating logical enclosure
 - Examining imported resources
 - Modifying LIG and updating LI from group
- Migrating from VCM to HPE OV

Working with Server Profiles and Managing Firmware

- Working with server profiles
 - Creating server profile template
 - Assigning server profiles
 - Moving server profiles
- Creating a server profile template from a server profile
- Modifying an existing configuration
- Managing firmware

Administering HPE OneView

- Creating users and groups
 - Creating users and assigning roles
 - Working with user groups
- Configuring racks and datacenter layouts
- Monitoring HPE OneView
 - Customizing dashboard
 - Creating reports
 - Configuring alerts
 - Creating backups
 - Adding devices in monitoring-only mode
 - Configuring power delivery devices
 - Working with certificates
 - Using HPE OneView Global Dashboard
- Enabling HPE remote support
- HPE OneView security
- HPE OneView licensing
- Troubleshooting HPE OneView
 - Accessing MAC address table
 - Accessing Audit log file
 - Creating support dumps
 - Console access
 - Restoring

Administering HPE OneView by means of REST API/PowerShell scripts

- Understand what the REST API is and what it is used for
- Access useful scripting tools and resources
- List basic operations you can perform via the REST API

Learn more at
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