

HPE BladeSystem Administration HE646S

This course provides instruction on HPE BladeSystem administration and management. Discussion of the portfolio overview ensures an understanding of components, configurations, and solutions.

HPE course number	HE646S
Course length	3 days
Delivery mode	ILT, vILT
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Audience

- System administrators, engineers and consultants who install, manage, and monitor the HPE BladeSystem c-Class environment

Prerequisites

- HPE recommends that students have attained the following credentials or level of experience before taking this course:
- Introduction to HPE ProLiant Servers(HE643S) or similar experience is recommended

Course Objectives

- Explore the functional architecture of the BladeSystem c-Class environment, including management infrastructure (Insight Display, Onboard Administrator), power and cooling and servers
- Review the BladeSystem c-Class Portfolio and equipment capabilities
- Introduce Virtual Connect (basic concepts)
- Identify high-level functionality of HPE ProLiant Generation 10 (Gen10) servers

Detailed Course Outline

Module 1: HPE BladeSystem portfolio introduction

- Identify resources for information about the current HPE c-Class BladeSystem portfolio
- Differentiate the two types of HPE BladeSystem enclosures
- Identify HPE Server Blades
- Discuss enclosure connectivity
- Discuss HPE Infrastructure Management and Services

Module 2: HPE BladeSystem c-Class enclosures

- Describe the HPE BladeSystem c-Class enclosures
- Describe the c-Class enclosure structure
- Explain c-Class enclosure signal midplane and power backplane
- Explain how to access the Onboard Administrator
- Define the enclosure numbering scheme

Module 3: HPE BladeSystem enclosure management

- List the initial steps involved in setting up the c7000 enclosure using the:
 - HPE Insight Display Initial Setup Wizard
 - HPE Onboard Administrator First Time Setup Wizard
- Describe the OA enclosure high availability
- Identify the OA configuration options
- Describe the OA command line interface

Module 4: HPE c-Class power and cooling

- Explain how to configure power for an HPE BladeSystem c-Class enclosure
- Explain how to control and view power consumption in a c-Class enclosure to configure its efficiency
- Explain c-Class Power Management
- Describe HPE Intelligent Location and Power Discovery services
- Describe the structural cooling components and features of c-Class enclosures

Module 5: HPE BladeSystem c-Class Blade servers

- Describe the HPE BladeSystem I/O technologies on the system board:
 - FlexibleLOM
 - Mezzanines
 - USB and SD cards
- Describe the features and components of: storage blades, tape blades, expansion blades
- Identify c-Class Integrity servers and their requirements
- Manage certain options of your server blades from the OA GUI
- Describe the server iLO interaction with the OA

Module 6: HPE BladeSystem c-Class connectivity options

- Describe the HPE BladeSystem c-Class interconnect module architecture
 - List the BladeSystem c-Class interconnect modules
 - Ethernet
 - Fiber Channel
 - InfiniBand
 - SAS
 - Describe the mezzanine cards and slots available in the BladeSystem c-Class server blades
 - Explain the enclosure signal pathing
 - Describe the port mapping for HPE BladeSystem enclosures
 - c7000
 - c3000
 - Explain the HPE Virtual Connect technology
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Module 7: HPE BladeSystem c-Class firmware

- Determine what firmware is embedded in various components in the enclosure and how to update it
- Explain how to access the SPP, SUM and supporting documentation
- Define the interdependencies and update best practices for HPE enclosure components
- Describe how to update the firmware for the HPE OA
- Explain how to use SUM for enclosure-based firmware management and software updates
- Explain how to update the firmware on HPE Blade servers
- Explain how to update the firmware on Integrity servers

Module 8: Configuring the enclosure using scripting

- Review the OA CLI access
- HPE iLO scripting via the Onboard Administrator (HPONCFG)
- Introduce PowerShell OA configuration commands
- Introduce PowerShell iLO configuration commands
- Discuss OA CLI scripting

Module 9: Course closing

- Closing the course
 - Learning objectives
 - Participant learning goals
 - Training from HPE Education Services
 - HPE Education Services
 - HPE Certification and learning program
 - Concepts
 - HE646 Course objectives review
 - Energizers
 - Conversations
 - Eye on blades blog: Trends in infrastructure
 - HPE BladeSystem for client virtualization
 - HPE Discover conference
 - Case studies
 - HPE server customer case studies
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Detailed lab guide

Lab 0: HPE Virtual Labs User Access Guide

Lab 1: Using the BladeSystem Insight Display

Lab 2: Using the Onboard Administrator GUI

Lab 3A: Using the Onboard Administrator CLI

Lab 3B: Using the PowerShell cmdlets

Lab 4A: Managing Power with the Onboard Administrator

Lab 4B: Using the HPE Power Advisor

Lab 5: Using HPE BladeSystem c-Class enclosure-based USB devices

Lab 6: HPE BladeSystem c-Class c7000 port mapping

Lab 7: Using the Service Pack for ProLiant

Appendix Lab A: Exploring HPE Virtual Connect Manager

Appendix Lab B: Using Enclosure Firmware Management

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