



Hewlett Packard Enterprise

Course Datasheet

HP BladeSystem Administration (HE646S)

Course length – 3 days

Delivery mode – Instructor Led Training (ILT)

Register – [Click here to go to HPE Learning Portal](#)

This 3-day course provides instruction on HP BladeSystem administration and management. Discussion of the portfolio overview ensures an understanding of components, configurations, and solutions.

Audience

- System administrators, engineers and consultants who install, manage, and monitor the HP BladeSystem c-Class environment.
- New HP BladeSystem customers or past customers who purchased Gen9 or earlier HP c-Class servers

Suggested prerequisites

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

- Introduction to HP ProLiant Servers (HE643S) or similar experience is recommended.

Learning objectives

After completing this course, the participant will be able to:

- 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)

Course outline

Module 1: HP BladeSystem Portfolio Introduction

- Identify resources for information about the current HP c-Class BladeSystem portfolio
- Differentiate the two types of HP BladeSystem enclosures
- Identify HP BladeSystem ProLiant servers
- Identify HP Integrity server blades
- Describe other components in the BladeSystem c-Class portfolio: adapters and mezzanines, interconnects, storage options
- Describe BladeSystem infrastructure management tools and solutions: HP OneView management appliance, HP Smart Update solution, HP Smart Update Manager, HP Service Pack for ProLiant, HP Insight Control, and HP Insight Online with Insight Remote Support
- Define the warranty and support options for HP BladeSystem solutions

Module 2: HP BladeSystem c-Class Enclosures

- Describe the BladeSystem c-Class enclosures
- Describe the c-Class enclosure structure

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- Explain c-Class enclosure signal pathing for mezzanines and interconnects
- Define the enclosure numbering scheme
- Explain how to access the HP Onboard Administrator

Module 3: HP BladeSystem c7000 enclosure and infrastructure configuration and management

- Describe the initial steps involved in setting up the c7000 enclosure using the: HP BladeSystem Insight Display and the Onboard Administrator First Time Setup Wizard
- Describe BladeSystem c-Class high availability features
- Describe the Onboard Administrator configuration options
- Describe configuration options with Onboard Administrator CLI

Module 4: HP BladeSystem Power and Cooling

- Explain how to configure power for a BladeSystem c-Class enclosure
- Explain how to control/view power consumption in a c-Class enclosure
- Describe HP Intelligent Location and Power Discovery services
- Describe the structural cooling components and features

Module 5: HP BladeSystem c-Class servers, storage, tape, and expansion blades

- Identify the distinctions between the currently shipping ProLiant servers
- Describe the technologies on the ProLiant system board:-Mezzanines-USB and SD cards-Embedded LOM and FlexibleLOM
- Identify c-Class Integrity servers and their requirements
- Describe the server iLO interaction with the OA
- Manage certain options of your server blades from the OA GUI
- Describe the features and components of: storage blades, tape blades, expansion blades

Module 6: HP BladeSystem c-Class Connectivity Options

- Describe the HP c-Class interconnect module architecture
- List the c-Class interconnect modules:-Ethernet-Fibre Channel-InfiniBand and SAS
- Describe the mezzanine cards and connectors available on the c-Class server blades
- Describe BladeSystem c7000 and c3000 enclosure port mapping

Module 7: HP Virtual Connect overview

- Define the benefits of HP BladeSystem solutions with HP Virtual Connect technology
- Describe Virtual Connect technology and its main components
- Identify ways to use Virtual Connect technology in a data center
- Describe the VC Flex technology
- Describe the VC FlexFabric Fibre Channel storage with 3PAR solution

Module 8: HP 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 HP SPP and supporting documentation
- Describe how to update firmware for the HP OA using Enclosure Firmware Management
- Explain how to implement HP BladeSystem c-Class enclosure firmware
- Explain how to update firmware embedded in the OA for a blade enclosure

Module 9: Course Close

- Closing
- Learning Objectives
- Participant Learning Goals
- Training from HP Education Services
- HP Education Services
- HP ExpertOne Certification
- Concepts
- HE646 Course Objectives
- Review:
- Energizers
- Conversations
- Eye on Blades Blog: Trends in Infrastructure
- HP BladeSystem for Client Virtualization
- HP Discover Conference
- Case Studies
- HP Server Customer Case Studies

Lab 0: Navigating the HPVL

Lab 1: Using the BladeSystem Insight Display

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Lab 2: Using the Onboard Administrator GUI

Lab 3: Using the Onboard Administrator CLI

Lab 4: Managing Power with the Onboard Administrator

Lab 5: Using HP BladeSystem c-Class port mapping-c7000

Lab 6: Using HP BladeSystem c-Class enclosure-based USB devices

Lab 7: Using the HP Service Pack for ProLiant

Lab 8: Using the HP Power Advisor

Appendix Lab A: Exploring HP Virtual Connect Manager

Appendix Lab B: Using Enclosure Firmware Management