HP Education Services Course Overview
HP BladeSystem Administration (HE646S)

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

Prerequisites
HP recommends that students have attained the following credentials or levels of experience before taking this course:
• Introduction to HP ProLiant Servers (HE6435) 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)

Benefits to you
• Gain the ability to perform successful site planning and infrastructure design needed to deploy an HP BladeSystem c-Class solution
• Understand the various management tools and tasks required in the solution
• Be able to perform effective local and remote administration using the Onboard Administrator

Why education services from HP?
• Comprehensive curriculum of job-specific training leading to vendor certification
• Unmatched technical expertise and support for HP products and technologies
• More than 30 years of Education Consulting
• Top 20 training provider and content development – www.TrainingIndustry.com

Next steps
• HP Virtual Connect (HK758S)
• HP Insight Control: Management Fundamentals (HK756S)
• HP Insight Control: Management Master (HK757S)

Course title: HP BladeSystem Administration
HP product number: HE646S
Category/Subcategory: ProLiant
Course length: 3 days
Level: Intermediate
Delivery language: Varies by country
To order: You can order this course online at http://www.hp.com/learn. At the site, select a country, then choose “registration” or “Book a course” and fill out the online registration form.

Why education services from HP?
• Flexibility to learn through a wide variety of delivery modalities: traditional ILT (Instructor-led), VILT (Virtual instructor-led), SPEL (Self paced e-learning), games and simulations.
• Global reach through 90 training centers in 45+ languages, with access to over 800+ experienced instructors.
• Named a 2014 IDC MarketScape leader* in IT education in Cloud, Security, Big Data, Storage, ITIL/ITSM, Project Management training, after being recognized in 2013 for being an IDC MarketScape leader in IT education overall
• Award winning Virtual classrooms (SmallBiz Windows Collaboration Product of the Year 2010) and Virtual Labs for a real hands-on experience
• Streamlined purchase and management of training with HP Care Pack Services for Education

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• HP Virtual Connect (HK758S)
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Detailed 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
- 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

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

For more information
To locate country contact information and to learn more about education services, please visit our worldwide web site at http://www.hp.com/learn.