



Architecting HPE Cloud Solutions

HL984S (00664389)

HPE course number	HL984S
Course length	3 days
Delivery mode	ILT
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The Architecting HPE Cloud Solutions course prepares the participant to navigate through the HPE CloudSystem solution offerings and identify, describe, position, and specify the correct solution based on identified customer needs. The Architecting HPE Cloud Solutions course prepares new candidates for the HPE ASE—Cloud Architect v2 certification. Students will also learn the technical consulting skills needed to deliver planning and design services.

Why HPE Education Services?

- IDC MarketScape leader 4 years running for IT education and training*
- Recognized by IDC for leading with global coverage, unmatched technical expertise, and targeted education consulting services*
- Key partnerships with industry leaders OpenStack®, VMware®, Linux®, Microsoft®, ITIL, PMI, CSA, and (ISC)²
- Complete continuum of training delivery options—self-paced eLearning, custom education consulting, traditional classroom, video on-demand instruction, live virtual instructor-led with hands-on lab, dedicated onsite training
- Simplified purchase option with HPE Training Credits

Audience

- An HPE employee, a channel partner, or a customer who needs to learn how to describe, position, recommend, select, and architect the HPE CloudSystem solutions. The candidate should have a thorough understanding of HPE Converged Infrastructure and its components, including HPE servers, storage, networking, power and cooling, software, security, and services

Prerequisites

Required prerequisite certification(s) include:

- HPE ATP—Cloud Administrator V1 certification

It is recommended that the candidate pursuing the HPE ASE—Cloud Architect V2 certification also attends:

- HL942S—HPE BladeSystem Networking

Certifications and related examinations:

- HPE ASE—Cloud Architect V2
- HPO-D17 (Architecting HPE Cloud Solutions)
- HPO-D23 (Architecting HPE Cloud Solutions—Delta)

Course objectives

After completing this course, you should be able to:

- Explain the Cloud computing fundamentals
- Describe the HPE Cloud Functional Reference Architecture
- Explain how to get to the cloud, using existing resources, new HPE solutions, and HPE and partner services
- Address typical concerns
- List and describe cloud-specific networking challenges and technologies addressing those challenges
- Identify guiding principles required to propose a solution based on customer needs, and plan, design, and size the solution
- Describe the HPE CloudSystem offerings, positioning, and components
- List and describe cloud resources available from HPE

Detailed course outline

Module 1: Cloud Fundamentals	<ul style="list-style-type: none"> • Explain key cloud concepts • Articulate current IT challenges and explain how cloud computing addresses customer needs • Explain the HPE Converged Cloud strategy • Relate HPE CloudSystem to the HPE Converged Infrastructure • List, describe, and position the HPE CloudSystem offerings and explain their capabilities • Explain the purpose of HPE Cloud Maps
Module 2: HPE Cloud Reference Architecture	<ul style="list-style-type: none"> • Describe the benefits of applying ITIL principles to an IT organization • Relate ITIL to the HPE Cloud Functional Reference Architecture • Describe the features and benefits of the HPE Converged Cloud architecture
Module 3: The HPE Journey to Cloud	<ul style="list-style-type: none"> • Explain how HPE can help customers get to the cloud (services and roadmap) • Explain customers' security concerns with cloud implementations and position HPE security products for cloud • Explain how to move to HPE CloudSystem while leveraging existing Converged Infrastructure components • Explain HPE cloud services • Describe HPE partner programs • Identify and demonstrate value of the solution (HPE Solution Demo Portal)
Module 4: Cloud Networking	<ul style="list-style-type: none"> • Explain cloud-specific networking challenges and considerations and best practices in designing networks for cloud • Define the components of HPE FlexFabric networks • Describe the features and benefits of the HPE Intelligent Resilient Framework • Describe the features and benefits of the HPE Intelligent Management Center • Describe the features and benefits of the HPE Secure Virtualization Framework
Module 5: Planning and Designing HPE CloudSystem Solutions	<ul style="list-style-type: none"> • Identify guiding principles required to propose a solution based on customer needs • Plan, design, and size the customer solution
Module 6: A Closer Look at the HPE CloudSystem Matrix	<ul style="list-style-type: none"> • Explain the architecture and identify the major components of the HPE CloudSystem Matrix • Define CloudSystem Matrix reference configurations • Describe the features and benefits of Matrix OE • Describe Matrix recovery management • Describe the features and benefits of CSA for Matrix • Describe the major components and functionality of Server Automation • Describe the main components and functionality of SiteScope • Explain how HPE CloudSystem integrates with third-party infrastructure
Module 7: A Closer Look at the HPE CloudSystem Enterprise	<ul style="list-style-type: none"> • Explain the architecture and identify the major components of HPE CloudSystem Enterprise • Identify and describe the main HPE Cloud Service Automation concepts and components • Describe the features of HPE Server Automation Enterprise Edition • Describe the features and benefits of HPE Network Automation • Outline the HPE CSA installation and configuration process
Module 8: A Closer Look at the HPE CloudSystem Service Provider	<ul style="list-style-type: none"> • Explain the architecture and identify the major components of HPE CloudSystem Service Provider • Identify and describe HPE Aggregation Platform for SaaS (AP4SaaS)
Module 9: HPE Cloud Resources	<ul style="list-style-type: none"> • Describe the HPE Solution Demo Portal • List and describe additional resources available from HPE for the cloud
Module 10: Strengths of HPE Cloud solutions	<ul style="list-style-type: none"> • Define the cloud market landscape • Explain the strengths of HPE Cloud solutions

Course data sheet

Lab 1: Creating a CloudSystem Proposal (used throughout the course)	<ul style="list-style-type: none">• Analyze customer requirements• Determine and present a high-level architectural diagram of a cloud solution that meets specific customer requirements and explain your choice• Create a detailed proposal of the architecture you have designed, explaining the cost versus benefits related to your choice
Lab 2: Understanding the Lab Environment	<ul style="list-style-type: none">• Understand the CMOD lab environment• Verify communication between Server Automation (SA) and HPE Infrastructure Orchestration (HPE IO)• Validate SA operating system sequences in the Matrix OE environment• Ensure that SiteScope monitors appear in HPE IO
Lab 3: Provisioning Red Hat® Server	<ul style="list-style-type: none">• Use the IO Designer to create a template• Configure Server, Network, and Storage definitions in the IO Designer• Use the IO Self Service portal to request a service• Approve a service request and monitor the progress of the service creation task• Check the E-Mail approval process• Monitor the provisioning task in VMware® vCenter™ and in Server Automation• Flex up Virtual Machine vCPU characteristics
Lab 4: Provision and Customize a Red Hat Web Server	<ul style="list-style-type: none">• Edit server properties• Add application software to the software deployment• Add workflows to a template for SiteScope monitors and Server Automation compliance and remediation• Validate the SA operating system sequence availability in the Matrix OE
Lab 5: Flexing Services with HPE SiteScope and HPE IO APIs	<ul style="list-style-type: none">• Flex up and down a service based on SiteScope alerts
Lab 6: CloudSystem Matrix Bursting and Template Customization	<ul style="list-style-type: none">• Set up the initial steps for CloudSystem Matrix to enable bursting to HPE Cloud Services• Modify the default currency settings for local billing
Lab 7: HPE Solution Demo Portal and CloudSystem Resources	<ul style="list-style-type: none">• Use the HPE Solution Demo Portal (SDP) as a learning or demonstration tool• Access the resource portals for HPE CloudSystem Matrix

Next steps

- Implementing HPE CloudSystem Matrix Solutions, Rev. 12.31 H4B96S (00477433)

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