

# The designing HPE Data Center and Cloud Solutions H1L32S (01045403)

This course prepares you to identify, describe, differentiate, design, and demonstrate HPE Helion and HPE Helion CloudSystem solutions based on identified customer needs, the associated ROI/TCO, and customer's current IT infrastructure maturity level. Upon its completion, you should be able to demonstrate a broad understanding of purpose, function, market positioning, competition, and capabilities of data center solutions based on HPE Helion. You will gain expertise in designing, managing, and deploying HPE CloudSystem Foundation and Enterprise via hands-on labs.

# Why HPE Education Services?

**HPE** course number

Course length

**Delivery modes** 

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• IDC MarketScape leader 4 years running for IT education and training\*

H1L32S

3 days

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- 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**

Typical candidates for this course are HPE employees, partners, and customers who need to learn how to describe, position, recommend, select, demonstrate, and design data center solutions, based on the HPE Helion solutions. The participant should have a thorough understanding of the individual HPE Helion CloudSystem components, including HPE servers, storage, networking, power, and cooling, IT operations, software, security, and services.

# **Prerequisites**

For specific prerequisites and requirements to achieve any of the related certifications, see the certification description on the

HPE Partner Ready Certification and Learning website

# **Course objectives**

 Have a successful conversation with a customer about infrastructure convergence, cloud, HPE Helion, and

- the reasons for moving toward a service-centric, cloud-enabled environment.
- Describe OpenStack technologies and explain how HPE is involved with OpenStack and how it contributes to OpenStack projects.
- Explain how HPE reference architectures help simplify the complexities of building the next-generation data centers.
- Articulate the business value of HPE Helion and describe the common HPE Helion and HPE Helion CloudSystem 9 Foundation and Enterprise architecture.
- Match HPE solutions to customer requirements for moving forward to cloud solutions.
- Use HPE tools to assess a customer's initial state of the IT environment, determine the desired state, and plan the journey to get there.
- Help a customer plan and design the right HPE Converged Infrastructure and cloud solution.

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- Manage a private cloud infrastructure by using HPE CloudSystem Operations Console (OpsConsole).
- Create provider and tenant networks.
- Check available resources by using an OpenStack (Horizon) portal.
- Create, manage, and publish compute, network, and storage services for users to deploy.
- Explore and manage the HPE Helion CloudSystem Enterprise Marketplace Portal (MPP).

## **Detailed course outline**

Module 1: Review of the Navigating the Journey to cloud course	Describe and explain the topics that were covered by the Navigating the Journey to the cloud course.
	<ul> <li>Answer a series of questions to move forward to the next module, or review foundational cloud and HPE Helion.</li> </ul>
Module 2: A closer look at HPE Helion OpenStack— Describe OpenStack and its core technologies	Use OpenStack terminology correctly.
	Draw and discuss the OpenStack conceptual and functional architecture.
	Explain how HPE is involved with OpenStack and how it contributes to OpenStack projects.
	Recognize the main components and benefits of the HPE Helion platform.
	Explain how HPE Helion Rack provides value for customers.
Module 3: A closer look at CloudSystem Foundation—Architecture and installation	Describe HPE Helion CloudSystem.
	List components of the architecture.
	• Explain networking in CloudSystem 9.0.
	Identify best practices to ensure security in the CloudSystem environment.
	Outline the steps for installing CloudSystem 9.0.
Module 4: A closer look at CloudSystem Foundation—Management and administration	Explain how to manage the HPE Helion CloudSystem Foundation appliances.
	Describe the process of launching your first VM instance.
	Identify different ways to monitor resource usage, allocation, and health.
Module 5: A closer look at CloudSystem Enterprise	Describe the HPE Helion CloudSystem Enterprise architecture and components.
	Provide an overview of the installation, configuration, and management of HPE Helion CloudSystem Enterprise.
	Recognize how HPE Helion CloudSystem Enterprise integrates with HPE OneView and HPE Helion CloudSystem Matrix.
	Demonstrate the flow of service provisioning in HPE Helion CloudSystem Enterprise.
Module 6: Customer engagement tools	Discuss what buyers consider when making IT purchasing decisions.
	Describe HPE maturity models and assessment tools, including the Converged Infrastructure Capability Model.
	Outline HPE tools that can assist in your customer engagements.
Module 7: Competitive strengths of Converged Infrastructure and cloud solutions	Review the factors that are causing enterprises to move toward a hybrid infrastructure and on-demand IT.
	Discuss how HPE Helion solutions fit into the competitive cloud landscape for private and hybrid clouds.
	Summarize the strengths of HPE Helion solutions.
Module 8: Planning and designing customer solutions	Specify the four steps of the solution proposal preparation process.
	Describe the pre-deployment and installation planning process considerations.
	Explain how to access Hewlett Packard Enterprise support.

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