

HPE Digital Learner Designing Hybrid IT Solutions Content Pack

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| HPE course number | CP048 |
| Content Pack length | 40 Hours |
| Content Pack Category | Self-paced |
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Why HPE Education Services?

- IDC MarketScape leader 5 years running for IT education and training*
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- Simplified purchase option with HPE Training Credits

The Designing HPE Hybrid IT Solutions Self-Paced Training 19.21 course teaches the intermediate skills to plan, design, recommend, and demonstrate HPE Hybrid IT solutions and deliver a proof-of-concept for a given solution to a customer. The course includes lectures and activities in the ratio of approximately 25/75 (lecture/activities). Activities include sizing exercises using tools available from sources such as the HPE Partner Portal and exercises using HPE emulators. The course covers the same content found in the instructor-led course. H9TJ5S: Designing HPE Hybrid IT Solutions Rev. 19.21 (01122327).

Audience

The ideal candidate typically has a minimum of three years of design and/or operational experience or the equivalent in at least one of the core HPE areas (server, storage, networking), and six months design and/or operational experience in other HPE solutions and technologies.

Prerequisites

HPE ATP—Hybrid IT Solutions V1, or the H6LJ6S: Building HPE Hybrid IT Solutions, Rev. 18.41 (01120590) course

Requirements

An HPE Passport account with access to the HPE Partner Ready Portal and HPE One Config Advanced is required to perform a number of the activities in this course

Content Pack objectives

Upon successful completion of this course, you should be able to:

- Describe, differentiate and apply industry standard architectures and technologies
- Gather and analyze customer business and technical requirements
- Recommend and position HPE Hybrid IT products, solutions, tools, and appropriate services for customer use cases
- Architect and design an HPE solution based on customer needs
- Present and demonstrate the solution to the customer and coordinate implementation planning

Certifications and related examinations

This course prepares the learner for the HPE ASE—Hybrid IT Solutions Architect V1 certification and is recommended preparation for the HPE0-S57 exam.

*Realize Technology Value with Training, IDC Infographic 2037, Sponsored by HPE, October 2017

Detailed course outline

Module 1: Introduction to a Hybrid World

- An introduction to reference architectures and reference configurations
- Activity: Synergy and 3PAR Reference Architectures
- HPE overview
- HPE Hybrid IT
- Activity: Navigating the Hybrid IT portfolio at the HPE website

Module 2: Architecting and Designing Hybrid IT Solutions

- Assessing the customer's requirements and environment
 - HPE Storage Sizer
- Selecting the HPE platform
 - HPE OneConfig Advanced
 - HPE 3PAR NinjaSTARS
- HPE tools for selecting solution components, including demos of
 - HPE Switch Selector
 - SSD Storage Selector
- Developing the proposal
- Solution installation, configuration, and setup
- Activity: Lab exercise (emulator)—Monitoring storage with HPE InfoSight

Module 3: Recommending Hybrid IT Compute Solutions for Customer Use Cases

- HPE has it all
- Customer scenario 1: Microsoft Exchange Server 2016 on HPE ProLiant DL380 Gen10 Server
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - Reference Architecture
 - Exchange 2016 Preferred Architecture
 - Exchange Server Role Requirements Calculator
 - Ask the Perf Guy—Sizing Exchange 2016 Deployments
 - HPE Reference Architecture for Microsoft SQL Server 2017 on Red Hat Enterprise Linux with HPE ProLiant DL560 Gen10
 - The Exchange 2016 Preferred Architecture
 - ProLiant DL560 Gen10 Server QuickSpecs
 - Workload-based Performance and Tuning Guide for Gen10 servers and HPE Synergy
 - Operating System Support Matrix
- Building blocks of the solution
- Security in HPE servers
- Management tools, including activities
 - Activity: ProLiant server management technologies
 - Activity: Preboot environment
 - Demo: UEFI System Utilities and UEFI Shell
 - Activity: Performing basic shell operations in UEFI
- HPE rack and power, including activities
 - Activity: HPE Reference Architecture for Microsoft Exchange Server 2016 on HPE ProLiant DL380 Gen10 Server
 - HPE Sizer for Exchange Server 2016
- Alternative servers for smaller environments
- Customer scenario 2: HPE Reference Architecture for Microsoft SQL Server 2017 on Red Hat Enterprise Linux with HPE ProLiant DL560 Gen10
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - Activity: HPE Reference Architecture for Microsoft SQL Server 2017 on Red Hat Enterprise Linux with HPE ProLiant DL560 Gen10
- Alternative servers for smaller environments
- Activity: Lab exercise (emulator)—Configuring ProLiant Gen10 and iLO 5 security
- Building blocks of the solution
- Processors in HPE servers
- Memory for HPE servers, including activities
 - Activity: HPE Persistent Memory
 - Demo: Memory configurator
- Management tools, including activities
 - Activity: Full control over all user interfaces [iLO5]
 - Demo: Intelligent Provisioning
 - Demo: Smart Storage Administrator

Module 4: Recommending HPE Data Center Networking Solutions for Customer Use Cases

- Customer scenario 3: Optimize data center networking with Cloud-First approach
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Cloud-First Reference Architecture Guide—2000 servers
 - HPE FlexFabric 12900E QuickSpecs
 - HPE FlexFabric 5940 QuickSpecs
- Building blocks of the solution
 - Networking technologies and architectures
 - Management tools, including activities
 - Activity: HPE Cloud-First Reference Architecture Guide—2000 Servers
 - Alternative components for smaller environments
 - Activity: Lab exercise (emulator)—Configuring HPE networking
 - Activity: Lab exercise (emulator)—Working with HPE Composable Fabric (Plexxi)

Module 5: Recommending Hybrid IT Storage Solutions for Customer Use Cases

- Customer scenario 4: Red Hat OpenShift on HPE Synergy and HPE Nimble Storage
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Reference Configuration for Red Hat OpenShift on HPE Synergy and HPE Nimble Storage
 - HPE Deployment Guide for Red Hat OpenShift Container Platform on HPE Synergy with HPE Nimble Storage
- Building blocks of the solution
 - HPE Nimble Storage
 - HPE FlexFabric
 - Storage technologies
- Management tools, including activities
 - Activity: HPE Reference Configuration for Red Hat OpenShift on HPE Synergy
 - RHEL OpenShift Container Platform: Sizing Considerations

Module 6: Recommending HPE Software-Defined and Cloud Solutions for Customer Use Cases

- Customer scenario 6: Red Hat OpenShift on HPE Synergy and HPE Nimble Storage
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Reference Configuration for Red Hat OpenShift on HPE Synergy and HPE Nimble Storage
 - HPE Deployment Guide for Red Hat OpenShift Container Platform on HPE Synergy with HPE Nimble Storage
 - RHEL OpenShift Container Platform: Sizing Considerations
 - Building blocks of the solution
 - HPE Synergy
 - Management tools, including activities
 - Activity: HPE Reference Configuration for Red Hat OpenShift on HPE Synergy and HPE Nimble Storage
 - Alternative components for different environments
 - Customer scenario 7: HPE ProLiant for Microsoft Azure Stack data protection with Veritas NetBackup, HPE StoreOnce, and Cloud Bank Storage
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Reference Architecture on VMware Cloud Foundation on HPE
- Synergy Reference Architecture
- Software-defined infrastructure
- Building blocks of the solution
 - HPE Synergy
- HPE networking
- Management tools
 - HPE RESTful API and PowerShell cmdlets, including activities
 - Activity: HPE Reference Architecture for VMware Cloud Foundation on HPE Synergy
 - Activity: Lab exercise (emulator)—Configuring composable infrastructure
 - Activity: Lab exercise (emulator)—Managing server, networking, and storage datacenter components with HPE OneView
 - Activity: Lab exercise (emulator)—Using HPE OneView Global Dashboard
 - Activity: Lab exercise (emulator)—Using PowerShell cmdlets to manage data center infrastructure
 - Activity: Lab exercise (emulator)—Using REST API for automation and integration

Module 7: Recommending Hybrid IT Hyperconverged Solutions for Customer Use Cases

- Customer scenario 8: VMware Horizon on HPE SimpliVity 380 Gen10
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Reference Architecture for VMware Horizon on HPE SimpliVity 380 Gen10
 - HPE SimpliVity 380 Gen10 QuickSpecs
 - HPE SimpliVity 2600 Gen10 QuickSpecs)
 - Activity: HPE SimpliVity efficiency
 - Industry standard architectures and drivers
 - Building blocks of the solution
 - Management tools, including activities
 - Activity: HPE Reference Architecture for VMware Horizon on HPE SimpliVity 380 Gen10
 - Alternative servers for other environments
 - Data virtualization platform
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Module 8: Recommending HPE Density and Mission Critical Solutions for Customer Use Cases

- Customer Scenario 9: Artificial Intelligence on HPE Elastic Platform for Analytics
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Reference Architecture for AI on HPE Elastic Platform for Analytics (EPA) with TensorFlow and Spark
 - HPE Reference Configuration for Elastic Platform for Analytics (EPA)
 - HPE EPA Sizing Tool
- Building blocks of the solution
- High performance computing
- Big data
- HPE services
- Management tools, including activities
 - Activity: HPE Sizer for the Elastic Platform for Analytics
- Alternative servers for different environments
- Customer scenario 10: HPE Reference Architecture for Oracle 18c OLTP and OLAP workloads on HPE Superdome Flex and HPE 3PAR Storage Reference Architecture
 - Introducing the customer and customer requirements
 - Activity: Information resources
 - HPE Reference Architecture for Oracle 18c OLTP and OLAP workloads on HPE Superdome Flex and HPE 3PAR Storage
 - HPE Superdome Flex Quickspecs,
 - HPE Superdome Flex server architecture and RAS
- Building blocks of the solution
- Management tools, including activities
 - Activity: Design Superdome Flex solution
- Activity: Lab exercise (emulator)—Working with HPE Superdome Flex

Module 9: Validating and Presenting the Solution

- Customer scenario: Configuring infrastructure for virtualization
 - Activity: Configuring infrastructure for virtualization and presenting recommended solution
 - Introducing the customer and customer requirements
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