Purpose of the Exam Preparation Guide

The intent of this guide is to set expectations about the content and the context of the exam and to help candidates prepare for the exam. In this guide, you will find recommended HP training courses, reference and study material, and sample test items to help you achieve a passing score.

Studies conducted by HP and Prometric show that a combination of course attendance and self-study maximizes the likelihood of passing the exam on the first attempt.

Audience

This exam is for system engineers or technicians who require an in-depth understanding of the technologies deployed in HP ProLiant servers and computer professionals pursuing an HP Accredited Integration Specialist (AIS) certification.

Certification requirements

This exam, Implementing HP ProLiant servers, HP0-645 is one of the core requirements to be certified as an HP Accredited Integration Specialist (AIS).

This level of certification measures the competencies required for hands-on planning and the integration and support of technical solutions in business-class, networked environments. Given a set of customer business requirements, this individual is expected to be able to design, support, and integrate platform, operating system, storage, network, and option components to solve business needs. The ideal candidate is anyone who deploys business-class solutions based on HP technologies.

Prerequisites

HP strongly recommends that students taking this course have the following credentials. The instructor will deliver this course under the assumption that students have attained this level of experience.

- HP Press AIS Study Guide
- One year of experience configuring and installing server products
Exam details

At the beginning of the exam, you will be asked to answer several survey questions. The survey has been designed to help the exam development team define the final exam forms and set the passing score. Your honest responses will assist the exam team in properly tailoring this exam to the appropriate audience.

Details about the exam include:

- Number of items: 78
- Item types: Multiple choice, Drag and Drop, Click the Exhibit Button, and Hot Spot
- Time commitment: 105 minutes
- Passing Score: 73%
- Reference material: No online or hardcopy reference material will be allowed at the testing site.

Comments on the exam

During the exam, participants are encouraged to make specific comments about the items on the exam (please include comments about accuracy and appropriateness of these items to the audience). HP welcomes these comments as part of its continuous improvement process.

Exam content

The following testing objectives represent the specific areas of content covered in the exam. Use this outline to guide your study and to check your readiness for the exam. The exam measures your understanding of these areas.

Implementing HP ProLiant servers (HP0-645) Exam Content

1.0 Explain and recognize fundamental architectures and technologies related to HP Industry-standard servers

1.1 Explain and recognize processor technologies
1.2 Explain and recognize memory technologies
1.3 Explain and recognize I/O bus technologies
1.4 Explain and recognize storage technologies
1.5 Explain network technologies
1.6 Explain and recognize system architectures
1.7 Explain and recognize power/thermal and hardware management technologies
1.8 Explain availability and cluster technologies
1.9 Describe the partner products and how to categorize them
1.10 Explain operating system architectures
1.11 Classify and describe server applications and their profiles
1.12 Explain mission-critical concepts and environmental requirements
1.13 Explain systems management fundamentals and technologies
1.14 Explain and recognize Fibre Channel technologies

2.0 Recognize and describe HP industry-standard server products

3.0 Perform the planning and design necessary to achieve a deployable solution
   3.1 Gather data
   3.2 Use HP configuration tools to validate the design
   3.3 Design the correct customer server solution
   3.4 Write a scope of work
   3.5 Obtain customer buy-off
   3.6 Gather necessary tools and resources
   3.7 Perform a proof of concept

4.0 Install, configure, set up, and upgrade systems and options
   4.1 Install and configure storage
   4.2 Identify StorageWorks key differentiators
   4.3 Summarize the ENSA features and components to support the StorageWorks concept of storage as a utility
   4.4 Install and configure hardware
   4.5 Install the operating system by using SmartStart
   4.6 Install and configure the management agents
   4.7 Configure the operating system networking services
   4.8 Configure fault-tolerant options
   4.9 Install the operating system by using a multi-server deployment tool
   4.10 Explain, install, and configure clustering
   4.11 Describe rack and power/infrastructure options
   4.12 Validate and test the system and storage installations
   4.13 Use the Survey Utility to document the solution

5.0 Performance-tune and optimize a solution

6.0 Perform troubleshooting of server and storage problems
6.1 Describe and apply the six-step methodology
6.2 Collect data using system and storage tools
6.3 Evaluate data to determine the problem
6.4 Develop an optimized action plan
6.5 Execute the plan
6.6 Test to determine if the problem is solved
6.7 Repeat the process
6.8 Implement preventative measures, taking necessary steps to ensure the problem is not reoccurring
6.9 Use fault management
6.10 Use tools to isolate the fault
6.11 Develop an action plan
6.12 Execute the action plan and test to determine if the problem is solved
6.13 Implement preventative measures
6.14 Identify and describe HP service capabilities
6.15 Install service delivery tools
6.16 Use service delivery tools

7.0 Use HP management and serviceability tools and resources
7.1 Identify the performance management process
7.2 Use performance management tools
7.3 Record baseline measurements
7.4 Resolve performance bottlenecks
7.5 Document changes, results, and recommendations
7.6 Perform volume management
7.7 Identify common performance issues
7.8 Set performance thresholds

8.0 Perform administrative and operational tasks
8.1 Install and configure the VCRM and VCA
8.2 Use change/configuration management tools
8.3 Perform system upgrades
8.4 Explain security requirements
8.5 Perform security administration
8.6 Resolve a virus problem
8.7 Perform backups

9.0 Explain the industry-standard systems marketplace and competitive positioning
9.1 Identify and describe HP service capabilities
9.2 Install service delivery tools
9.3 Use service delivery tools such as Support CDs, Onsite Agent’s Reference Set (OARS), and HP PartSurfer

Recommended Training and Study References

This section lists training courses and documents that can help you acquire a majority of the knowledge and skills needed to pass the exam. You must also gain the practical experience outlined in this guide.

You are not required to take the courses listed in this section. However, HP strongly recommends that you attend the classes, participate in class labs, and thoroughly review all course material and documents before taking the exam, even if you believe you have sufficient on-the-job experience.

- HP Press AIS Study Guide
Sample test items

The following sample test items give you a preview of what the actual test items will look like. These items will not be on the exam itself. However, they are representative of the actual items, and they should help you become familiar with the format and complexity of the test items. These sample test items are not a check for readiness.

1. What is the function of the ALU in a microprocessor?
   A. It decodes instructions.
   B. It is used to address local units.
   C. It assists in the fetching of instructions.
   D. It performs basic mathematical operations.

2. Which processors support the EPIC architecture? Select TWO.
   A. Alpha  
   B. Itanium  
   C. ItaniumII  
   D. Pentium III  
   E. PowerPC

3. When connecting devices to a Universal Power Supply (UPS), all the following devices are recommended for connectivity except _______.
   A. Industry-standard servers  
   B. Laser printers  
   C. Managed switches  
   D. Server console switches (keyboard, mouse, and video console)

4. You are trying to prove that by using best practices your company can afford a new server for the head of IT. What business value tool should you use first?
   A. Microsoft Rapid Justification Framework  
   B. Yourdon Methodologies ROI flowchart  
   C. HP TCO Snapshot Assessment  
   D. ActiveAnswers Cost/Benefit Analysis Tools
5. You are upgrading an HP ProLiant server with hot-plug mirrored memory. How should you configure the memory?
   A. Using RBSU
   B. Using ORCA
   C. Using switch settings on the memory boards
   D. Using switch settings on the system board

6. What is HP ENSA extended?
   A. A protocol for extending the SAN
   B. Network-based virtualization of enterprise storage
   C. The ANSI FC-AL extended standards
   D. Extended storage subsystems and controllers

7. Which storage device category must be terminated manually during installation of a ProLiant server?
   A. USB
   B. SCSI
   C. ATAP
   D. ATA/IDE
   E. IEEE 1394

8. A customer using SmartStart 5.xx wants to install Red Hat Linux 8.0 on an HP ProLiant ML330 G1 server. Which installation path must the customer choose?
   A. Remote installation
   B. Manual installation
   C. Replicated installation
   D. Assisted installation

9. You would like to optimize the consolidation of multiple applications onto one SMP server. Which ProLiant Essentials Foundation Pack should you use?
   A. Performance Management Pack
   B. Workload Management Pack
   C. Recovery Server Option Pack
   D. Rapid Deployment Pack
   E. Integrated Lights-Out Advanced Pack
10. Which products integrate with HP Insight Manager? Select THREE.
   A. Tivoli TME
   B. HP OpenView
   C. CiscoWorks
   D. CA Unicenter
   E. Dell Assistant
   F. Microsoft MOM

11. You recommend that your customer use the Survey Utility to initiate the collection of data following each restart. Which options should the customer use to initiate the data collection? Select TWO.
   A. User-initiated
   B. Periodic capture
   C. Scheduled intervals
   D. Object intervals
   E. Data capture

12. What are the key advantages of a Survey Utility file compared to an Inspect utility file? Select THREE.
   A. Online data gathering
   B. Collection of firmware information
   C. Collection of software driver information
   D. Historical and audit trail reporting
   E. Storage on the system partition

13. A disk array consists of four identical drives in a RAID 0 configuration. What is the recommended average disk queue length for this disk array?
   A. One
   B. Two
   C. Four
   D. Eight
   E. Sixteen
14. Which Windows monitoring tool enables you to view hardware resources consumed by installed hardware components?
   A. Device Manager
   B. Event Viewer
   C. System Monitor
   D. Task Manager

15. When installing your Windows server, you installed the Insight Management Agents with SmartStart. You decide that you do not need to monitor the NIC subsystem. What method can you use to disable the NIC agents?
   A. Edit the Insight.reg file
   B. Edit the agentset.txt file
   C. Run the Insight Agents setup file
   D. Use the HP Management Agents applet

16. You selected the Trust by Name option during the Version Control Repository Manager (VCRM) installation. However, you inadvertently clicked Finish before adding names. How will this affect the security level of the VCRM?
   A. You will not be able to access the VCRM because the trust mode is in an unstable state.
   B. The device will not trust any other Insight Manager 7 server.
   C. The device will trust all other Insight Manager 7 servers.
   D. You will be able to access the VCRM, but you will not be able to configure the repository.

17. You need to upgrade the operating system on an HP ProLiant server. What should you update on the server before installing the new operating system?
   A. Diagnostics utilities
   B. System firmware
   C. HP Management agents
   D. Smart components
Conclusion

HP wishes you success in the HP Certified Professional Program and in passing the exam for which you are preparing.

Answer Key

1. What is the function of the ALU in a microprocessor?
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