



# HP Certified Professional

## HP-UX 11i v3 Advanced System Administration

### HPO-P21

#### Exam Preparation Guide

## Purpose

The intent of this guide is to set expectations about the context of the exam and to help candidates prepare for it. Recommended training to prepare for this exam can be found at The Learning Center. It is important to note that although training is recommended for exam preparation, successful completion of the training alone does not guarantee that you will pass the exam. In addition to training, exam items are based on knowledge gained from on-the-job experience and application as well as other supplemental reference material that may be specified in this guide.

## HP certification

The HP Certified Professional community is a network of qualified HP channel partners, customers, and employees who have taken the courses and studied the associated reference material necessary to pass the certification exams that earn HP Certified Professional credentials. The exams offered through the HP Certified Professional program validate the skills and assure the competency of HP certified professionals. The knowledge and experience required to pass HP certification exams ensure that HP certified professionals are respected and valued throughout the industry.

## Audience

This exam is for HP-UX professionals with at least two to three years of hands-on experience with HP-UX 11i v3. Examples of job roles:

- System and network administrators
- System integrators
- Support engineers
- Technical consultants.

## Minimum qualifications

To pass this exam, you should have at least 2-3 years of experience administering HP-UX environments, including HP-UX 11i v3. Exams are based on an assumed level of industry-standard knowledge that may be gained from the training, hands-on experience, or other pre-requisite events.

## Relevant Certifications

After passing this exam, your achievement may be applied toward more than one certification. To determine which certifications will be credited with this achievement, log into The Learning Center and view the certifications listed on the exam's More Details tab. You may be on your way to achieving additional HP certifications.

## Exam Details

The following are details about the exam:

- **Number of items:** 62
- **Item types:** Multiple choice, drag & drop, hot area
- **Exam Time:** 90 minutes
- **Passing Score:** 70%
- **Reference Material:** No on-line or hard copy reference material will be allowed at the testing site.

## Comments on the Exam

During the exam, participants can make specific comments about the items (i.e., accuracy, appropriateness to audience, etc). HP welcomes these comments as part of our 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.

### **HP0-P21 Sections/Objectives**

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|     |   |
|-----|---|
| 10% | HP-UX architecture and structure  |
|     | <ul style="list-style-type: none"><li>• Describe the HP-UX OS architecture</li><li>• Identify the supported HP-UX processor interfaces and their features</li><li>• Identify the major hardware components found in systems running HP-UX</li></ul> |

## HP0-P21 Sections/Objectives

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|-----|--|
|     | <ul style="list-style-type: none"> <li>Describe the file systems supported by HP-UX and their use</li> <li>Identify the basic VxVM concepts and structure</li> <li>Describe the concept and benefits of the HP-UX 11i v3 mass storage stack implementation</li> </ul>  |
| 5%  | <p>HP-UX user environment, basic commands and utilities</p> <ul style="list-style-type: none"> <li>Login and determine basic information about an HP-UX system</li> <li>Execute HP-UX commands from the command line</li> <li>Manage and manipulate files and directories</li> <li>Demonstrate the tools and techniques used to identify, monitor, and terminate programs and processes</li> <li>Identify and explain how and when to use advanced shell features</li> </ul>   |
| 16% | <p>HP-UX system administration and operational tasks</p> <ul style="list-style-type: none"> <li>Boot, reboot and shutdown an HP-UX system or partition</li> <li>Connect and configure HP-UX hardware</li> <li>Describe, configure, and manage HP-UX 11i v3 device files</li> <li>Configure and manage disks and disk partitions</li> <li>Maintain file and file system integrity and design</li> <li>Backup and recover data on an HP-UX system</li> <li>Create and manage swap space</li> <li>Describe HP-UX process schedulers and their use</li> <li>Configure and tune the HP-UX kernel</li> <li>Identify IPC services and their use</li> <li>Describe System Startup model and its use</li> <li>Describe HP Systems Insight Manager (HP SIM) and its use</li> <li>Describe Web-Based Enterprise Management (WBEM) and its use</li> <li>Monitor system activity and events</li> <li>Create and manage user and group environments</li> </ul> |
| 16% | <p>HP-UX system network administration tasks</p> <ul style="list-style-type: none"> <li>Describe LAN addressing concepts</li> <li>Enable DHCP for NIC address configuration</li> <li>Use appropriate commands to verify local connectivity</li> </ul>  |

## HP0-P21 Sections/Objectives

|     |  |
|-----|--|
|     | <ul style="list-style-type: none"> <li>• Describe set_parms and its use</li> <li>• Identify and use common network configuration files and network monitoring tools</li> <li>• Describe and use ndd</li> <li>• Describe and configure HP-UX routing</li> <li>• Configure and monitor network services</li> <li>• Describe and configure a basic Apache web-server</li> <li>• Describe the HP CIFS/9000 product and its use</li> <li>• Describe the ONC suite of network services and their use</li> <li>• Describe LDAP and its use</li> <li>• Configure DNS</li> <li>• Describe sendmail and its use as a MTA and MDA</li> <li>• Describe NTP and its use</li> </ul>  |
| 16% | <p>HP-UX installation, upgrade, and recovery tasks</p> <ul style="list-style-type: none"> <li>• Describe the purposes of the HP-UX Operating Environments (OEs)</li> <li>• Perform an HP-UX installation from local installation media</li> <li>• Perform an HP-UX installation from an SD-UX server</li> <li>• Configure an SD-UX depot server</li> <li>• Install HP-UX patches</li> <li>• Describe the features and benefits of Ignite-UX</li> <li>• Perform an HP-UX installation from an Ignite-UX Server</li> <li>• Install and configure an Ignite-UX server</li> <li>• Identify the features and benefits of Dynamic Root Disk</li> <li>• Perform an HP-UX upgrade using Update-UX</li> <li>• Use the Software Assistant (SWA)</li> </ul> |
| 16% | <p>HP-UX security administration tasks</p> <ul style="list-style-type: none"> <li>• Describe password creation options and their use</li> <li>• Describe how to implement system access restrictions</li> <li>• Describe common system security concerns</li> <li>• Describe and configure ssh</li> </ul>  |

**HP0-P21 Sections/Objectives**

- Describe PAM and its use
- Describe privilege group and its use
- Describe common administrative security tasks and available security products/tools
- Describe methods to distribute privileges to other users
- Explain how various network architectures/features can affect a system security policy.
- Describe Standard Mode Security Extensions
- Use System Auditing

**21% HP-UX Virtual Server Environment and high availability features**

- Identify and describe partitioning continuum technologies and concepts
- Implement HP partitioning solutions technologies and concepts
- Identify Resource Management technologies and concepts
- Identify and implement High Availability technologies and concepts

## Training

Recommended training to prepare for this exam is accessible from this exam's page in The Learning Center. See the exam attachment, Supporting courses, to view and register for the courses.

You are not required to take the associated courses; however, HP strongly recommends that you complete the training and thoroughly review all course materials and documents before taking the exam. Sufficient on-the-job experience may also be required.

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

## Additional Study References

This section lists courses and documents that can help you acquire additional knowledge and prepare for the exam. You must also gain the practical experience outlined in this guide.

| Reference Type/ Title   | Course ID                   | Source  |
|---|-----------------------------|---|
| HP Serviceguard I   | 00071692                    | The Learning Center                                 |
| HP Global Workload Manager Version 4.1 User's Guide                                       | HP Part Number: T8672-90010 | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP Instant Capacity User's Guide for Version 9.x  | HP Part Number: B9073-90201 | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP Process Resource Manager   | HP Part Number: 5992-3373   | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP-UX Virtual Partitions Administrator's Guide  | HP Part Number: T1335-90104 | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP-UX Secure Shell Getting Started: HP-UX 11i v1, HP-UX 11i v2, HP-UX 11i v3              | HP Part Number: 5992-4213   | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP-UX Secure Resource Partitions (SRP) Administrator's Guide                              | HP Part Number: 5992-4679   | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP-UX Integrity Virtual Machines  | HP Part Number: T8669-90041 | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP Integrity Virtual Machines Version 4.1 Installation, Configuration, and Administration | HP Part Number: T2767-90180 | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP-UX Internet Services Administrator's Guide: HP-UX 11i v2, HP-UX 11i v3                 | HP Part Number: B2355-91060 | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| HP-UX 11i v3 Dynamic nPartitions: Features and configuration recommendations              | HP Part Number: 4AA0-10907  | <a href="http://docs.hp.com">http://docs.hp.com</a> |
| Arbitration For Data Integrity in Serviceguard Clusters                                   | HP Part Number B3936-90078  | <a href="http://docs.hp.com">http://docs.hp.com</a> |

## Exam Registration

To register for this exam, please go to exam's description in The Learning Center.

## Conclusion

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