Purpose of the exam prep guide

The intent of this guide is to set your expectations about the content and the context of the exam, and to help you prepare for the exam by providing the following items:

- recommended HP training courses
- outline of the topics covered by the exam
- Sample test questions. These sample questions do not represent a complete practice exam.

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

Audience

System and network administrators, system integrators, support engineers, and technical consultants. These professionals are expected to have advanced level knowledge of HP-UX and at least 2-3 years of HP-UX administration experience.

Certification Requirements

The HP-UX System Administration Exam # HP0-092 is the core requirement to be certified as Certified Systems Engineer (CSE). The HP0-092 exam plus one of either HP-UX High Availability Using MC ServiceGuard (HP0-093) or HP-UX Networking and Security (HP0-094) fulfill the requirements for HP-UX Certified Systems Engineer. Visit the HP Certified Professional website for additional information, [www.hp.com/go/certification](http://www.hp.com/go/certification).

Prerequisites

The prerequisite for taking this exam is successful achievement of HP-UX Certified System Administrator (CSA). Advanced-level knowledge of and at 2-3 years of hands-on experience with HP-UX is expected. **Attendance at the**
HP training courses listed in the Recommended Training section below is highly recommended.

Exam details

At the beginning of the exam, you will be asked to answer several survey questions. The survey questions are designed to assist the exam development team to accurately profile test results and to improve future exams.

The following are details about the exam:

- **Number of items:** 74
- **Item types:** multiple choice, multiple response, drag and drop
- **Time commitment:** 120 minutes
- **Passing Score:** 65%
- **Reference Material:** No online 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. Comment time is included in the overall time for taking the exam. We suggest you mark the questions you want to comment on, and then when done with the test, revisit the marked items and make comments. This way if time runs out, you will not be compromising your score.

Exam content

The following topics and 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. The percentages in parentheses indicate the relative percentage of the exam devoted to each objective.

1. **Describe and explain the architecture and structure of HP-UX and its foundational technologies** (13%)
   a. HP-UX OS architecture
   b. Major hardware components found in HP’s current systems
   c. Features and benefits of HP’s currently supported PCI bus types
   d. Differences and compatibilities between common SCSI technologies
   e. Features and benefits of HP disk management solutions
2. **Describe the HP-UX user environment and demonstrate the use of basic commands and utilities** (19%)
   a. Login and logout of an HP-UX system.
   b. Navigate the CDE GUI interface.
   c. Determine basic information about a system.
   d. Execute HP-UX commands from the command line.
   e. Demonstrate the tools and techniques used to identify, monitor, and terminate programs and processes.
   f. Identify and explain how and when to use advanced shell features.

3. **Perform HP-UX system administration and operational tasks using command line and GUI tools** (18%)
   a. Boot, reboot and shutdown an HP-UX system or partition.
   b. Connect and configure HP-UX hardware.
   c. Describe, configure, and manage HP-UX device files.
   d. Configure and manage disks and partitions.
   e. Maintain file and file system integrity and design.
   f. Backup and recover data on an HP-UX system.
   g. Configure and reconfigure the HP-UX kernel.
   h. Describe common areas of performance bottlenecks.
   i. Describe SYS-V IPC services and their use.
   j. Describe SAM and its use.
   k. Describe system startup model and its use.
   l. Describe chroot and its use.
   m. Describe /etc/default and its use.
   n. Monitor system activity and events.
   o. Implement HP partitioning.

4. **Perform HP-UX system network administration tasks** (18%)
   a. Enable DHCP for NIC address configuration.
   b. Describe common network configuration files and their use.
   c. Describe network monitor utilities and their use.
d. Describe `ndd` and its use.
e. Describe and configure HP-UX routing.
f. Configure and monitor network services.
g. Describe and configure a basic Apache web server.
h. Describe CIFS/9000 (SAMBA) and its use.
i. Describe the ONC suite of network services and their use.
j. Describe the purpose of PPP.
k. Describe LDAP and its use.
l. Describe DNS and its use.
m. Describe `sendmail` and its use as a MTA and MDA.
n. Describe `ntp` and its use.
o. Describe other tools to monitor network utilization.

5. **Perform HP-UX installation, upgrade, and recovery tasks** (14%)
   
   a. Perform and HP-UX installation from local installation media.
   
   b. Perform a software/patch installation from a software distribution depot server.
   
   c. Configure a software distribution depot server.
   
   d. Install HP-UX patches.
   
   e. Describe the features and benefits of Ignite-UX and install and configure an Ignite-UX server.

6. **Perform HP-UX security administration tasks** (16%)
   
   a. Cite user-level security settings.
   
   b. Describe trusted system and its use.
   
   c. Describe password creation options and their use.
   
   d. Describe how to implement system access restrictions.
   
   e. Describe common system security concerns.
   
   f. Describe `ssh` and its use.
   
   g. Describe PAM and its use.
   
   h. Describe privilege group and its use.
   
   i. Describe available security tools.
   
   j. Describe common administrative security tasks.
   
   k. Explain how various network architectures/features can affect a system security policy.
7. Configure and optimize HP-UX high availability clustering features (2%)
   a. Describe key High Availability terms and concepts.

Recommended Training

It is recommended that you thoroughly review all course material and documents before taking the exam, even if you believe you have sufficient on-the-job experience. Depending on your level of "hands-on" experience with HP-UX, attendance in one or more of the following HP Education training courses can help augment your skills in preparation for the HP0-092 exam.

<table>
<thead>
<tr>
<th>Recommended minimum training</th>
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<tbody>
<tr>
<td><strong>Hands-on with Logical Volume Manager and Mirrordisk/UX</strong></td>
<td>H6285S</td>
</tr>
<tr>
<td><strong>HP-UX partition management with vPars/nPars</strong></td>
<td>U5075S</td>
</tr>
<tr>
<td><strong>Managing software with Ignite-UX</strong></td>
<td>H1978S</td>
</tr>
<tr>
<td>Additional recommended courses</td>
<td></td>
</tr>
<tr>
<td><strong>VERITAS volume manager for HP-UX</strong></td>
<td>H7085S</td>
</tr>
<tr>
<td><strong>HP-UX patch management</strong></td>
<td>H8339S</td>
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</tbody>
</table>

Experienced HP-UX system managers can substitute the following course for those listed above:

| HP-UX 11iV2 Admin for Experienced HP-UX Administrators           | U5523S| 4-day ILT |
| **If the bulk of your experience has been with pre-11iV2/PA-RISC systems you may need this course** |

How to Enroll

Please visit [http://www.hp.com/education/currpath/hp-ux_certification.html](http://www.hp.com/education/currpath/hp-ux_certification.html) for more information or to enroll.

Other Study Resources

- HP-UX manual pages
Sample Test Questions

The sample test questions give you a preview of what the actual test will be like. It is important to note that these questions WILL NOT be on the exam. However, they are representative of the actual questions, and they should help you become familiar with the format and complexity of the test. These sample test questions are not a check for readiness.

1. Which feature describes HP-UX addressing?

   A. uses 32 bit addresses only
   B. uses 64 bit addresses only
   C. uses either 32 bit or 64 bit addresses
   D. organizes data segments into real and virtual address segments

2. The HP-UX kernel isolates an application from the specifics of a file system implementation through the use of the ________.

   A. UNIX file system
   B. virtual file system
   C. POSIX file system
   D. hierarchical file system

3. In a POSIX shell, what is the effect of a ' . ' (dot space) when placed before the script name? For example:

   # . myprog

   A. executes the file in the current directory
B. forces root privilege of subsequent commands if the user belongs to group bin.
C. searches directory permissions before the file is executed.
D. forces a read of the entire file before subsequent commands are executed.

4. Why does a process go into a sleep state?

A. Resources needed are too large to process.
B. Another process issued a sleep command for that process.
C. Resources needed by that process are not currently available.
D. Another process issued a kill -sleep aimed at that process.

5. What is the result of this command?

```
# insf -e -n 90 -d ptym
```

A. sets processor default timeout to 90 seconds
B. creates special device files for 90 pseudo terminals
C. displays the processor time for the next 90 processes
D. creates directory ptym0 through ptym89 in the /etc directory

6. A bound CPU in a vPar is __________.

A. the lowest numbered CPU in an nPar
B. a CPU residing on the same cell board with another CPU
C. any CPU that cannot be dynamically assigned between vPars
D. any CPU that can be added or removed without bringing down the affected vPar

7. One host on the local network currently has an IP address of 17.10.132.3 with a netmask of 255.255.128.0. Which network and broadcast access pair characterize this network?

A. Network 17.10.0.0 - Netmask 17.10.127.255
B. Network: 17.10.0.0 - Netmask 17.10.255.255
C. Network 17.10.128.0 - Netmask 17.10.255.255
8. Which command loads patch software from a source depot to a target system?

A. patch
B. pload
C. swmodify
D. swinstall

9. The HP Bastille security product may automatically _______. Select TWO.

A. configure an IPFilter firewall
B. run the crack program to identify vulnerable passwords in /etc/passwd
C. disable network services
D. install missing security patches
E. run a port scan to identify other vulnerable remote hosts on the LAN

10. What is the purpose of the /etc/securetty file?

A. defines the devices that allow root login
B. defines the users who can become root
C. defines the only devices that permit user logins to take place
D. define groups of users who can login through a specified port
Answer key:
1. C
2. B
3. D
4. C
5. B
6. C
7. C
8. D
9. A, C
10. A

Conclusion

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