Purpose

The intent of this guide is to set expectations about the content and the context of the exam and to help candidates prepare for it. Recommended training to prepare for this exam can be found at the HP Learning Center. This guide may contain supplementary references relevant to the topics covered by the exam.

Audience

This exam is for advanced HP-UX professionals with at least 2-3 years of hands-on experience with HP-UX. Examples of job roles:

- System and network administrators, system integrators, support engineers, and technical consultants.

Certification Requirements

The HP-UX High Availability Using Serviceguard v18, exam #HP0-P19, is one of the requirements to be certified as a Certified Systems Engineer (CSE).

The HP-UX 11iv3 Advanced System Administration (HP0-A02) exam plus the HP-UX High Availability Using Serviceguard v18 (HP0-P19) fulfill the requirements for HP-UX 11i v3 CSE – High Availability. Visit the HP Certified Professional website for additional information, 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 HP-UX and at 2-3 years of hands-on experience is expected. Attendance at the HP training courses listed below is highly recommended.

Exam Details

The following are details about the exam:

- Number of items: 60
- Item types: multiple choice, drag and drop, complex graphical
Time commitment: 120 minutes

Passing Score: 72%

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.

<table>
<thead>
<tr>
<th>Objective</th>
<th>HA Concepts and Architecture - 12%</th>
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<tbody>
<tr>
<td>1.0</td>
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<tr>
<td>•</td>
<td>Describe the purpose, benefit, and implementation choices provided by high availability solutions.</td>
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<tr>
<td>•</td>
<td>Describe the various clustering types; including their benefits, strengths and weaknesses, and primary applications.</td>
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<td>•</td>
<td>Identify OL* (OnLine Replacement, Addition, and Deletion) components and describe their benefit in a highly available architecture.</td>
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<td>Describe the features and benefits of Virtual Server Environment with respect to high availability.</td>
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<td>Identify the single points of failure (SPOF) in an HP-UX environment.</td>
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<th>2.0</th>
<th>Serviceguard Concepts and Architecture - 16%</th>
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<tr>
<td>•</td>
<td>Describe how Serviceguard provides high availability during various failure scenarios.</td>
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<td>•</td>
<td>Describe how operating system and network security affect your Serviceguard configuration.</td>
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<tr>
<td>•</td>
<td>Describe how operating system and application performance affect your Serviceguard configuration.</td>
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<tr>
<td>•</td>
<td>Identify the SAN architecture and volume management choices in a Serviceguard environment.</td>
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<tr>
<td>•</td>
<td>Identify additional Serviceguard cluster technologies to assist in HA designs for disaster tolerant solutions.</td>
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</tbody>
</table>
- Identify the single points of failure (SPOF) that can be addressed by Serviceguard.
- Describe the components, concepts and key functions of Serviceguard.
- Define Serviceguard terminology.
- Identify the components of HP Serviceguard Storage Management Suite (SMS) and Cluster File System (CFS) bundles.

### 3.0 Install, Configure and Test a Serviceguard Cluster – 29%
- Validate a Serviceguard cluster implementation plan.
- Setup and configure a basic Serviceguard cluster.
- Configure LAN interfaces for Serviceguard usage.
- Configure cluster arbitration.
- Configure a basic package to run in a Serviceguard environment.
- Verify a Serviceguard cluster operation and failover.
- Identify special tasks necessary when installing a Serviceguard CFS cluster.

### 4.0 Manage and Customize Serviceguard – 27%
- Create application monitoring scripts.
- Add a package utilizing application monitoring scripts to an existing cluster configuration.
- Utilize EMS resources within a package.
- Perform package and cluster customization and optimization.
- Use the Enterprise Cluster Master Toolkit (ECMT), HA-NFS Toolkit, and Developer’s Toolbox for integrating an application.
- Describe and implement change management in a Serviceguard environment.
- Use utilities that help manage Serviceguard clusters.
- Identify special tasks necessary for Serviceguard CFS cluster management.

### 5.0 Troubleshooting Serviceguard Clusters – 13%
- Identify and resolve common Serviceguard cluster configuration problems.
• Identify and resolve package, failover, and errors on a Serviceguard cluster.

6.0 Serviceguard Extension for RAC (SGeRAC) - 3%

• Identify concepts, architecture and operation of Serviceguard Extension for RAC (SGeRAC).

• Determine the appropriate choices for volume and storage management in an SGeRAC environment.

• Describe networking considerations in an SGeRAC configuration.

Training

The recommended training for this exam can be found at the HP Learning Center. 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 is also 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 documents that can help you acquire additional knowledge needed to pass the exam. You must also gain the practical experience outlined in this guide.

Documentation

<table>
<thead>
<tr>
<th>Title</th>
<th>Source/Order Number</th>
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</thead>
<tbody>
<tr>
<td>HP-UX 11i v3 system administration manuals</td>
<td>11i v3 System Administration</td>
</tr>
<tr>
<td>HP-UX 11i v3 installation and update documentation</td>
<td>11i v3 Installing and Updating</td>
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Other Reference Material

Exam Registration

Click here for information about exam registration.

Conclusion

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