

## 3.1 Linux System Design

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As you study this section, answer the following questions:

- Why is it important to create a detailed plan prior to deploying a Linux installation?
- What elements should you consider while performing a needs assessment?
- What factors should you consider while selecting a Linux distribution?
- How can you ensure that specific hardware is compatible with the Linux distribution you have selected?
- Why must the **/etc**, **/bin**, **/sbin**, **/lib**, and **/dev** directories all be on the same partition?
- Which user account is automatically created when Linux is installed?
- What type of installation sources are available for Linux?

In this section, you will learn to:

- Design and gather information to plan a Linux installation.

Key terms for this section include the following:

| Term            | Definition  |
|-----------------|---|
| Partition       | A partition is an area on a hard disk (or other secondary storage) on which a file system can be installed. An entire hard disk could be configured with one partition, or the same drive could be divided into multiple partition. Each partition can then be formatted with the same or different file systems. |
| Physical volume | In its simplest form, a physical volume is a storage area (such as a partition) that has been formatted with a file system. A volume can be limited to one partition or it can span multiple partitions.  |

This section helps you prepare for the following certification exam objectives:

| Exam           | Objective   |
|----------------|---|
| CompTIA Linux+ | 5.4 Given a scenario, manage storage in a Linux environment. <ul style="list-style-type: none"><li>• Basic partitions</li><li>• File system types</li></ul> |

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