

Partitioning Considerations

Partitioning Scheme

The exact partitioning scheme you use depends on your needs, and is quite flexible. For the most basic commonly used scheme you would have three partitions:

- **/boot** is relatively small, typically 100-200 MB, and holds kernels and other boot-related materials; these files are vital and rarely change, and it is safer to keep them on a separate partition
- **/** contains everything else and is as large as you need; depending on your distribution, system files and applications and basic programs and development tools will probably chew up 3-8 GB of space
- The **swap** partition should be at least as big as the amount of memory on your system; you can use swap files instead of partitions, but this is a weaker method due to both efficiency and stability considerations

Other Ways to Set Up Partitions

- There are many other ways to set up your partitions, especially on multi-user systems and on systems that use a lot of disk space and have large data files
- This may also depend on the kind of storage media you are using and where it is most efficient to use your fastest and slowest hardware, largest and smallest capacity devices, etc.
- Often the **/home** directory is put on a separate partition (or disk)
- **/usr** which is relatively static may be put on a separate partition, as might **/var** which is quite volatile, and **/tmp**, which is temporary
- In addition, one or more of these partitions might be available only as a network share, as in the use of NFS, and not even be mountable until the system is well-booted

Logical Volume Management (LVM)

- Use of **LVM** (Logical Volume Management) introduces even more flexibility, as many logical volumes can be placed on a group of physical volumes which can span more than one disk in a transparent way
- It is easy to dynamically resize and move such partitions

