

# ESX Partitioning

ESX hosts have required and optional partitions.

`/boot` and `vmkcore` are physical partitions. `/`, `swap`, `/var/log`, and all the optional partitions are stored on a virtual disk called `esxconsole-<system-uuid>/esxconsole.vmdk`. The virtual disk is stored in a VMFS volume.

This chapter includes the following topics:

- [“Required Partitions,”](#) on page 59
- [“Optional Partitions,”](#) on page 60

## Required Partitions

ESX requires several partitions.

If you delete a required partition, be sure to create a new one of the same type. You cannot define the sizes of the `/boot`, `vmkcore`, and `/vmfs` partitions when you use the graphical or text installation modes. You can define these partition sizes when you do a scripted installation.

[Table 6-1](#) describes the required partitions.

**Table 6-1.** ESX Required Partitions

Mount Point	Type	Size	Location	Partition Description
<code>/boot</code>	ext3	The ESX boot disk requires 1.25GB of free space and includes the <code>/boot</code> and <code>vmkcore</code> partitions. The <code>/boot</code> partition alone requires 1100MB.	Physical partition The boot drive usually defaults to the specified <code>/boot</code> partition location.	Stores information required to boot the ESX host system. For example, this is where the grub boot loader resides.
Not applicable	swap	600MB recommended minimum 1600MB maximum Use the default value applied during installation.	Virtual disk in a VMFS volume	Allows ESX to use disk space when more memory is needed than the physical RAM allows. <b>NOTE</b> Do not confuse the ESX swap partition with virtual machine swap space. See the <i>Resource Management Guide</i> .
<code>/</code>	ext3	Calculated dynamically based on the size of the <code>/usr</code> partition. By default, the minimum size is 5GB and no <code>/usr</code> partition is defined.	Virtual disk in a VMFS volume	Contains the ESX operating system and services, accessible through the service console. Also contains third-party add-on services or applications you install.

**Table 6-1.** ESX Required Partitions (Continued)

Mount Point	Type	Size	Location	Partition Description
Not applicable	VMFS3	esxconsole.vmdk: 1200MB	Physical partition located on one of the following: <ul style="list-style-type: none"> <li>■ Local or boot drive</li> <li>■ Local SCSI volume</li> <li>■ Networked SCSI volume</li> <li>■ SAN</li> </ul> The service console must be installed on a VMFS datastore that is resident on a host's local disk or on a SAN disk that is masked and zoned to that particular host only.	Used to store virtual machines. You can create any number of VMFS volumes on each LUN if the space is available. VMFS2 is supported in read-only mode to import legacy virtual machines.
Not applicable	vmkcore	The ESX boot disk requires 1.25GB of free space and includes the /boot and vmkcore partitions. The /boot partition alone requires 1100MB.	Physical partition located on one of the following: <ul style="list-style-type: none"> <li>■ Local SCSI volume</li> <li>■ Networked SCSI volume</li> <li>■ SAN</li> </ul> Cannot be located on a software iSCSI volume.	Used to store core dumps for debugging and technical support. If multiple ESX hosts share a SAN, configure a vmkcore partition with 100MB for each host.

## Optional Partitions

You can create optional partitions during or after the ESX installation procedure.

[Table 6-2](#) describes the optional partitions.

**Table 6-2.** ESX Optional Partitions

Mount Point	Type	Recommended Size	Location	Partition Description
/home	ext3	512MB	Virtual disk in a VMFS volume	Used for storage by individual users.
/tmp	ext3	1024MB	Virtual disk in a VMFS volume	Used to store temporary files.
/usr	ext3		Virtual disk in a VMFS volume	Used for user programs and data.
/var/log	ext3	2000MB	Virtual disk in a VMFS volume	Used to store log files. The graphical and text installers create this 2000MB partition by default.