

Re: file system setup for new system – recommendations?

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/questions/2004-08/0687.html>

From: Gary Mulder (gmulder_at_infotechfl.com)

Date: 08/09/04

Date: Mon, 09 Aug 2004 16:56:19 -0400

To: "Jay O'Brien" <jayobrien@att.net>, FreeBSD - questions <questions@freebsd.org>

Just my \$0.02NZ on this question:

First off partitions –

The first thing I do in single user mode in FreeBSD is mount /usr to access basic commands such as more, etc., so what is the point of having / and /usr on separate partitions? Thus I usually allocate 4 to 8GB to / and don't have a separate /usr partition. Can anyone posit a problem with combining / and /usr?

It was (as far as I know) an old rule of thumb to have swap twice your physical memory size. This was in the good ole days when memory was expensive and disk was comparatively cheap. These days if you are having to use two times your memory's worth of swap in normal activity it is time to buy more memory. However, since crash dumps are stored in the swap partition (note that they're not by default, you need to define dumpdev in /etc/rc.conf, see rc.conf(5) for more details) you'll want your swap as large as the maximum memory you expect to have on the system.

/tmp should be on a separate partition to prevent overflow of the / partition. A few GB of disk here is nice, dependent on the nature of programs you plan to run.

/var should be sized appropriate to what will be logged/stored in /var. For a Desktop, a few GB is probably sufficient. For a server with mail, web, ftp, etc. services 4–8GB is nice.

The remainder is traditionally allocated to /home.

Next Vinum and backups –

Vinum provides a number of configurations (RAID 0, 1, 1+0, 0+1, 5, etc.) for data redundancy. It requires two or more disks (depending on which RAID level), typically of the same type and size on separate controllers. It is somewhat complex to setup but provides a lot of flexibility in configuration.

freebsd-questions: Re: file system setup for new system – recommendations?

It is important to note that using RAID for data redundancy is NOT data backup. A redundant RAID configuration will happily mirror file system corruption, inadvertent user file deletions, etc.

Backup however implies a secure and independent copy of the primary system data. Ideally this copy is not just kept on the same disk as the primary data. How useful are your backups if you lose the drive that has both your system and its backups?

Here is a proposed setup for a small to medium sized Unix server with say a 120GB and 80GB ATA disks:

Set up the 80GB disk as the master on the first controller. Set up the 120GB drive as master on the second controller