Apple RAID 1.1: New Features and Changes (5/96)

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TOPIC ---

This article provides the changes in Apple RAID version 1.1.

DISCUSSION ---

These are the changes in Apple Raid 1.1:

RAID Driver

Reinitializing the drives is no longer necessary when implementing RAID. The
Administrator must install the Apple RAID disk driver on each hard disk that
will contain mirrored or striped volumes. The easiest way to install the Apple
RAID disk driver is to use the Install Driver command. The Install Driver
command is also recommended for older versions of Apple RAID drives.

Apple RAID will now be "installable" over the Apple hard disk driver.
Previously, a user needed to "reformat" a disk drive to use Apple RAID.

The Get Info command displays the amount of free space within a volume, and the
Apple RAID Setup program displays the amount of disk space not allocated to a
volume.

Weighted Striping

Apple RAID allows up to eight partitions per disk; stripe and mirror partitions
can reside on the same disk. Apple RAID volumes are limited to 2 GB with no more
than 10 Apple RAID volumes per server system. If the server has more than one
SCSI bus, the partitions should reside across both buses. A striped volume is
limited to a maximum of 4 GB or a minimum of 10 MB.

The main advantage of weighted striping is the ability to balance the data
throughput of RAID volumes on two separate SCSI buses of unequal speed. For
instance, the 8550/132 has both a 5 MB/s and 10 MB/s bus. Two drives are
installed, one connects to the 5 MB/s channel, the other to the 10 MB/s channel.
With normal striping, the maximum theoretical throughput on each SCSI channel is
the speed of the slower bus. With "weighted striping" the RAID software
optimizes throughput on both buses, taking into consideration that one bus is

faster and "weighting" these transfers. The result should be better data
throughput on the 8550/132 SCSI subsystem. The cabling, bracket and software,
will be included as standard elements with all 8550 systems. The user will just
need to add the second drive.

Server Manager Support

Server Manager will receive error messages from Apple RAID, enabling system
administrators to receive remote notification of a failed Apple RAID volume
through e-mail, paging, or other Server Manager features.

Upgrades/Compatibility

Apple RAID 1.1 is only supported on PCI-based workgroup servers. Since Apple
RAID 1.1 is not supported on NuBus workgroup servers, no upgrades to version 1.1
are available.

Clarification

The PCI RAID Card is not part of Apple RAID 1.1. The PCI RAID Card is an option
for the Network Server 500 or 700, and requires the AIX operating system. The
PCI RAID Card is not Mac OS compatible.

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09 May 1996 - Added clarification section.

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