Tech Info Library

ANS 500 or 700: Drive & PCI Card Distribution (10/96)

Revised: 10/18/96
Security: Everyone

ANS 500 or 700: Drive & PCI Card Distribution (10/96)

==========

Article Created: 14 October 1996
Article Reviewed/Updated: 18 October 1996

TOPIC ----------

What is the recommended way to distribute my drives and PCI cards for increased performance in an Apple Network Server (ANS) 500 or 700?

DISCUSSION ----------

The Network Server 500 and Network Server 700 have three SCSI buses and two PCI buses.

For SCSI, there are two SCSI-2 Fast and Wide (20 MB/s) buses available internally and one SCSI-1 (5MB/s) bus available externally. The front panel covers Bus 0 IDs 0 through 3, and Bus 1 IDs 4-6, additionally available on the Network Server 700 are Bus 1 IDs 0 and 1 in the rear of the machine.

The preferable arrangement is to divide the drives among the buses as much as possible, especially in a mirror or stripe configuration. The DAT and/or CD may be moved to accommodate a more even balance. If this is done the bootlist needs to be updated for diagnostic devices. A drive that is not SCSI-2 Fast and Wide should be placed on the external bus whenever possible. When that drive is being accessed on one of the two internal buses, the SCSI-2 fast and wide features of the bus are disabled. If the drive was the only drive on one of the internal buses that would not cause any loss of performance on the other internal bus.

For PCI cards, the built-in I/O devices share one PCI bus. The top two PCI slots are for PCI bus 1 which is shared with the system. The bottom four slots are for PCI bus 2. To balance the load between PCI buses, a high bandwidth PCI device should be installed in bus 2. This should not be important with lower bandwidth devices such as a regular 10 MB/second Ethernet card. A few 100 MB/second Ethernet cards or FDDI cards can introduce a significant bandwidth on the 132 MB/second PCI bus.

This article was published in the Information Alley on 18 October 1996.

Article Change History:
18 Oct 1996 - Added Info Alley publication info.

Tech Info Library Article Number:20530