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Apple Workgroup Server 95: CD-ROM Server (9/93)

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TOPIC -----

It is my understanding that you can only have six additional Macintosh HFS formatted drives mounted on the Apple Workgroup Server (AWS) 95 at the same time. If the server is being used as a CD-ROM server, what performance hit will users who are not using the CD-ROMs see when six Apple 300 CD-ROM drives with Multimedia CDs are attached and in use by other users? What if they were all data CDs, not Multimedia? What if the CD-ROM drives are 150s for both types of CDs?

DISCUSSION -----

You're correct in stating the AWS 95 can only support six HFS volumes. There is no inherent performance penalty for using six read only HFS volumes. The performance hit can be significant on some types of write operations to HFS volumes but reads should function with little or no difference. We're not sure what you mean by "Multimedia verses Data" CDs. Data is data, whether it's ASCII text or complex graphics it's all data. The difference is the amount of data that will typically be read from the drive. Multimedia files tend to be very large whereas an ASCII text data CD would tend to have smaller files, but not necessarily. What we're saying is that reads are reads and the amount of data in the file only affects how long it will take to read the entire file.

The performance differences between the CD-150 and the CD-300 are:

	CD-150	CD-300i
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Latency (average)	55 - 130 ms	27.5 - 65 ms
Access Time (average)	380 ms	295 ms
Bytes Per Second		
Mode 1	150 K	300 K
Mode 2	171.1 K	342.2 K
SCSI Burst Rate	1.2 MBps	2.5 MBps

It would appear that the CD-300i is approximately twice as fast as the 150.

We did some testing to see how that actually equates to data transfer times over the network. The interesting thing was that in fact the data transfer times were twice the speed using a CD-300i. For example to transfer a 3.7MB file from the server to a workstation we saw the following transfer times:

CD-300i - 19 seconds
CD-150 - 48 seconds

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