

AppleShare File Server: Macintosh SE Versus Macintosh SE/30

Revised: 10/4/89 Security: Everyone

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TOPIC -----

Is there a performance increase when using a Macintosh SE/30 as an AppleShare file server instead of a Macintosh SE? Are there any benchmarks that illustrate a performance increase?

DISCUSSION -----

The question as to whether or not there will be a performance increase when using a Macintosh SE/30 instead of a Macintosh SE as a file server depends on where the bottleneck is for the network. If your network is currently waiting for the server, then using a Macintosh SE/30 will increase the performance. If the network itself is sending packets slowly, the Macintosh SE/30 will not help.

There are quite a few advantages to using a Macintosh SE/30 instead of a Macintosh SE as a file server if your server is the bottleneck. First of all, the CPU in the Macintosh SE is the MC68000, which runs at 7.8336 MHz. The Macintosh SE/30 has the MC68030, which runs at 15.6672 MHz. This, obviously, will speed up anything that requires processing time.

Secondly, the SCSI hard drive access time is much faster. The Macintosh SE uses a 2:1 interleave. The Macintosh SE/30 uses a 1:1 interleave because the processor is fast enough to handle the information at that transfer rate. Therefore, the access of any given hard drive is faster on the Macintosh SE/30 than the same hard drive on the Macintosh SE, which is important for servers.

Additionally, the Macintosh SE/30 has a faster hard drive than the Macintosh SE. The Macintosh SE, which has an HD20 SC, has an average access time of 65ms. The Macintosh SE/30, which has the new 3.5-inch HD40 SC or HD80 SC, has an average access time of 20ms. This, along with the faster interleave, gives a much faster overall SCSI hard disk access time.

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Finally, the Macintosh SE/30 has the same logic board as the Macintosh IIx. Because of this, as with the Macintosh IIx, if there is more than 1MB of RAM, the AppleShare File Server allows up to 50 users to be logged on to it, rather than the 25 users allowed with the Macintosh SE.

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