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Apple Workgroup Server 95: AFP and NFS File Locking (5/94)

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TOPIC ---

We would like to share files from an Apple Workgroup Server (AWS) 95, using
AppleTalk Filing Protocol (AFP) for Macintosh clients, and Network File System
(NFS) for an OS/2 client. We understand that user security is separately
maintained, and it's not an issue for us. However, we are concerned about file
locking. Will a file locked under NFS appear locked via AFP, or the other way
around?

DISCUSSION --

You understand some of the security issues. Here are two important notes in the
"Tuning Server Performance and Addition Internal Hard Driver" documentation for
the AWS 95. These notes regard an AWS 95 running both AppleShare Pro and an NFS
server, or running AppleShare Pro and operating the server as an NFS client. You
should be aware of the following:

• Operating as both an AppleShare Pro and an NFS server

  When using the Apple Workgroup Server 95 as both an AppleShare server and
  an NFS server, be sure that the two services DON'T share the SAME files,
  folders, and volumes (file systems). If they do, you'll incur
  considerable problems because the two services use different means to
  assign and manage users, groups, and access privileges. You can use
  AppleShare to access an NFS shared file system without encountering any
  conflicts. The potential problem arises when an attempt is made to
  create or modify files that are shared by AppleShare and NFS that reside
  on the SAME volume.

  In addition, sharing the SAME volume through both services creates a
  security problem for users of NFS. Because AppleShare Pro runs from the
  root account, all AppleShare users have root-level privileges on the
  volumes being shared by NFS and AppleShare Pro. Therefore, the
  AppleShare Pro users can read and make changes to all files on a volume

shared by AppleShare Pro and NFS. Be aware of the vulnerability of the
NFS files; to avoid potential problems, DON'T allow the SAME volume to be
shared by both AppleShare Pro and NFS.

- Running AppleShare Pro and operating the server as an NFS client

  AppleShare Pro is designed to share LOCAL volumes; it is not designed to
  share volumes over the network. Therefore, if you configure the server
  as an NFS client, DON'T use it to share NFS mounted file systems. If you
  do, and the NFS server crashes, AppleShare Pro will become unresponsive.

  AppleShare Pro is not programmed to respond to the NFS timeout errors.
  In A/UX, Macintosh virtual memory is an A/UX process that handles
  multiple client sessions. One of the many client sessions trying to
  access the unresponsive server can cause AppleShare Pro and all its
  clients to become unresponsive. The other A/UX processes on the Apple
  Workgroup Server 95 will be unaffected.

With the above notes in mind, and because the two services use different locking
mechanisms, we don't recommend using the AWS 95 as both an AppleShare server and
an NFS server sharing the SAME files, folders, and volumes.

Support Information Services

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