

The FAS File Server

- **What is the FAS File Server?**

The FAS file server is a series of disks available for the storage of documents, spreadsheets, presentations, or other types of files. The server can be thought of as a large disk drive attached to your personal computer through the network. It is organized with each department or individual having a folder.

- **What Does The FAS File Server Do?**

- A. Provides storage for individuals (for example, the G: or U: drives)
- B. Provides shared storage and a collaborative workspace for groups and departments (for example, the S: drive)

- **What Does the FAS File Server Not Do?**

The server is not intended for personal computer desktop or laptop backup, a process is more complex than a file server. FAS IT is currently investigating alternatives for personal computer backup across the network.

- **Technical Configuration**

The FAS File Server consists of two main storage devices. One is located at the Science Center and one at 1414 Mass Ave. Each of these storage devices maintains a copy of itself on the other storage device. Whenever a file is changed on one storage device, the change is simultaneously made to the copy. This occurs constantly on both devices, in both directions. A computer in 60 Oxford Street monitors this constant replication between the two storage devices, and the storage devices themselves. Each storage device has the capacity to instantly become both devices if one device fails. In addition to this replication, each storage device is backed up to the FAS IT tape backup device each night.

- **Recent Problems and Issues**

FAS IT was alerted that the disks were beginning to experience intermittent issues on 30 March. FAS IT and the file server's hardware and software vendors found:

1. Replication from one device to the other became so slow that effectively replication had stopped, although monitoring did not immediately send alarms because replication had not actually "failed."
2. Performance of one of the storage devices was slower than acceptable. From the point of view of someone using the device it was either unresponsive or one could not connect.
3. When the unresponsive device was restarted and became available, accessible files were in some cases not the most recent versions due to the extremely slow replication. By the time this was discovered and corrected, many quite reasonably assumed that work had been lost and began to recreate work already done.

- **Actions taken**

1. While staff worked to keep the file server stable, work took place to upgrade to new faster hardware, a more robust operating system, and a newer version of the replication software, which was completed the weekend of 25 April.
2. Monitoring has been improved

On Monday, 27 April, unrelated to the upgrade, a network switch failed, resulting in significantly slower service. The switch was repaired and service was restored to full capacity within two hours.

- **Future**

The service is now more stable and failsafe. I encourage you to continue to use and trust the FAS file server. If you notice any problems, with any aspect of IT, call the help desk, 5-9000. On weekends and evening hours 5-9000 will route you to the "Downtime Help Line." The downtime line is answered 7X24X365. The on call staff typically return the call within minutes, but must respond within no more than thirty minutes.