

File Transfers Tips

Category: File Transfers

Below are some quick and easy techniques that may improve your performance rates when transferring files remotely to or from NAS.

- Transfer files from the `/nobackup` file system, which is often faster than the locally mounted disks.
- If you are using `scp`, try adding the `-C` option to enable file compression, which can sometimes double your performance rates:

```
% scp -C filename user@remotehost.com:
```

- For SCP transfers, use a low process-overhead cipher such as `arcfour`:

```
% scp -carcfour filename user@remotehost.com:
```

This can increase your transfer rates by 5x, compared to older methods such as `3des`.

- If you are transferring from Lou, make sure your file is online first, not on archive tape. If you use `shiftd` for the transfers it will automatically ensure that files on Lou are online before transfer. If you are not using `shiftd`, use the following DMF commands to determine/change the location of your files:

```
% dmls -al filename # show the status of your file.  
% dmget filename # retrieve your file from tape prior to transferring.
```

Get the full list of [DMF commands](#).

- Use the bridge nodes to transfer files instead of using the Pleiades and Columbia front ends (`pfe[20-27]`, `cfe2`). The bridge nodes have 10-Gigabit interfaces and more memory to handle multiple and large file transfers.
- If you are transferring many small files, try using the `tar` command to compress them into a single file prior to transfer. Copying one large file is faster than transferring many small files.
- For files larger than a gigabyte, we recommended using [BBFTP software](#), which can achieve much faster rates than single-stream applications such as `scp` or `rsync`.

To improve your performance by modifying your system, see [TCP Performance Tuning for WAN Transfers](#).

If you continue experiencing slow transfers and want to work with a network engineer to help improve file transfers, please contact the NAS Control Room at support@nas.nasa.gov.

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<http://www.nas.nasa.gov/hecc/support/kb/entry/267/?ajax=1>