Using SFTP and SCP

Overview

SFTP and SCP are a secure file transfer protocols sending data over encrypted SSH transport. In general these tools are significantly slower compared to bbcp and Globus because all data are encrypted and are transferred over a single stream between the SLAC and the remote host. The transfer optimized tools bbcp and Globus typically don't encrypt the data and employ multiple streams to increase the transfer rate.

The main advantage of SFTP (or scp) is their easy of use compared to the other tools and that they are usually installed on any Linux/Unix computer. Both SFTP and SCP are based on SSH and will show the same performance.

Usage examples

Here is a basic example of an interactive session (a password for SLAC UNIX user 'user' is being requested):

```
% sftp user@psexport.slac.stanford.edu:/reg/d/psdm/mfx/mfx12345/scratch/MyDataFile.dat ./
Connecting to psexport01.slac.stanford.edu...
user@psexport01.slac.stanford.edu's password:
Fetching /usr/work/user/MyDataFile.dat to ./MyDataFile.dat
...

For scp the similar command line would be used:
% scp user@psexport.slac.stanford.edu:/reg/d/psdm/mfx/mfx12345/scratch/MyDataFile.dat ./
```

The command can also be used in the *batch* mode. See UNIX *man* pages for further detail.