Moving Data

- We have already seen that you can download data from the internet via wget (or curl)

- Other ways to move data
  - scp
  - ftp

HTTP vs FTP

- HTTP = Hypertext Transfer Protocol

- FTP = File Transfer Protocol

- Both are ways to transfer files across a network (thus building the internet)

- HTTP is used for webpages, HTTPS for secure web pages (all communication encrypted)

- Both can do uploads and downloads

FileZilla instructions: https:// www.nics.utk.edu/ computing-resources/ data-transfer#filezilla

You can use FTP to transfer files to/from your computer to ACF.

SCP

- Secure copy
- Command line interface based on SSH

Remember our previous cp command:

```
cp <location of what we want> <location where it should
go>

cp from to
```

SCP

- Secure copy
- Command line interface based on SSH
- Use a different server (set aside specifically for fasta data transfer!

From a local directory to ACF:

```
scp file.txt mstaton1@datamover1.nics.utk.edu:~
```

Local file   Username on remote   Remote Machine   Remote location to place file

From ACF to your local directory:

```
scp mstaton1@datamover1.nics.utk.edu:~/file.txt .
```

Username on remote   Remote Machine   Remote Location   Local Location