

# 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](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

From a local directory to ACF:

```
scp file.txt mstaton1@duo.acf.tennessee.edu:~
```

Local file

Username  
on remote

Remote  
Machine

Remote  
location to  
place file

From ACF to your local directory:

```
scp mstaton1@duo.acf.tennessee.edu:~/lesson2/file.txt .
```

Username  
on remote

Remote  
Machine

Remote  
Location

Local  
Location