

02 – SSH

CS 2043: Unix Tools and Scripting, Spring 2019 [1]

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1. Working Remotely via SSH: Lab time!

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Some Terminology

- The server you are logging into is called the **remote** (host).
- The user (you) are referred to as the **client**.
- The remote **port** is an integer, by default 22.
 - more on what a **port** is will have to wait

On your laptops/tablets/phones:

- Windows with Ubuntu / WSL: open bash
- Mac OS: open terminal
- Android/IOS: install any popular SSH program from the app store
 - JuiceSSH is popular on Android
 - Termius is popular everywhere
- Windows: Install any SSH client
 - puTTY is reliable and popular
 - Terminus is gaining ground
- **You have 5-10 minutes; ask for help as soon as you need it!**

Logging into a Remote Host: the SSH command

Secure Shell

```
ssh <username>@remote
```

- **username** is the username on the *remote* host.
- **remote** is the url of the server you want to log into.
 - IP Address, e.g., **128.253.141.34**
 - Symbolic name, e.g., **wash.cs.cornell.edu**
- Use **@** to specify username.
 - **ssh username@remote**

ssh Examples

- On **wash** I am **mpm288**:
 - v1: `ssh mpm288@128.253.3.197`
 - v2: `ssh mpm288@wash.cs.cornell.edu`
 - (or fill in the fields if you're using a graphical SSH client)
 - (if you need the port number, it's 22)
- **Now: ssh to wash.cs.cornell.edu.**
 - same username (netID) and password (you changed it, right?) as before
- **Do not log out.** If you are waiting, then...
- Welcome to wash, again! Type **who** (then press enter) to see who's online!

Connecting to Servers

- Warning: you are being *heavily* monitored. Always.
 - Think before you try to do something even *remotely* dubious.
- Are there other servers I can SSH to? Maybe!
 - `netID@ugclinux.cs.cornell.edu`
 - `netID@cslinux.cs.cornell.edu`
 - These might require separate accounts. Try it, see if it works!
- Cornell **ugclinux** and **cslinux** are *elastic*!
 - If you have access, use them for whatever you want!
- **Wash** is *not* elastic; beefy, but alone. Don't run crazy stuff on it.
- Off campus, you need to log into the campus VPN
 - Install: <https://it.cornell.edu/cuvpn>
 - After installing, Run **Cisco AnyConnect**, then **ssh** in.
 - Your username is your **NetID**. Password same as **CMS / studentcenter**.

CS Servers: More Information

- More info:

<https://it.cornell.edu/coecis/linux-ugc-lab-computing-and-information-science-cis>

Important Excerpt from Above Article

Students should copy or delete their files in home directories at the end of each academic year. Home directories for students not currently enrolled in a CS course will be purged to reclaim server storage space. If you need assistance copying files off the server, please submit a Help Desk ticket.

References

- [1] Stephen McDowell, Bruno Abrahao, Hussam Abu-Libdeh, Nicolas Savva, David Slater, and others over the years. “Previous Cornell CS 2043 Course Slides”.