CST8177 – Linux II

Review of Fundamentals

Topics

- The CST8207 course notes
- GPL
- SSH (secure shell)
- the Course Linux Server

CST8207 course notes

- Linux I introduces many fundamental topics to give you a good basic foundation
- In Linux II we build on that same foundation so it will be good to refer back to the course notes:

http://teaching.idallen.com/cst8207/14f/notes/

Especially these

- 120_shell_basics.html
- 140_man_page_RTFM.html
- 150_arguments_and_options.html
- 160_pathnames.html
- 170_home_and_HOME.html
- 180_finding_files.html
- 185_find_and_xargs.html
- 190_glob_patterns.html
- 200_redirection.html
- 300_vi_text_editor.html
- 320_shell_variables.html
- 350_startup_files.html
- 400_search_path.html

And these

- 440_quotes.html
- 450_file_system.html
- 455_links_and_inodes.html
- 457_disk_usage.html
- 460_symbolic_links.html
- 500_permissions.html
- 510_umask.html
- 520_package_management.html
- 580_system_log_files.html
- 600_processes_and_jobs.html
- 630_crontab_at_job_scheduler.html
- 700_users_and_groups.html
- 720_partitions_and_file_systems.html
- 750_booting_and_grub.html
- 900_unix_command_list.html

Linux Licensing: GPL (for example)

- You should be aware that we all use GNU and Linux (and other Free software) *under license*
- Q: who cares?   A: your employer
- When you receive a copy of GPL software, you are automatically granted a license from the copyright holder, and you have obligations
- Roughly, If you don't give copies to others, no worries
- Roughly, If you give copies to others
  - 1. You must give the source code along with binary; OR
  - 2. You must provide a written offer to provide source code; OR
  - 3. for other special conditions or possibilities, read the GPL

Again, who cares?

- When you get a job, it will be incredibly important that your employer (through your work for them) is not found to be out of compliance with the GPL

- It gets serious when you (on behalf of your employer through their facilities) provide copies of software to others because you may inadvertently deny those others some rights

- Do not consider this legal advice: when/if the time comes, consult your employer's legal department

- "We always considered Open Source software to be a free-for-all under all circumstances. Why didn't anyone warn us?" -- I just did. That is all this was for.
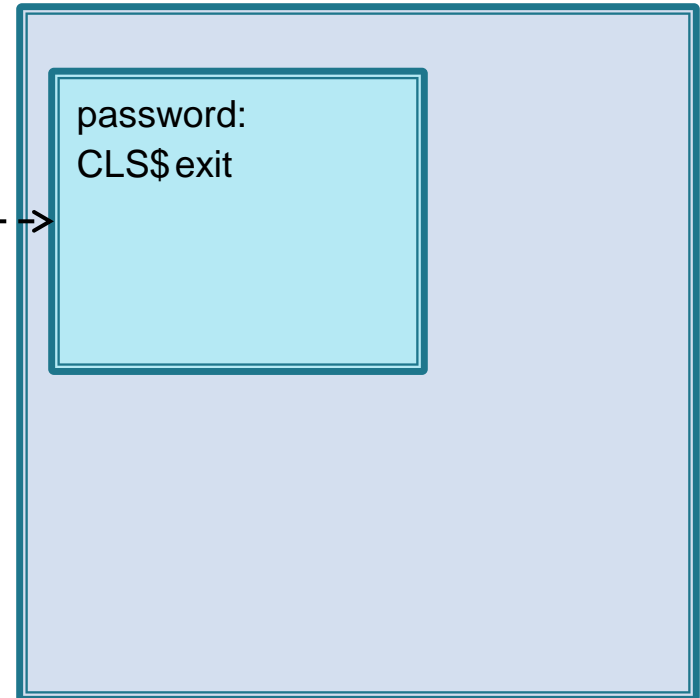
SSH and the Course Linux Server(CLS)

- all the details:
  http://teaching.idallen.com/cst8207/14w/notes/070_course_linux_server.html
- SSH (secure shell) is a program that allows us to securely invoke a shell *on a remote computer*
- On Windows: putty.exe
- schematically (abbreviated):

cst8177.idallen.ca (remote computer)

a terminal window on your
local computer

```
$  ssh user@cst8177.idallen.ca

$
```

```
password:
CLS$exit
```

SSH and CLS (cont'd)

▸ what we'd see locally (abbreviated)

local terminal window

```
$ ssh user@cst8177.idallen.ca
password:
CLS $ exit
$
```

SSH to CLS

- http://teaching.idallen.com/cst8207/14f/notes/070_course_linux_server.html

- cst8177-alg.idallen.ca represents an *internal* IP address that works only on campus: when on campus, use this one
- cst8177.idallen.ca must be used when off campus
- login id is your algonquin userid
- password is given verbally by your Prof(s) or another student
- Change your password at your first opportunity (if you haven't already)
- If you have firewalled internet access, you might try connecting to the CLS on Port 443 with
  - `ssh -p 443 cst8177.idallen.ca`

The First Lab

- a review exercise based on the material from the pre-requisite course.
- http://teaching.idallen.com/cst8177/15w/
- Tasks:
  - read the task
  - understand the task
  - what command do you need?
  - browse/grep the course notes and man pages
  - complete the task