

P56 Labs Intro

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This document provides useful information required for the practicals. All the information is located at: <https://github.com/cucl-srg/P56>; as we find bugs we will do updates – so `git pull` regularly.

1 Test Machines

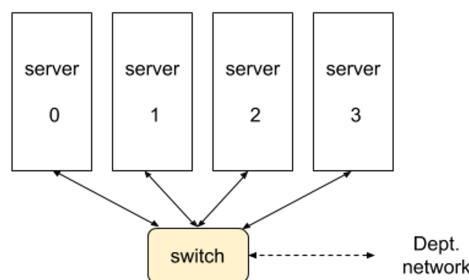
Each of you has been allocated a number of test machines.

All machines are named `l51-piXXX.nf.cl.cam.ac.uk` where XXX is a number from 001 to 048. Each of you is allocated four of these machines. The first machine in each four (001, 005, 009, etc.) is configured with an extra, SSD, disk but in all other ways they are identical.

Machines are located in the departments machine-room and are largely self-sustaining. However, if you have access issues raise them with Andrew or the TA team. If your machine needs (physical) rebooting; talk to Andrew.

You will interact with the machines via ssh:

1. I will presume you are using your own laptop; these instructions should also work for the ACS machines in SW02, I generally presume unix (linux) throughout.



2. When you are using your own laptop, you will need to gain access via the departments vpn service. In particular the in house service VPN2 is preferred. Details are at <https://www.cst.cam.ac.uk/local/sys/vpn2>
3. on your machine add the P56 ssh key you have been provided to your ssh keychain, e.g., `ssh-add id_rsa-keyset1`, the private keys are available from the restricted area of the the department lab pages for this module¹; your passphrase was provided when you picked up your textbook or will be provided to you in the lab.
4. Your username is the code 151 (that is lowercase L followed by the numbers 51) `ssh -X 151@<hostname>.nf.cl.cam.ac.uk` will use the ssh key. `ssh` is restricted to logins from department machines (such as the ACS workstations in SW02), machine on vpn2 and to machines on the Internal-CL wifi. The `-X` enables X11 forwarding, allowing you to run graphical applications on the 151 machines from your SW02 machine.
5. An ssh config will improve your life; I have these lines in mine to remove the need for many command line options.

```
ForwardX11 yes
ForwardX11Trusted yes
ForwardAgent yes
Host 151*.nf.cl.cam.ac.uk
User 151
```

2 Repository Structure

Important: As multiple teams may work on the same machines (using the same 151 account, clone the repository — using ssh in this case — `git clone git@github.com:cucl-srg/P56.git` to a local folder under your crsid, e.g., `~/awm22/P56`

- **handouts**
Practical sessions handouts.
- **lab-report**
Information and, as appropriate, templates for lab reports.
- **lectures**
Lecture slides.

¹<https://www.cl.cam.ac.uk/teaching/2324/P56/materials.html>

- **setup**

This folder contains various scripts for setting up tools and creating directories in which to save results.

Finally: using these machines is a privilege not a right; so please treat your machine (and the privileges on that machine) appropriately; there are machines enough for everyone, please don't share credentials