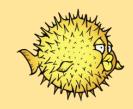


# Introduction to the COMP3301 VMs

COMP3301 - Week 1 Contact

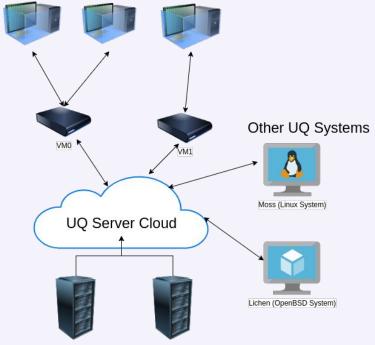






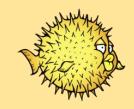
## COMP3301 Virtual Machines (VMs) and UQ Network

#### Student Virtual Machines

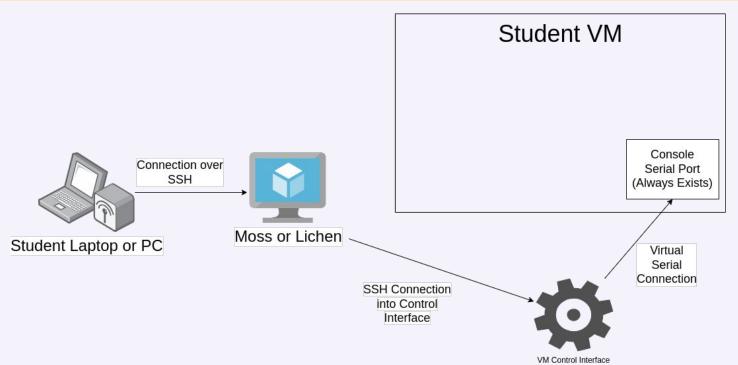






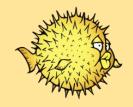


### COMP3301 Virtual Machine Initially (VM in stop)







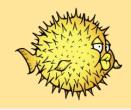


### COMP3301 VM Control Interface

- Where you can control your VM from
  - You will need to SSH into this first as the OS is not installed
  - You can enter the console (a serial port to your VM) here
- Commands
  - start → start vm
  - stop → stop vm
  - hard-reset → "pulling the plug and putting it back in again"
    - NOT a "factory reset"
  - status → see current status of vm
  - console → enter the serial console into your vm
  - exit → exit the control interface







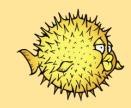
### COMP3301 VM Console

#### A serial port into your VM

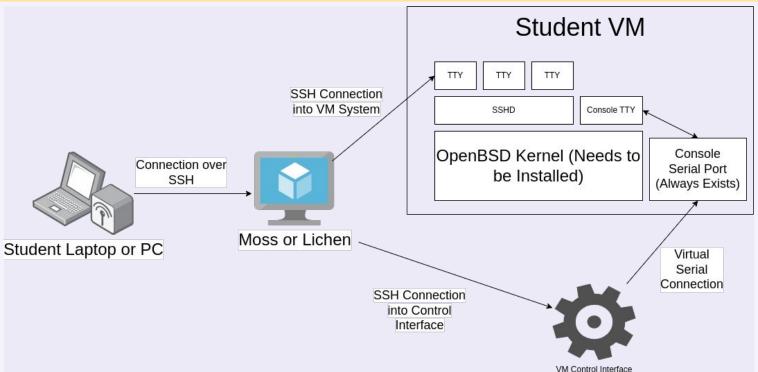
- All printfs from the kernel goes here by default
- Used during OpenBSD install
- Used when you cannot use SSH (e.g., kernel crashed, SSH/network broken, need to login as root)
- DDB, the kernel debugger that is invoked when your kernel crashes, is only accessible from the serial console
- You should use SSH otherwise





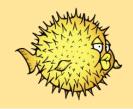


## COMP3301 Virtual Machine Booted and Working









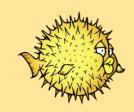
### SSHD and SSH connections

When the SSH daemon is running on top of the kernel, you can establish direct SSH connections into the VM

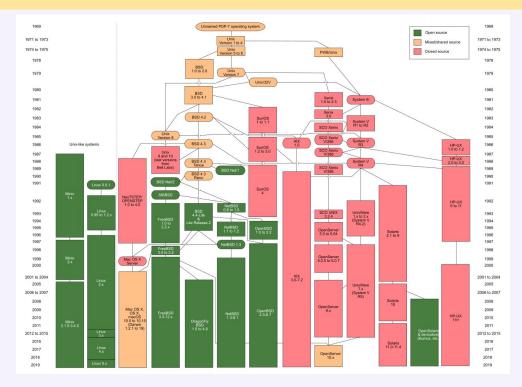
- No unnecessary debug logs printed
- Mouse support and etc. in your favourite editor
- Nicer interface and better looking text
- You should be using this for the majority of your development
- Will only work if you kernel is running and working properly





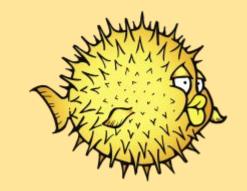


### **UNIX Family Tree**









# **HAPPY DEVVING!!!**

## Thanks for Coming



