**25/10 – Tech Labs Tutor**

**Role Description:**

**Tech Labs:**

* Separated network for networking students
* Tech labs have 100 machines in four classrooms
* Talk of expanding/empire building
  + Unenthusiastic about expansion
* Network is physically separate to the Ara Network
  + Actually separate machines/server/internet connection
* Has two machines in his office – 1 x Ara, 1 x tech lans
  + Can only access S Drive on the Ara machine
  + Therefore both computers always need to be running

**Virtual Machines:**

* What is mainly used
* Instead of buying lots of real machines, get one server to run in all and connect remotely
* Windows 10 has its own hyper visor to allow you to virtually run a Windows 7 computer on a windows 10 machine
* Virtualised Hardware – not software
* Provide a low risk teaching tool
* If broken, Virtual machines can simply be deleted and started again
* Good for teaching
  + Can run a whole suite of machines from one piece of hardware
  + Can back up entire machines

**VMWARE Workstation**

* Works on a hypervisor to run virtual machines
* Can use virtual hard drives for storage
* Tech labs is built around virtualisation
  + VM’s can be connected across the class, or in different rooms
  + WM LAN 2 – Machine on the internet (web server)

**Moodle:**

* Second tool used
  + Have used it since the early days
  + Was a tester prior to moodle
    - Previously used blackboard
  + First person to do assessments on blackboard
    - Meant it saved on paper and time spent marking
    - Nervous the first time using it, but it worked fine
    - Did this for four years before the department caught up
* Moodle is an imperfect tool
  + Terrible text editor – have to use HTML to make it look better
  + Labs ect. Can be put into moodle
  + Can log in and see what students have ben accessing
  + Can identify students dropping the ball
* No notifications are given, have to physically check logs, but can then see what students have been accessing
* Not just one things
  + Can create video – took a long time, and not done recently
  + Some colleagues put videos on YouTube and link through moodle
  + Trying class OneNote tool for supervising projects
    - Not a disaster, but not perfect
    - Happy to try new things in small groups to see if it goes well
    - Department as a whole is happy to try new things, and understanding if it doesn’t go well

**Questions:**

**What issues do you face?**

* Disc Failure
  + Becoming les of an issue
  + Problematic in the paperwork required to go and buy things
  + Stuff is bought through the IT department
    - Time consuming
    - Lots of paperwork
    - Forms hard/not liked
    - Rather go out and buy an item then charge it back
* Admin
  + Licencing of software not always clear on virtual machines
    - Microsoft licencing in particular complex
      * Have to be a lawyer and a genius to understand
      * Took a month or two in the states to work out the licencing issue
      * Always want to be legal, but need to be sure – Microsoft NZ couldn’t answer the question
      * Remote access licences not valid – according to Microsoft
        + Have LIBRA office instead
        + Possibly looking at changing to LINUX desktops

**What are your main roles in the department?**

* Teach
* Lead the networking team
* Purchasing equipment
* Setting specifications

**How is your relationship with Ara IT?**

* Have a good relationship with IT
  + Wasn’t always the case
  + Budget conflicts exist
  + Need to make sure that the machines are fit for purpose

**Are Tech labs usernames and passwords administered separately?**

* Used to be
* Ara accounts are used to log into tech labs server
* Ara domain control authenticates users for tech labs
* Can’t have separate accounts because of TRIBAL
* Looking at the possibility of federation level authentication
  + Good as one password/username
  + Less work, as only needing to set up each user once