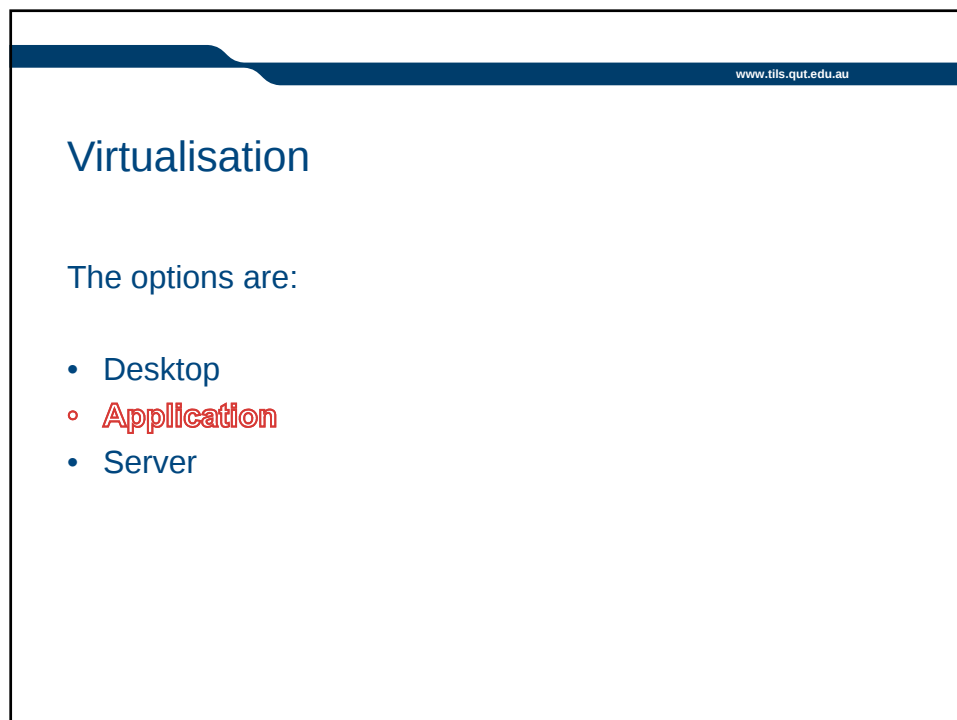
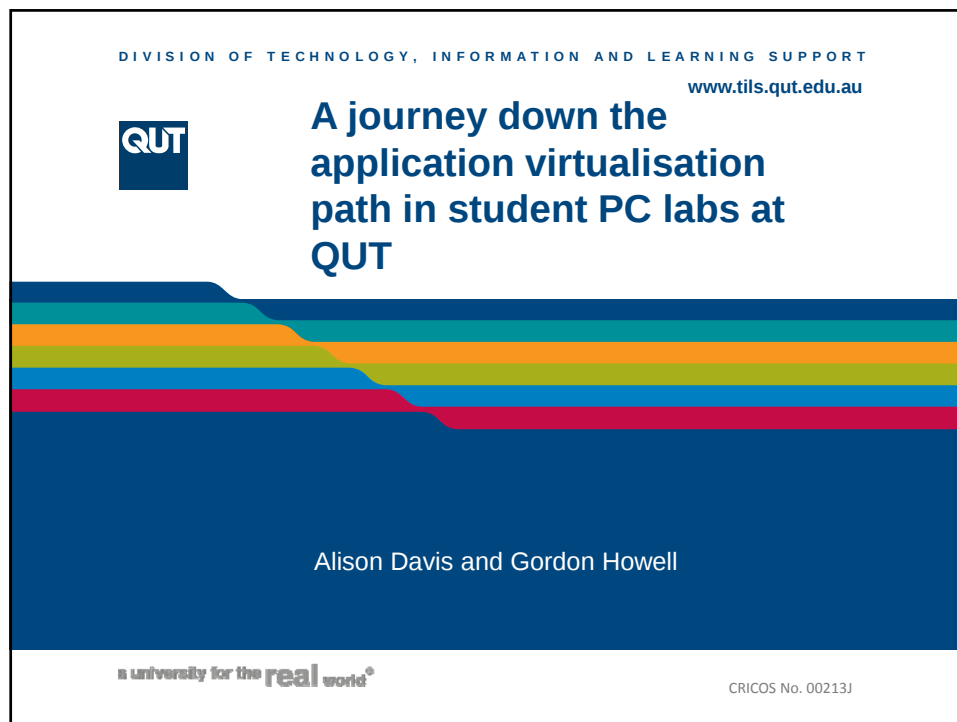




artistic impression

www.tils.qut.edu.au

gross floor area = 39,900sqm

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QUT Context

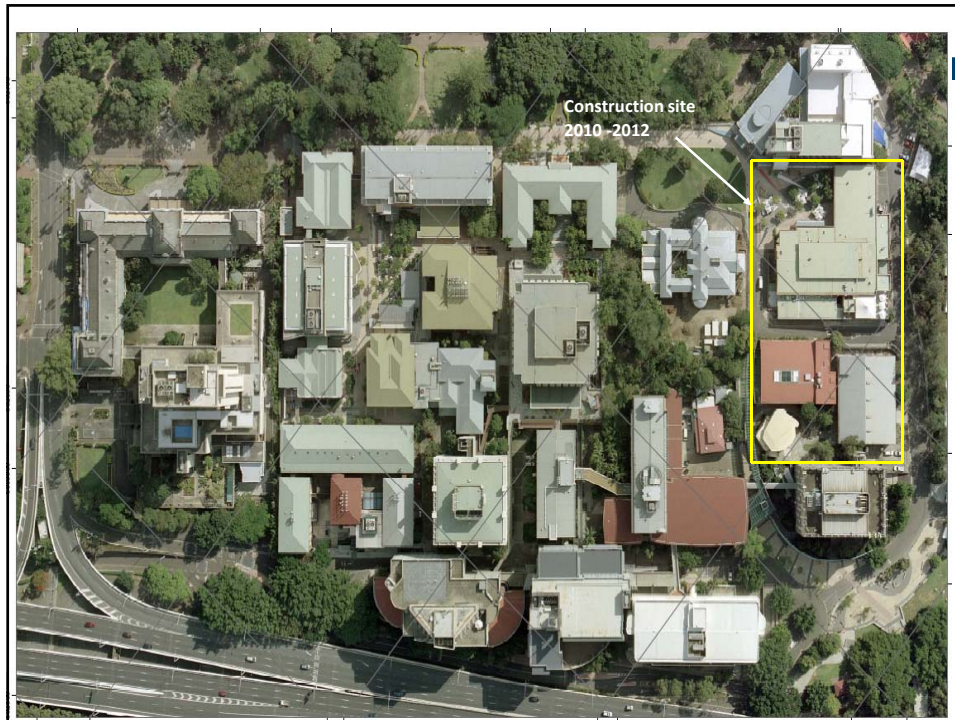
- 2 major city campuses – 5,000 staff, 40,000 students
- # lab machines
 - 1500 central lab machines
 - 2000 faculty lab machines
- Staff machines 6,500
- Approximately 60 faculty IT staff moved to our division Technology Information and Learning Support (TILS) in August 2008
- Faculties retained ownership and management of student labs, but TILS provided the image management
- Progressively central lab group have taken ownership of all but hardware refresh

Lab software – is anything **not** included?

- 600 software packages
- 60 labs
- Multiple versions of software
- Legacy software
- Licence control? (mixed acquisition between central and faculty)
- XP – ~~Vista~~ - Windows7 – Macs
- Sessional (and disorganised) staff – *ad hoc* software requests
- Manage and deploy : Deepfreeze and Rembo and Ghost

The Science and Technology Precinct.....

- Space diminishing
- Short timeframe (over summer)
- Faculty lab sharing of the 2 most complex faculties (Faculty of Science and Technology and Built Environment and Engineering) – student experience
- Politics
- Deployment and management solution too complex for new regime
- Co-location of lab staff (a positive!)

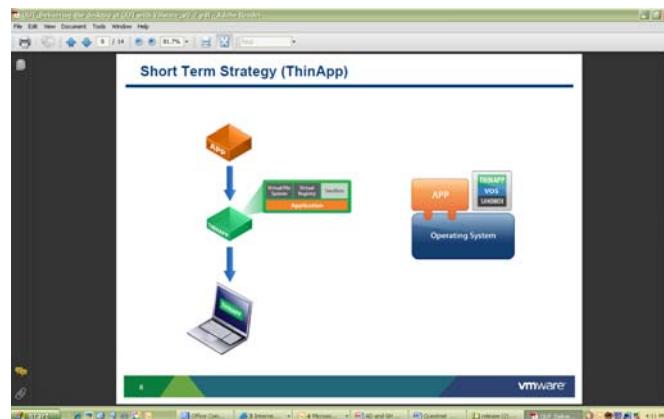


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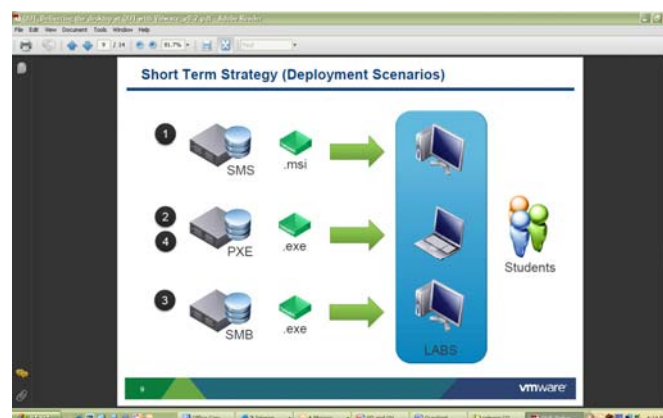
Dell and QUT and VMWare

- QUT has VMWare site licence
- Dell co-funded initial consultancy
- VMWare view chosen as the tool of choice
- Dell engaged VMWare to provide in-house training for staff (Jason Mantell)
- Initially planning to stream fat image (abandoned)
- 1 week with consultant to advise options forward....

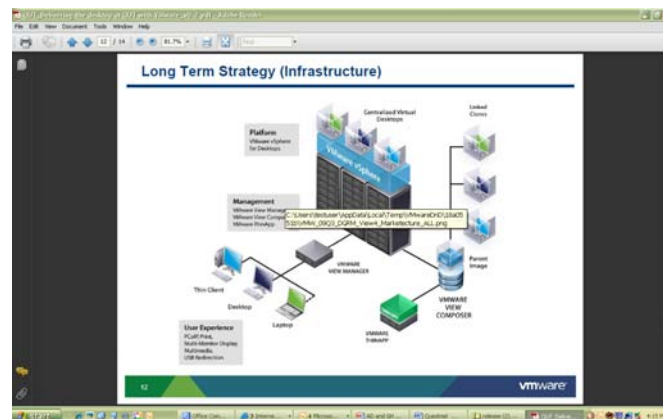
Options



Short term (cont)



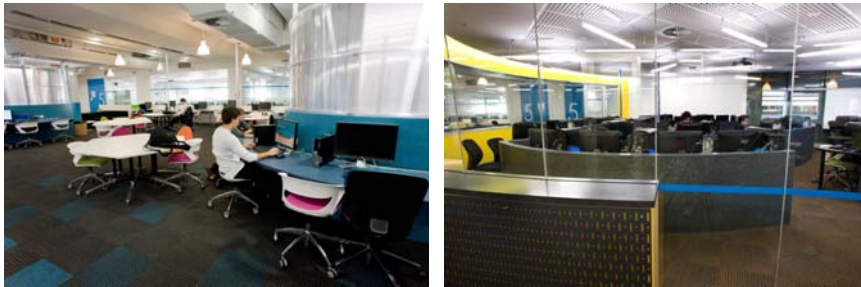
Long term



The journey

- Staffing (operational only)
 - 3 major central groups + some devolved staff :
 - IT Services desktop group – software SOE and standards
 - Lab group Learning Environments and Technology Services(LETS) – most QUT labs
 - Technology Support (LETS) – second level support
- Training
 - 50 people to be trained over Summer
 - 8 training sessions with hands on lab follow-up and consultant used for problem solving (done over 3 visits – last one Easter)
 - 1 training session run by ITS team leader when consultant sick on the day
- Collaboration and cooperation and organisation
 - Well publicised SharePoint site authoritative source of applications packaging status

New STEM Learning & Teaching space (GP-S5)



What we achieved for semester 1 2010

- GP S5 up and running (233 desktops, 138 laptops)
 - 2 triple boot CISCO academy labs (WinServer 2003/XP/Ubuntu)
 - All desktops dual boot (XP/Ubuntu)
 - 1 Windows 7 lab for the games degree at the 11th hour
 - 4 standard labs
 - 4 with laptops and some desktops (group configuration)
 - General area – group work / space for student laptops
 - BEE originally 150Gb + FaST 120Gb images
 - Image size 110Gb due to virtualisation of most BEE and FaST applications
- Laptops secured to desks (not mobile)
- Opportunity for academic staff to try different spaces in preparation for new Science and Technology Precinct

Current application packaging status

Lab Apps (documented)

- 416: Total Lab Applications:
- 101: applications attempted packaged
- 56: Packaged application completed QA
- 30 : packages passed QA
- 0: Packages confirmed User acceptance tested

Staff Apps

- Windows 7 testing:
 - 55: Total
 - 20: Completed UAT
 - 3: Failed because of driver dependency

Lessons Learnt

- Central repository essential
- Communicate communicate communicate
- Planning is critical for these activities with a well managed project – but sometimes you have to just do it and clean up afterwards. You **will** be blamed for anything that isn't perfect ☺
- Stakeholder buy-in – genuine testing by the academics – only negative feedback when there was a problem is the norm. Because this is new technology, ownership by primary stakeholder challenging to achieve. E.g. unit coordinator, course coordinator and lecturer may be different people and only the lecturer can test all of the course content and certify UAT.
- Some excellent academics work with us – very collaborative and cooperative – but how do you move the others ?

Future

- Establish a mandatory well documented testing procedure
- 1 image to rule them all
- Close to this with Law and Business, Health and Education
- Cross disciplinary students can access anything from any lab.
- Application streaming
- Virtual desktops
- App-V integration (Microsoft – 64 bit)
- Virtualised environments
- Combinations of above
- Towards “PC as a pen”
- From cottage industry to centralised industrial strength

Questions?