



'Paper Less' or 'Paper Free' on the back of the wireless infrastructure a tablet device that will work as an electronic lab note book, desktop and soft phone client.



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Agenda

- IS Policy Consolidation, Self-service and Automation.
- What does paperless mean?
- Current State
- What are the Biosecurity requirements?
- The Lab Book
- Risk Spaces
- Equipment
- Flexible Usage and BYOD
- Software
- Next Steps
- Summary

Consolidation, Self-service and Automation.

Information Services will maintain, leverage and expand the Institute's critical information and telecommunications technologies.

Information technology is a fundamental tool for the Institute. The IS mission is to meet these needs by providing reliable and sustainable technology services, equipping and supporting quality technical resources, improving and implementing appropriate hardware and software and enhancing all aspects of technology through teaching and learning.

The focus of this IT transformation will be <u>Consolidation, Self-service and Automation</u>

Scientists are not your average IT user.



Our Work place.

There work place.



What does 'Paperless' mean?

- Not requiring paper because of the use of computers and other electronic media to record, convey, and store information: *a paperless office*
- Our choice is using the term low paper usage rather than paperless as it's too emotional for some people....



Current State

- All Scientists use a hard back paper notebook in each lab to record their experiments.
- On average each scientist will use a minimum 2 notebooks each year and they will keep them for 10+ years as legal reference documents.
- The notebooks are stored in the scientist's lab.
- IS4L RM17 Printers and scanners are available but paper is not to be taken back into a lab.
- Main Lab is in a state of change to a training area, 2 printers are available.
- Epidem Printers and scanners are in the labs no paper can leave a lab once entered.
- VRD Annex small office that has its own printer

What are the Biosecurity requirements?

- Documents required for storage should be identified as critical and collated and inventorised within each Group. Therefore do not keep any documents whose origin is unclear, however, the destruction of documents can only be carried on approval of the Group leader.
- The documents should be double bagged preferably in autoclave bags as they give greater visibility to the contents.
- The bags should not be overfilled and should allow the open end of the bag to be neatly folded over (envelope style) and taped closed with strong tape such as masking tape or duct tape.
- The taped opening of the bag should then be sealed with a tamperproof label and clearly marked with the date and the user name. If the seal is broken for any reason, it must be resealed and re-dated. The date on unbroken labels will validate the removal of paperwork from the restricted area in the future.
- Information on the contents of the sealed bag must be taped to the front of each bag and should give a
 comprehensive description of the contents. This should clearly identify the following; the author, Group
 code, the contents type (e.g. lab book), numbers of reports, lab books, test results, service reports,
 DEFRA or BBSRC reports, animal experimental number if known etc. The description of the contents
 must be taped into a polypocket and this must be attached onto the front of the sealed bags.
- Before removal of the bag from a SAPO licensed laboratory, the bag must be disinfected with FAM 1:240.
- Bagged documents will be stored in sealable boxes within a lockable designated room in an unlicensed laboratory area (e.g. within Main Lab).
- After a period of 2 years, defined by Biosecurity, the paperwork can be externalised if required.



The Lab Book



The Lab Book





Risk Spaces





Equipment

- VDI Scoping Exercise showed 6 servers should comfortably satisfy the performance requirements.
- Storage we will need approximately 5000 IOps and about 6.6TiB of disk capacity
- Thin Client provision Dell (Wyse terminal) or Igel
- Tablet TBD Capacitive vs Resistive (Cost, Screen size) 178 (Est.) Lab positions 130 scientists 75 phd students. Not all scientist will use this building as a new CL2 lab is being built. Not all scientist will stay in their designated lab. 1 Lab for 12 people already has an allocation of 40 people in it.
- Device per person or a device per position? Per person it's more personalised but has massive biosecurity restrictions. Tablets in bags to allow disinfectant (IP65 Rated Disinfectant) but can't be charged? Tablet per position 10% more tablets? Tablets will be deemed consumable due to the containment if they break they simple get replaced with new. 5% contingency per year in case of failures.

Flexible Usage & BYOD

- Concept of Flexibility user can put down and pick up with the cursor where they left it.
- User gets the same experience from home, outside containment, inside containment and in the lab. Mobile is a future aspiration
- End point becomes users telephone 1 number follows user around. Current state users have 4 numbers no traceability.
- Security All data remains on our servers within the institute.
- Email as part of the consolidation exercise we are looking to migrate away from blackberry* and offer mobile iron as an interim solution before VMware integrate Airwatch or Citrix Zenmobile has been tested.

* 128 Blackberries at the Institute 300(ish)Staff 1 every 3 members of staff. Currently no integration into the Mitel phone system so a 5th number for some



- The project moved on to look at off the shelf products that could satisfy the Institutes requirements Initial demonstrations from IDBS, Irisnote and Accelrys.
- An off the shelf product will account for 80-85% of the requirements with developments required in either the product or a secondary software most likely Microsoft SharePoint and OneNote.
- An ELN will increase the efficiency of scientist by up to 20% due to not having to retype notes.
- Having contacted a number of institutes in the UK and abroad most have settled for SharePoint and OneNote due to cost



Next Steps

- Tendered for an ELN and VDI Solution
- Proof of Concepts \ Working Groups being step up for both solutions it's imperative that there is buy in from the scientist's.
- POC will blend into group trials prior to full deployment in July. The sooner it's adopted the better.
- DP1 will be occupied in November!

Summary

- Understand user requirements
- Engage early with user base but never let them take control
- Budget! And always add 20%
- Don't underestimate the task people having been using pens and paper since they were born! To some computers are still new concept!!
- Scientist's are here to do science and we are there to support them.
- Embrace Change!

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