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Your Hospital

Mark Blakeman

Launch of the NHS-HE Connectivity Web Site

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What were we trying to achieve ?

- Connectivity, between Universities and the NHS to support;
  - Access to NHS systems from University networks
  - Access to University systems from the NHS
  - Access to relevant internet based systems and web sites from within the NHS, when these would otherwise be blocked.
  - To leverage to bandwidth available to University for students when they are on NHS sites.
- To put in place policies and procedures to support connectivity, whilst not increasing the risks of data security to either party.
- To give organisations confidence that they can move forward with confidence that they are implementing best / common practice.

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Current Position

- In many hospitals, researchers and students, teachers and medics work hand in hand to the benefit of both the NHS and also their University.
- Their work is often complicated by the different IT systems policies and procedures between the two sectors.
- In many teaching hospitals, there will be two completely separate IT networks, one provided by the university, the other by the NHS.
- This may at first seem to be highly secure
- But…fails to provide the access that staff require to do their jobs leading to "workarounds".
- Often consultants will have two PCs,
- More junior staff may use alternative technologies such as personal smartphones or 3G enabled laptops.
- Key to this report is the understanding that smartphones are now so widespread that it is impossible isolate the NHS from the advantages and disadvantages of the internet.
- The vast majority of staff will have technology that allows them download or upload whatever they like on their phones.

Challenges

- The NHS is rightly worried about the security of the data it holds.
- In using and storing sensitive and confidential data, the NHS has a responsibility to ensure that it is kept securely.
- IT managers in NHS hospitals also have to manage their IT networks to ensure that;
  - Bandwidth is used appropriately and is targeted at business critical systems rather than casual browsing.
  - Their organisations get good value from their IT, rarely having the budgets to buy the latest and greatest.
  - Staff don't abuse the internet
  - Corporate systems that often aren't compatible with the latest operating systems and software (such as Internet Explorer, Flash, JAVA etc) continue to run reliably.

The Challenges

- – Innovative universities have of course seen the value the internet has in providing educational material and learning.
- – Many of the sites such as YouTube, Facebook, and webmail have tremendous educational value, but are often blocked by NHS organisations.
- – In the ideal world it would be possible to resolve these challenges.
- – The work of the group has been to show how it is possible to provide the access that staff need despite theses challenges.
- – A key aim of the group has been to find ways to live with the reality, rather than change it.

A group of experts (plus me)

Chris Franks (CF)	Sheffield Teaching Hospitals NHS Foundation Trust
Andrew Howe (AH)	University of Dundee, Computing & Media Services
Natalie Lafferty (NL)	University of Dundee, Centre for Academic Clinical Practice
Martin Liddament (ML)	The Information Centre for Health & Social Care
Dave Moody (DM)	Leeds Teaching Hospitals NHS Trust
Andy Pellow (AP)	University of Leeds
Tim Robinson (TR)	Net North West
Andrew Steel (ASt)	University of Leeds
Malcolm Teague (MT)	JANET(UK)
Martin van Eker (MvE)	University of Bristol, Centre for Medical Education
Betsy Anagnostelis (BA)	Royal Free Hospital Medical Library & UCL Library Services
Ged Connelly-Thompson (GCT)	NIHR LMBRU
Joe Grant	University of Plymouth
Mark Packer (MP)	Brighton & Sussex Medical School
Andy Pellow (AP)	University of Leeds
Andy Richards (AR)	UCLH
Andrew Simpson (ASi)	Hampshire Healthcare Library Service
John Treadwell (JT)	Royal Devon & Exeter IMT Shared Service

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What have we delivered

1. A web site.
2. A series of case studies.
3. Sample policies and procedures.

Potentially leading to

1. Identification of best practice
2. National policies

Resources

– The web site provides access to resources to that will enable organisation to resolve these challenges

– Information about the JANET-NHS N3 Gateway.

– Guidance on resources that every medical student will require access to as part of their training from NHS desktops.

- In making these recommendation we acknowledge that for many trusts this will necessitate relaxing some of the rules they currently have.

- In giving this guidance, we want to give NHS trusts the confidence to appropriately provide access.

- Whilst Trusts will of course need to do their own risk assessment on these changes, we believe that by collectively agreeing that certain sites should be available, it should help with concerns of reputational damage should a member of staff abuse the access they are given.

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Resources

– A sample process for how students should receive NHS user names, passwords and access;

- Provided by Sheffield Teaching Hospitals
- Describes in detail the process for allocating passwords to academic staff and students.
- Gives details of the Sheffield academic "proxy server", which allows high speed access via JANET for staff with academic contracts.
- Provides information on how STH has established a pseudonymised data warehouse to support research studies.

Resources

- Case studies into how terminal services can be used to securely provide an NHS desktop on a PC connected to the university desktop and vice versa.
    - Case study from the University of Bristol
        - Provides access to electronic learning resources, journals VLE and email from NHS desktops across South West.
        - Also provides access for nurses from the University of West of England.
        - Initially setup using 8 Citrix servers to provide a service for up to 750 students. Acess provided using leased lines and separate networks.
        - Has moved to using the N3-HE gateway and Microsoft RDP and Hyper-V.
        - Describes the issues with printing and third part tool used to resolve them.

Resources

- Case study from Dundee University.
  - Initially setup to overcome the limitations of internet access from the NHS for students (out of date browser, little multi media capability etc etc).
  - Uses Citrix
  - Provides for up to 150 concurrent users.
  - Provides details of costs.
  - Describes the need to consider blocking access to local resources. (local drives, clipboard etc)
  - Initially setup via the N3 Internet gateway which gave slow performance.
  - Now migrated to the N3-HE gateway, resolving this major bottleneck.
  - Due to problems supporting a modern version of the JAVA run time, requires an ICA client to be installed on NHS machines.

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Resources

- Case study from an International Corporation.
  - Provides information that may be of interest to Universities with an overseas campus.
  - Utilises Sun Global Desktop.
  - Describes the encryption and secure tokens used.

Resources

– Information about how the NHS and HE can joint network capabilities, including wireless networks and eduroam.

- Information from Manchester University;
    - Dark fibre link between the Trust and the University.
    - Allows university staff at the Trust to access JANET.
    - Provides controlled for all staff to Janet.
- Case Study from University of Edinburgh and NHS Lothian on how they have been able to appropriately share imaging data.
    - Created a "no mans land" between the University and the NHS.
    - Describes the firewalling and IP addressing that was required.
    - Discusses some of the issues associated with the large size of research scans (4-10GB for a full body scan) and how they have been resolved.
    - Details the processes to ensure that only anonymised data is passed through for research purposes.

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Resources

– Case study from Oxford University
- Shows how wireless access can be provided to the University from NHS sites across Oxfordshire from the NHS wireless infrastructure.
- Uses Cisco technology.
- Explains the origins and use of Eduroam.
- Describes the network infrastructure, encryption and firewalling.
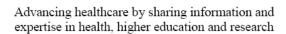- Outlines the organisation responsibilities.

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Resources

– Case study from Plymouth Peninsula College.

- Explains the use of Eduroam at Royal Cornwall Hospital

- Allows staff, students and research staff to obtain wireless internet connectivity.

- Explains the network infrastructure, firewalling and security.

- Uses Cisco technology.

Resources

– White papers from Cisco;
  - Wireless Guest Access.
  - Reciprocal Wireless Access.

Next Steps

– Formal launch in the next couple of weeks.

– Ongoing resource

– Would welcome further case studies.

– Would like to thank all of those who have submitted case studies so far.

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