

NHS-HE Connectivity Project

UK MAN Managers' Group
13th April 2005

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Overview

- NHS-HE Forum
- NHS-HE Connectivity Project & Co-ordinator
- Scope & Geography
- Currently agreed NHS-HE Connectivity Models
- Case studies
- NPfIT and N3
- Issues outstanding
- Key messages today



NHS-HE Forum

- Set up in 2001 in exasperation!
- By Prof Roland Rosner
- Informal get together to try and improve connectivity and joint approaches to content
- Next meeting: 12th May at UCL



NHS-HE Connectivity Project

- Objective:

”To achieve good inter-operability between NHS and Higher Education (HE) networks that enable secure anytime, anywhere access by medical and allied profession students, clinical teachers and researchers”

- www.nhs-he.org.uk
- NHS-HE Co-ordinator post jointly funded between JISC and the NHS for two years
- Post based at UKERNA but also part of NHS



Scope (HE)

- UK
- 32 Medical Schools (15 include Dental)
- ~70 Nursing & Allied Profession Schools
- 59 run core adult nursing
- Only ~17 linked directly with Medical Schools
- But “health” is big on partnerships



Scope (NHS)



- UK
- England, Wales, Scotland & N Ireland have different policy makers
- England:
 - 28 Strategic Health Authorities
 - 302 Primary Care Trusts (PCTs)
 - 175 Acute Trusts (some now “Foundation”)
 - 84 Mental Health Trusts (19 PCTs, 5 Care Trusts)
 - 8 Care Trusts
 - 31 Ambulance Trusts



Scope (NHS) contd

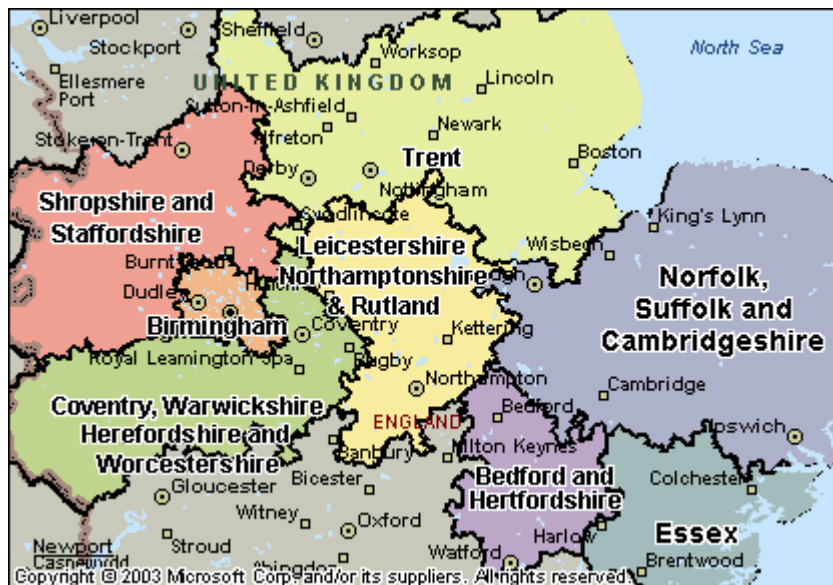
- Wales
 - 22 Local Health Boards
 - 13 Acute Trusts
 - 1 Ambulance Trust
- Scotland
 - 15 Health Boards
 - 28 Trusts (Acute & community)
- Northern Ireland
 - 4 Health and Social Services Boards
 - 16 Trusts (9 include Acute)
 - 1 Ambulance organisation





Source: www.nhs.uk





Source: www.nhs.uk





Already agreed!

- Authenticated browser access
- NHS to HE access through firewalls
 - Eg. Kings College Hospital, Plymouth and Exeter, Birmingham
- Andrew Cormack paper (see www.nhs-he.org)
- Three-tier client/server model - “thin client” eg using Citrix MetaFrame[®]

Citrix MetaFrame is a registered trademark or trademark of Citrix Systems, Inc in the United States and other jurisdictions



Case Studies

- **SHAUN (Addenbrookes)** see www.nhs-he.org.uk
- **All Wales Project** see www.nhs-he.org.uk
- **Bristol Clinical Academies**
- **Knowledge Spa, Truro**
- **Do you know of any to be developed?**

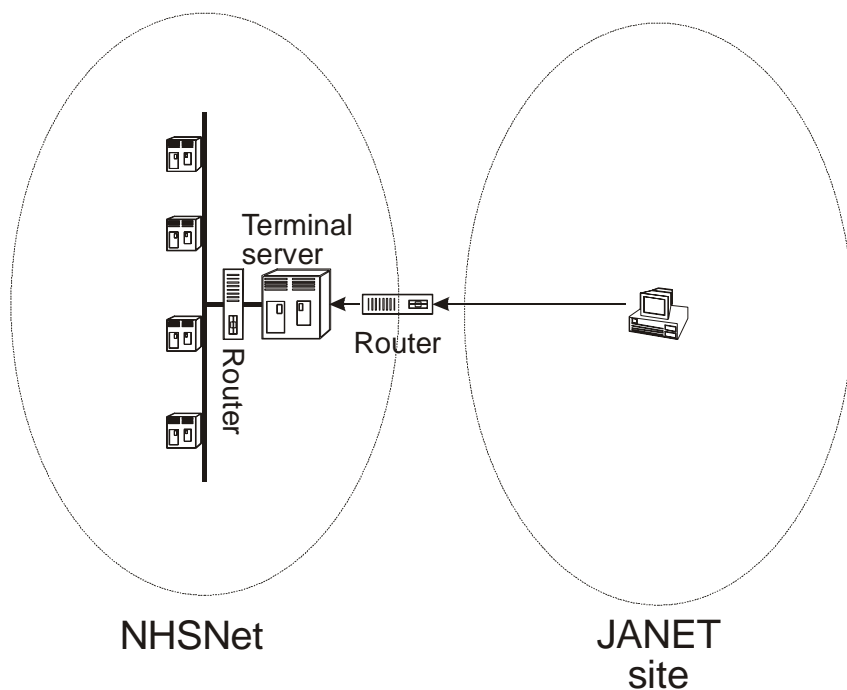


“Cormack” Architecture

Internet/JANET

- Three tier model
(from Cormack 2002)

- Terminal Server with two interfaces on Trust network
- Firewall / router separating the University and Trust networks



S.H.A.U.N components

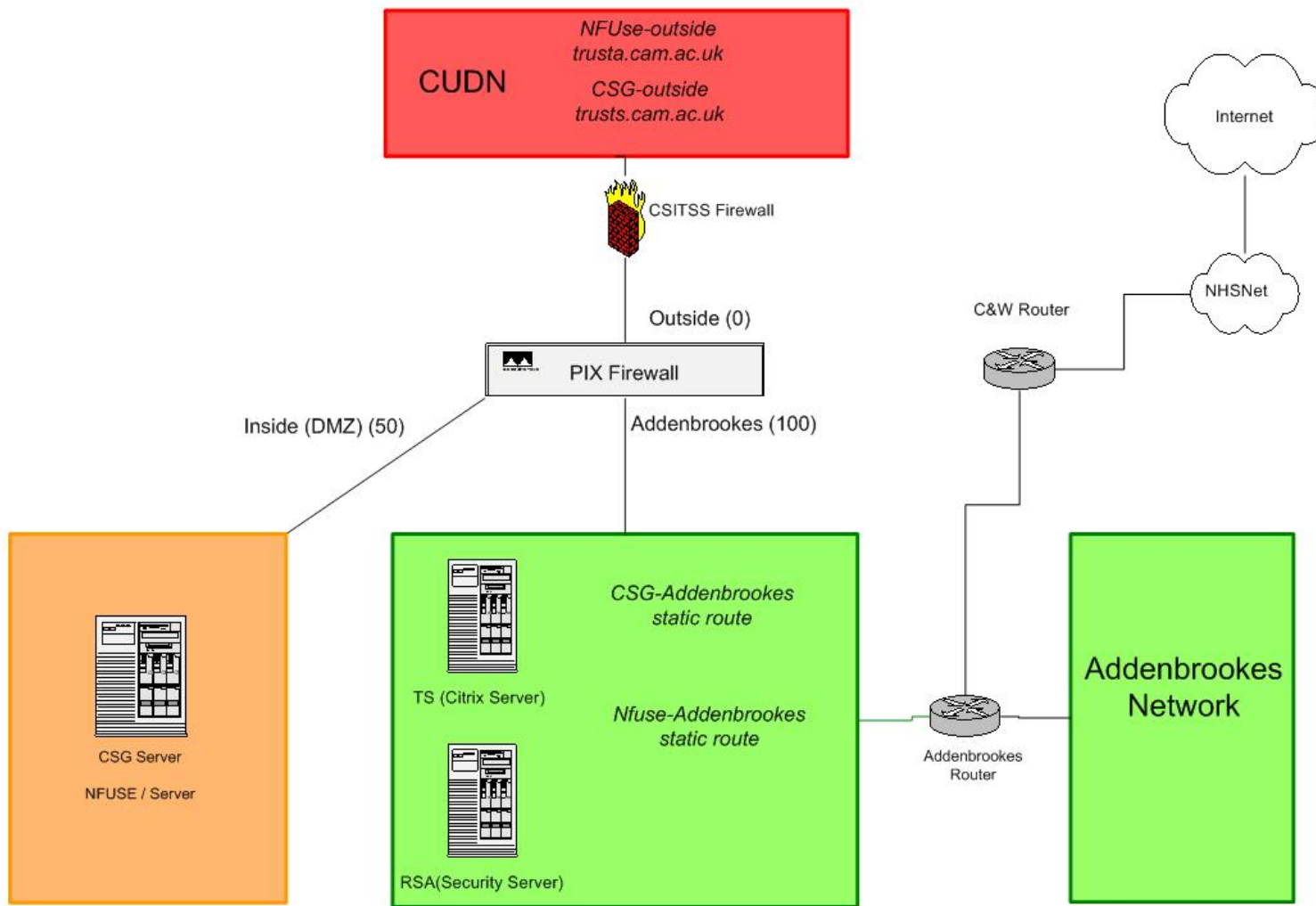
from Geof Smith, Addenbrookes

- PIX firewall with failover (EAL 4)
- Two factor RSA token authentication
- Citrix secure server technology
 - Citrix secure gateway
 - Data encryption (SSL)
 - Application runs on Trust network
 - Viewed with a web browser
- Appsense or NFuse Elite



SHAUN Architecture

from Geof Smith, Addenbrookes



S.H.A.U.N – Access

<http://trusta.medschl.private.cam.ac.uk>



**Citrix®
NFuse™ Classic**

Login

• Username

• Domain Password

• SecurID PASSCODE

Log In

MetaFrame Application Portal

Please log in

- To log in to the application portal, type your user name, Domain password, and SecurID PASSCODE in the boxes at left.
- Click the Log In button to log in.

If you do not know your login information, please contact your help desk or system administrator.



NPfIT and N3

- N3 is the new NHS broadband network being implemented as part of the NHS National Programme for IT (NPfIT)
- One of several England-wide NHS contracts
- N3 contract is with BT, replaces NHSnet
- 5,000 out of 28,000 connections delivered
- N3 to Janet Gateway
- NPfIT: New security model – security specific to the application
- Any communication that includes patient, clinical or managerial sensitive data must be encrypted (but network level encryption not standard)





NHS NPfIT Regional Clusters

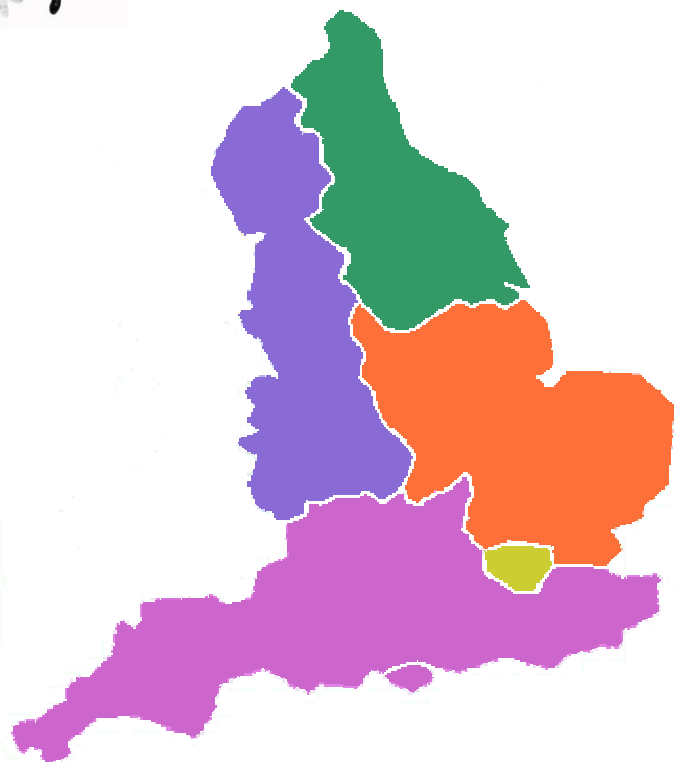
After much discussion, it was decided to split England into five geographic regions - each cluster comprising five, six or seven Strategic Health Authorities (SHAs) – who agreed to work together to take forward the procurement and implementation of National Programme services at local level. The clusters are:

Eastern
London
North East
North West & West
Midlands
Southern

Each has a Local Service Provider (LSP) Contract

Source: www.npfit.nhs.uk/





Source: www.nhs.uk



Issues Outstanding Include:

- Engagement by the NHS – many other priorities, perceived high risk
- Organisational turbulence (eg demise of NHSIA)
- N3 to Janet Gateway specification
- Video-conferencing and telematics
- What is needed for Janet to carry clinical data as collateral to its education and research mission?



Key Messages

- There are some solutions
- Security models are changing
- More NHS IT buy-in needed
- Nationally agreed solutions, “Natural Community” or Regional implementation
- NHS-HE Forum, 12th May: Mark Ferrar speaking on N3 to Janet Gateway
- Get in touch please
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