



The N3 JANET Gateway: start of a strategic solution for NHS-HE Connectivity?

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Context: NHS-HE Forum

- Started in 2001 by Prof Roland Rosner of UCL
- Informal but influential group from HEIs and NHS
- Forum meets twice a year
- More recently a parallel event in Scotland too



Main NHS-HE Forum Topics

- **Network Connectivity**
- Joint procurement of content (library and e-learning resources)
- Access to health data for research, e-science
- Access Management (ATHENS, UKAMF: primarily for library, knowledge, e-learning and research resources)
-may be soon Academic Health Service Centres....as with Imperial College Healthcare NHS Trust





Objective:

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

www.nhs-he.org.uk

To move away from 2 PC syndrome



Health Network in England & Scotland (N3)



N3 Goals (the New NHS National broadband network)

Broadband network linking 18,000 sites in England, up to 3,000 in Scotland and 10,000 non-NHS

Enabling key NHS applications

One of the largest VPN networks in Europe

Expected savings c£900m over seven years

Serving one of the World's largest employers – 1.1m

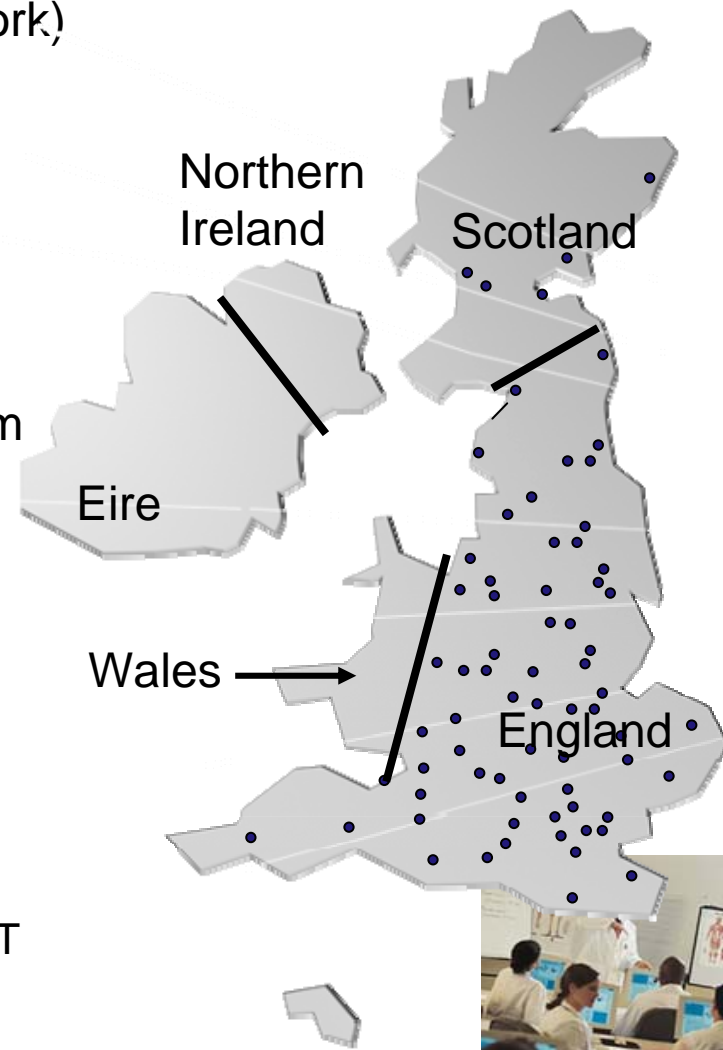
N3 Service Provider

BT fulfilling a network aggregator role

2.5years into 7year contract

58 PoPs and 12,780miles of Fibre to date

500 People employed within BT



Slide adapted from John Hemsley, BT



N3 – Enabling the NHS National Programme for IT

(England)



Electronic Transmission of Prescriptions



NHS Care Records Service



NHS Mail



Choose & Book



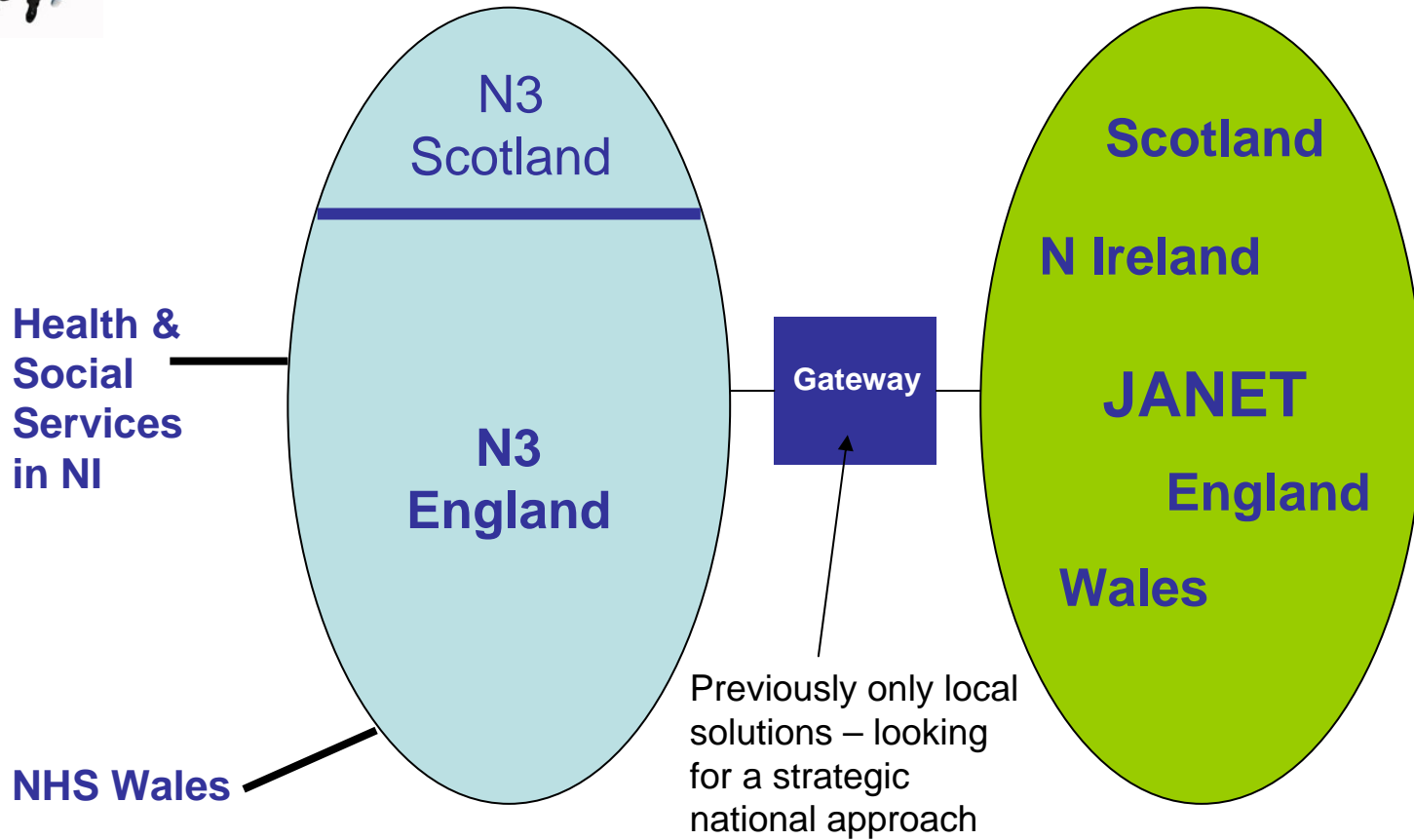
Picture Archiving & Comms Systems



Slide adapted from John Hemsley, BT



Home Country NHS & UK Education and Research networks



European Context

- Home countries except Wales (soon) have separate health networks, like Sweden and most European countries
- Denmark uses their equivalent of JANET (UNI-C) for health messaging and inter-site connectivity
- More on Wales later.....





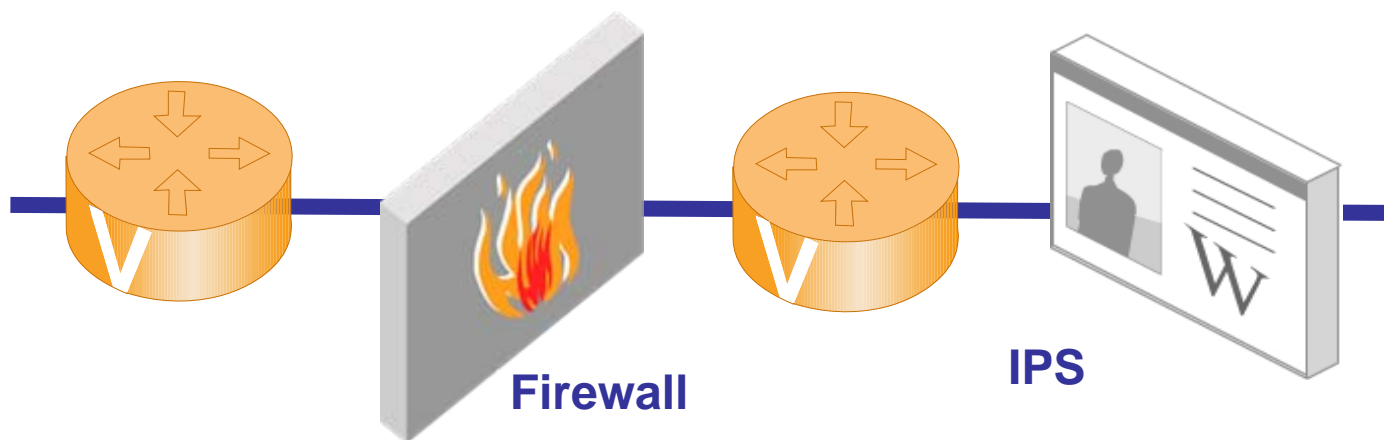
N3 JANET Gateway ja.net Objectives JISC

- to build a gateway for “early adopter” use
 - selected projects as pathfinders
- to analyse traffic crossing the gateway
 - amounts, and types of use
- to demonstrate practical collaborations
 - establish that investment was worthwhile
- to prepare a case for a permanent gateway
 - sized and operated appropriately



Physical gateway

connect JANET backbone & N3 core




single 100 Mbps interconnection in London



Today

- Gateway infrastructure in place early November 2007 (clock ticking on 1 year contract)
- Traffic is passing for 2 early adopter sites – some diverted from N3 Internet Gateway and some “new”
- Sessions initiated in N3, “Any N3” through “Any port” but to early adopter IP addresses only
- Tandberg Expressway in place and about to be commissioned (for H.323 videoconferencing as part of JVCS)



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- A group of healthcare professionals, including nurses and doctors, standing together in a clinical setting.
- CETL4HealthNE: University of Newcastle with University and NHS partners in NE of England
 - University of Bristol & UWE| Clinical Academies

And soon...

- JANET Videoconferencing Service (JVCS)
- University of Birmingham
- Wellcome Trust Sanger Institute
- University of Edinburgh (later)
- Interested in others



Information Governance (England)



- NHS “Statement of Compliance” emerged
- SoC for JANET(UK) as the aggregator
- SoC for each University as an early adopter? Agreed not for the initial set up.....as long as no patient identifiable data (PID) involved.....[Update: now agreed that not needed for any sessions initiated in N3]



Now: Sessions initiated in N3; no PID

Sessions initiated in:

	N3	JANET
No PID	Now	Investigating: Eg NHS intranets
PID	Soon Eg collecting research data	Access to NHS clinical systems



Next 1: Sessions initiated in N3; **may be PID**

Sessions initiated in:

	N3	JANET
No PID	Now	Eg NHS intranets
PID	Soon: Eg collecting research data	Access to NHS clinical systems



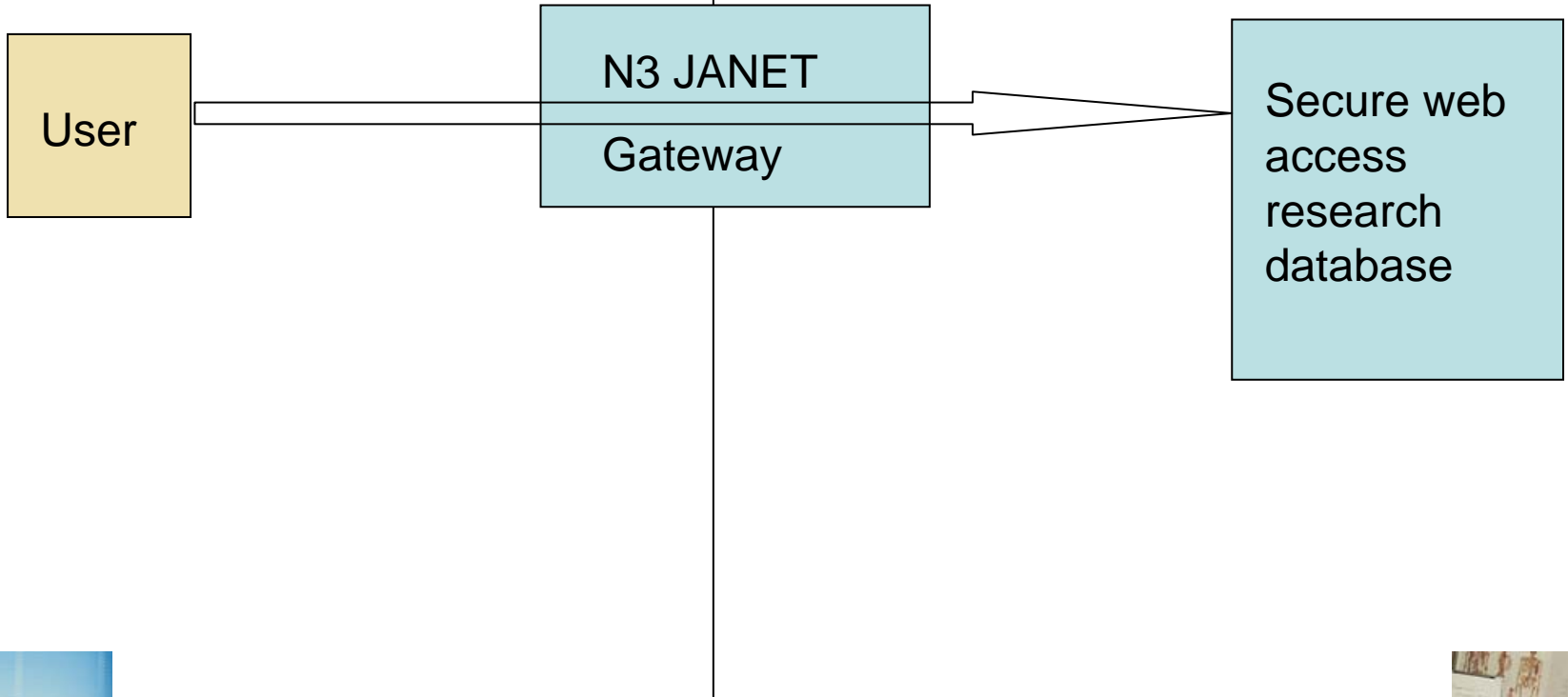


Next 1: Sessions initiated
in N3; **may be PID**



NHS, N3

Education &
Research, JANET



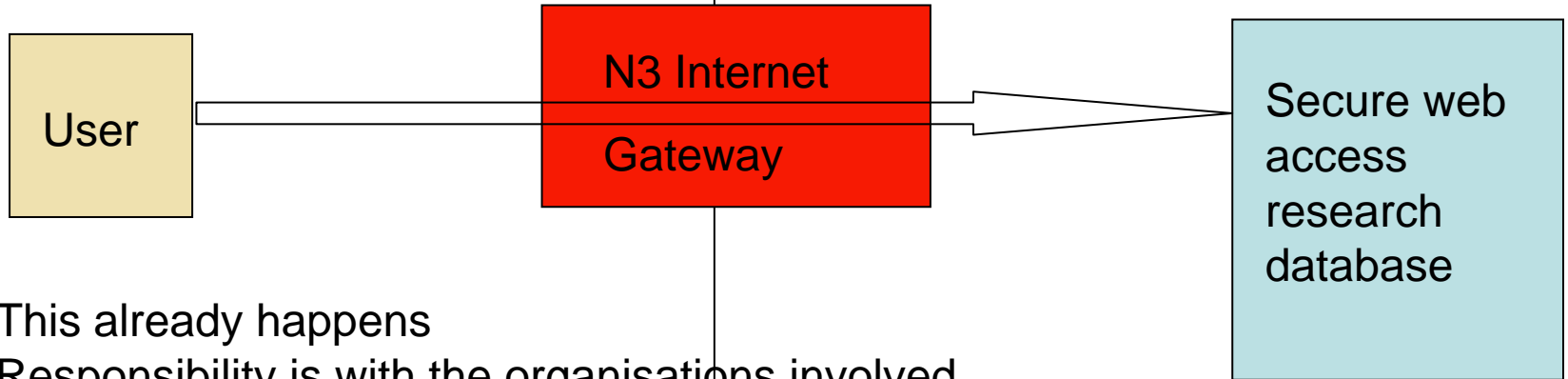


Next 1: Sessions initiated in N3; **may be PID**



NHS, N3

Education & Research, JANET



This already happens
Responsibility is with the organisations involved
and research ethic committee approval



Next 2: Sessions initiated in **JANET**; no PID

Sessions initiated in:

	N3	JANET
No PID	Now	Eg NHS intranets
PID	Soon: Eg collecting research data	Access to NHS clinical systems





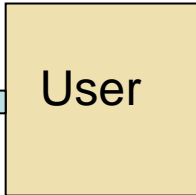
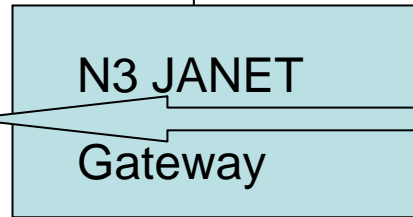
Next 2: Sessions initiated in **JANET**; no PID



NHS, N3

Education & Research, JANET

Proxy Server



Trust intranet, or licensed knowledge resources

Is there a need for this or is IP address authentication likely to disappear?



Next 3: Sessions initiated in JANET; PID involved



Sessions initiated in:

	N3	JANET
No PID	Now	Eg NHS intranets
PID	Soon: Eg collecting research data	Access to NHS clinical systems

NHS staff needing access from JANET for NHS work

University Research staff needing access to PID for research (with ethical approval)



Next 3: Sessions initiated in **JANET**; **PID** involved

- Not so much the connectivity...
- The authorisation and authentication is the key
- NHS in England have role based access linked to smartcards
- And VPN with secure token via internet
- Investigating how these can be used from JANET



Wales & Northern Ireland

Wales

DAWN2, North & South Wales MANs
transition to Wales' PSBA (Public Service
Broadband Aggregation) Network

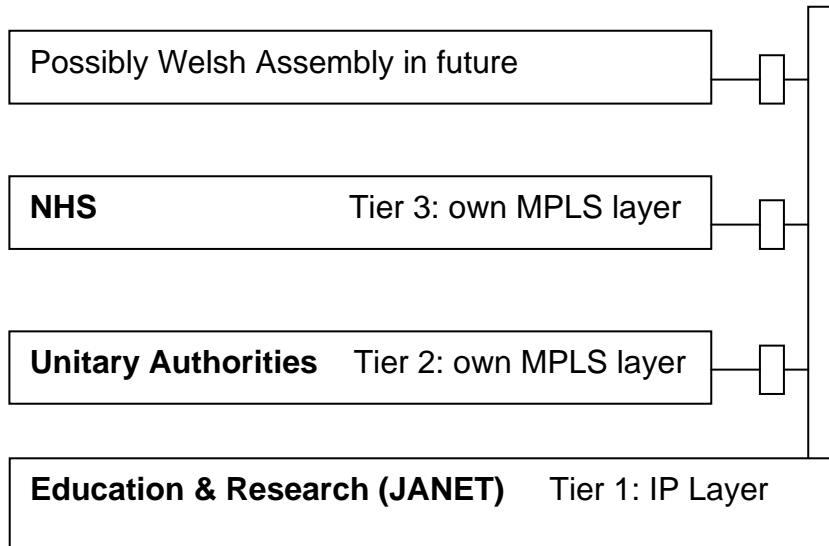
Discussions started on how & where to
gateway in December

Northern Ireland

emerging from mergers



Wales: same infrastructure, different tiers



Summary for Gateway

- Evaluation in March-June, Creating the business case for after the year
- Other models to consider
- More early adopters
- Action learning for all parties! Helping to generate policy and tools.





Thank you!

