

The UK Experience

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Introductions

- Chair HL7UK, and co-chair HL7 implementation and XML committees
- Ramsey Systems Ltd
 - Healthcare interoperability consultancy
- Currently working on NHS Care Record Service interface specifications
- Presenting my opinions
 - not those of HL7UK or NPfIT

Topics

- Why do the English spend so much?
- Why chose HL7v3 in the UK
- Background to HL7v3 in the UK
- How much HL7v2 is happening?
- Why Standards?
- UKv3 and HL7v3 – one standard or two?

Why the English spend so much

- Wanless Report 2002
 - www.hm-treasury.gov.uk/consultations_and_legislation/wanless
 - Report looking at 20 year resourcing needs for UK healthcare
- How much should we spend...
- What to spend it on...

how much to spend

- Rising GDP results in increase proportion of GDP on health
- Investing in health (NHS and elsewhere)
 - 5 years extra life expectancy £3-5 bn PA
 - Sick Leave now costs £11 billion PA
- National **Health** Service has new needs
- “A stitch in time saves nine”

What to spend it on

- Wanless
 - More National clinical guidelines
 - double spending on NHS ICT
 - ring-fenced ICT spending
 - Central mandated standards to ensure ICT compatibility
- What is happening in England (NPfIT)
 - Central purchase of software and services
 - Central EHR services drive compatibility

Why NPfIT Chose HL7v3?

Met fundamental requirements:

- Cross-supplier clinical information exchange at the most detailed level
- Widespread long term support
 - with users, policy makers and suppliers
- International
 - UK and European contributions to its development
 - NHS can take leading role to ensure fitness for purpose
 - Economies for NHS and its suppliers
- Robust approach to development
 - Model-based
 - Open discussion and issues resolution
 - Established international collaboration and balloting procedures

What was not chosen

- “Roll your own” specifications
 - Tried and not popular
- HL7v2
 - Does not cover the full range of requirements
 - Not model-based
 - Less actively maintained by HL7 for long term
- HL7v2.XML
 - Change to XML big enough – may as well do HL7v3
- HL7 CDA
 - Did not provide structural detail (then)
 - Modelling needed for each message flow

Practical benefits found from using HL7 V3

- Use of the HL7 models, message design methodology and tools saved time
- Machine readable specifications reduce errors
- Vendor-neutral forums for technical discussion and debate
- Actively supported - access to informatics experts
- Technical Specifications maintained independent of NHS organisational or UK parliamentary politics
- HL7v3 evolving to become technically predictable...

Background to HL7v3 in the UK

- GP2GP – record transfer in primary care...
- HCIF – Healthcare Interoperability Forum...
- Connecting for Health / NPfIT...
- NPfIT convergent projects...
- Scotland, Wales, Ireland, ...

GP2GP

- supplier initiated / NHS sponsored
- Started as CEN13606 (XML-EPR)
- Became very early V3 adopter
- use RIM / Datatypes / V3 Tools
- feedback into CDA and clinical statement

HCIF

- Supplier initiative
- Building on GP2GP collaborative trust
- Defined sets of V3 messages
- Eclipsed by NPfIT

NPfIT / CfH

- NHS led
- National Program for England only
- 5 Local Service Providers (actually 2)
 - Supply software (iSoft, IDX or Cerner)
- Buying software and services
 - Interoperability a small part of the picture
- National services
 - Care Records Service, ETP, Choose and Book, GP2GP, Patient and Provider registries,...
 - National infrastructure

Non-NPfit UK projects

- NPfit convergent projects
 - Referral / Discharge
 - Patient Safety
 - Retinal Screening
 - Repeat Dispensing
- Others on the stocks
 - Social Services
 - Scotland, Wales, Northern Ireland

Still lots of V2 being done

- Within Hospitals using existing V2
- Cluster integration using LSP defined V2
- Why – existing interfaces are already working locally
- Why – Shortage of V3 skills
- Why – Limitations of existing systems

V2-V3 mappings overhead

- National information architecture expressed in V3
- Work ongoing on V2-V3 mappings
- Migration to V3 locally will come
 - Direct use of national structures
 - Improved tooling
 - Implementation experience
 - Requirements not met by HL7v2

Why Healthcare Interoperability Standards?

- Commercially neutral ground
- Less affected by local political change
- Supplier, User, and Purchaser consensus
- Actively maintained

UKv3 and HL7v3 Are they the same?

- **Foundations**... Yes
 - RIM, Datatypes, Vocabulary, ...
- **Methodology**... Yes
 - Tooling, Templates, Modelling methods...
- **Domains**... Active engagement
 - Medication, Patient Care, ...
- **Community**... Lots to gain

UKv3 and HL7v3 convergence

- Why is convergence hard...
- Will convergence happen...

why is convergence so hard?

- Mythical man-month – V3 best practice and local requirements evolved fast – neither are fully documented
- Tension between immediate deliverables and long-term benefits of standards development
- narrow time window between requirements agreed and implementation
- foreign travel hard to justify
- conference call timing difficult
- A culture of ownership

Will convergence happen?

- There is a need for a Standard approach
 - Commercially neutral ground
 - Less affected by local political change
 - Supplier, User, and Purchaser consensus
 - Actively maintained
- Who can make it happen
 - NPfIT authority and suppliers
 - non-NPfIT NHS needs
 - cross service solutions
 - Other HL7 members

Will you face convergence?

- Starting now
 - Less need to deviate
 - Still some tooling limitations
 - Still some immature domains
 - Still local pressure to cut corners
- Standards will always evolve
 - Now will have Normative releases

Summary – UK Facts

- IT is a growing part of a growing NHS
- Standards choices are long term
 - UK committed to HL7v3 and SNOMED
- NPFIT is using HL7v3 foundations, and contributing to the development of domain models
- V2 is still widely used and supported in the UK, with migration / mapping to V3 an urgent issue

Summary – V3 facts

- The need for Standards engagement continues
 - Commercially neutral ground
 - Less affected by local political change
 - Supplier, User, and Purchaser consensus
 - Actively maintained
- V3 provides an information architecture allowing predictability in a changing world
- Interoperability standards are decoupled from IT service delivery
