HL7 Australia/NZ Delegates to Working Meeting, Atlanta, 26 September – 1 October 2004

Mid Week Report

This is a brief mid week report from HL7 Australia and New Zealand delegates attending the HL7 Working Group Meeting currently being held 26 September – 1 October 2004. Its purpose is to provide a snapshot of the key events and decisions made to-date at this meeting. A more detailed report will be distributed by delegates in the weeks following the meeting.

Statistics

- 515 delegates approx100 international
- 29 International Affiliate nations (with 700 individual members) – 14 European Affiliates
- 18th Annual Plenary Meeting
- 21 concurrent tutorials
- 26 benefactors (2 international)
- HL7 now has 433 US member organisations, 1300 individual members, 75 voting members in 26 countries
- HL7 India has 100 HL7 certified individuals (Taiwan similar numbers)

Highlights

- **First Committee (final) Ballot of v3 anticipated end of year ('V3 Release 1')**
- **HL7 Board promoting the theme 'V3 - its alive, its real'**
- **RIM narrative on its way to becoming an ISO standard**
- **V2.5 been invited for submission to ISO process**
- **Medication Information SIG name change to Pharmacy SIG**
- **HL7 France latest new International Affiliate member, spring boarding in into second largest member (in terms of number of organisations it brings)**
- **HL7 Agreements with: OMG (to assist with UML issues); NCPDP, American Dental Association, NLM (to align UMLS with HL7 vocab standards)**
- **Harmonisation of CMETs and GPICs in CEN context**

Ballot Results overview:

- V2.6 Ch. 9 "Medical Records", Ch. 10 "Scheduling", Ch. 11 "Patient Referral", Ch. 12 "Patient Care", Ch. 13 "Clinical Laboratory Automation", Ch. 14 "Application Management", Ch. 15 "Personnel Management" and Ch. 17 "Materials Management" passed the first ballot; the others received negative ballot comments which need resolution. The next step is (probably) the full membership ballot.
- Arden Syntax V2.5 passed the first ballot and is expected to go to full membership ballot.
- Gello passed the first ballot and is expected to go to full membership ballot.

- V3 artifacts "Laboratory", "Medical records", "Personnel Management", Refinement, Constraint & Localization" and "Therapeutic Devices" all passed the Committee ballot and are expected to go to full Membership ballot.

Committees, SIG's and Liaisons
The "Medical Information SIG" was re-named into "Pharmacy SIG".

The Board endorsed the Pharmacy Model Harmonisation Workshop to be held October 21-14 in Canada as an HL7 recognized activity for the purpose of HL7 V3 content development.

A MoU between HL7.org and the American Dental Association for content specific to the US-realm is being worked on.

A MoU between HL7.org and X12 is also being updated.

Descriptions for all attributes in v3 messages will be a priority task in early 2005.

Review of HL7.org's operations
There are a number of evolutionary initiatives underway to update/improve HL7.org's operations. In particular:

- The initial work of the Process Improvement Committee to standardise, formalise and implement better Committee and SIG practices has successfully concluded with all Committees and SIGs now using the new Decisions-Making Procedures (DMP).
- The organisational Review Committee (ORC) has undertaken a broad-based study of HL7.org's organisation and processes and has identified Key Issues that were then subject to a Root Causes Analysis. These are now being validated and prioritised.
- In the context of the above, a small team consisting of Mark Shafarman, Woody Beeler and Klaus Veil are drafting a new Mission & Charter for HL7.org.

The HL7.org Board election for 2005-06 gave the following results:
Chair Elect: Chuck Meyer
Hon. Secretary: Freida Hall
New Directors: Liora Alschuler, Bob Dolin, Randy Levin, Wes Rishel
Continuing Directors: Woody Beeler, Bill Braithwaite, Jane Curry, Charlie Mead, Klaus Veil
International Representative: Kai Heitmann

Promotion of HL7
The HL7.org Board is also working on a document describing possible transitions ("Tipping Points") from V2.x to V3; it is expected to be completed in January 2005.
- HL7 will again participate in a large interoperability demo at HIMSS (Feb. 13-17 2005); Project manager is Chuck Meyer.

Future Meetings:

The next HL7 Working Meetings will be held in Orlando, USA, on January 23-28, 2005 and Noordwijkerhout, The Netherlands, on May 1-6, 2005.

Overview
The Australian/NZ team is again making substantial contributions in the V2.x, V3, Pathology, Patient Care and other areas.

The mood of the meeting is upbeat, reflecting the gains being made in harmonisation with international standards and the imminent first release of V3 as a normative standard at the end of the year. A degree of colour (orange) has been added to the meeting by HL7 Netherlands, actively promoting the first international HL7 Working Group Meeting in r May 1-6, 2005 in Holland.

V3 adoption
The Plenary presented several v3 related projects around the world with very similar but also different perspectives, these included NHS National Program for IT in UK, CDC use of V3 in Public Health Information Network (PHIN) – notifiable diseases, HL7 Mexico v3 implementation of Laboratory, Hemodialysis and Blood bank messaging, National Cancer Institute (US) Centre for Bioinformatics, BCE Emergis, Canada National eClaims project (NeCST).

From these and committee sessions is certainly feels like HL7 v3 development is becoming a more prevalent new system for messaging. HL7 UK, NPfIT v3 domains documentation is now freely available; examples of use of existing local systems and terminology with specifically designed v3 messages are defined. Particularly this is an example guide to actual system implementation where existing legacy terminologies and structures are absorbed into a set of working v3 domains. This same methodology could be used as an accelerator in enabling v3 tooling and infrastructure development in Australia. HL7 Mexico (IMSS) system implementation is covering some aspects of laboratory, blood bank and patient administration. This could be a useful reference site particularly with respect to laboratory messaging operation with v3. HL7 Canada also has implemented significant national systems with the NeCST eClaiming system. This also demonstrates specific domain development and terminology definition achieving working models in v3.

EHR Technical Committee
EHR TC has been listening to internal and external groups on how they are using the EHR-S Functional Specification. This will inform further refinement. Care setting profiles are being built using this specification.

It seems that Australia is advanced in its business related thinking especially in relation to consumer consent and national standards approach. There is also a very strong correlation on the clinical information standards approach between the Australian national Clinical Informational Program and the UK National Programme for Information Technology and the Institute of Massachusetts Continuity of Care Record (CCR). The ATSN XML implementation of the CCR has been balloted and passed.

Following the San Antonio meeting this May, the EHR Technical Committee is actively resolving detailed comments and receiving feedback from organisations using this functional specification and working on the creation of standard profiles for application of this standard (mainly in the US context).

A review of the relationship between the EHR and Patient Care TCs and its SIGs has been initiated to look at how these groups should work together.

Clinical Decision support

Arden Syntax ballot v2.5 passed at committee level and will now be passed to ballot at the body level with non-substantial changes. This ballot contains 'dot' object notation to allow the creation of 'struct' like data types in Arden Syntax. This opens the possibility of simplifying use of HL7 v3 RIM based objects in medical logic modules. Note, this is NOT full object oriented capability but does supply simpler capability when dealing with complex data types. Plans are still on the agenda to address RIM objects more fully in future version Arden Syntax v3. This will require clarification of the appropriate usage of the RIM for decision support and tooling to support the implementation of the RIM including data types. It was also raised that it would be appropriate to address the issue of how medical logic modules could be represented under the RIM, this would enable v3 RIM based guideline models to be developed that referenced medical logic modules as supporting condition, or as constraining relation on the electronic health record when sourcing data.

Archetypes & Templates

Templates SIG has adopted OCL to constrain the HL7 Model Interchange Format (MIF). This allows definitions of archetypes and templates based on the RIM allowing them to be used within different areas of HL7 such as messaging and CDA. However this falls short of sharing archetypes between reference models such as CDA and CEN 13606. A proposed HL7 D-MIM based on the CEN 13606 ERH reference model will be discussed, along with the possibility of it being published independently of CEN.

An archetypes and templates tutorial is now available as an educational session. An overview of the real world development of archetypes and templates currently taking place, and also a review of tools for editing ADL (archetype definition language) files is provided. This has key applications in providing underlying clinical data model definitions that can concretely constrain general to more specific desired reference models with the growing ability to provide computable validation. Key usages include checking support for a reference domain, validation of message content, EHR query definition. The ability to systematically develop and document common atomic medical concepts as archetypes will enable libraries of definitions to be created and thus offers medical reference concepts that could be transformed to standard RIM based archetypes. This would allow implementers in the future to pick and use these standard archetypes to combine in templates that could provide suitable interfacing content 'contracts' between systems. Constraint definition in general will need to be addressed in the HL7 organisation particularly clearing up the relation between constraints on the RIM now

performed by Visio Tool, HMD generator with ADL and possible GELLO constraint language in the future. This area must also address the relationship with evolving mainstream developments in OWL (W3C).

A joint meeting of Archetypes and Templates with CDA allowed discussion on mechanisms for representing and managing adhoc schemas as CDA documents. This raised issues as to how the CDA documents produced could be successfully constrained and validated. Currently XML based XSD validation can be used to validate the static structure of documents; this is essentially a set schema for CDA.

ITS

A Services Architecture "Birds Of Feather" group is moving towards a formal project to develop HL7 service architecture specifications. A list of priority services will be identified to use as prototypes of the concept. The project will be further refined at the International Affiliates meeting being attended by a couple of Australian delegates in October in Acapulco, Mexico. This work has potential benefits to Health*Connect* and related projects in Australia.

Data types

HL7 data types will be balloted as an ISO standard in their current form following a ruling from OMG that the UML is correct. It is expected that the ballot will raise negative comments but these comments will contribute to the way to move forward. It is important that Australia contributes a constructive response to the ballot to assist in shaping this ISO standard. There is general support for an Australian auspiced working meeting involving CEN and HL7 'experts' to develop a support documentation for use of data types – more on this in the end of week report.

Patient Care

Changes to V2 have passed committee Ballot Chapters 11 & 12 as required for Australian implementation for referral work which relies heavily ion the new relationship and mood codes and segment instance identifiers. Negative comments have been addressed at a joint meeting of PC and CBH SIG. Some small changes will be required before Full Membership ballot which will be addressed by IT 14-6-6 prior to re-submission.

Reviewed negative comments on the Care Provision R-MIM, will continue to review on Thursday. An international Task Force has been reconvened under Australian chairmanship to manage this and to continue the develop the PC R-MIM by TC between now and the next meeting Clinical statement.

Identified new work items for Patient Care include:

- Formalise desire to work closely with Clinical Statement
- Develop specific templates using Clinical Statement
- Consent for clinical information sharing – to ensure adequate consent models exist
- Review care plan structures within the D-MIM to ensure it supports real world requirements

- Ensure definitions exist (gap analysis) for PC concepts e.g. care plans, clinical guidelines, goals, pathways, electronic documents and messages, EHR*
- Use of CDA as part of a PC message
- Relationship of CDA to PC message
    - Authentication and harmonisation of information (not process) models
- Relationship of PC messages to EHR
- Care Provision Query & Response messages
- Consumer as initiator of messages
    - Self referrals
    - Consumer initiated event summaries (observations at home for eg)
    - Continuing monitoring
    - Request for information

Community Based Health (CBH) Special Interest Group (SIG)
Public Health & Emergency Response (PHER) SIG has now officially elected 3 Co-chairs (on Monday). It is now in full flight with 3 new projects proposed, in addition to the one already accepted in May (this is to develop a message requesting analysis of multiple samples from a single site). Of the 3 new proposals one (from California Public Health) has been accepted. The other 2 will be considered after further work.

PHER also received an excellent tutorial (from Dan Russler) on the HL7 Development Framework (HDF).

Community Based Health SIG has further refined its Charter, which has now been accepted by its parent the Patient Care TC. This will be presented to the TSC for approval in January. It was identified that PC TC needs to also update its Charter.

Louis Gordon was re-elected Co-chair of CBH SIG

The relationship between CBH & LAPOCT/IEEE has clarified with John Firl taking the position of Co-chair of the LAPOCT SIG (he is still a Co-chair of CBH).

A joint meeting was held with EHR, PC, and CBH. Paediatric Data Standards (PDS) SIG. Dan Russler & Heath Frankel gave presentations to EHR on behalf of PC and Peter Kress gave a presentation on behalf of CBH. The themes were:

a) There are problems with the DSTU
b) CCR and the likes are not using the HDF and
c) EHR & other TC's & SIG's are complementary & hence must develop policies of collaboration.

Pathology
A coordinated international effort will be directed towards producing a normative v3 Pathology standard by May 2005. This will take place via a meeting of the Laboratory SIG in November in either Philadelphia or Houston, with Australia's Dick Harding participating.