RIMBAA 201205 Minutes Vancouver

These are the RIMBAA minutes of the May 2012 WGM held in Vancouver, CA

Monday Q2

Workgroup	Date/Time	Location	Chair/Scribe
RIMBAA WG	2012-05-16, 11:00-12:30	Vancouver, CA	Chair/Scribe: Peter Hendler

Attendance

1. Peter Hendler, KP (chair/scribe)
2. Amnon Shabo, IBM
3. David Hay, HL7 NZ
4. Tim McKay, KP
5. Jamie Ferguson, KP
6. Justin Fyfe, Mohawk
7. Ciraene King, Logica UK
8. Michael Van Der Zel, UMCG Netherlands
9. Peirs Hollott, Seirra Medplus
10. Michael Rossman, KP
11. Enrique Meneses, Careflow Solutions KP
12. Ewout Kramer, Furore Netherlands
13. Linda Bird, Singapore

Minutes

1. Peter calls to order at 11:00
2. Administrative agenda items
   - Agenda Review/Additions/Changes
     - The "*CIMI and FHIR, how are they similar and dissimilar (Michael van de Zel, UMCG)*" agenda item was removed from todays agenda.
     - Plans for the week. Interesting meetings held by other WGs, e.g. FHIR
   - Approval of the minutes of the meeting in San Antonio
     - MOTION To approve the minutes of the January 2012 WGM as available here: http://www.hl7.org/documentcenter/public/wg/java/minutes/201201_RIMBAA_SanAntonio.zip (by general approval, 12-0-0)
   - Announcements
     - Peter mentiones MDHT tools presented by Dave at the CIMI meeting (prior to this WGM). Ask Dave to present to the RIMBAA group, what is the use of the tool within RIMBAA?
   - Tooling liason update (Michael)
   - Update of the RIMBAA three year plan. RIMBAA was given a 'penalty point' in the WG Health stats for not updating the three year plan within the last 10

months. This serves as a reminder to review and update the current three year plan.

- The three year plan was briefly reviewed. 3 year plan inclusive FHIR?

3. A RIM and SNOMED based Web Service for Active Problem List (Michael Rossman and Enrique Meneses, Kaiser Permamente)
   - Presentation Michael Rossman and Enrique Meneses KP. Draft a modeling Reference Framework Model Driven Software Development Demonstration Use Case Health problem list and Terminology Services. (see http://www.hl7.org/documentcenter/public/wg/java/Rossman_ModelDrivenSoftwareDesign.ppt for his slides).
   - One service that given an identifier can produce an active medical problem list.
   - A terminology service from local codes to SNOMED ICD9 ICD10 Loinc and others.
   - Discuss why we use Interface terminology in E.H.R. Instead of "just use SNOMED".
     - Protect end users from version changes in SNOMED. Show end users the terms they want to see not the SNOMED FSN or Preferred Name. Allows for changes to back end mapping without changing user interface.
   - *Interface Terminology* = what you see in the pull-down interface
   - Excel inputs can create any UML model. The legacy Epic data storage model is represented in UML, and our SMIRF like KP RIM like "domain model". There is also a tool that you line up legacy model and SMIRM model on Excel and it will actually generate mapping language.
     - Model Driven Software Development. Canonical Information Model as a essential thing, currently DB oriented ER diagram Silo modeling. Connecting Legacy / Mud Field. Verification of the Information Model by the Clinician (SME), there should be a proper ralationship between the Conceptual Model and the PIM. There should be good enough view/documentation to do that. MRF Contents is comparable with the SMIRFs. Entities in Roles Participating in Acts. Simplified, like dbMotion.
     - Get a model of the Legacy model and relate that to the Domain Information Model (PIM level / canonical model) to do the mapping through the DIM to enable access to the data Similarities between the KP work and MDHT Dave Carlson. ModelSheet (Spreadsheet to express model elements, class, relationships, attributes) > compiles spreadsheet to XMI (UML and/or Ecore), import in RSA. Spreadsheet are the configuration for models and QVT / ATL scripts that do instance mappings then. The spreadsheet is just a view, like the MDHT Table. It would be ideal to have XMI as the exchange of models and a Table or UML as a view.
   - The Service can retrieve an active problem list and by using the Vocabular service it can add the SNOMED, ICD9 etc mappings to the original internal "interface" terms.
   - End result is an XML document with list of Active Medical Problems each of which has original text plus SNOMED plus other terms.
   - Can be used by call center for example.

4. The EHR functional information mapping project and relevance to RIMBAA (Stephen Hufnagel)

- o *Stephen could not attend the RIMBAA meeting*
5. Meeting adjourned at 12:30

Thursday Q1

Workgroup	Date/Time	Location	Chair/Scribe
RIMBAA WG	2012-05-16, 09:00-10:30	Vancouver, CA	Chair/Scribe: Peter Hendler

Attendance

1. Lee Coller
2. Michael Van Der Zel
3. Peter Hendler (chair/scribe)
4. Ewout Kramer
5. David Hay
6. Shimil Nizamov
7. Mark tucker
8. Lloyd McKenzie
9. Amnon Shabo
10. Justin Fyfe
11. Vinayak Kulkami
12. Grahame Grieve
13. Phil Pochun
14. Elaine Ayres
15. Steve Hufnagel
16. Abdul Malik Shakir
17. Michael Rossman

Minutes

1. Peter calls to order at 09:00
2. Implementing FHIR on MongoDb with .NET (Ewout Kramer, Furore, see http://www.hl7.org/documentcenter/public/wg/java/Ewout_Kramer_PresentationRIMBAA201205.ppt for a copy of his slides)
   - o Ewout: Storing FHIR resources, indeed just like SMIRFs, seems like a natural fit for this kind of databases. Of course, XML databases like eXist, are an equally good match for the same reasons. Some of my SMIRF experimentation used eXist. For now, I used MongoDb because it is offered by AppHarbor (the Cloud platform I am deploying to).
   - o Discuss 4 uses of FHIR. SMIRF based message receiver, a PHR, Just messages in to a DB, for research as a way to take input from all sources and normalizing them into a Vender Neutral Archive.
     - This reference implementation is the FHIR directly using REST and just put it into storage directly with no changes. Uses Fidler to get things into the service and just Browser Queries for queries.
     - JSON/XML comes in and gets parsed by parsers already part of the release. Then tern them into POCO/POJO and then to Storage. Or even simpler just directly store the JSON/XML

- In this example no ORM as MongoDb is not Relational.
- It's easier to manipulate XML then to manipulate JSON, so he did manipulations in XML but then had to store it in the Mongo in JSON. One problem was the reliable round trip from XML to JSON.
- You have to add special characters to the JSON to represent meta data (Like which data types are arrays). Shows side by side examples of XML resources and JSON.
- No XML attributes in FHIR and no complex types. Show basic code of MongoDB how to store a new object. How to build in memory BSON documents and store in MongoDb.
- Json → XML → BSON → JSON
- RESTful services list of functions for Instance and Manager.
- How the Query URLs work http://server/path/patients
- Meta data VersionID, LastModified and MasterLocation is in HTTP header.
- Aggregations are all done with ATOM feeds but... you can actually have the resources contained within the ATOM feed itself. The ATOM feed is a bit like a header for the document and does not mean that the resources are only references but can be internal references.
- Stores multiple versions of each resource, Author, Creation date, and Record State.
- The in memory object has methods.
- No true transactions in Mongo so must use "FindAndModifyIdQuery" which is an atomic operation.
  - Brewer's CP theorem. (Consistency, Availability, Partition tolerance) CAP you can pick any two. But not all 3.
  - Use Fidler to update to he server on http://fhir.apphb.com/fhir/
3. FHIR Implementation in Delphi (Grahame Grieve)
  - Very different implementation build in Delphi. Added FHIR to his pre existing Delphi interface engine.
    - Grahame's in on Amazon Cloud server.
    - Published reference implementations, Object models with JSON serializers and parsers. Want's to add Objective C. Current reference implementations do not do persistence yet, but may add a MongoDb one.
    - Convert incoming into the object model. Uses in transactional DB SQL server. The resource is stored as a Blob but it is pre indexed for searching.
    - Shows a JavaScript that can covert an HL7 V2 message into a JSON resource.
    - Complex to reconcile V2 PID with Restful resource Ids. FHIR resource mapping to RIM graph. Difference between definitional mapping and implementable mapping.
  - Lloyd goes over the RIM mapping of LabReport. Somewhat complex Xpath like syntax to describe the mappings. Mentioned someone from OMG may be working on an official syntax to specify implementable RIM mappings.
4. Peter adjournes the meeting at 10:30
5. After the meeting was adjourned Grahame and Peter invoked the FHIR spirits with dueling Didgeridoos.