**Meeting/Call Notes - OpenHIE Interoperability Layer**

**Meeting purpose: Community Call for OpenHIE IL**

 **Date**:

21 January 2014

**Attendees**:

Carl Fourie

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Mark Tucker

Larry Lemmon

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**Call link:** 47895701

Recording: <http://www.conferenceplayback.com/stream/92010178/47895701.mp3>

**Agenda:**

1. Update on new OpenHIM developments
2. OpenHIM implementations and the potential for OpenHIE
3. Canonical forms within the IL
4. IHE technical meetings (Vienna) PCC (patient care co-ord) and QRPH  - workflow specs & content

**Minutes:**

Update on new OpenHIM developments

Have discussed using Node for core component instead of Mule. RC has put together some design documents for this and almost complete, undergoing interrnal review within Jembi. Will feed back soon. Documents are on the OpenHIE wiki. The RHIE will continue to use the Mule-based version.

OpenHIM implementations and the potential for OpenHIE

Still looking at working with mobile partners to send data through an exchange to store data in a pregnancy registry - on-going work and there seem to be a number of opportunities around this technology.

Are identifying possible use cases that the OpenHIE may want to support / what patterns we are seeing and what we can learn from our experience in Rwanda

DR - how can we implement a worflow engine to support these use cases. e.g. RPD profile (watered-down BPMN profile?)

e.g. RHEA - 4 ante-natal visits over a certain period is a managed workflow over time and space - co-ordinate over multiple facilities over time

We can describe this using BPMN and specific transactions would traverse this workflow - also absence of something

Should be "woven into" what we are doing

MT - OpenMRS (as SHR) should have this embedded within the decision support system - should be able to generate alerts in SHR?

Or should alerts and rules be put within the IL - would require very robust canonical forms of data within IL and then SHR is just a storage system

DR - an EMR is not just a repository

MT - thinking of 4 different SHR - OpenMRS, RAMRS, Mohawk" thing" and something like Epic the SHR "rules the roost"

DR - OpenMRS and RAMRS are APPLICATIONS and Mohawk is a repository - SHR is a persistence layer not a business layer

RC - As long as these applications support the standards we prescribe then can act as an SHR

DR - The SHR role is not the same as the orchestrator's role i.e. does not prescribe the rules

RC - SHR contains clincial information - other systems such as lab etc.

Where does the intelligence go? The clinical decision support - not necc all logic within the HIM but routes data to the correct application - the business rules may be in a speciliased application that interacts within the HIM

DR - Should be able to see all the assets of the system just as the IL sees all assets

LL - in Mohawk system- where does it lie? The intelligence engine?

DR - have MS-BizTalk in the HIAL and this has BPMN logic based diagrams - workflow and orchestration -

MT - So workflow engine needs to see data elements

DR - Mohawk uses RIMish -canonical design

MT - Clinical rules in RAMRS, OpenMRS are based on discrete data in OBS ON PATIENT record  my view of workflow engine is cannot just look at incoming messages but also look at the SHR  to see prior info

DR - Where we put logic changes fundamentally how much it is "plug and playable"

MT - req - major use cases - 1. Data is entered into SHR and comes back - in terms of workflow : upon check-in expect central node to deliver advice to the edge node  - is a black box as far as the edge node is concerned

 - 2. Emits advice - eg: data send to a cellphone

In both of these cases OpenMRS and RAMRS could do this

If move this(intelligence engine) into a separate box outside the SHR then the SHR becomes a persistence layer and then why even bother with using OpenMRS for this?

DR - OpenMRS is for event-based care while SHR is for continuity of care

How do you operationalise care guidelines? Can take a care guideline expressed in BPMN just as business analyst would , drop it into system and use it in this way

LL- Would it be possible to see an example of this - the format and language used and how rules are defined

DR - BizTalk uses BPMN, Mohawk'sis a publicly funded project and the code is available  from them (much of it on their wiki).

LL - somewhat unnerving to be moving this logic into the IL rather than within the SHR

A lot of data needed to run the rules going back and forth - all this can be handled at the SHR level

What is the different between an SHR and an EHR then?

DR - same logic as diferentiated between core data and logic model and UI skin - separated into tiers at an application level. The infrastructure should behave in a certain way

If all logic in the daatabsee vs a logic layer then very difficult to change - so we separate data model from logic model just advocating that we do the same thing at the infrastructure level

MT - Is a program interface between logic and storage system. Logic layer has specific interface to persistence layer in both OpenMRS and RAMRS

DR - Big difference between what happens in real-time during a patient visit AND what is needed at a national infrastructure level

MT - Would like to see a sample rule.

MT - How would the workflow module acquire data from the SHR?

DR - It might ask the SHR for a CCD dump of data.  The summary health record would contain sufficient information to evaluate the guideline.

DR - Who is in charge of directing the traffic?

Even if IL acts as a router it still needs to understand something - how much should it understand of the traffic it is carrying?

if you can do workflow you can do orchestration -

IL needs to be able to handle non-standard messages - so will have to be able to do more than inspect headers and route messages

MT- If SHR can store non-std message

If edge node has complex message that SHR cannot understand -a data dump will produce that data only as well as it is understood

ie incoming data gets "dumbed down" to level of the SHR

DR - Mohawk SHR is able to find a home for anything it is sent

MT - If central system gets data it does not understand then it cannot use it for clinical support

DR - still thinks the clinical decision support happens at the POC

MT - don't see real difference between PC clinical decision support and long term decision support. Both sets of logic rules require broad access to data within the SHR.

RC - Can agree there is a need for a canonical form within the IL to enable guideline based care but not only one form

V3 may be good for clincial information but there may be multiple kinds of canonical information - may be better as V2 - in cases where data does not interact

MT - If we adopted RIMish as an interim format then could support V2 and other message formats

assume the RIMish data model would be suitable for the rules to act on

SHR may have two interfaces - for purposes of speed

RC asked people to add specific questions to the mailing list to discuss on next call - will be in Indy