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

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

**Date: 20-08-2013**

**Attendees:**

* Ryan Crichton
* Linda Taylor
* Kari Schoonbee
* Shahid Khokhar (Regenstrief)
* Derek Ritz (ecGroup)
* Larry Lemmon
* Mark Tucker

**Agenda**

* OpenHIE Architecture meeting
* Discuss the latest design of the Interoperability Layer
  + <https://wiki.ohie.org/display/SUB/OpenHIE+Interoperability+Layer+design+document>
* How should inter-registry communication occur?
* Discuss technology options for the Interoperability Layer

**Call Recording file # 53991301**

**http://www.conferenceplayback.com/stream/56189913/53991301.mp3**

**Meeting Notes:**

***OpenHIE Architecture meeting***

On the OpenHIE leads call there was a call for an architecture group. This will take place in the next few weeks - a monthly call. Key points include stds “eco-system”

Is this the technical architecture or enterprise architecture? Probably a bit of everything at this stage.

DR will advocate for a broader EA approach and encourage involvement of key stakeholders.

***Discuss the latest design of the Interoperability Layer***

Amended drawing to include current thinking i.e. to include support of both sync and async messaging and a workflow engine as well as a workflow mediator (for more specific needs).

Key things that proxy service does =Authentication and authorisation, Logging, Error management

MT would like an outflow - pushing info out

DR - should never push data out - rather pull

Keep same functionality - could be push or poll - but for outbound stuff

Where do you imply that orchestration happens?

Orchestration would happen within mediation services e.g.patient encounter mediator

DR - what about role of workflow engine with orchestration - how does it know if message being orch adheres to a particular workflow

As part of mediator would call workflow engine and process as appropriate

DR - Agree so should change arrow

see 2 pieces to left as BUS and r/h side as repositories and registries

Smart proxy “box” could be the part that does not need a queue - the pub/sub + mediators belong together = the IL

described as two layers in HIAL -

DR suggest nomenclature that distinguished btw orchestration (very fast, msg handling logic) and integrated care pathways (ICP mediator or ICP workflow engine). These are fundamentally different processes.

Mediator and orchestration services = name of middle box

***How should inter-registry communication occur?***

Do we want a side entry into the smart proxy to handle routing eg. Patient encounter mediator can push to proxy then back to workflow mediator? Is this a good idea? It is too much complexity?

Clear pattern to adhere to is easier to maintain but penalty is adding time - this is too small to affect performance significantly

Pattern = everything goes thru the orchestration engine even if orchestration not required

Much simpler set of on and off ramps

Can also log and audit this instead of only messages coming from clients

Will have a copy of message to enable error handling

4 of 5 things can be touched in parallel - FR,CR,PR,TS - so many ways to optimise this

MT - don’t think parallelisation a good idea

also don’t think there is any point in logging everything i.e. indiv registry entries

Can send exceptions to more sophisticated system

**Nobody** talks to anything in the domain services without going through the IL

Should advocate this in the architecture discussion

Could have a paper thin IL that can be deployed with the individual registries depending on country priorities. Should be a setup.exe

Is this then a thin proxy not a smart proxy? as long as thin doesn’t mean stupid.

If pub/sub is moved to the middle then this is smart layer

Have the CR, then CR dumb proxy

adaptor = point of presence for back-ends

DR - must express the behaviours what can be realised in different ways - not technology specific. Must separate technical and logical

Middle layer includes dumb adaptors and smart mediators

DR - If we compared different logical architectures could leverage this work to define more clearly

MT - Need to understand the engineering size of various pieces

Must consider: How does this live and grow and evolve as well as just build this

RC - Can rename certain elements and a clearer narrative about what each component does - as well as how we anticipate it will evolve over time

DR - will search for other diagrams to make comparison

Inside the data centre = very similar environment even in low-resource setting

No of mediators will depend on the implementation requirements

What processes require orchestration

Orchestration can be done in diff ways i..e in Java code or in BPMN-driven means

Suggest color coding for simple processing vs. orchestration

suggest clinical pathway orchestrator rather than mediators

DR - thinks java code orchestration would be difficult to maintain

MT - like source code for complex algorithms but should allow choice for orchestration control logic

Agreed we must prioritise ease of management and maintenance

RC will share google doc with diagram for others to add or amend

**Action Items**

* RC will share google doc with diagram for others to add or amend
* DR will send out some other architecture diagrams