

# HL7 WGM

Attendance: please see separate spreadsheet.

## Monday Q1

- Introductions
- Review of the agenda for WGM
  - Side tracked with conversation about how to get implementers to conform to standards
- SWOT, minor adjustments due to opportunities with FHIR, voted Frank/Ioana approved 4/0/0
- DMP, voted to accept default Ioana/Nathan 4/0/0
- Mission and Charter
  - Need to have a monthly update on Conformance, solicit items about conformance
    - Ioana can look at pushing for new items
  - Conformance should own Implementation Guide resource
    - Talk about on Wednesday
  - Accepted as is: Nathan/Ioana 4/0/0

## Monday Q2

### Data Type Flavor PSS

Looking at the Data Type Flavors PSS.

Most data types have optional elements and allow for creating flavors and standardizing them. This is already happening in HL7 guides, but this needs to be made more consistent between guides. A good solution would be a library with common ones.

Please see PSS for more details.

Question about whether or not FHIR has a library. FHIR does have the idea of profiling, but most of the clinical items are not required. Simplifier is the most common registry for those profiles. So this will become an issue later in FHIR.

Accept PSS: Frank Oemig / Craig Newman 8/0/0

### Conformance Document PSS

Second PSS: Separate out current Conformance methodology into its own separate document and have it apply to any version of HL v2. Use the latest conformance techniques and apply to any version.

Meeting this afternoon to talk about the longterm plans for HL7v2. This fits into that. This also fits into the plan to have software tooling to support conformance checking for guides that profile the base standard.

There was a question about relating this work with StructureDefinition resource? This will not yet be done in FHIR at this point. Need to converge on the definition of conformance for both HL7 v2 and FHIR. This is beyond the scope of the PSS but not out-of-scope for the larger picture that Conformance is looking at.

Discussion about whether to do STU or Draft-for-comment. The group felt that going for draft for comment instead of STU. This is because the content is not expected to change dramatically from 2018 to 2019. So the content for 2018 will be a good representation and first look at what will be balloted in 2019.

Discussion about answering the Backwards compatibility question. The issue is that this standard is for a how to define conformance, but doesn't define changes to current standards. This means that profiles that previously were not well specified, will now be required to be more specifically constrained.

Text to add for backwards compatibility: Our expectation the existing implementation guides will not change as results of this product, but going forward new implementations guides (even those being written against older versions of standards) being developed by the new specifications to express conformance concepts.

Expression of conformance not what is actually being sent on the wire.

Move to support PSS: Nathan Bunker/Raj 6/0/0

## Monday Q4: Visiting Publishing

### V2 Product Family discussion

Publishing has been in charge of Management of HL7 v2. Publishing is too small to take on management of HL7 v2.

- Continue as is, need more help
- Stand up v2 management group
- Or WGM that is solely responsible for V2 as a product

Many legacy places still using HL7 v2. Germany is a primary example.

What is involved in product management?

- Someone brings a new implementation guide, when it goes on the publication calendar

Not seeing a lot of new things in HL7 v2 except out of Orders and Observations and some out of Patient Administration.

Chapter authors are responsible for making updates to their guides to match current standards. We don't know when updates need to be made. Most groups have abandoned work in HL7 v2.

There are v2 management calls, but this has not been well broadcasting. Burring it under Publishing has made this process not clear.

The big issue is the wonder if we know if we will get enough volunteer effort to work on this effort.

Groups that we can draw committee members from: OO, FM, PA, PH, Conformance, InM

The group moves to recommend to PLA that a new HL7 v2 Management Group should be stood up, and prepare a transition plan with Publishing. This was unanimously approved.

PLA is a project off of Technical Steering Committee (TSC).

## Future of HL7 v2.x: v2+

Now talking about the future of HL7 v2. Frank Oemig showed the latest view of HL7 v2+. It was well received by the group. Looks like how FHIR is documented. (Some FHIR folks already use this page to lookup topics.)

<http://hl7.eu/refactored/hl7.html>

Might be able to ballot just one segment.

## Tuesday Q1

### Overall V2/FHIR planning/strategy

Looking at documents sent by Grahame about how HL7 version 2 messages could be encoded and read in FHIR. Looking at this link: <http://hl7.org/fhirpath/#hl7v2>

The names of the Groups are not set well enough to be depended on. So the model doesn't define the groups, but there are functions in FHIR path that can use groups to read into the message.

Maybe ER7 will become a new capability in FHIR? Like JSON and XML.

An example was given for a constraint "report a certain observation with a patient", there is a way to do this in HL7 v2, v3 and FHIR. But the constraints are defined differently. But there is probably no way to express this once and have it apply to all. They are too different.

Is this powerful enough to do what we are doing now. Vocabulary constraining gets very deep. Conditional usage is also an area to look at.

Need to see how FHIR path can be used. FHIR Path is a selection language, not a conformance language. Structure Definition + FHIR path would allow for constraints.

How are the layers in the standard used, when having top, intermediate and local levels of constraints. Then there will be profile regionally.

Structured Definitions is where you get your structure. FHIR Path will give additional constraints. A constraint is essentially an assertion. If the FHIR path returns true then the constraint is met, otherwise the message is not conformant.

FHIR path is only used for a limited set of constraints. Most are being done Structured Definitions.

Levels of the constraining would involve a lenient profile paired with a stricter one.

Need to have an inheritance concept between profiles.

The vocabulary project has been working on the problem of inheritance and there are problems that have not been solved. There are 5 different types of things we can do for vocabulary but there is no agreement as to which should be used. FHIR wants to simplify it to just a list of items. HL7 v2 has been lazy with this as well.

Need to beef up the V2 conformance mechanics, two options are the FHIR Path options, or the one that Conformance has been developing?

Need some type of transition plan, don't want to stop current work. Maybe can look aligning the language.

HL7 has a history of not putting Conformance at the top of the list for defining our standards. There needs to be more consistency across the product lines to validate conformance.

There are natural languages to express a constraint, but these have to be translated into expressions for a specific product line. In CDA they use XPath to validate conditionals. Trifolia doesn't have Templates, so many people are not exposed to this. Trifolia does translate everything into natural language, but what we need to get to is having it specified exactly.

Templates are finer and more precise than a profile. The profile is about the full instance. The use of both words "profile" and "template" is confusing. We probably need to have only one term. Need a couple of more steps to get it there.

One thing we can do is to see how it maps.

Probably should rename Template to Profile. Profile ITS.

#### Next Steps

- Continue with the new conformance chapter to create the narrative text on how to generate conformance for V2
- Take those concepts and see if we can represent them in FHIR path, that will tell us if there are any gaps
- Add this to the conformance calls?

#### Alternate ITS for Transport

HTTPS ITS has been approved. It is an alternative to MLLP. Ioana will send out a link to the listserve about it.

Ioana volunteers to look to see if there is clarity between the ACK and HTTPS status codes.

#### HL7 v2 Plus

Frank showed his new HL7 v2 Plus.

Tooling is informed, a new PSS is in progress.

## Tuesday Q2

#### HL7 V2 Best-Practices

The work group discussed several proposals from V2 implementers regarding HL7 V2 best-practices. Collecting and documenting such best-practices is very important for standard adopters since many of these best-practices become apparent only after extensive implementation. The best-practices discussed by the work group referred to creating profiles and implementation guides.

## Versioning HL7 V2 Message Profiles

The first item discussed referred to MSH-21 is to specify to indicate the profile and approach taken by profile developers to identify each version of a profile. Many implementations use the profile id very rigorously and profiles evolve Therefore it is necessary to provide best-practices.

Conformance WG discussed the best-practices developed by Craig Newman with the intention of endorsing and publishing the new guidance under the HL7 V2+ (Modernization) site <http://hl7.eu/refactored/hl7.html> .

- In some cases, the community of implementers prefer to version the profiles to the version of the IG that contains them
- In other cases, in Germany, the message profiles are versioned independently of the IG and each have an OID.
- We need a best-practice document on the use of MSH-21 as data element according to different use cases.

## Handling omissions

Good-practice is that IGs should specify default/assumptions in case a data element is omitted but that should be an arbitrary decision on the receiver side. In some cases the receiver could implement a default behavior and send back an ERR (warning) without rejecting the message (i.e. AA).

## Tuesday Q3: Joining InM

canceled

## Wednesday Q1

Tooling demonstration. Showing tools that are used for conformance support.

### Aegis (Richard Ettema)

Walking through the Structured Definition. Using FHIR validator that Grahame has built. Furore has their own version built in .NET. So there are two different engines out there. Right now Touchstone uses the Java one, but the long term perspective is to be able to use both/either.

The validators need to be tested. "Test the tester"

Showing how the testing process works, how assertions are created. Showed an example of a warning generated by the validation engine.

Touchstone has a sandbox environment to upload Test Scripts that users can use to upload test scripts they are working with. Editing of the text is now done in text editors.

Future enhancements: working on new system to improve the usability of custom profiles.

Working an eclipse editor based system that connects with Touchstone to upload the test cases in.

In talks with Simplifier to integrate with Touchstone. Could use the Eclipse IDE to integrate with Simplifier to keep the data instead of subversion. <http://docs.simplifier.net/>

Furore is now going to be split and the team that works on FHIR will now be called Firely: <http://fire.ly/>

## David Hay

Talking about FHIR connectathon on Sunday. Creating a new application to manage the participants and the servers available. This replaces the original spreadsheet they used to keep.

Talked about the intersection between Touchstone and this tool. There is quite a lot of work here, so probably not right away. But there could be some use for the test scenarios. David will get this to a basic point, then there will be a query to pull in a skeleton of a test script that can be used in Touchstone.

Personal view of some in the meeting is that the Connectathon is moving towards some type of certification and tooling will have to support that. But none of this has been discussed or decided on. Aegis is not planning to be a certifying authority, but the tool could be used by a certifying body.

Discussed how the FHIR connectathon is progressing and how it will change in the next ten years. Ended with saying that good test cases are needed.

## Wednesday Q2

### Craig Newman update on IG ballot

Giving an update on the IG ballot. Slow going through the comments. Goal is to go out for re-ballot, feel like it is significant enough for another ballot. Hope to get significantly fewer comments and publish at the end of the year.

### IAP Program (Floyd Eisenberg)

Need to discuss about how we want to move forward. Talking about Adverse Reaction, sometimes this may just be text. The IIS may not act on it, however if the next provider can see it then they can communicate this with the patient. There is a problem of EHR information blocking, where data that is clinically relevant isn't being sent on.

Issue #1: EHR's could use a piece of text indicating a problem or issue that other providers should know

- Action Item: Find who to talk to in the AIRA community
- Can we talk about this in HIMMS, AIRA meeting?
- Send request to public health

Issue #2: History of disease, evidence of immunity. Need to remove the concept of "evidence of immunity".

- Provide a reference back to CDSi to indicate how to do the mapping
- On agenda with SISC, to look at the History of Disease as Evidence of Immunity, take to SISC and see how to make this better

Also doing some work with barcodes.

### Nathan Bunker gives update on AART

TODO: Get test cases from EHR project and put in AART.

### Raj Mehra discusses EHR issues

Four challenges:

- #1 When doing submissions we conform, query response the format/nomenclature is not matching up
  - AIRA has been pushing on RSP and ACK improvement
- #2 Mismatch in the patient names, what's the causing the requirement the patient name
  - We have unique identifier,
  - We are seeing some of this when testing
- #3 Newborn babies are a problem, in some cases we have to do hold logic, not ideal
- #4 Person can belong to multiple registries, national service? National record locator?
  - Care quality, and common well
  - For IIS the national registry prohibited it, some effort on state-to-state

## Wednesday Q3

Chris is taking notes

### #1 Multiple versions on the same end-point

There's a move from 1 endpoint \*per\* version (base/r2, base/r3, ...) to

1 endpoint for all versions, using Content-Type negotiation for specifying a version.

See Connectathon track [http://wiki.hl7.org/index.php?title=201801\\_Versioned\\_API](http://wiki.hl7.org/index.php?title=201801_Versioned_API)

Versions will probably be specified with their exact version number instead of the R1/2/3/4 monikers, but that has not been formally documented yet.

### #2 Version indication in the instance

*Notes from Christiaan Knapp:*

In an http request, the content-type can be conveyed alongside the payload. There are several use cases where that is not possible (file storage, QR code, ...)

To address that FHIR-I decided to integrate a version number into the Resource metadata (Resource.meta).

This new element will be optional.

In http the Content-Type is still needed in cases where no Resource is sent (like in a search). And it can be an optimization not having to read the resource to find out about the version.

Chris Grenz: Would prefer versioning resources by referring to the profile through it's (correctly versioned) canonical URL.

V2 experience on version number matching is shared. Is sometimes used to raise a barrier.

Ewout explains that this session is informative, but will be discussed and decided upon in a different WG.

Benoit will move a motion to recommend to FHIR-I having a version indicator in the resource, also from a liability standpoint. Louis will second.

Ewout can invite this Conformance group to the FHIR-I call(s) where this topic will be discussed.

Paul: Can we mention the ImplementationGuide? Ewout: ImplementationGuide can be referenced under Resource.implicitRules.

*Notes from Nathan Bunker (concurrent with the ones from Christian):*

Version goes in the meta data. Going to be optional. Of course, this can be made mandatory.

There is some duplication because this version can appear on the HTTPS headers and in the content model. In searches there is no content model.

Concerned about version numbers in the resources.

Move to recommend to FHIR-I to add resource metadata to the FHIR resource body rather than just the HTTP header such that trading partners can identify the version of a resource for a specific FHIR release.  
Benoit/Lou 18/2/2

(You can't trust HTTP headers as much as the content.)

It is recognized that having version numbers may cause problems of interoperability. Senders/receivers might not send accept data because they don't support a version. This was not the intention of normative FHIR resources. But there is no way to avoid this problem. The version is really a "political" concept and is needed for legal/operational reasons that extend beyond just the successful transfer of data. The version number is a proxy for changes have been made.

### #3 Versioning and canonical URLs

This has not been finalized and needs to be done before we can go normative.

Going to discuss this in the FHIR-I community, conversation continues on Thursday.

Notes from Christiaan Knapp:

Ewout talks us through his blog post explaining this: <https://thefhirplace.com/2017/11/28/versioning-and-canonical-urls/>

Paul: Is [base]/StructureDefinition/bob/\_history/version suggested? Ewout: yes.

There seem to be 2 communities to serve: exchange partners that prefer explicit versioning of individual artifacts vs. application developers that prefer the manifest approach.



Session



Jan 2018

Meeting:

Jan 2018





# Conformance Guidance for Implementation / Testing WG Attendance List

Meeting: \_\_\_\_\_

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