

HL7 Peer Review Comments

Review Topic: SAEAF Document (Vancouver Draft)

Requester: SOA WG (upon request of HL7 ARB)

Reviewer Name: Consolidated Outcomes of SOA WG Peer Review

Attendees:

Ken Rubin
Don Jorgenson
Alan Honey
Robert Lario
Ginna Yost
Alean Kirnak
Sasha Bojicic
Nancy Orvis
Rich Rogers
Gila Pyke
Alex DeJong
John Koisch

Date: 10-OCT-2008, 2.00pm EDT

The following reflects the peer review conducted by the SOA WG on the ARB SAEAF document. The process followed was the HL7 PIC Peer Review Process, with every item that was raised being discussed. This sheet reflects the consensus recommendation of the above attendees as the SOA WG input to the document. Note that all consensus decisions were unanimous.

The “Originator” column identifies the party whom originally identified the issue. Note that the comments were revised during the call and reflect the collective input of the participants. Special thanks to all those who participated in the review.

| Citation (line number/page/section etc): | Comments: | Originator | Priority/ Rank:* | Type: | Review Status/ Dispensation: |
|---|---|--------------------|---------------------------|-----------------|--|
| 1 – Executive Summary, 2.2 | Terminology - Are EAS and SAEAF one and same? Distinction not clear | <i>Rich Rogers</i> | <i>Major / Low Impact</i> | <i>Question</i> | <i>Consensus</i> Yes, they are the same. Next version of SAEAF will be sure to make this clear (and hopefully just use the term SAEAF after suitably defining it) |

| | | | | | |
|------------------------------|---|---------------------------|------------------------------------|-----------------------|---|
| <p>1 – Executive Summary</p> | <p>“specific artifacts that are required of a specification process” –MDA, HSSP SSF, HDF, and artifacts such as CIM, PIM, LIM, SFM etc. are all mentioned. A clearly defined method (specification process) with activities and tasks and input/output work products that leverages existing HL7 processes (unified field theory) – not clear if this is supposed to be in the scope of the SAEAF - if it is, this draft does not define it that I can gather.</p> <p>Recommend clarification that the methodology proper is out of the scope of the SAEAF (though it will define constraints on a methodology). Further recommend that clarifying the scope is required.</p> | <p><i>Rich Rogers</i></p> | <p><i>Major / Major Impact</i></p> | <p><i>Comment</i></p> | <p><i>Consensus</i> The purpose of SAEAF is not to specify a methodology <i>per se</i>, but rather to specify the artifacts (and their rationale) that a methodology must produce. The ArB expects that the next release of the SAEAF document will more comprehensively define these artifacts and thereby suggest/imply methodologies that could be utilized to generate them. A formal analysis of the artifacts produced by HSSP and HDF has been done and will be included in the next version of SAEAF.</p> |
| <p>2.3</p> | <p>OMG MDA described as one of the 4 frames of reference for the SAEAF. As such OMG’s SOA definitions and SOA modeling language (SoaML) should be adopted. This point of view is reflected in multiple comment entries to follow.</p> | <p><i>Rich Rogers</i></p> | <p><i>Major / Low Impact</i></p> | <p><i>Comment</i></p> | <p><i>Consensus</i> The ArB did a thorough analysis of SoaML relative to its potential applicability to the SAEAF. The results of that analysis will be included in the next version of the SAEAF. In summary, the ArB plans to work with OMG to expand the semantics of SoaML beyond its current implementation focus to include analysis and design semantics as described in SAEAF.</p> |

| | | | | | |
|-----------------------------------|---|---------------------------|------------------------------------|-----------------------|--|
| <p><i>Overarching Comment</i></p> | <p><i>Other SDOs have produced [business] process models as an input to service identification and specification. This is an approach to “dynamic modeling” that is also useful for refactoring existing message specs into an SOA context</i></p> | <p><i>Rich Rogers</i></p> | <p><i>Major / minor impact</i></p> | <p><i>Comment</i></p> | <p><i>Consensus</i> The purpose of the SAEAF is not to dictate a particular representation of business (or any other) semantics, but rather to specify those semantics. A more comprehensive definition of the Behavioral Framework will be presented in the next version of the SAEAF. Should it be the case that there are multiple representations of the required semantics that have been generated by other SDOs – the ArB is not aware of any such representations – the ArB will carefully consider these representations to insure that a) the BF semantics as defined are as comprehensive as required; and b) that necessary transformations can be discussed as needed.</p> |
| <p>Section 3.1</p> | <p>Services define a “face” and an implementation/ realization. They are intended to be used in many different interactions and/or integration contexts. We need to be careful about the different notions of contract (i.e. the service itself vs the use of one or more of the Service operations within a collaboration. Here and throughout, this distinction needs to be clarified to some degree.</p> | <p><i>Alan Honey</i></p> | <p><i>Major/high</i></p> | <p><i>Comment</i></p> | <p><i>Consensus</i> Agree. As the BF is more comprehensively defined, the ArB is very much committed to providing clear, non-ambiguous definitions of all terms involved, particularly since many of those terms are already overloaded in the general industry dialogue.</p> |

| | | | | | |
|-----|---|--------------------|-----------------------------|----------------|--|
| 3.1 | <p>Service definition used – is this an ArB definition? Why not reuse service definition from x-industry accepted sources, e.g. OMG – from their SoaML – “A Service is a capability offered by one entity or entities to others using well defined “terms and conditions” and interfaces”. A service contract is a part of a service.” A ServiceContract defines the terms, conditions, interfaces and choreography that interacting participants must agree to (directly or indirectly) for the service to be enacted”. The SAEAF definition is close enough to warrant reuse vs. reinvention</p> <p><i>Recommend reuse of definitions from OMG soaML.</i></p> | <i>Rich Rogers</i> | <i>Major / Major Impact</i> | <i>Comment</i> | <p><i>Consensus</i> The definition used by SAEAF is a composite drawn from a number of sources including – but not limited to – OMG. There are aspects of the definition that you state that are insufficient for use in the SAEAF which, my definition, is not only about services, but rather service-awareness, i.e. is intended to be applicable to all three HL7 Interoperability Paradigms (services, messages, and documents).</p> |
| 3.2 | <p>Trading partners – OMG SoaML calls these participants. Other commonly used terms are consumer and provider. Inventing terms vs. reuse</p> <p><i>Recommend reuse of definitions from OMG soaML.</i></p> | <i>Rich Rogers</i> | <i>Minor / Low impact</i> | <i>Comment</i> | <p><i>Consensus</i> The ArB is very aware of the danger of inventing terms and is trying not to do that. However, if existing terms are not defined in a way that allows their reuse in SAEAF, it is often better to define a new term rather than try to re-define an existing term. WRT SoaML in particular, the next version of SAEAF will have a section specifically devoted to a discussion of the ArB’s current impressions of the language and its potential for use in SAEAF.</p> |
| 3.2 | <p>Clouds. Given the uptake on “cloud computing” and resultant overloading of the term cloud, introducing use of clouds to represent organizations may impact clarity.</p> | <i>Rich Rogers</i> | <i>Minor / Low impact</i> | <i>Comment</i> | <p><i>Consensus</i> The term was previously used within HL7. The ArB believes that the term is sufficiently well-defined and illustrated so as to avoid confusion with other non-HL7 uses.</p> |

| | | | | | |
|-----------------|--|--------------------|----------------------------|---------------------------|--|
| Overall comment | [Further recommendation that any terms which is likely to be industry-overloaded to include in the glossary]. | <i>Alan Honey</i> | <i>Minor/High</i> | <i>Comment</i> | <i>Consensus</i> Agree – as noted in the note in the Glossary in the first version of SAEAF, it is incomplete. The ArB recognizes the critical importance of a complete and well-written Glossary and will focus the appropriate bandwidth on providing that in future versions of the SAEAF. |
| 3.2 | The “more recent” Martin Fowler reference is from 1997 – if accountability pattern is to be inspiration for the ISRS, do we have references that describe accountability pattern in modern definitions of SOA? | <i>Rich Rogers</i> | <i>Minor / High Impact</i> | <i>Question / Comment</i> | <i>Consensus</i> The ArB is simply taking the core notions of Commissioning Party (aka Service Client or Service User) and Responsible Party (aka Service Provider) from Fowler’s Accountability Pattern for use in describing the general relationship that exists in a service interaction. The ArB believes that these constructs provide an understandable and basically non-technical framework in which to discuss service-awareness in the HL7 universe, i.e. in the context of any of HL7’s three Interoperability Paradigms. |
| 3.2 | ISRS – doesn’t appear to be anything healthcare specific here. Look to prior art (The Open Group, OMG, OASIS, Open SOA etc.) for reusability of content and terminology | <i>Rich Rogers</i> | <i>Minor / High Impact</i> | <i>Comment</i> | <i>Consensus</i> The ArB does not want to invent concepts. If you are aware of a specific construct that defines the semantics of ISRS, please let us know. You are correct that there is nothing health-care-specific about the concept or its semantics. |
| 4 | Not clear what is meant by moving the dynamic model to the interface spec. | <i>Rich Rogers</i> | <i>Minor / Low impact</i> | <i>Question</i> | <i>Consensus</i> This should be clarified in the next version of the SAEAF. The term “dynamic model” is a legacy HL7 term. |

| | | | | | |
|---------------------|--|--------------------|---------------------------|-----------------|---|
| Section 4.1 | Just for language clarity, the term “observable” should be used for behavior that is specified in the framework. This is the most commonly used industry term that stresses the difference between behavior that needs to be specified for interoperability and that which does not and should not. | <i>Alan Honey</i> | <i>Minor/Low</i> | <i>Comment</i> | <i>Consensus</i> Agree. Clarified in the BF sections of the next version of the SAEAF. |
| Section 4.2 | “but instead stops short of considering deployment or technology binding considerations.”. Clarification needed - The technology binding of the “internal” components must not be covered, but technology bindings for the interfaces and interaction components is (e.g. XML, WSDL etc) | <i>Alan Honey</i> | <i>Minor/Low</i> | <i>Comment</i> | <i>Consensus</i> Agree. Clarified in the BF sections of the next version of the SAEAF. |
| Section 4.2 | Clarify that “message types” at the analysis level is talking about high level business concepts of message type, not a detailed RMIM like structure, otherwise it is already paradigm specific. Message Types at the Analysis level is OK as long as it is only a “high level” indication of a business message (to match the “business” interaction). If it is message types as in current HL7 parlance it seems too early, since it would be dependent on some of the stuff at the logical design level in my view. Also, there is a danger in paradigm-independent application roles if they are defined in a way that they have been in the past or domain committees try to use existing ones (many of the examples would make very poor Services, so I am not sure whether this would work that well). I think granularity is an issue even at this level. Also, WSDL is not really appropriate at this level (should be PIM, e.g. as expressed in UML) <i>Recommend clarifying the definition of message type within the SAEAF document, or using another term. Similarly, the concept of “application roles” is fine, but their precise reference to HL7 Application Roles may be inappropriate.</i> | <i>Alan Honey</i> | <i>Major/low</i> | <i>Comment</i> | <i>Consensus</i> Agree. Clarified in the BF sections of the next version of the SAEAF. |
| 4.2, 5.2.1 figure 9 | Recommend that this table should explicitly map to MDA, one of the influencers described earlier in the document. | <i>Rich Rogers</i> | <i>Major / Low Impact</i> | <i>Comment</i> | <i>Consensus</i> Figure 9 addresses conformance and compliance and does not appear to be directly mappable to MDA. The ArB would like further explanation if this issue is not clarified in the next version of the SAEAF. |
| 4.2 | Unified Filed Theory. Messaging has explicitly defined standards , e.g. MIF, XSD. Recommend that the SAEAF recommend or define specific standards the ArB is proposing. | <i>Rich Rogers</i> | <i>Major / Low impact</i> | <i>Question</i> | <i>Consensus</i> The ArB believes it is in the process of doing that in the SAEAF. The next version will add additional detail. Please review it and resubmit this comment if you are not satisfied. |

| | | | | | |
|----------------------------------|---|-------------|----------------------|----------|--|
| 4.2 | Recommend an open forum be created to discuss the recommendations for specific standards [e.g., soaML, BPMN...] to include in the SAEAF. | (group) | Major/High | Comment | Consensus All ArB discussions are open to anyone interested in discussing current issues or raising new ones. |
| 4.2 figure 5 | Use SoaML stereotypes for figure 5 – SoaML defines for example service, service interface, behavior, role, channel, request, capability, collaboration Recommendation: Use soaML | Rich Rogers | Major / Major impact | Question | Consensus See previous comments on SoaML as well as the analysis in the next version of the SAEAF. |
| Sec 5.2.1 Fig 9 | The values in these cells need work. Or, maybe the labeling should say "sample artifacts". Some are very specific, some are very vague, e.g. Dynamic Blueprint. Also I think that some aspects of Engineering Viewpoint may affect logical design (PIM), which I assume is in this level, even though it is called Conceptual Design (OK this is acknowledged in the "rare" value used in the next table) Recommendation is to clarify the table contents as sample artifacts | Alan Honey | Minor/low | Comment | Consensus Agree. Addressed in the next version of the SAEAF. |
| Section 5.2.1 - Fig 1? | This is a good table, and one that generated a fair amount of discussion in SOA WG. There seem to be a number of inconsistencies between figs 9 and 1. As several expressed, I think the Reference / Business cell should be a plus. I cant see why Computational is rare at Analysis level either. At the Implementable level, I cant see why Information and Computational should have different values, they should both be plus or both be minus, the logic is the same as far as I can see (i.e. going from PIM to PSM) | Alan Honey | Minor/High | Comment | Consensus Agree. Addressed in the next version of the SAEAF. |
| Section 5.3 Fig 8 | This is one of those places where the separation of Interface and Implementation is critical, and this blurs them together. As an ISRS, B is exposing observable behavior to A. The implementation behind B has dependencies on C, but the ISRS itself must not, it is an implementation concern. | Alan Honey | Minor/High | Comment | Consensus Agree. Addressed in the next version of the SAEAF. |
| Sec 6.1 first para after diagram | I think that this "has been" the operative vision, but a services view is about more than information sharing. | Alan Honey | Minor/low | Comment | Consensus Agree. Addressed in the next version of the SAEAF. |
| Sec 6.1 Fig 10 | There seems to be some inconsistencies between figs 4, the first figure 8 and 9 and figure 10, 15 and others. The artifacts mentioned in each need to be rationalized a little. In particular in earlier figures, we need to ensure that nothing mentioned at the Analysis/Blueprint level can be considered paradigm specific, as represented clearly in fig 10. I am not sure that "message types" are independent of paradigm, not sure necessarily about trigger events either, depending on granularity. I think my conclusion is that there are too many tables in the document each with similar or overlapping purposes. | Alan Honey | Major/high | Comment | Consensus Agree. Addressed in the next version of the SAEAF. |

| | | | | | |
|----------------|--|--------------------|-----------------------------|-----------------|--|
| Sec 6.3 Fig 13 | I am not convinced why documents actually have a <i>separate dynamic model</i> as suggested here. Seems more like a special case of messaging or services depending on which is used. I am still not convinced that "Documents" are really a separate paradigm on the same level as Services and Messaging. They seem more like a way to package content within those two paradigms. | <i>Alan Honey</i> | Major/high | Comment | <i>Consensus</i> Agree...the next version of the SAEAF which contains an enhanced version of the BF as it relates to all HL7 Interoperability Paradigms should address at least some of these concerns. Please raise them again if you feel things are still not clear or complete. |
| 7.1 | Scope of governance in this document is not clear. "Collaborative governance" sounds like HL7 is brokering governance between organizations which I would not see as HL7's role. Recommendation is to provide clarity around the scope of Collaborative Governance. | <i>Rich Rogers</i> | <i>Major / Low impact</i> | <i>Comment</i> | <i>Consensus</i> HL7 will play a role in collaborative governance as it relates to interoperability using non-HL7 standards. The next version of the SAEAF expands the discussion of governance. If your concerns still remain, however, please raise them again. |
| Sec 8.1 Intro | Need to be slightly wary of the notion of "completeness" wrt business context. One of the purposes of services is to support a minimal and explicitly defined set of business contexts but to be extendable to as yet undefined business contexts. Any business context is only really "sample" (but importantly still can be precise and rigorous). Subsequent implementation profiles, e.g. IHE or others can then define the use of the service on specific contexts and nail down exact interaction semantics. | <i>Alan Honey</i> | Minor/low | Comment | <i>Consensus</i> Agree. Addressed in the next version of the SAEAF. |
| 8.4.1.1 | SoaML (SOA Modeling Language) is the official name for UPMS/Soa-Pro. | <i>Rich Rogers</i> | <i>Major / Low Impact</i> | <i>Comment</i> | <i>Consensus</i> See comments above RE SoaML and the SoaML analysis section in the next version of the SAEAF. |
| 8.4.1.1 | Is SAEAF adopting any of SoaML or just being influenced by it – if so, what of SoaML is being adopted and how is it intended to be used Recommendation to adopt soaML. If gaps are identified then HL7 should engage with OMG soaML community to address those gaps. | <i>Rich Rogers</i> | <i>Major / Major Impact</i> | <i>Question</i> | <i>Consensus</i> RE SoaML and the SoaML analysis section in the next version of the SAEAF. |

| | | | | | |
|-------------------------------|---|-------------|----------------------|---------|---|
| 8.5 Tooling | <p><i>Open source is a valuable yet incomplete tooling strategy. Tooling implications of what is proposed in SAEAF needs to be considered and addressed. Standards should be selected. A criteria for standard selection should include proof of reasonable vendor support.</i></p> <p><i>Recommend that tooling and its implications be considered in the SAEAF. Standards with reasonable vendor support in the marketplace should be considered as HL7 determines what we will be producing.</i></p> | Rich Rogers | Major / Major impact | Comment | <p><i>Consensus</i> The OHT Architecture Team will be incorporating SAEAF into its thinking and will certainly provide the ArB will both positive and negative feedback RE the entire content of the SAEAF going forward.</p> |
| Sec 12.4.2 – Service Taxonomy | <p>I think the additional Utility Services layer that we are proposing in I4SM will probably add value here too. For example, we see Terminology as a Utility Service rather than an Infrastructure service. (This idea was represented in some CBDI material also)</p> <p>Recommend that ARB identify explicit references to sources (such as CBDI) and call them out as appropriate.</p> | Alan Honey | Minor/high | Comment | <p><i>Consensus</i> The ArB is revisiting the Classification Scheme in the next version of SAEAF with the expectation to slightly modify te CBDI scheme mentioned in the first version of the SAEAF.</p> |
| 12.4.2 | <p><i>Service classification scheme - this is an opportunity to review and select/engage with relevant x-industry work in this space. Here is one example after a quick search - The Open Group's SOA WG has an "Ontologies for SOA" project in flight that may be worth a look; (also see OMG SOA SIG and OMG Ontologies collaboration on Services Ontology)</i></p> | Rich Rogers | Major / Minor impact | Comment | <p><i>Consensus</i> RE SoaML and the SoaML analysis section in the next version of the SAEAF.</p> |
| | | | | | |

*The combination of Priority and Rank convey the significance of the item, for example, misquotes or misstatements might be Major/Low Impact as they are easily corrected, but damaging if not corrected.