

Peer Review Form

Review Type: TSC Peer Review
Review Topic: Services-Aware Enterprise Architecture Framework (SAEAF) for HL7
<http://wiki.hl7.org/images/3/3a/SAEAF.zip>
Requester: ArB
Reviewer(s): Ioana Singureanu
Date: Monday, October 27, 2008

	Citation (page/section etc):	Comments:	Priority (Major, Minor, Question)	Review Status/Dispensation:
1.	Entire document	The document is missing any references or quotations. This document cannot be released without complete reference to MDA, RUP, RM-ODP, CSI sources.	Major	The next version of SAEAF will provide links to appropriate sources.
2.	Entire Document	HL7 should embrace a “service-oriented” not “services-aware” application architecture. The slight change of semantics signals to critics that we are cooping the changing the semantics of “SOA”.	Major	The charge of the ArB from the CTO specified “service-aware” so as to allow for the application of the SAEAF to all of HL7’s interoperability paradigms, i.e. services, messages, and documents.
3.	Page 9, para#1	“HL7 Interoperability Paradigms – messages and documents – considered on a somewhat <i>ad hoc</i> basis”. The implication that HL7 “messaging” (rather than “message”) and document specifications are ad-hoc is incorrect..	Major	Will clarify in the next version of the SAEAF.
4.	Page 9, para#1	“HL7 messaging” includes behavior specification (triggers, receiver responsibilities, etc.) and thus referring to messages alone is an over-simplification.		Will clarify in the next version of the SAEAF.
5.	Page 10, last para	“ SOA : provides a set of organizing Service Principles and Artifacts that are particularly useful in defining both the Conformance/Compliance and Behavioral Frameworks.” The greatest advantage of SOA is that it brings the systems and components in alignment with the business capabilities. I think this paragraph does not illuminate the need or benefits of SOA		Agree completely and will clarify in the next version of the SAEAF.

6.	Page 10, last para	What is a “behavioral framework” and what are its benefits for HL7?	Question	Clarified in the next version of the SAEAF. Short summary: a robust representation of what HL7 has been attempting to capture in its Dynamic Framework efforts
7.	Page 10, last para	“Conformance/Compliance” should read “Conformance”	Minor	After discussion, the ArB believes it should say “Conformance and Compliance” since the former is a set of assertions and the latter is a measurement of the veracity of a particular implementation wrt those assertions.
8.	Section “2.4.1”	“:static semantics” should read “information semantics”	Minor	Agree – fixed in next version of the SAEAF.
9.	2.4.1.1.	“segregated by Wrapper type” – what does this mean?	Question	Most of the semantics in the current HL7 V3 wrappers are/will be included in SAEAF specifications. However, from the perspective of defining the applicability of services you will not define wrapper types <i>per se</i>
10.	2.4.1.1.1	“The ArB verified that most HL7 <i>static content</i> ...” – “ <i>Static content</i> ” should read “ <i>Information models</i> ”	Minor	Agree.
11.	2.4.1.1.1	“CDA instances” are not based on RIM but on XSDs. Only the CDA XSD is based on the RIM.	Minor	Change “Instances” to “CDA Schemas” - CDA is RIM-based, but the term “instances” in this sentence is contextually incorrect.
12.	Page 12, first bullet	“finely-granulated “transaction” level;” . should read “fine-grained “interaction” level”	Minor	Agree

13.	Page 12, first	The fact that HL7 specifies interactions rather than operation does not mean that one cannot map application roles to services and a set of interactions to a single operation. This is a major error in this document.	Major	The ArB believes you are conflating the concept of Role. The next version of the SAEAF has a mapping document from the existing HL7 Dynamic Model to the new Behavior Framework which should clarify this issue. If not, please resubmit your concerns.
14.	Page 12, 2.4.1.1.2	“interfact contract” should read “interface contract”	Minor	agree
15.	2.4.1.1.2	“blue classes” are “MessageCommunicationsControl” subject area classes. Either remove this discussion as too detailed or correct the reference	Major	Agree -- will change “blue classes” to MessageCommunicationsControl subject area classes in the next version.
16.	2.4.1.1.2	What is this section trying to say? That for SOA we don’t need transmission wrappers and even control weappers when we use their content as discrete parameters? That should be here somewhere but this section does not really shed any light on the difference.	Major	See comments above on Wrappers. The ArB has attempted to clarify this section in the next version of the SAEAF. If you are not satisfied, please re-submit your comment.
17.	2.4.1.1.3 Other HL7 Content	<p>“The ArB believes that the vast majority of other HL7 static content – e.g. CDA, Vocabulary, CCOW, Datatypes, EHR-S FM, GELLO, PHR, etc. – is essentially orthogonal to service specifications <i>per se</i>.”</p> <p><i>The CDA artifact are not orthogonal but just like the message specification, thy may become parameter types for service operations. CCOW, CTS2, EHR functions, etc, may become part of the SOA-based standards HL7 will produce in the future. CCOW is already an API with several language bindings, for example</i></p>	Major	With the removal of CCOW from this statement, it remains true. SAEAF is not just about standards.
18.	2.4.1.1.4 Legacy Artifacts	HL7 Version 2 does not appear as a legacy artifact. We need to put HL7 V2 conformance in the context of this document and show how we migrate real legacy to the future SOA/RUP/MDA/RM-ODP unified field theory.	Major	Applying SAEAF to V2 is currently out of scope for the ArB per the TSC and CTO.
19.	2.4.1.1.4 Legacy Artifacts	“ArB has specified a meta-model for an HL7 Behavioral Frameworks and Services” Where is it specified?	Major	The next version of the SAEAF will contain this information for review and comment.
20.	2.4.2	“ <i>Conformance and Compliance</i> ” should read “ <i>Conformance</i> ”	Major	See preceding comment on the topic of Conformance and Compliance.

21.	Page 15 3.1	“A <i>service</i> maybe defined as follows” should probably read “A <i>service may be</i> defined as follows”	Minor	agree
22.	Page 15, 3.1	We need to reference SOA definitions. E.g. Carnegie Mellon Software Engineering Institute. We need to make sure that HL7 does not diverge from the mainstream. This definition reads more like “Service Contract” – by the way..	Major	The ArB does not want to invent new terms and will continue to pay attention to existing terms. However, if a term is not defined to include (or restrict) semantics as they apply to HL7, it is often better to re-define it (or even use a new term) rather than risk the confusion of an imperfect definition for HL7 use.
23.	Page 15 3.1	Where is the quotation coming from? Why don’t we have a reference to the source article? This definition is the mainstream definition of a service. “as it is used in the context of the SAEAF is specifically meant to describe “a means of organizing a set of resources according to business-oriented priorities. A service thus provide a primary means of integration between two organization’s business processes and/or data in a controlled, managed, and well-defined (i.e. contract-based) manner.” ”	Major	Sourced from ArB discussions. Will clarify in the next version of the SAEAF.
24.	Page 16 3.2`	“An organization desiring to share information or otherwise collaborate with another organization irrespective of physical or organizational boundaries.” Is this document implying that services are not going to be used within a single enterprise. Why not? There is not need to draw such distinctions. If services support business capabilities, there is no requirement that those business capabilities be shared across organizational boundaries. We should not exclude the intra-enterprise deployment model since HL7 is already recognized there.	Major	Absolutely not. The statement was attempting to state that organizational boundaries – be they inter- or intra- -- don’t matter. Will clarify in the next version of the SAEAF.
25.	Page 17, 1st para	It appears that ICSR replaces the concept of “Service Contract” or “Service Specification” not clear why we need another concept to no one else is using. We should attempt to adapt either “Service Contract” or “Service Specification” to HL7;s needs instead of creating a competing concept.	Major	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
26.	Page 17, 3.2.1	How does a “ HL7 Implementable Standard/Specification ” differ from a service contract or service specification ? We should try to simplify these overlapping concepts. We need this aspect clarified in the document.	Question	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.

27.	Page 19, Section 4	The behavioral framework has to describe how the business capability is supported by services interfaces. The current descriptions of “data flows” implies very much an event-driven messaging architecture rather than an architecture based on well-defined and reusable capabilities implemented by components that conform to unambiguous, standard-based service contracts.	Major	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
28.	Page 19, Section 4.1	“Must not specify system behavior, only shared behavior” – I think the intention was to say “Must not specify internal system behavior but external behavior”.	Minor	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
29.	Page 20, Section 4.2- table	Analysis – This should reference Domain Analysis Model. Application Roles, Interactions, Trigger Events,. Message Types are design artifacts not analysis artifacts.	Major	Clarified in next version of the SAEAF.
30.	Page 20, Section 4.2- table	“Lofical” should read “Logical”	Minor	agree
31.	Page 20, Section 4.2- table	An analysis, logical, and implementable design would likely be expressed as a model. What modeling notation/language is proposed?	Major	The ArB will use models only as necessary. If we conclude that the semantics of a particular aspect of SAEAF can be expressed as a model, the ArB will require one. The ArB will choose the appropriate modeling language for the semantics to be expressed with UML being the first choice.
32.	Page 21	“Service-level Agreement” between two trading partners seems to be “left to the implementer” – what role is HL7 playing in ensuring that the implementations converge on a set of common service contracts?	Major	The next version of the SAEAF removes the term SLA and replaces it with more appropriate verbiage.
33.	Page 22, bullet #4	<i>What is a Functional Profile? Is this the same as an EHR Functional Profile? We need this aspect clarified in the document.</i>	Question	The term is clarified in the BF discussion in the next version of the SAEAF. The ArB recognizes that it needs to be sure that the term is not confused with the EHR FP.

34.	Page 22	"A Contract, captured appropriately, forms a glue between specifications and implementations," What is this glue expressed as? Another model – constrained – or a Word document or something else. How is the contract enforceable?	Major	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
35.	Page 22, Figure 6	Is "Schema" referring to "Message Spec". Where is service discovery happening? How come the WSDL is not related to "information"? What is "Interface URI" - is that a WSDL binding? "Channels" and "Communication Logic" appear unrelated. Are they? We may need to clarify or remove this figure.	Major	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
36.	Page 23, Figure 7	"Static" should be "Information". "Static integration semantics" would not make any sense to a SOA expert.	Minor	agree
37.	Page 25, bullet #3	"Traceable mappings to Real-World Events and Business Processes' should read "Traceable to Business Processes and Information"	Minor	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
38.	Page 25, para#1	"The ISRS provides a contextualized contract that describes the integration semantics of a particular capability realized in a particular component" Here the ISRS is specified like a service contract, let's just say so.	Major	These concepts and more completely disambiguated in the Behavioral Framework discussions in the next version of the SAEAF.
39.	Page 26, figure#9	"DIM" should be "DAM"	Minor	agree
40.	Page 26, figure#9	"CIM, LIM" should be "DIM, CIM, LIM"	Minor	agree
41.	Page 29, Section 6	"Conformance and Compliance" should read "Conformance"	Major	See previous comments on Conformance and Compliance
42.	Page 30	"Message Development Framework (MDF)" should read "HL7 Development Framework (HDF)". MDF is obsolete and out-of-date and it should not be referenced her. The HDF is MDA-based.	Major	This will defined in the Core Principles document (i.e. not in SAEAF)
43.	Page 31	"Conformance/Compliance" should read "Conformance"	Major	comments on Conformance and Compliance
44.	Page 33, Fig 13	"Analysis" does not include Application Role, Interactions, Trigger Events, Message Types	Major	See previous response (item 31)
45.	Page 34, Fig 14	"Analysis" does not include Application Role, Interactions, Trigger Events, Message Types	Major	See previous response (item 31)
46.	Page 35, Fig 15	"Analysis" does not include Application Role, Interactions, Trigger Events, Message Types	Major	See previous response (item 31)
47.	Page 36, Fig 16	"DIM" should be "DAM"	Minor	Agree

48.	Page 36, Fig 16	"CIM, LIM" should be "DIM, CIM, LIM"	Minor	Agree
49.	Page 37, Fig 16 (DUPLICATE FIGURE#)	"Blueprint" does not include Application Role, Interactions, Trigger Events	Major	Clarified in next version of SAEAF.
50.	Page 45, Section 8.2	"requiring each communication to be characterized by an instance of the RIM Act class" – this is not true. It's only valid for notification messages. I recommend that we do not include this discussion at this level because it's both misleading and too detailed for this type of document.	Major	Much of this paragraph is now irrelevant secondary to clarifications that have occurred in the course of developing the next version of the SAEAF including the BF discussion. Please review this document to see if your concerns have been addressed.
51.	Page 45, Section 8.2	"the RIM Backbone classes" are the "RIM Foundation Classes"	Minor	agree