OASIS SAF TC – Responses to “Committee Specification for Public Review” comments.

February 27, 2012

Jeff Vaught, TC Co-chair

Only one comment was received, and restated below for convenience:

February 2nd, 2012

SAF is at my knowledge the only model that decouples (1) events (symptoms), (2) meaning at a larger level (syndromes) and (3) remedial process (Protocol) itself evaluated on the basis of new Symptoms. It closes the observation+analysis+remedial loop although not in a hardwired, rigid way: the model leaves the association  between “syndromes” and “protocols” as something that can be evaluated, revised and improved.

Such a feature is overwhelmingly ignored in other action-focused knowledge models such as rule-based (e.g. ECA rules) or AI-inspired decision systems, where the association analysis/action is often considered as a “given”. SAF appears to be a pragmatic approach to model the troubleshooting process of any kind, and to handle the evolution of this process over time.

One technical comments:

* The definition of Signature could have been more generic, and worded so that it is not tied to a particular technology (XQuery). Couldn’t just XPath be used as well? (or XSLT, if the generation of a document is important?)
* Several attributes have just “labels” (enums) as values, e.g. Likelihood, Impact, Urgency in Syndrome. The spec could have made it clearer to users that the meaning of these values has to be defined by end-users in their particular domain and must be part of a SAF “profile” for this domain.
* In Symptoms, the “RelatedSymptoms” field is immutable, assuming that this correlation set is known at the time the Symptom is created. This is a rather bold assumption… I personally would only use RelatedSymptoms for the most obvious dependencies (repetitions…), as “causality” and “supersedes” often imply some analysis that I am not sure can be done at Symptom creation time. If some “smart” Symptom dependencies have to be recorded, couldn’t  some (basic) Syndromes do the job instead?

Cheers,

Jacques Durand

FAI

The responses to the comments are as follows:

1. The definition of Signature could have been more generic.

The TC initially had settled on XPath 2.0 as the Signature “language”. A prototype revealed some limitations with XPath. The Signature needed to return an xml document such that it could be subsequently processed by the Protocol Directive. XPath alone only returns a sequence of elements, not a document. I believe XSLT was briefly considered, as it does return a document, but seemed to be limited in terms of implementations that used XPath 2.0, and also seemed more geared towards transformation rather than “query”. XQuery was determined to be the best choice. It is not a technology, but in fact, a full W3C standard that has an increasing level of adoption and several open source implementations.

1. Several attributes have labels/enums as values.

The enumerated values for Likelihood, Urgency, Duration, and so forth are generically defined, and should be adequate for any domain. The TC did discuss whether these enumerated values should be extensible. For example, Duration for astronomy domains might want to include “Light Years” as an enumerated value, as “Long” and “Very Long” don’t provide sufficient scale. As Jacque’s indicates, these extensions could be part of a Profile.

1. RelatedSymptoms field is immutable.

This Symptom attribute is intended to be set by an “intelligent” Symptom Emitter, as opposed to being set by the Diagnostician. In fact, the attribute is intended to serve as additional guidance to the Diagnostician that symptoms may be related, instead of relying solely upon the Syndrome signature. In the computing realm, many domain managers have the notion of causality and could serve as Symptom Emitters capable of populating this attribute.