GridWise™ Interoperability Workshop

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One or Two Questions Arising From Review of the Framework

1. What is a proper level of standardization of inter- and intra- company business processes to govern Business Content and Semantic Understanding? I'm particularly interested in ideas for how IEC TC57 WG14 (responsible for IEC 61968) should adjust its process (use case-driven) to be more useful.

2. What would be an ideal 'standard' methodology for local implementations to extend/modify these 'standard' processes in a standardized, or at least a philosophically consistent, way? Success would lead to lower TCO and lessen impedance miss-matches over time resulting from a utility's autonomous projects across varying domains, disparate and evolving software application products it employs, and ever changing inter-application business processes.

Articulate a Favorite Aspect About Interoperability

Focusing on Business Content and Semantic Understanding of the framework, I hope we can provide guidance on how utilities can achieve consistent semantics based on an industry standard information model (specifically the CIM) across disparate technologies (messaging, business intelligence, business process automation/monitoring/management, data warehouses, portals, etc.). As we consider the overarching objective, we should understand several current stumbling blocks and become aware of the pros and cons of various commonly held suppositions:

1. How to 'pragmatically' use ontologies, as seamlessly as possible, with other middleware/integration technologies/standards. We need to consider the near and long term approach, as well as migration between them.

2. People often want to build restrictions into the CIM (and other information models) to support their particular implementation view, typically a database or application oriented one. Instead, so as not to 'break' other valid uses of the information model, we should agree on a method of placing restrictions at the proper level and time (for both standards development and utility projects), which is often further down the line such as in the business context or physical model.

3. We need to make sure that autonomously created interfaces don't result in inconsistent uses of the enterprise semantic model.

4. WG14 is currently wrestling with how to support meaningful interoperability tests. Pragmatic interoperability mechanisms/processes/standards are needed for business processes that vary considerably across (a) utilities, (b) supplier capabilities and (c) implementation architectures and technologies. To be more specific, we (WG14) have multiple step use cases and we must support investor owned utilities (IOUs) business requirements, which are much more demanding than small utilities (e.g., using Multispeak, which is an ideal standard for utilities with minimal IT staffs and less demanding business requirements). For example, if one considers the life-cycle of a work order at an IOU, it goes through many steps before it is finally completed and closed out. Each step adds more data to the same work order message. WG14 has previously decided that it is best to treat this is the same message being updated through each step of the business process (i.e., created, changed/.../ changed, closed). For compliance testing, we tentatively plan to specify which elements are required at each step in each relevant use case. However, to allow for many different valid reasons for having more or less data at each step, we had tentatively agreed on the idea of having conformance blocks per step (conformance block 1 being the same as MultiSpeak when applicable). The idea is for each business analyst-oriented team (Part 3-10 teams) in WG14 to specify the conformance blocks for its area of responsibility. This would allow an independent tester to use its favorite tools to verify compliance, for example using a different 'restricted' (based on the appropriate conformance block) Work schema for the same standard 'generalized' Work schema at each step in the process/use case. This can easily be done with widely available W3C compliant tools.

5. An issue impacting interoperability for WG14 is that some people think there are too many optional elements in WG14 message type schemas (and we do have many!). Part of this stems from a misunderstanding by some people that assume having a large XML Schema automatically means that corresponding XML messages will be large, which is not the case. But still, once past this misunderstanding, we all still agree that it is nice to simplify whenever possible. But while reducing elements in the generalized schemas sounds appealing, doing so creates many other problems – some worse than the ones solved. Also, usually due to limitations with implementation tools, some people prefer not to have a direct link back to one serialized version of the information model.