

# Init1bes4 - SIW Enhancement

## Pre Interview:

| Item  | Information/Response   |
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| <b>Date:</b>  | 12/09/2009   |
| <b>Requirement # unique id</b> <SemCon Ops Initiative>. <analysts initials><requirement number><br>e.g. Init1dbw1<br>(eventually linked to Use Cases)   | Init1bes4  |
| <b>Originator/Customer's Name:</b>  | Sharon Gaheen  |
| <b>Originator/Customer's Company:</b>   | SAIC   |
| <b>Stakeholder Community:</b><br>Enter appropriate category of stakeholder from Primary Stakeholders:<br><br><ul style="list-style-type: none"> <li>• Software and Application designers and architects</li> <li>• Software and Application engineers and developers</li> <li>• Scientific and medical researchers</li> <li>• Medical research protocol designers</li> <li>• Clinical and scientific research data and metadata managers</li> <li>• Clinicians</li> <li>• Patients</li> <li>• Medical research study participants</li> <li>• Broader Stakeholders: caBIG@ Community WS NIH projects and related commercial COTS vendors (caEHR, SDO's (HL7, CDISC); International Collaborators (e.g NCRI, cancerGrid, China), Government and regulatory bodies (FDA, CDC, ONC) (<a href="#">link to view SemConOps Stakeholders description</a>).</li> </ul> | Software and Application designers and architects<br>Software and Application engineers and developers   |
| <b>Summary of requirement pre-interview, by Reviewer:</b>   | Enhance the Semantic Integration Workbench to allow application developers to validate their model against an existing standard supported by caBIG (e.g. NPO, CDISC, HL7, etc.). This will assist in determining the models' level of support for the standard and verify touchpoints. Different types of support for vocabulary, message and data element standards needed. |
| <b>Recommended Next Step</b> Enter one: Follow-up interview, Observe, Use Case Template (text), Use Case Model (formalized/UML diagram), Group Discussion, Prototype, Waiting Room  | Follow-up interview  |

## Interview

| Item | Script / Question   | Information/Response |
|------|---|----------------------|
| 1    | Hello, my name is NAME. I am calling you today because NCI and caBIG are working toward a new and improved version of the semantic infrastructure to better <b>support integration scenarios</b> .<br>Our first step was to organize requirements collected over the past year. Your organization has expressed a requirement/need for BRIEF STATEMENT OF USER REQUIREMENT. This has been identified as potentially a critical component to support application/data and service integration, and we need more information in order to enable us to meet this requirement.<br><b>Do you have about 30 minutes to talk about this?</b> | Yes.                 |

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| 2  | <p>Do you have any solution integration needs? If so, what are they? Have you envisioned new ways of interacting with existing or new parts of the semantic infrastructure?<br/><i>(prompt to elicit changes/new ways of using the infrastructure)</i></p>   | <p>We would like to have a tool that will assist in mapping the information model (class, attributes, and permissible values) to specific terminology/ontologies from one or many terminology services. Unlike current SIW, which allows you to map model components against all NCI-T, works against one instance of EVS and provides only XML as an output, we would like to be able to:</p> <ul style="list-style-type: none"> <li>- restrict the mapping to certain terminologies and/or different levels of hierarchies in terminology/ontology</li> <li>- use one more multiple instances of terminology services available</li> <li>- generate a table of the model component-matched concepts (in Excel and/or CSV formats)</li> </ul> <p>This will identify gaps in the information model in terms of concept coverage (e.g. the concepts that are not covered by model but covered by ontology).</p> <p>We would like to have the tool (could be the same one with above) to assist in mapping the information model to the domain analysis models (DAMs) or platform independent models and or platform specific models from model repository (or knowledge repository). This could assist in verifying compliance and/or identifying extensions to the DAM or other models. Automating compliance/conformance process at information model level and simplifying it through tooling would be great.</p> |
| 3  | <p>Are there any business changes you are assuming we will be able to deal with?<br/><i>(prompt to elicit changes/new ways of using the infrastructure)</i></p>  | <p>Per ECCF, the modelers should be able to verify conformance/compliance of PIMs/PSMs against DAMs (or PSMs against PIMs)</p>  |
| 4  | <p>Are there any capabilities you are expecting to be available to support your needs?<br/><i>(prompt to elicit expectations/dependencies)</i></p>   | <p>See 3.</p>   |
| 5  | <p>Do you use any of the existing software/services? If so, what do you like or dislike about it?<br/><i>(if related to existing capability)</i></p>   | <p>SIW. It does not allow to specify certain terminology or level of terminology to map against.</p>  |
| 6  | <p>If this requirement is met, what would be the benefits? If you do not have it, what would be the negative impact?<br/><i>(prompt to elicit benefits/value - will help to prioritize)</i></p>  | <p>The process of mapping a model to "right" concepts from "right" terminology /ontology will require cleaning to remove false-positives which is a labor-intensive task.</p> <p>Identifying the relationship between different levels of models PIM-&gt;DAM for verifying the conformance/compliance will be a mostly manual task.</p>   |
| 7  | <p>If, for any reason, we were not able to create that solution, do you think there might be another way to solve this issue? Can you think of an alternative solution?<br/><i>(prompt to elicit alternative solutions/workarounds)</i><br/><i>(to be prepared by the Requirement Analyst)</i></p>               | <p>Use current SIW to map a model against NCI-T concepts, do manual clean up of all concepts that does not belong to terminology/ontology of your interest.</p>   |
| 8  | <p>Would you agree that we can summarize your requirement like this?<br/><i>(Summarize one requirement in 2-3 lines and read back to interviewee for confirmation.)</i></p>  | <p>Business Goal: To improve semantic annotations/concept mappings<br/>Actor: Information Specialist (Modeler)</p> <p>We would like to have a tool that will assist in mapping the information model (class, attributes, and permissible values) to specific terminology/ontologies from one or many terminology services. We would like to have the tool (could be the same one) to assist in mapping the information model to the domain analysis models (DAMs) or platform independent models and or platform specific models from model repository (or knowledge repository).</p>   |
| 9  | <p>How important is this requirement to the interviewee? <i>Required: Customer Priority/Annotation Requirement Analyst</i><br/><i>(Provides concrete assessment of the relative importance for the requirements specification)</i></p>   | <p>2. Should have</p>   |
| 10 | <p>On a scale from 1 to 3 with 1 being "not satisfied" to 3 "completely satisfied", how would you rate your overall satisfaction with the product if this requirement was met? <i>(Relative rating/ranking of how satisfied or dissatisfied interviewee would be if this requirement were met/not met)</i></p>   | <p>3. Completely satisfied</p>  |
| 11 | <p>Are there other requirements that you would like to share with us? I'd be more than happy to call you back another time, or if you have another 10 minutes, please share other issues you can think of.<br/><i>(prompt to elicit any hidden - potentially higher priority requirements if they exist)</i></p> | <p>The performance of terminology services should support fast real-time access to reading full/partial subtrees of terminologies/ontologies.</p> <p>The addition of new concepts to NCI-T could be streamlined by providing a service that allows submission of new concepts for harmonization/creation upon EVS curator review.</p>   |
| 12 | <p>Who else should we talk to in order to elicit more information about this need?</p>   | <p>Konrad Rockiki</p>   |
|    | <p><b>For specific service enhancement or requirement from Forum entry:</b></p>  |   |

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| 13 | <p>Can you or someone else give me a step-by-step description of how you would describe the expected performance/behavior of the software in order for you to feel that your requirement is met?<br/> <i>(Required: Fit Criterion - will help us create test cases and user acceptance criteria - to be prepared by the Requirement Analyst)</i></p> | <p>When an information model is mapped to a certain terminology and/or different levels of hierarchies in a terminology/ontology, all the concepts mapped should be from the target set.<br/> When an information model is mapped to a DAM/PSM, all the common classes (entities) and attributes should be returned/provided.</p> |
| 14 | Forum Link:  | <a href="https://cabig-kc.nci.nih.gov/Vocab/forums/viewtopic.php?f=40&amp;t=104">https://cabig-kc.nci.nih.gov/Vocab/forums/viewtopic.php?f=40&amp;t=104</a>   |
| 15 | URLs (optional):   |   |
| 16 | References (optional):   | <p><a href="#">VCDE:Meeting notes</a> describing the requirements and motivation behind them as discussed in the interview.</p>   |