

# CSWG / NIST Smart Grid Users Guide Subgroup

## September 14, 2012

### Attendance:

- Mark Ellison (lead)
- Craig Rosen (lead)
- Marianne Swanson
- Robert Humphreys
- Reynaldo De Leon
- Ward Pyles
- Jody Fraser
- Tanya Brewer

NOTE: There was light attendance at this meeting due to a NIST plenary session being held on the same date and timeframe.

Over the past 2 weeks Mark Ellison had worked on Section 6, 7, 8 and 9; some of his focus was in making the draft user guide step-by-step readable. He then routed it off to Craig Rosen and Marianne Swanson for comments

The meeting began with focus on Section 4 of the draft user guide. Marianne Swanson had incorporated comments on Section 4, in relation to other working artifacts under the use case/straw man example. The artifact is the spreadsheet that contains the mission and business processes; for each mission and business function, there are associated dependencies. In one of Marianne's emails between team members during the last two weeks, she suggested that the team move up Section 7 on logical interfaces to Section 4. The team discussed potentially moving the NISTR logical diagrams to Section 4.

Craig Rosen observed that the team is still currently at a high level in its discussions as to what the reader would be doing as a business organization. The team expressed interest in identifying the logical interfaces, because those will assist the reader in identifying risk. Helping the reader identify risk is part of the rationale in moving the diagrams from Section 7 to Section 4.

Craig indicated that he is in the process of identifying a couple of examples to scrub and bringing them to the team for potential inclusion into the user guide. He is looking at business architecture mapping including processes, interfaces, and mapping. Mark mentioned that Marianne wanted to bring to the table some examples; Mark indicated that the team would want to include a consistent example threading across the document, but right now he's leaning toward keeping it simple. Craig indicated that he would lean toward an example as something that the team should consider, but it need not slow down the team. It will help if the team can obtain an example that is scrubbed – it could help clarify. Mark gave his accord to that approach as well.

Action item: Craig Rosen will take the action item to obtain one or more scrubbed example(s) over the next 2 weeks and bring them to the table for the next meeting.

Mark inquired if the example that Craig provides will be like a flowchart. Craig acknowledged that it will probably be like a flowchart. Architecture tools are used to approach these topics, and through each layer from the highest-level, as you can decompose problems down to the physical layer. So, the team will leverage some of those tools.

Mark inquired if the utilities will need to likewise leverage some of these types of tools and techniques described by Craig, or they will simply need to approach using the NISTR logical diagrams. Craig indicated that he will take an academic approach in that he sees this happen too frequently in the industry where insufficient analysis is applied. He indicated that he was unsure whether the team will need to become that prescriptive in guidance to the reader, but the user guide will need to provide sufficient guidance to ensure that enough due diligence is applied to the process by the reader.

Marianne observed that the NISTR logical diagrams are very crowded; the original diagrams were never provided in Visio format, so it is very difficult to pull out specific types of information. Mark indicated that perhaps that the team suggests to the reader to map out their processes and leverage the NISTR logical diagrams, with the caveat that not all organizations implement their businesses in the way presented in the NISTR logical diagrams.

Marianne observed that if the team feels at a future date that the NISTR logical diagrams provide insufficient detail at the various layers then the team can go to the architecture groups and ask for some examples with additional layers. Mark and Craig concurred with the approach, and looking at one of the NISTR logical diagrams, indicated that the reader can extract certain CIA information as guidance. However, depending on the architecture and environment at a particular organization, the risk profile may be different and, as a result, the impact rating of certain logical interfaces might be different. Therefore, the usefulness of the user's guide communicating the approach is important.

As Craig noted, the reader would take the user guide and utilizing the process the team is discussing, would start at a high-level in Section 4, and then logically Section 7 content flows directly after that. Mark observed that what the team has currently is the tail end of Section 7 being moved to Section 4. Craig suggested instead, for the team to move Section 7 to be presented directly after Section 4. Craig further described the rationale for this recommendation; to approach it as a reader who has their high-level business function captured and then proceeds right into the NISTR. Mark concurred and expressed interest in simply moving Section 7 to follow right after Section 4. Mark observed that in Section 4 the team can present the processes and map them to the interfaces in a spreadsheet; the spreadsheet details the associations, and then the flowchart maps the business processes. Mark and Craig discussed the need for spreadsheet.

Marianne moved Section 7 so that it is directly after Section 4. The new flow of the document, then presents "Section 6 – Identify Systems Supporting...."

Mark commented to the team to go through the remainder of Marianne's review feedback. The team discussed removing the term "critical" and, instead, using the term "mission." Some team members were not partial to using the term mission, but preferred to use a term like critical or key, but some members had wanted to

remove anything that had a regulatory flavor. The team discusses differentiating between key, essential or critical business processes; specific terms proposed included critical, essential, priority, and core.

Craig expressed interest in the term priority because you're already in the smart grid, so the term priority might be a good term to present to reader to establish context for priority business processes. Mark suggested the team name it "priority business functions." Marianne requested differentiation between priority business functions and an entity's priority business processes. Mark referred the team to earlier in the documentation where examples of priority business functions and processes are provided; Marianne agreed that the terminology and alignment are reasonable.

Mark inquired if there are any priority business functions or processes that the team hasn't necessarily considered for this document that if the team includes this verbiage, it will bog down the document or the team in producing it? The team discusses that business processes are those that support the priority business functions of the organization; it is suggested that the document provide a footnote explaining it to the reader.

Craig and Mark discuss the reader mapping their priority business processes, and the reader potentially missing one of the critical business processes. Craig expressed preference to exclude additional guidance for the priority business functions to advise the reader to cull them further; his concern is that the reader may remove a business function that they would otherwise need to have kept.

Marianne commented about zeroing in an example. Tanya added notation in Section 4 to leverage two examples.

Tanya inquired if focus of Section 5 has now changed, and suggested a new Section 5 name should change to "Map Business Processes to Logical Interfaces"; the team agreed regarding the scope adjustment, and the Section name change.

Mark observed that you can get down in the weeds quickly with business process interdependencies. This may be addressed in the diagrams that show the interdependencies between the logical interfaces. Therefore, for technical details, the reader is going to show a dependency on their logical diagram; for example, that there is a dependency on AMI.

Craig and Mark discussed how this could potentially be made clearer to the reader, and how the team might approach it in the document. Mark suggested that the team explicitly detail it in the flowchart; interdependency is currently presented in the document more like it is going to be part of the spreadsheet, rather than a flowchart. Mark recommended adding a small "b" to guide the reader to incorporate a flowchart to identify interdependencies between the actors; these interdependencies may be between different or the same business processes, and will help conceptualize the different ways the actors interact with the different processes. Craig observed that the description in "b" nails it, because it codifies the high-water dependency lurking in the background.

Mark suggested adding a lower case "i" along with some more verbiage, so that the document can guide the reader to leverage the NISTR logical reference model when creating their flowcharts. Also, NISTR logical reference model is not directly applicable to every utility. Craig made the further observation that portions of the NISTR logical reference model are not directly applicable for every business process; in this context, we're assuming utility industry.

The team proceeded to examine Section 5 – Mapping Business Processes and referencing NISTR 7628 Volume 1, Section 2, logical reference diagram on page 17. Mark suggested adding a column and content to the table in Section 5, using the logical reference model diagram on page 17 of the volume 1 of the NISTR 7628; he added the team might address this under “b” for each process, which works out for processes identified previously in the document, and to add them to the spreadsheet; Craig and Mark concur on this approach.

The team observes that the document hasn’t addressed logical interface categories yet. Therefore, it would make sense to bring it up here, under c; direct the reader to add a logical interface category to the spreadsheet. The team discusses the need to address the impact categories on the interfaces, and whether the document flow is at the stage to address. It is suggested to footnote it to ask a question, as it is definitely on the risk assessment side of the house.

Tanya inserted a footnote to add the interfaces to the list. What does it do to the recommended levels in the NISTR? That is, you have the baseline levels in the NISTR, but each organization needs to do a risk assessment, so that these are either affirmed for each interface, or are customized to what is appropriate to the interface and specific organization.

The team concurred that they are satisfied with Section 5 and Section 6, and were ready to proceed to Section 7. Marianne suggested examples and toolkits be added to the appendixes of the document.

Discussion focused on the part where Craig raised risk assessments on the interfaces; Marianne had mentioned the CIA model is addressed for each from the NISTR 7628, Volume 1, Pages 33-67. Craig observed that CIA guidance is provided in the NISTR, but the team needs to ascertain the analysis that was used to arrive at the recommendations provided in the NISTR; the team can use this analysis to provide appropriate guidance to the reader to customize their risk analyses to their interfaces, business processes, and organizations.

Tanya provided some historical context regarding the guidance and recommendations provided in the NISTR 7628 Volume 1. In August 2009 there were face-to-face meetings; the team bundled the interfaces into categories and set levels for the categories as a whole. They were faced with the challenge of setting the impact ratings for very similar sets of interfaces.

Craig inquired if any of the artifacts were retained from the 2009 meetings. Tanya indicated that she was presently unsure, but indicated that Frances Cleveland could have kept notes for these early meetings. Craig indicated that this could be very useful or, potentially, the team could pick a category, conduct the risk analysis, and then come back to the team for further discussion.

Craig emphasized that, at the end of the day, you have to come up with a risk recommendation and conclusion that either aligns to the NISTR or is specific to your organization. Tanya noted that what is provided in the NISTR is expected to be guidance. Craig and Mark concurrently discussed a business process point that, once the reader has whittled things down for their respective organization, a logical step would be to meet with the power subsystems experts to verify the levels.

Craig inquired as to how this process relates to the overall RMP. Mark responded that the RMP has already been used, but with the user guide, the team is doing a little bit level of risk assessment; the RMP uses the term of impact level rather than risk level, so the team will need to evaluate how that should be approached. Craig

observed that the team will need to delve into this a bit more, because we need to discuss the likelihood as well as risk; the reader will need to have a discussion with the business at the end of the day about this.

Tanya Brewer will post the inline edits of the working draft to the TWiki today.

**Next call:** Friday, September 28, 2012; 2:00pm Eastern