Task Force 3 Status Report

Date: 2010-10-26

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Abstract

Task Force 3 status report since the last P2030 meeting in Santa Clara, CA, May 2010:

• Status of TF 3 SG 1 – Architecture
• Status of TF 3 SG 2 – Use Cases
Report of TF 3 SG 1 Architecture
Teleconference Calls

• Bi-weekly Teleconference Calls
  – Reporting Period: 01 June 2010 to 22 October 2010
  – Teleconference Call #18 through #24

• Teleconference Call Summary
  – 18th Teleconference Call – 9 June 2010
    • Reviewed TF 3 Communications Reference Architecture (CRA) from the Writing Group in May 2010.
    • CRA Interface Description method was discussed with attributed required, e.g., general description, security level, protocols, connection types, latency, standards, bandwidth, bit rate, payload, QoS, reliability, etc.
    • 5 attendees
  – 19th Teleconference Call – 23 June 2010
    • Continued the discussion on the CRA interface description and the attributes necessary
    • 21 attendees
• Teleconference Call Summary
  – 20th Teleconference Call – 14 July 2010
    • Interface definition description document posted after the 19th meeting, DCN 280
    • Continued on the discussion of the interface definition template
    • 12 attendees
  – 21st Teleconference Call – 11 August 2010
    • Reviewed P2030 Draft 3.0 document and encouraged the participants to submit the comments by the due date (31 August 2010)
    • Reviewed the architectures from TF 1 and TF 2, along with that from TF 3
    • 19 attendees
  – 22nd Teleconference Call – 25 August 2010
    • Continued reviewing P2030 Draft 3.0
    • Discussed on the examples of the interface description template contents
    • 10 attendees
Report of TF 3 SG 1 Architecture Teleconference Calls (continued)

• Teleconference Call Summary
  – 23rd Teleconference Call – 13 October 2010
    • Changes from September Writing Group were presented, focusing on Clause 7 – Communication Technology Interoperability.
    • Volunteers for the interface description support were requested again
    • 13 attendees
  – 24th Teleconference Call – 20 October 2010
    • Reviewed DCN 341 “Request for Architecture Interface Description”
    • Some heated discussion on the interface description template, especially on security entry exchanged – But this was not the purpose of showing DCN 341.
    • More volunteered for helping in filling out the interface description template
      – Currently 17 interfaces are volunteered; and more are coming
    • 11 attendees
Report of TF 3 SG 1 Architecture Contributions to P2030

- **P2030 Smart Grid Communications Reference Architecture (SG CRA)**
  - Development of the initial P2030 SG CRA, and updates as required
  - Harmonization of four utility architectures into P2030 SG CRA
  - Descriptions of P2030 SG CRA interfaces (pending)
    • See the documents listed in SG 1 Future Plans (Chart #8)

- **Communication Security**
  - NISTIR7628 to P2030 Interface mapping:
  - Unified Key Management:
    [https://mentor.ieee.org/2030/dcn/10/2030-10-0315-00-0016-unified-key-management.docx](https://mentor.ieee.org/2030/dcn/10/2030-10-0315-00-0016-unified-key-management.docx)

- Many other contributions, but not listed here...
Report of TF 3 SG 1 Architecture
Future Plans

• Continue work on completing the interface description for the architecture diagram
  – Need more volunteers
  – For your contributions, see
    • DCN 341-01: Contribution Request_TF3 Architecture Interface Descriptions
    • DCN 349: Coordination for Comms Architecture Interface Description Request
      https://mentor.ieee.org/2030/dcn/10/2030-10-0349-00-0011-coordination-for-comms-architecture-interface-description-request.xls
  – Let Howard Choe (choe@raytheon.com) know which interface(s) that you are volunteering for.

• Review and enhance communication related sections in the P2030 draft
Report of TF 3 SG 2 Use Cases
Status to Date

• SG 2 included a total of 2 teleconference calls
  – 8 July 2010 & 17 September 2010
• Typically 6-11 attended the teleconference calls
• SG 2 participated SG 1 Architecture teleconference calls whenever possible
• Information gathered to further enhance the Smart Grid Evaluation Criteria (SGEC)
• Renewable and alternative energy sources discussed
• Alternative communications approaches for AMI and DR discussed
• Additional information obtained by participating in NIST PAP #2 and OpenSG
Report of TF 3 SG 2 Use Cases
Status to Date (continued)

• In September 17th teleconference call, refinements to the SGEC were discussed.
  – The results of this discussion will be submitted to the next Writing Group meeting in November 2010.

• Further engagement needed to clearly state the characteristic requirements
Report of TF 3 SG 2 Use Cases
Smart Grid Evaluation Criteria (SGEC)

• Contributions being considered for SGEC and for submission to the next Writing Group are:
  – SG1 Interfaces by Tier Class: https://mentor.ieee.org/2030/dcn/10/2030-10-0332-00-0012-sg1-interfaces-by-tier-class.xls
  – Table 1 List of Actors expanded from NIST SP 1102: https://mentor.ieee.org/2030/dcn/10/2030-10-0331-00-0012-table-1-list-of-actors-expanded-from-nist-sp-1102.xls

• The SGEC constructs have been shared with NIST PAP #2, OpenSG, ISA99/100, and DHS
  – Address the similar concerns related to Use Cases, Interfaces, Protocols, and Technologies to be used for the Smart Grid
  – Shared with a notion of “work-in-progress” to aligning the efforts.
Report of TF 3 SG 2 Use Cases
Use Cases Template

• Use Case Entry form was developed for P2030 member input for Use Cases:
  – DCN 142: UseCaseEntryForm
  – Member contributions are encouraged using the form to collect additional information on use cases.
    • Send your contribution to William Miller (mact-usa@att.net)
Report of TF 3 SG 2 Use Cases

Future Plans

• Review of characterizations and mappings to further the understanding of application of the SGEC for various Use Cases and Architecture Concerns

• SG 2 solicit P2030 member to contribute to SG 2 discussion and share their experience in order to gain further insight into areas of concern and how the SGEC can be applied.

• Submittal of recent mappings to Writing Group

• Review and comment on P2030 Draft 3.1

• Note: For detailed status of SG 2, refer to:
  – DCN 348: P2030 Plenary TF3/SG2 Status Report: