

UCA International Users Group (UCAIug)

OpenSG Subcommittee Reorganization Proposal

Introduction

The UCA International Users Group (UCAIug) is a not-for-profit corporation consisting of utility user and supplier companies that is dedicated to promoting the integration and interoperability of electric/gas/water utility. It is currently configured with two main focus areas:

1. Supporting user groups for specific standards and technologies such as IEC 61850 and the Common Information Model – Generic Interface Definition (CIM/GID as per IEC 61970/61968)
2. Developing technology independent requirements, information exchange models, and best practice guidelines for smart grid applications and supporting technology.

The UCAIug Mission is to enable utility integration through the deployment of open standards by providing a forum in which the various stakeholders in the utility industry can work cooperatively together as members of a common organization to:

- Influence, select, and/or endorse open and public standards appropriate to the utility market based upon the needs of the membership.
- Specify, develop and/or accredit product/system-testing programs that facilitate the field interoperability of products and systems based upon these standards.
- Implement educational and promotional activities that increase awareness and deployment of these standards in the utility industry.

The UCAIug does not write standards and shall, where appropriate, work closely with those bodies that have primary responsibility for the completion of standards. Through its official liaison relationships with standards organizations, the Users Group is able to provide feedback to the standards groups for suggestions to existing standards as well as develop the core rationale and initial concepts for new standards.

Note that the UCAIug is working on many areas of interest for different users where standards bodies may not yet be active or where the interests of users goes beyond the purview of the presently identified standards (such as the completion of users guides, industry education, transfer of technology, marketing support, identification of users needs and industry demonstrations to prove concepts).

Recently, emerging Smart Grid-related technical issues and associated standards-setting activities provide an opportunity for the UCAIug to influence and accelerate needed Smart Grid standards. For this reason, the Open Smart Grid (OpenSG) Subcommittee was formed within the UCAIug organization (Figure 1).

UCA International Users Group Organization Chart

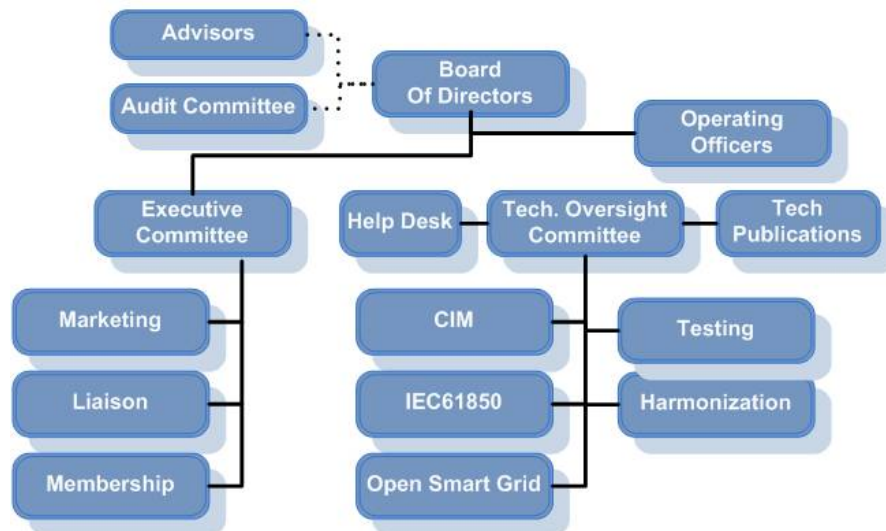


Figure 1 – UCAIug Organization Chart

The OpenSG Subcommittee is responsible for:

- Rationalization of standard-setting organizations to ensure that technical standards are developed with independence, transparency and broad industry representation
- Ensuring Testing Standards and Certification Guidelines are defined and support functional and timing requirements of industry initiatives and evolution

To better achieve the objectives set forth above, a reorganization of the OpenSG Subcommittee is necessary to facilitate:

- Formalizing and refocusing directives and intensifying the proactive leadership role of the UCAIug in driving towards needed technical standards, and ensuring appropriate resources are committed to the proposed UCAIug Smart Grid Standards Development Roadmap
- Clarifying scope, timing and mandate of the Open Smart Grid subcommittee to ensure Smart Grid standards are defined in a timetable consistent with industry adoption and utility-sponsored initiatives
- Reevaluating UCAIug OpenSG Subcommittee Working Group organization and participation to ensure appropriate project focus and technical expertise exists to complete needed technical standards on a timely basis

Vision and UCAIug Smart Grid Standards Development Roadmap

Vision

Smart Grid Technical Standards are critically important to promote interoperability, increased competition, and ease of implementation. These key principles will allow for mainstream market adoption of energy efficient appliances and products which is important for utilities and other market participants to recoup infrastructure investments, project costs and product development investments.

The envisioned proposal embraces three key elements—facilitation, recommendations and close coordination with standards-setting organizations; metrological system development; and traceability through testing standards. To achieve this level of standardization in Smart Grid technologies, a well-thought-out, well-executed and centralized effort is required.

Objectives

The key objectives of this proposal include:

- (a) Prioritization of technical initiatives through Strategic Planning focused on identifying the optimal sequence of activities and interdependencies of technical issues
- (b) Ensuring appropriate resources exist to ensure that longer range technical issues continue to move forward and are resolved in a sequence that addresses the interdependency issues, while ensuring adequate resources exist to address more immediate-term technical standards or implementation issues.
- (c) Ensuring tactical responsiveness and organizational agility are maintained through proper oversight, status reporting, accountability, resource management and planning
- (d) Adopting a formalized process for identifying and prioritizing new technical issues and initiatives as they arise
- (e) Ensuring high degrees of transparency to technical activities as standards are being developed to ensure sponsors and other constituents have a formalized means of understanding what alternatives are being discussed and what decision criteria are being used to select a particular standard thereby allowing constituents to assess the impact of any particular standard on their own organizations.

Specific Recommendations

Although there are several viable approaches to the challenges described above, one logical approach is to embody these responsibilities and activities within the existing UCAIug organization. More specifically, the UCAIug OpenSG Subcommittee would be an ideal organization for achieving these business, strategic and social objectives.

These objectives could be achieved through the following Five-Point Plan:

1. Initially support four high priority technical domains:
 - o SmartGrid Enterprise, which include business operations associated with enterprise interoperability. These functions are currently embodied in the AMI-ENT Work Group. This proposal further recommends that scope be expanded to

include all Smart Grid Enterprise-related technical activities (i.e., re-designate this group as the Smart Grid Enterprise Utility Work Group).

- SmartGrid Energy Applications, which include new classes of energy-aware applications at the edge of utilities' networks. This group's focus includes general AMI application requirements, HAN applications and other sensor-technology applications including demand-response components and applications.
 - SmartGrid Utility Security, which includes all security (i.e., end-to-end security) for Smart Grid applications. The work group should continue to support security initiatives as defined by the UtiliSec Work Group.
 - SmartGrid Communications, which includes all networking and transport related requirements and recommendations. This domain will focus on network interoperability, reliability, manageability, and scalability.
2. The OpenSG Subcommittee will institute a more formalized process for creating and managing technical domains and ensuring that the technical dependencies across the domains are identified and defined. For example, the SmartGrid includes numerous technical issues associated with T&D-related technologies; these technologies are not currently supported within the OpenSG framework. This formalization includes the development of voting procedures.
 3. Expand the UtiliSec Working Group mandate to include the development and of a security certificate process and management approach.
 4. Move the OpenHAN Task Force under the Energy Application work group, and ensure OpenHAN requirements are harmonized with other Edge Application requirements. Move the UtilityAMI working group under the Energy Application work group as an interest group. This move maintains the name recognition achieved by the UtilityAMI brand over the past two years and provides a focal point for industry information exchange among AMI stakeholders. The UtilityAMI Interest Group will provide guidance to the parent working group in developing work plans that relate to AMI and its applications.
 5. Staff with utility representatives (see Governance and Operations) sufficient to ensure that utility requirements and point of view are adequately represented and consistent with overall UCAIug governance and membership rules.

The proposed reorganized UCAIug OpenSG Subcommittee structure is illustrated below:

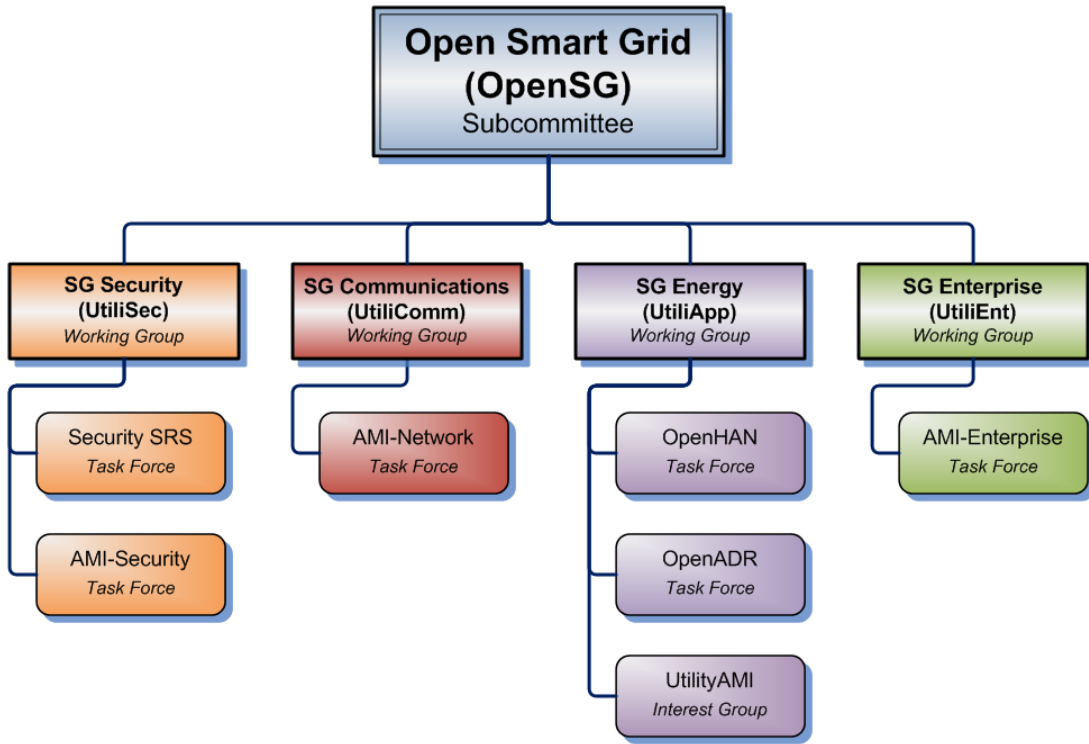


Figure 2 – Proposed OpenSG Reorganization

Governance and Operations

Success will be dependent upon the appropriate governance structure which promotes transparency and ensures that clear objectives are identified, charters are prepared, and oversight and accountability for deliverables are established. These key operating philosophies can be structurally addressed through the following:

- The OpenSG Subcommittee will be comprised of Utility Managers and standards domain experts. Ideally, membership should not exceed 15 individuals. The existing OpenSG Subcommittee chair (appointed by the UCAIug board of directors) is responsible for seating the initial slate of members with input from the overall UCAIug membership and advisors who have put forth this proposal. Those members will then be responsible for electing or reelecting a chairman, vice chairman and secretary.
 - The OpenSG Subcommittee members are responsible for championing specifications within their own companies as well as within the UCAIug, and for promoting technical work products with external constituents such as Regulators, Utilities and Industry Groups.
 - A process will be developed to identify by each participating Utility their associated designate.
 - Staff functions (e.g., Secretary) and other support (i.e., legal, logistics) may be required.
- OpenSG Subcommittee members will be accountable for monitoring activities of the OpenSG work groups and task forces and communicating issues and concerns to the OpenSG Subcommittee.
- The OpenSG Subcommittee will identify a Work Group Chairman for any new work groups. The Chairman will be accountable and responsible for creating the Work Group's charter which shall include a mission statement, technical objectives, roles and responsibilities, task list, deliverables and schedule. The Work Group Chairman will have authority to form additional Task Forces as needed, and will be responsible for communicating status to the OpenSG Subcommittee. As is existing practice within the UCAIug, the membership of new and existing working groups and task forces shall be responsible for appointing/changing their work group chairman upon entertaining a motion to open nominations, approval of that motion, receiving nominations, making a motion to vote and then voting on those nominations. Working Group Chairman are free to appoint a vice-chair and/or secretary if they deem necessary to assist them in carrying out their duties.
- The OpenSG Subcommittee will meet at least quarterly, where briefings will be provided by each Work Group Chairman. Topics will likely include technical direction and alternatives, scope, schedule status, resource needs, project risks, sponsor support needs, and internal/external communication requirements. These meetings should be face-to-face and shall be coordinated with other OpenSG meetings.

Liaison Responsibilities

The OpenSG Subcommittee should continue to work closely with other UCAIug Work Groups (e.g., 61850 and the CIM Users Group). In addition to internal coloration, the OpenSG Subcommittee should form a liaison with the ZigBee and HomePlug Alliances. The liaison will replace the current ad-hoc utility liaison. The OpenSG Subcommittee will reserve the right to form additional vendor alliances as deemed necessary. In addition to vendor alliances, the OpenSG Subcommittee should explore a liaison with IEC TC 8. As a standards organization, TC 8 can validate requirements deemed appropriate for an international community. Existing liaisons with other SDO's such as the IEEE and government organizations such as the DOE, GWAC, NIST shall be maintained and strengthened.