

GridWise Architecture Council

Mission & Structure

The GridWise Architecture Council (GWAC) was formed by the U.S. Department of Energy to promote and enable interoperability among the many entities that interact with the nation's electric power system. The GWAC members are a balanced and respected team representing the many constituencies of the electricity supply chain and users. The GWAC maintains a broad perspective of the GridWise vision and provides industry guidance and tools that make it an available and practical resource for the various implementations of Smart Grid technology.



GWAC's charter and its members support the GridWise vision—a vision of how the latest communications, information, and controls technology can improve operation of the electric system and implementation of its transactions from the generator down to the user (customer).

The GridWise Architecture Council was formed by the **U.S. Department of Energy** to propose principles for and accelerate the development and adoption of interoperability concepts and standards across the numerous applications operating and interfacing with the nation's electric system.

The GridWise Architecture Council is a team of industry leaders that contribute consensual, overarching, technical guidance in support of the GridWise vision. This includes specific concepts and guidelines that describe the systems, methods, and engineering principles embodied in the many technologies that serve the electric system.



**Pacific Northwest
National Laboratory**

Operated by Battelle for the
U.S. Department of Energy

Mission

The GridWise Architecture Council (GWAC) enlists industry involvement to:

- Articulate the goal of interoperability across the electric system
- Identify the concepts and architectures needed to make interoperability possible
- Develop actionable steps to facilitate the interoperation of the systems, devices, and institutions that encompass the nation's electric system.

It strives to establish broad industry consensus around the path to interoperability and the value it offers. Much of that value lies in the integration of the increasing number of automation, informational, and control systems involved in system operations.

Simpler, easier, and secure integration of these systems will enable and promote the development of new value-creating products and services. Consequently, the industry will greatly benefit through the use of smarter, faster, flexible, and secure interactions. The move from control-based interactions toward transaction-oriented interactions will significantly improve information exchange between the electric system devices and the end-use consumers.

To execute its mission, the GridWise Architecture Council:

- Assembles ideas and resources to articulate and motivate interoperability
- Aligns stakeholders toward a vision for electric system interoperation
- Establishes policy frameworks to enable secure interoperability
- Leverages the GridWise interoperability framework as an organizing platform
- Engages and encourages growth in the use of interoperability designs
- Identifies valuable and immediate implementation areas
- Helps stakeholder groups move towards adoption of interoperability principles
- Stimulates and guides programs in the adoption of interoperability approaches
- Acts as a consultative body for public and private industry stakeholders.

Interoperability is the capability of two or more networks, systems, devices, applications, or components to share and readily use information securely and effectively with little or no inconvenience to the user.

Key Relationships

- Academia
- Government Agencies
- Industry User Groups
- Research Organizations
- Standards Bodies
- Trade Groups

Composition

The GWAC members are recognized and respected practitioners and leaders with broad-based knowledge and expertise in power systems, information technology, telecommunications, markets and financial systems, buildings, industrial controls, security, and other related sectors. The GWAC has broad, balanced representation among its 13 members selected to represent the full spectrum of industry and academia with complementary experience relevant to GridWise. The ex-officio (non-voting) members of the GWAC include an administrator, facilitators, and liaisons to other relevant industry or standards organizations. This composition enables the GWAC to effectively carry out its mission, to be credible and respected throughout the GridWise stakeholder community, and to contribute overarching technical guidance with respect to the GridWise vision.

Organization

The GWAC holds face-to-face meetings at least three times per year, meets periodically through electronic and telephone conferences, sponsors strategic industry forums to discuss and promote

implementation of interoperable applications and systems, and coordinates with key industry organizations and DOE.

DOE provides the GWAC administrative, technical, and logistical support. Operational assistance for the GWAC is expected to eventually transition to related industry organizations.

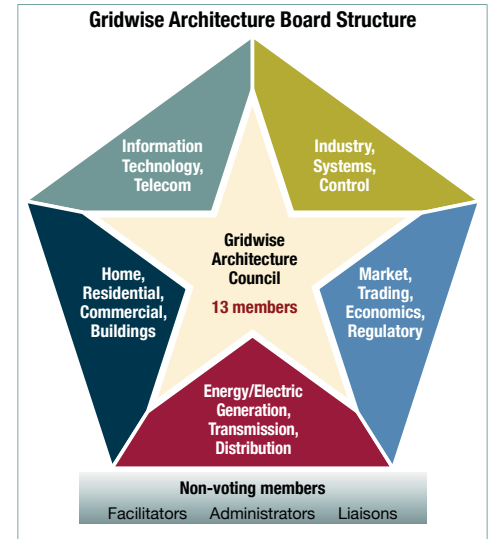
Results

After forming in May 2004, GWAC focused its initial work on establishing interoperability principles that have been recognized by many electric industry stakeholders and to which many are subscribing. Currently GWAC is working with stakeholders to formulate a technical framework for electric system interoperability and integration issues. As such, the GWAC is developing checklists that stakeholders can use to recognize, advance, and implement interoperability in their projects.

The GWAC also is building community awareness of the intrinsic value of flexibility and usability offered by the GridWise interoperability principles, as well as promoting an industry culture of continual improvement in the level of interoperability.

Products

The GWAC develops and disseminates written definitions and clarifications of interoperability principles, concepts, and recommendations, and provides guidelines, checklists, and position statements in support of its mission. These documents can be found at www.gridwiseac.org and in a variety of public documents and professional conference presentations and publications.



New Members

The GridWise Architecture Council Bylaws describe the roles, responsibilities, policies, and procedures that govern the operation of the GWAC. The bylaws also outline the nomination and selection process for new members. When new candidates are needed, the GWAC issues a public call for candidates, and welcomes recommendations from individuals and stakeholder groups.

For more information, contact:

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December 2007