



GridWise Architecture Council Meeting Gaithersburg, MD

August 7, 2008

Meeting Minutes

Chairman Jack Mc Gowan led the meeting from 8:30 a.m. – 4:00 p.m. on Thursday, August 7, 2008.

Present

Architecture Council Members

Ron Ambrosio, IBM T.J. Watson Research Center
Nora Mead Brownell, BC Consulting
Joe Bucciero, KEMA Consulting
Rik Drummond, Drummond Group
Erich Gunther, EnerNex Corporation (via telecom)
Stephanie Hamilton, Southern California Edison
David Hardin, Invensys Process Systems
Alex Levinson, Lockheed Martin
Jack Mc Gowan, Energy Controls, Inc.
Ken Wacks, Broadband Energy Networks

Architecture Council Members Emeritus

David Cohen, Infotility

Architecture Council Support

Steve Widergren, Ron Jarnagin, Heather Kuykendall, Ruth Taylor - Pacific Northwest National Laboratory

Speakers and Guests

Jim Baker, BAE Systems (via telecom)
Anto Budiardjo, Clasma Events
Alan Cookson, NIST
Jerry FitzPatrick, NIST
Joe Hughes, EPRI
Mark Lauby, NERC
Mary Morton, FERC
Mike Oldak, EEI
James Pace, Silver Spring Networks
Ray Palmer, FERC
Julia Souder, NERC

Members Not Present

Lynne Kiesling, Northwestern University
Russell Robertson, Tennessee Valley Authority
Richard Schomberg, Electricite de France

Proprietary Information Notice

The members and guests were reminded of the proprietary information disclosure policy from the Bylaws.

Meeting Minutes Approval

The minutes from the July 11, 2008 meeting were approved with no changes. All meeting minutes are available at <http://www.gridwiseac.org/meetings/meetingminutes.aspx>.

Upcoming Meetings

- September 22, 2008 – GWAC meeting from 8:30am – 1:00pm in Washington, DC during GridWeek. An international forum will also take place that may be of interest at 1:00pm.
- September 23-25, 2008 – GridWeek in Washington, DC
- September 25 - 26, 2008 - An open DOE Smart Grid Electricity Advisory Committee (EAC) meeting at 3 pm on Thursday Sep 25, and Domain Expert Working Group (DEWG) meetings on Friday Sep 26 in Washington, DC during GridWeek.
- October 31, 2008 – web meeting from 12:00 – 2:00pm EST
- November 11-13, 2008 – Grid-Interop 08, Atlanta, GA (potential for GWAC meeting on Nov 10 or 14, however, Grid-Interop will require the attention of the planning committee)
- December 9-10, 2008 – GWAC meeting, location TBD (central or southern U.S.)
- Feb/March 2009 – web meeting, TBD

Action Item:

Heather Kuykendall is to coordinate logistics for meetings with council members (ongoing)

Grid-Interop Planning

Website and Promotions: The event website is published, but needs a more complete agenda. Anto needs descriptions from the planning committee for sessions and tracks. Blasts have been sent out using several databases. Clasma plans to send an announcement through Energy Central.

Speakers: Potential plenary speakers were discussed among the Council. We are currently trying to confirm a speaker from Xcel Energy. NARUC Commissioner Fred Butler has confirmed, and FERC Commissioner Suedeen Kelly is tentatively confirmed. Dan Reicher, the Director of Climate Change and Energy Initiatives has been invited as a dinner speaker. Peter Kelly-Detwiler from Constellation New Energy has also been confirmed as the closing plenary speaker. Possibilities being looked at include GM Electric Vehicles, NRECA, PJM, and New England ISO. Someone from the consumer electronics industry could provide a different perspective. Ken Wacks has contacts to pursue. Stephanie Hamilton suggested someone from the Electricity Advisory Committee, or a utility expert such as Jim Rogers or Guido Bartels. Jack Mc Gowan proposed getting a speaker from one of the domain topic areas, or finding a local Atlanta speaker. A speaker from the Association of Energy Engineers (AEE) or ASHRAE would also be desirable.

Call for Papers: The Call for Papers will be left open for late submissions until August 15. As with the first Grid-Interop forum, an invited panel may need to be developed in the Business & Policy track. As of August 5, 44 abstracts were submitted, and others have expressed an interest in submitting

later in the week. The review committee will be formed from GWAC, NIST, and DEWG co-chairs. The committee will respond to authors with acceptance on August 29.

Planning Committee: The committee includes Rik Drummond, Dave Hardin, Joe Bucciero, Jerry FitzPatrick, David Holmberg, Alan Cookson, Steve Widergren, Ron Jarnagin, Ruth Taylor, and Anto Budiardjo. They attend weekly conference calls each week, and held a face-to-face meeting August 6. A second face-to-face meeting is scheduled for October 15 onsite in Atlanta. The final face-to-face is planned for November 10 onsite.

Awards & Recognition: Similar to last year, the GWAC will recognize outstanding papers and/or presentations in each track. The review committee will submit their nominations, and the nominations committee, made up of one GWAC member, one NIST liaison, and Steve Widergren will identify a primary and backup winner for each category. GWAC members and NIST liaisons will confirm the selections.

Sponsorship: There are three levels of sponsorship, platinum at \$20K, gold at \$9K, and silver at \$2.5K. Clasma is currently finalizing the prospectus, and 10-15 sponsors are expected.

Preliminary Schedule:

DAY ONE

Time	Activity
8:00 – 9:30	Registration
9:30 – 10:30	Opening Plenary Announcements and 3 major speakers (FERC, NARUC, Utility)
10:30 – 11:00	Break
11:00 – 12:00	Foundational Session Overview of EISA 2007, Standards Landscape, Progress on Smart Grid work
12:00 – 1:30	Lunch Sit down lunch, kickoff to rest of event, instructions for sessions following
1:30 – 3:00	NIST Workshop Brainstorming Sessions 5 Breakouts aligned with working groups
3:00 – 3:30	Break
3:30 – 5:00	NIST Workshop Brainstorming Sessions (continued) 5 Breakouts aligned with working groups
5:00 – 6:00	Engagement Activity
6:00 – 7:00	Reception

DAY TWO

Time	Activity		
8:30 – 10:00	NIST Breakout Roadmaps 5 Breakout groups		
10:00 – 10:30	<i>Break</i>		
10:30 – 12:00	NIST Breakout Roadmaps (Continued) 5 Breakout groups		
12:00 – 1:30	<i>Lunch</i>		
1:30 – 2:45	Architecture 1	Technology 1	Business/Policy 1
2:45 – 3:15	<i>Break</i>		
3:15 – 4:30	Architecture 2	Technology 2	Business/Policy 2
4:30 – 4:45	<i>Break</i>		
4:45 – 6:00	Architecture 3	Technology 3	Business/Policy 3
6:00 – 7:00	<i>Free time for networking</i>		
7:00 – 9:00	Dinner Dinner Speaker		

DAY THREE

Time	Activity		
8:30 – 10:30	Domain Working Group Action Sessions 5 Breakout groups develop plans for moving forward		
10:30 – 10:45	<i>Break</i>		
10:45 – 12:00	Architecture 4	Technology 4	Business/Policy 4
12:00 – 1:00	<i>Lunch</i>		
1:00 – 2:15	Architecture 5	Technology 5	Business/Policy 5

2:15 – 2:30	Break
2:30 – 4:00	Closing Plenary Plenary Speaker, Report outs from NIST Working Group Sessions

GridWeek Activities

GridWeek is taking place on September 22-25 at the Reagan Center in Washington, DC. Anto reported that sponsorship and registration is strong this year and should exceed last year's attendance. The agenda is available at <http://www.gridweek.com/2008/default.asp#agenda>. Wednesday night features the Smart Grid Awards at the GridWeek Recognition Dinner. There will be 4-6 recognition categories.

GridWise Architecture Council Participation:

- Rik Drummond, panelist - Interoperability Fundamentals,
- Erich Gunther, moderator - Grid Efficiencies: Anticipated or Real, and panelist - Interoperability Fundamentals.
- Dave Hardin, panelist – Interoperability Fundamentals
- Jack Mc Gowan, chair - Interoperability Fundamentals
- Richard Schomberg, speaker - Standards Landscape and Directions and part of International Smart Grids session
- Ken Wacks, panelist – Consumer Participation: Integrating Demand-side Resources
- Alison Silverstein (member emeritus), chair - Smart Grid from a Customer Point of View
- Steve Widergren, track leader - Interoperability of a Smart Grid, and a member of the GridWeek organizing committee

Action Item:

Steve Widergren to forward the GridWeek recognition criteria to the Council, and nominations from the Council should be submitted to Steve Widergren as soon as possible. (due 11 Aug 08)

Domain Expert Working Groups (DEWGs)

The goal of the August 5 Domain Expert Working Group (DEWG) meetings at NIST was to establish priorities for the different areas: Building to Grid (B2G), Home to Grid (H2G), Industrial to Grid (I2G), and Transmission & Distribution (T&D). The groups will identify gaps in the KnowledgeBase, and help draft the standards interoperability roadmap. A contractor will be hired to update the KnowledgeBase and landscape map. Co-chairs were designated for the domain groups:

- B2G – David Holmberg (NIST) and Jack Mc Gowan (GWAC)
- H2G – Tom Nelson (NIST) and Ken Wacks (GWAC)
- I2G – Keith Stouffer (NIST) and David Hardin (GWAC)
- T&D – Alan Cookson (NIST), Jerry FitzPatrick (NIST), Joe Bucciero (GWAC), and Richard Schomberg (GWAC)

A potential of six breakout groups was discussed that would also include cross-cutting issues and Business & Policy issues. NIST and the Council agreed with the necessity for a Business & Policy group. The Council recommended that the co-chairs of the DEWGs meet together to discuss cross-cutting issues that arise in their areas, rather than having a separate group. Jerry FitzPatrick concurred. GWAC Policy Team members Nora Brownell, Lynne Kiesling, Ron Ambrosio, Erich Gunther, Richard Schomberg, Joe Bucciero, and Alison Silverstein should be involved in the Business & Policy DEWG. It was brought up during this meeting that methods and tools should be discussed along with content as part of the DEWGs.

Action Item:

Ruth Taylor will update the GWAC website to provide links to the NIST website and describe the collaboration between GWAC and NIST. (17 Oct 08)

Interoperability Benefits Papers

Progress on the papers:

- Financial Benefits – waiting to hear from Harbor Research on committee comments of their first draft
- Environmental Benefits – eSource submitted their outline on July 11, and the committee held a teleconference with them on July 31 to discuss.
- Reliability Benefits – Alison Silverstein is due to submit an outline on August 31.

In general, the authors are having a difficult time distinguishing between smart grid and interoperability benefits. An opportunity to collaborate with EEI on a smart grid consumer benefits paper was discussed at the meeting with Mike Oldak. Though this is a general smart grid benefits to the consumer paper, Mike is interested in seeing interoperability covered. The GWAC agreed to pursue the possibility of coordinating with EEI on this consumer benefits paper.

Action Item:

Steve Widergren will discuss the possibility of adding an interoperability benefits dimension to the consumer benefits whitepaper that EEI is commissioning. (due 31 Oct 08)

Outreach & Liaison Reports

GWAC Liaisons

GridWise Alliance: Ron Ambrosio reported that the Alliance's Interop Working Group is creating a position paper to define the Alliance position on interoperability, starting with GWAC materials. The goal for the draft of this paper is GridWeek (September 23), with a final product by Grid-Interop (November 11). Ron will submit an abstract for Grid-Interop on this topic. The working group holds bi-weekly teleconferences. Their goal is to educate the Alliance members on how they fit into the GWAC Interoperability Framework. In 2009, they plan to map and collect implementations and demos where their members are involved. A whitepaper titled, "What is a Smart Grid?" will be completed in a few months.

EPRI IntelliGrid: Joe Hughes reported that they are working on a common application level language between utilities and customers. A substation configuration language is also being worked on. Ongoing security work continues. EPRI is revisiting the IECISA material for input into the NIST

standards knowledgebase. They are also working with SAE on potential electric vehicle plug in standards. The 700 MHz D block frequency spectrum may become available and could be useful for electricity automation and enhanced security. Ken Wacks mentioned a “700MHz D Block Autopsy¹” article that should be considered before going forward.

IEEE Coordinating Committee: Erich Gunther reported that the Intelligent Grid subcommittee in IEEE PES was recently elevated to an IEEE Coordinating Committee, providing education in the smart grid arena. They are interested in education and coordinating IEEE standards related to the smart grid. They are creating a database for involved companies with an annotated set of references.

FERC: Ray Palmer was asked for FERC representation on the Business & Policy DEWG. He said that they will consider the appropriate relationship FERC should have with the Business & Policy DEWG. Ron Ambrosio mentioned the GridWise Alliance has federal and state working groups for Business & Policy. Mary Martin and Ray Palmer explained that FERC is favorable to the smart grid concepts, particularly as enabling programs such as demand response. They are concerned about cyber security vulnerabilities as this work progresses. Mike Peters at FERC is the focal point for these concerns. The next FERC/NARUC SG Collaborative meeting is in November. Other FERC and NARUC coordinating groups are the Demand Response Collaborative, Retail Collaborative; and the Competitive Procurement Collaborative.

EEl: Mike Oldak reported on the consumer benefits paper that was mentioned earlier in the meeting as a possible collaboration with GWAC. Mike Oldak would like to add the GWAC to the team to evaluate the paper outline. EEl has 14 smart grid teams. They are looking at smart grid business models for utilities and will evaluate the EPRI and RAND benefits studies. Other topics to be included in the paper are battery storage, PHEVs, and interoperability standards. David Spiegler of the Spiegler Group has been retained to develop the consumer benefits paper. Nora Brownell suggested that marketing the key benefits using real consumers would be very powerful.

GWAC Recent Outreach

IEEE PES General Meeting: Erich Gunther, Joe Bucciero, and Steve Widergren attended the meeting on July 21-24, Joe Bucciero participated in a panel on the EMS Architecture of the future, and Dave Cohen submitted a paper to the event.

FERC/NARUC Smart Grid Collaborative: Jack Mc Gowan and Nora Brownell attended the meeting on July 23.

Upcoming Outreach

Rik Drummond would like to write a paper on business to business testing with input from NIST and test agencies to present a consistent message on the term “interoperable.” Comprehensive testing can be prohibitively expensive to commercially-available interoperable products.

¹Post-meeting note: article located at <http://arstechnica.com/news.ars/post/20080427-700mhz-d-block-autopsy-public-safety-net-concept-was-doomed.html>

Smart Grid Metering West Coast: Rik Drummond will attend this conference on August 18-19.

GridWeek: (see “GridWeek Activities” section)

Green Sustainable Buildings: Jack Mc Gowan will be unable to attend this conference on September 22-24 due to the conflict with GridWeek.

EEI Smart Grids: Steve Widergren will attend this meeting on October 6.

DR Expo: Jack Mc Gowan will attend this meeting on October 7.

Grid-Interop: (see “Grid-Interop Planning” section)

DistribuTECH: Erich Gunther plans to lead a “Smart Grid University” course during DistribuTECH on January 22-24, 2009.

Action Items:

Council members will forward their outreach activities to Heather Kuykendall for inclusion in the GWAC metrics. (Ongoing)

Communications

Ruth Taylor reported that articles will come out soon to promote Grid-Interop. Jack Mc Gowan said that Automated Buildings, publication geared towards 100-200 word articles, might accept interesting abstracts that would draw a crowd. Dave Hardin is working on a paper with the I2G group with the intent to publish in iHomes and Buildings.

NERC: Smart Grid and Demand Response Integration

Presentation by Mark Lauby, NERC

Mark provided an overview of the NERC mission to ensure power system reliability, its organization, and influence. The industry is becoming familiar with demand response as a resource. They are reviewing their standards to see how demand response concepts can be appropriately supported. He emphasized that a smart grid can improve reliability with integration of variable resources. Cyber security is an important concern that needs to be addressed in advancing the smart grid.

Endorsement/Support Policy

Steve Widergren reviewed the main points for developing the policy for GWAC recognition of conferences, meetings, and other forms of recognition. The Council agreed with the following points:

- MOUs and alliances with others requires GWAC decision
- Endorsements can come from the Chair or Administrator who need to confer with each other in all instances
- Endorsements by individual members are not to reference the Council or use GWAC letterhead
- The Council is notified in a timely manner of all endorsement actions and notification is also encouraged regarding members’ personal endorsements

The Council also agreed that endorsements should avoid any appearance of a conflict of interest. A set of criteria, derived from the award recognition guidelines, was also reviewed and generally agreed to. The Council asked that these points be developed into a policy document for their review and approval.

Action Items:

Steve Widergren is to draft a policy statement on endorsement/support for review and approval by the GWAC. (due 31 Oct 08)

Summary of New Action Items

Item	Owner	Due Date
Heather Kuykendall is to coordinate logistics for meetings with council members.	Kuykendall	ongoing
Steve Widergren to forward the GridWeek recognition criteria to the Council, and nominations from the Council should be submitted to Steve Widergren as soon as possible.	Widergren	11 Aug 08
Ruth Taylor will update the GWAC website to provide links to the NIST website and describe the collaboration between GWAC and NIST.	Taylor	17 Oct 08
Steve Widergren will discuss the possibility of adding an interoperability benefits dimension to the consumer benefits whitepaper that EEI is commissioning.	Widergren	31 Oct 08
Council members will forward their outreach activities to Heather Kuykendall for inclusion in the GWAC metrics.	All Council members	ongoing
Steve Widergren is to draft a policy statement on endorsement/support for review and approval by the GWAC.	Widergren	31 Oct 08