IEEE CAMS WG on High Performance Computing for Grid Analysis and Operation – Meeting Minutes

(4 PM Tuesday 28 July, Denver USA)

Attendee:
- Zhenyu (Henry) Huang, WG Co-Chair – Pacific Northwest National Laboratory (zhenyu.Huang@pnnl.gov)
- Zeb Tate, WG Co-Chair – University of Toronto (zeb.tate@utoronto.ca)
- Jimmy Peng, WG Secretary – Masdar Institute (jpeng@masdar.ac.ae)
- Shrirang Abhyankar, WG Webmaster – Argonne National Laboratory (abhyshr@mcs.anl.gov)
- Mallik Vallem
- Alex Flueck
- Bryan Palmintier
- Bruce Palmer
- Chaitanya Baone
- Sina Baghsorkhi
- Xiaoyu Wang
- Venkata Dinavahi
- Guangyi Liu
- Yutaka Kokai
- Bo Yang
- Carleton Coffrin
- Qiuhua Huang
- Mark Walling
- Ruisheng Diao
- Ashwini Bharatkumar
- Anthony Papavasiliou
- Yoshi Fukuyama
- Yousu Chen
- Saeed Lotfifard
- Seyedmahdi Moghadasi
- John Grosh
- Russ Philbrick
- Mike Schneider
- Gareth Taylor
- Gray Gu
- Dagmar Niebur

General Items:
- The group is now officially elevated from task force to working group.
- CAMS Computer and Analytical Methods subcommittee praised on the progress and achievements made by this working group.
Invited full paper submission for the special issue (IEEE Transactions on Smart Grid: Special Issue on High Performance Computing Applications for a More Reliable and Efficient Power Grid) is due on 1 September.

The P&E article requires more participation from the working group. Please contact Zeb to gain access to the paper on Goggle Docs.

**HPC Tutorial:**

- Members support the idea of organizing a HPC tutorial in the coming future.
- Immediate tasks are to identify the audience body, expected outcomes, and volunteers. One possible lecturer is Yousu Chen from PNNL, who is an IEEE Distinguished Lecturer focusing on HPC applications for the power grid.
- The tutorial should focus on utilization of HPC instead of programming skills. For example, improving the computing efficiency of system planning or outlining the merits and limitations of HPC tools.
- Examples that attendees can replicate at home have also been suggested.
- Henry Huang will find out the process of proposing a tutorial at GMs and then organize the contents.

**Panel Session Proposals for GM2016**

- Several topics were proposed. And the final topic converged on HPC for power grid operation, given we had one panel on HPC planning at GM2015.
- John Grosh from Lawrence Livermore National Laboratory volunteered to chair this panel session. A panel session proposal will be prepared and submitted to CAMS for review and approval.

**HPC Information Sharing:**

- Shrirang Abhyankar from ANL gave a brief presentation on the functionalities of PETSc for power grid planning operations.
- Bruce Palmer from PNNL presented an overview of utilizing GridPACK™ for implementing HPC into power grid applications.
- Mallikarjuna Vallem from PNNL summarized a range of test systems that are suitable for power system HPC applications.
- John Goldis from Newton Energy Group was absent, and sent his apologies. His presentation on cloud computing for power market simulators will be rescheduled at future conference calls.
- Presentation slides will be made available at [http://sites.ieee.org/pes-hpcgrid/](http://sites.ieee.org/pes-hpcgrid/).

**Remarks:**

- Dagmar Niebur proposed to set up a Task Force within this WG to look at HPC computing. Henry Huang suggested one task for this TF is to develop a white paper that addresses how cloud computing may be useful and used for power grid applications, covering three aspects: cost, performance, and security. A volunteer to chair this TF is being solicited.
- Meeting adjourned at 5 PM (MDT)