April TAC Meeting - 10am to 12:15pm
April 27, 2022

Join Zoom Meeting
https://us02web.zoom.us/j/8569536132
Meeting ID: 856 953 6132

Participants

- Allen Le (CEC)
- Alyona Ivanova Teyber (SLAC)
- Anthony James (SCE)
- Audrey Lee (Microsoft)
- Bo Yang (Hitachi)
- Brian McCollough (CEC)
- Chun Yi Leu (SLAC)
- Dave Chassin (SLAC)
- David Erickson (NHEC)
- Duncan Ragsdale (SLAC)
- Frances Bell (Kevala)
- Frank Gonzales (SCE)
- Frank Tuffner (PNNL)
- Fuhong Xie (SLAC)
- Jamie Patterson (Independent)
- Jason Fuller (PNNL)
- Jose Aliaga Caro (CPUC)
- Lily Buechler (SLAC)
- Matthew Tisdale (Gridworks)
- Panitarn Chongfuangprinya (Hitachi)
- Qian Ting (CEC)
- Wan Lin Hu (SLAC)
- Yanzhu Ye (Hitachi)

- Meeting objectives:
    - Show how OpenFIDO and GLOW can be used by TAC members today
    - Share the project team's plans for final testing and validation
    - Consider together a draft proposal for establishing a consortium to provide ongoing product support, leadership and development

- What advice do we need?

- How could the draft consortium proposal be improved to engage TAC members in the consortium?

Agenda:

1. Introduction (5 minutes) -- Gridworks
2. GLOW and OpenFIDO, Your Tools and their Benefits (60 minutes) – Hitachi + SLAC
    - Project Plan Overview
    - Beta Test Latest Updates
    - Future Work & Public Release Plan – GLOW V1.0
    - Available Use Cases
    - Commercialization Plan

Presentations are available as follows:

- HiPAS
- OpenFIDO
- GLOW

  TAC Questions:
    - Qing: Will users operating on desktops be able to use parallel computing capabilities?
        1. GLOW response: Different user configurations are a challenge; intend to keep full capabilities available through cloud support.
    - Qing: How could the electrification analysis help with EV charging interconnection challenges?
        1. GLOW response: GLOW provides a high-level estimate of impacts on the distribution grid. Also help with locating charges that would minimize grid impacts. Finally, beyond the technical impact, we are also developing the capability to estimate tariff impact on charging that can be used for optimizing tariff design.
    - Qing: Can the tool perform bi-direction power flow analysis?
        1. GLOW response: yes, we can model a load and generator at the same location, run them separately. But additional modeling is needed to support V2G capabilities.
        2. HiPAS: bidirectional charging not anticipated in HiPAS.
    - Anthony (SCE): have completed cyber-risk assessment for GRIP installation. Suggesting additional capabilities (wind caused cable slapping + Duct banks + covered conductors + comparing ICA implementation with SCE ICA) be considered.
    - Anthony (SCE): how would the learning accelerated power flow modeling impact the results of processing seen in National Grid project?
        1. SLAC: Would expect further improvements in processing time, but results may vary.

3. Considering a Draft Proposal for Consortium (30 minutes) – Hitachi + SLAC

- What is the purpose of the Consortium?
- What are the benefits of the Consortium?
- Potential Structure

4. Feedback from TAC (45 minutes)
    - Audrey's suggestions:
        1. Consider coordinating with the Linux Foundation which hosts other open-source software solutions in the clean energy space. Linux Foundation has mostly been supported by European Utilities.
        2. Consider whether DOE may continue support?
        3. If a company has proprietary add ons or non-public applications, could they support the underlying open source software and still own their proprietary applications.
    - Matthew: How will agency use be supported?
        1. GLOW: Agency with special uses will have the opportunity to designate special uses and receive support from the project team on a project-by-project basis.
        2. Qing: we do not have experience being a part of a consortium but have funded administrators for comparable solutions. Willing to explore internally.
        3. Allen: we have not budgeted for it and are not using the tool in the energy assessment division. Would require a large uptake of the tool before they are prepared.
    - Anthony: may be an opportunity to evaluate Gridlab-D as a part of our system planning efforts; seems to be a compelling advantage of this tool relative to others we use. We want to do some validation and then decide how we can support it. The GRIP deployment is a start. Duct bank modeling would be another step forward.