Meetings 2023

Meeting 26-07-2023 16:00

Attendees

- Erdem Gümrükcü
- Florian Oppermann
- Juan Adolfo Galeano
- Ghassen Nakti
- Mattia Alfieri
- Ciro Cavacchini
- Federico Paolantoni

Discussion & Action Items

Item	Notes
Feeding CIM-formatted real-time measurements to SOGNO services	• VILLASnode is highly recommended as it is a flexible gateway with several supported protocols (https://fein-aachen.org/en/projects/villas-node/) but it is not the only solution • Alternative approaches that suit with the targeted SOGNO architecture are welcome

Areti feedback on pyvolt	• pyvolt lacks meaningful logs from an electrical point of view:
	  ◦ Usual suspect is the network topology (e.g. lack of slack bus)
	  ▪ pintura service could be used to visualize the network with the purpose of topology-check
	  ▪ Another test could be performed by importing the same network topology (given in CIM format) to another power flow simulator and see if it is working.
	  ◦ Short term improvement plan:
	  ▪ Try to reproduce the error(s) for futhere analysis of the problematic scenarios
	  ▪ Users are encouraged to suggest solutions via pull request
	• Endless loops that saturate system resources
	  ◦ To manage this exception, areti introduced a threshold inside the pyvolt logic (pull request)
	• Suggestion: pyvolt should be capable of running multiple islands in a single instance
	
	The problems originating from network should be logged properly. Currently, it is difficult for non-electrical engineers to overcome such problems. This can put limits on the applicability of SOGNO services.
	
	RWTH will look for funding opportunities to dedicate developer resources for improvement of logging.

Discussion items	• Microgrid flexbility management service --pymfm-- will be ported to SOGNO after official end of Platone project • EV routing service --evrich-- will be ported to SOGNO soon • Florian is working on network state visualization. It will be possible to see a colormap indicating the existing loading of network sections in real-time.
Organization	• August meeting will be cancalled due to low expeceted attendance

Meeting 27-06-2023 17:00

Attendees

- Erdem Gümrükcü
- Gonca Gürses-Tran
- Francesco Rizzi
- Ciro Cavacchini
- Alberto Patrizi
- Federico Paolantoni

Discussion & Action Items

Item	Notes
Introduction of new members	Francesco, Ciro, Alberto from ARETI working on the ADMS project Gonca working on deployment of SOGNO as the DMS for Fraunhofer grid

Overview of the ADMS project of ARETI	• Goal: Run power flow and state estimation based on measurements
	• Desired final view:
	  ◦ SCADA provides measurements with 10-min updates
	  ◦ Kafka handles message brokering in the CIM format
	  ◦ Relevant microservice reads messages

Discussion items	• Are there reference implementations to show communication of formatted (e.g. in CIM) measurement/data between microservices and external components?
	  ◦ villas framework (https://villas.fein-aachen.org/docs/node/) provides references. In the past it was used to communicate measurement-placeholders (i.e. dpsim outputs)
	  ◦ dpsim-pyvolt demo (https://github.com/sogno-platform/example-deployments/tree/main/pyvolt-dpsim-demo) could be relevant
	• Where should one develop new state estimation algorithms? in pyvolt

Organization	• Monthly meetings will be kept at 4th Tuesday of every month • Meeting time to be shifted to 4pm

Meeting 28-03-2023 17:00

Attendees

- William Bariselli
- Erdem Gümrükcü
- Florian Oppermann
- Katia Di Pace
- Federico Paolantoni

Discussion & Action Items

Item	Notes
Introduction of new members	Katia and Federico from ARETI
Outreach / Marketing	Future collaboration opportunity with Shell. The represntative will be invited to the next TSC meeting.
Development updates	William and Floria will offline to identify the optimum architecture to implement kafka in SOGNO. In the future, SOGNO documentations and artifacts will be updated based on the needs of kafka extensions.
Organization	• William will clarifiy the institutional storage. • Investigation of pyvolt's computation requirement (i.e., how much storage/CPU is needed to solve SE problems with X number of network nodes)
Uncovered agenda items	• Feedback from TAC review • Pull request for FledgePower • OpenSSF Best Practice Badge • The running demo in OpenStack

Meeting 28-02-2023 17:00

Attendees

- William Bariselli
- Giuseppe Cofano
- Erdem Gümrükcü
- Juan Adolfo Galeano
- Florian Oppermann

Discussion & Action Items

Item	Notes
Introduction of new members	Florian and Fito (Juan) from RWTH Aachen
Outreach / Marketing	Video documentation: A series of videos will be produced for certain SOGNO projects in Platone. Step-by-step starting from highest level (i.e., definition and prupose of the project) to lower levels (i.e., deployment details).
Related research project	In Horizon EU project FLOW, RWTH is developing a routing service for electric vehicles (in charging hubs with multiple CPOs).
Development updates	Kafka development aims to increase horizontal (between multiple SOGNO instances running at different nodes) and vertical communication (with other platforms e.g. FledgePOWER) capabilities of SOGNO. There exist multiple Kafka offerings available. For SOGNO integration, a proper choise must be done. The priority is to avoid vendor lock-in. TO-DOs in this regard: • William will initialize a document to list the message bus requirements and involve ARETI. • Florian will look for pros/cons of available offerings.
Organization	• William will clarifiy the institutional storage. • LF SOGNO will be presented in the next Technical Advisory Committe meeting.

Meeting 24-01-2023 17:00

Attendees

- Markus Mirz
- William Bariselli
- Giuseppe Cofano
- Antonello Monti
- Erdem Gümrükcü

Discussion Items

Item	Notes
Outreach / Marketing	SOGNO blog post: https://www.lfenergy.org/meet-the-lf-energy-sogno-project/ Enlit: SOGNO based demo by several EU projects
Related research projects	SOGNO components are developed in EdgeFLEX, Platone and BeFLEX Edgeflex • Darren prepared an overview of the architecture being implemented in the Edgeflex project architecture: https://drive.google.com/drive/folders/1BCfaoRdM1K-K92V4_xYKMelHBBxNtrJY?usp=sharing
Related LFE projects	FledgePOWER demo setup • DPsim / villas to FLEDGE via 104 demo running, FLEDGE not containerized yet • DPsim / villas demo container images updated (huge-pages not necessary anymore)
Project development boards	Current work streams are collected in the project board on GitHub: https://github.com/orgs/sogno-platform/projects

Other development updates	API development • basic implementation of simulation and prediction API available, deployment files to be finalized (example-deployments) Contributions • ARETI (vagrant) and Google Cloud (istio/anthos) PRs received and merged into project branches
Organisation	• Markus moved all meeting minutes from github and google drive to this wiki • Erdem and William are exploring options to store media files, like videos and slides. Google drive is convenient for slides because they can be edited online but we would need a "neutral" google drive folder by LFE. Jon is the best contact regarding this topic and general infrastucture questions.