

# Technical Advisory Council (TAC) Meeting

13 June 2023

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# Meeting information

- Meeting to begin at 5:00 pm Central European Time
- Join the meeting by going to <https://zoom-lfx.platform.linuxfoundation.org/meeting/95214651568?password=eda16f17-bdd1-4a9f-a594-0947a1433153>
- Any problems with connectivity, you can contact John Mertic from the Linux Foundation at +1 234-738-4571
- Previous TAC Meeting notes, deck, and recording, at <https://wiki.lfenergy.org/display/HOME/Technical+Advisory+Council#TechnicalAdvisoryCouncil-MeetingMinutes>

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# Agenda

All Times in Central European Time Zone

- 5:00 pm - 5:15 pm - Opening and General Updates
  - TAC and Project lead updates
  - Project Review Cycle
  - Other TAC updates
- 5:15 pm - 5:30 pm - Recap from Joint Governing Board/TAC/TSC leads meeting
- 5:30 pm - 5:50 pm - CoMPAS Annual Review
- 5:50 pm - 6:10 pm - OperatorFabric Annual Review
- 6:10 pm - 6:25 pm - Marketing/PR/Events updates
  - LF Energy Summit recap/feedback
- 6:25 pm - 6:30 pm - Closing and Next Meeting

# Opening and General Updates

5:00 pm - 5:15 pm

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# TAC Voting Members

You can update your headshot/title at [openprofile.dev](https://openprofile.dev).



**Antonello Monti**  
**Chair**  
Professor at RWTH Aachen University



**Anne Tilloy**  
Project manager at RTE (Reseau de Transport dElectricite)



**Art Pope**  
Member of Technical Staff at Google LLC



**Avi Allison**  
Program Manager, Energy, Sustainability at Microsoft Corporation



**Benoît Jeanson**  
Enterprise Architect at RTE (Reseau de Transport dElectricite)



**Boris DOLLEY**  
Director of Sustainable IT Strategy at RTE (Reseau de Transport dElectricite)



**Bryce Bartmann**  
Chief Digital Technology Advisor at Shell International Petroleum Company



**carmen best**  
VP of Policy & Emerging Markets at Recurve



**Jonas van den Bogaard**  
Solution Architect at Alliander



**Maarten Mulder**  
PO Field Device Platforms at Alliander

# LF Energy Hosted Project and Working Group Leads

Changes in bold

Project	Project Lead(s)
PowSyBI	Anne Tilloy, RTE
OperatorFabric	Boris Dolley, RTE
OpenEEMeter	Carmen Best, Recurve
GXF	Maarten Mulder, Alliander
SOGNO	Antonello Monti, RWTH Aachen University
<b>CoMPAS</b>	<b>Aliou Diaite, RTE &amp; Sander Jansen, Alliander (TAC Representative)</b>
FledgePOWER	Akli Rahmoun, RTE
Hyphae	Asimena Korompili, RWTH Aachen University
openLEADR	Lonneke Driessen & Stan Janssen, OpenADR
SEAPATH	Aurelien Watere, RTE
Grid Capacity Map	Per Lysemose Hansen, Energinet
Shapeshifter	Robben Riksen, Alliander
OpenSTEF	Frank Kreuwel, Alliander
EVERest	Marco Möller, PIONIX
OpenGEH	Per Lysemose Hansen, Energinet
FlexMeasures	Nicolas Höning, Seita Energy Flexibility B.V.
Arras	David Chassin, SLAC
Dynawo	Marco Chiamello, Benoît Jeanson, RTE
OpenFIDO	David Chassin, SLAC
Power Grid Model	Tony Xiang, Alliander
Super Advanced Meter (SAM)	Mark Nigge-Uricher, Alliander
Real Time Data Ingestion Platform (RTDIP)	Bryce Bartmann, Shell
Carbon Data Specification Consortium (CDSC)	TBD

# Project Review Cycle

## Working Groups

Group	Current Level	Initially Accepted	Last Review	Next Review
Archimate Working Group	Active	October 4, 2022		October 17, 2023
Carbon Data Specification Consortium (CDSC)	Standards	January 25, 2022		TBD
SAM (Super Advanced Meter)	Standards	March 29, 2022		March 21, 2023* TBD

## 2024 Future Reviews

Project	Current Level	Initially Accepted	Last Review	Next Review
OpenFIDO	Sandbox	January 17, 2023		January 9, 2024
SEAPATH	Incubation	October 6, 2020	January 17, 2023	January 9, 2024
Hyphae	Incubation	December 8, 2020	February 7, 2023	February 20, 2024
Power Grid Model	Sandbox	February 7, 2023		February 20, 2024
FledgePOWER	Incubation	February 11, 2021	March 21, 2023	March 12, 2024
SOGNO	Early Adoption	October 27, 2020	March 21, 2023	March 12, 2024
Shapeshifter	Incubation	April 6, 2021	April 11, 2023	April 23, 2024

## Upcoming Reviews

Project	Current Level	Initially Accepted	Last Review	Next Review
CoMPAS	Incubation	May 5, 2020	July 12, 2022	June 13, 2023
OperatorFabric	Early Adoption	April 30, 2019	June 21, 2022	June 13, 2023
Arras	Sandbox	July 12, 2022		July 18, 2023
Grid Capacity Map	Incubation	April 27, 2021	July 12, 2022	July 18, 2023
OpenEEMeter	Incubation	June 4, 2019	September 13, 2022	September 26, 2023
GXF	Early Adoption	February 4, 2020	October 4, 2022	October 17, 2023
OpenGEH	Sandbox	October 12, 2021	October 4, 2022	October 17, 2023
RTDIP	Sandbox	October 25, 2022		November 7, 2023
OpenSTEF	Incubation	September 21, 2021	October 25, 2022	November 7, 2023
FlexMeasures	Incubation	November 2, 2021	November 15, 2022	November 28, 2023
PowSyBI	Early Adoption	April 30, 2019	November 15, 2022	November 28, 2023
Dynawo	Sandbox	December 6, 2022		December 5, 2023
EVERest	Early Adoption	October 12, 2021	December 6, 2022	December 19, 2023
OpenLEADR	Incubation	September 15, 2020	December 6, 2022	December 19, 2023

# TAC Sponsors for Projects

As part of the benefit for LF Energy projects, the TAC has a sponsor for each project.

*“Appointment of an existing TAC member by the TAC that will act as a sponsor of the project and provide recommendations regarding governance best practices.”*

**ACTION:** Review assignments, let John or Yarille know if there are issues

Project	Current Level	TAC Sponsor
Archimate Working Group	Working Group	Maarten Mulder
Arras	Sandbox	Antonello Monti
CoMPAS	Incubation	Bryce Bartmann
Dynawo	Incubation	Art Pope
EVERest	Early Adoption	Bryce Bartmann
FledgePOWER	Incubation	Benoît Jeanson
FlexMeasures	Incubation	Maarten Mulder
Grid Capacity Map	Incubation	Boris Dolley
GXF	Early Adoption	Jonas van den Bogaard
Hyphae	Incubation	Antonello Monti
OpenEEmeter	Incubation	Carmen Best
OpenFIDO	Sandbox	Avi Allison
OpenGEH	Sandbox	Avi Allison
OpenLEADR	Incubation	Anne Tilloy
OpenSTEF	Incubation	Jonas van den Bogaard
OperatorFabric	Early Adoption	Boris Dolley
PowSyBl	Early Adoption	Anne Tilloy
Power Grid Model	Sandbox	Benoît Jeanson
Real Time Data Ingestion Platform (RTDIP)	Sandbox	Art Pope
SEAPATH	Early Adoption	Benoît Jeanson
Shapeshifter	Incubation	Jonas van den Bogaard
SOGNO	Early Adoption	Antonello Monti

# Other Updates

- Welcome Alexandre Parisot - Director of Ecosystem, AI and Energy Systems
- Project Leads - please update your project on the Smart Grid Plane at [https://docs.google.com/spreadsheets/d/1GCzBaybeqzb-ThPGDj-sI\\_OX5V1V5lWzlu4aOmpuPCw/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1GCzBaybeqzb-ThPGDj-sI_OX5V1V5lWzlu4aOmpuPCw/edit?usp=sharing)
- LFESS Steering Committee approved taking over Standards Project Lifecycle

# Recap from Joint Governing Board/TAC/TSC leads meeting

5:15 pm - 5:30 pm

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# Meeting overview

- Meeting held in Paris, May 31st, 2023, with attendance from the Governing Board, Voting TAC representatives, and TSC project leads.
- Discussion was centered around reviewing/recommendation on two of the LF Energy annual goals:
  - Invest in our communities to drive success and better security
  - Increase visibility through strong Marketing/PR/Thought Leadership
- Meeting used Poll Everywhere to capture feedback from attendees.
- LF Energy staff is reviewing and making recommendations to the Governing Board on the objectives to focus on based on the feedback.

# 2023 Strategic Goals and Objectives

## 1. Stable membership/projects

- ✓ Maintain existing to \$1.2M USD annual revenue ( membership, events and grants )
- ↻ Have 4 projects move up a life cycle maturity stage. ( 2 completed )

## 2. Invest in our communities to drive success and better security

- ↻ Fund documentation writer for Early Adoption and Graduated projects
- ↻ Fund security audit for all 'Graduated' level projects.
- ↻ Have all project maintainers complete Open Source 101 training
- ↻ Start a mentorship program for our projects with 2 projects participating.
- ✓ Host a developer conference
- ↻ Identify and build out a training course for one of our projects.

## 3. Increase visibility through strong Marketing/PR/Thought Leadership

- ✓ Establish an Outreach Committee for members to participate in marketing planning
- ✓ Revise website, with each project landing page reviewed and updated for accuracy
- ↻ Have 5 case studies published that showcase the use of LF Energy hosted projects
- ↻ Conduct more research studies to guide our priorities and demonstrate our deep insights
- ↻ Execute on a comprehensive marketing and communications plan that leverages the expertise and resources of our community
- ↻ Implement new tooling and processes to enable better communication

# Invest in our communities to drive success and better security

Poll Results at right



Response	Score
Best practices sessions with successful open source projects	6
More integration among the projects for a full stack reference solution	3
Security audit for early adoption projects.	3
A new webinar series which address both generic challenges in the power system sector as well introduces the LF Energy projects.	3
Generic training course for power system sector that also links to servers LF Energy projects	2
Developer Relation experts mentoring	2
SBOM should be a key	2
Bug bounty (let ask to students to break our code: pentest session) - they'll win LF training access	1
Backoffice Support regarding legal best practices around open source questions	1
Security should be in early on. Let's not only focus in graduate Projects.	1
TAC can lead creation of white paper focusing on lf energy security practices	0
Can we define who our communities are?	0
Stimulate LF energy project to address security in their documentation	0
More participation and adoption to increase robustness and security of projects.	0
Security training for maintainers	0
Security should be in early on	-2

# Increase visibility through strong Marketing/PR/Thought Leadership

Poll Results at right



Response	Score
Build the bridge with the standardization world (IEC): référence implementations of standards should be naturally found in LFE.	5
Why open source for energy - webinars, PRs, blogs	3
Partner with energy industry events	3
Marketing on leading industry specific conferences and leave the open source bubble	2
Pinpoint our endusers; who do we want to target?	2
Activity: Maintain an industry event calendar with evangelists to submit talks to promote LFE and its projects	2
Open source first, Standards second. Offer playground for standard development	1
Stimulate and support projects to be more active at Industry events	1
EVERest always get asked about deployed base, this seems to be a strong measure for people out their. Can we measure and accelerate deployment in real world of all our projects?	1
Provide the "get started here" map for adoption of LFE projects.	1
Promote case studies of the LF Energy projects	1
Open source is global, what are we doing about Asia?	1
Help technology vendors that can provide enterprise implementation and support of LFE projects find customers, grants, or other funding.	0
Compare crisis management (growing pressure of climate change, extreme flexibility of demand / response) with the benefits of pooling our source codes and datasets	0
Focus on "problems to be solved	0

# Next Actions

- LF Energy staff to take feedback and build revised objectives
- Present revised objectives to Governing Board for feedback and approval ( target July meeting )
- Present to TAC for review ( target July/August )

# CoMPAS Annual Review

5:30 pm - 5:50 pm

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# Incubation Project review criteria

To be accepted into the Early Adoption stage, a project must meet all the requirements of the Incubation stage (**OK**) plus:

- Demonstrate growth in the project's community, including
  - Growth in the number of commits to the project, number of project committers, and organizational diversity of contributions and committers => **In progress (+47% of commits, +13% of lines of codes, +66% of contributors). See slide 4.**
  - Production or planned production use of the project by at least two independent end users which, in the TAC's judgement, are of adequate quality and scope. => **SCT is used in production for RTE and Alliander use .**
- Technical Governance of the project is operational, as measured by:
  - A Technical Steering Committee with at least 5 members and a chairperson elected by the members, holding regular open meetings => **6 members, a chairperson, monthly meetings (see next slide).**
  - Achievement of the Core Infrastructure Initiative Best Practice badge at the 'Silver' Level => **87% of silver level reached. See slide 6**
- Development of a growth plan, to be done in conjunction with their project mentor(s) at the TAC. This plan should address the following points  
=> **see compas wiki, tutorial videos, issues created are tracked during TSC. (See slide 7)**

Release plans for the next 18 months. (see <https://wiki.lfenergy.org/display/SHP/CoMPAS+Roadmap>)

- Target end-users.
- Identification of any regulatory or standards body requirements for deployment, and plans for implementation.
- Plans for growth of project contributors and committers to support the growth plan.
  - Since these metrics can vary significantly depending on the type, scope and size of a project, the TAC has final judgement over the level of activity that is adequate to meet these criteria.
- Identification of any infrastructure resources needed to fulfill the growth plan => **In progress (see slide 7).**
- Presentation to the TAC of the project's growth, technical governance, and growth plan
- Receive the affirmative majority vote of the TAC and Governing Board

# CoMPAS

## **Brief Description:**

*COMPAS stands for COnfiguration Modules for Power industry Automation Systems*

*COMPAS was created to provide the software bricks necessary for the deployment of digital substations.*

*The purpose of the CoMPAS project is to develop open source software components related to IEC 61850 standard mainly for the configuration of power industry Protection Automation and Control System (PACS).*

## **TSC Chairperson:**

*Aliou DIAITE (aliou.diaite@rte-france.com)*

## **TSC Members and Affiliations:**

*Sander Jansen (Alliander) ; Juan Munez (Alliander)*

*Jean-François Legros(GE) ; Patrick Montaner (GE) (both not active)*

*Aliou Diaité (RTE) ; Jean-Etienne Lemaire (RTE)*

## **Contributed by:**

*Alliander, GE and RTE*

## **Key Links:**

**Github:** <https://github.com/com-pas>

## **Website:**

[CoMPAS - LF Energy](#)

<https://com-pas.github.io/>

**Artwork:** [artwork/projects/compas at main · lf-energy/artwork · GitHub](#)

## **Mailing lists:**

- [CoMPAS](#)
- [CoMPAS-dev](#)
- [CoMPAS-tsc](#)

## **Demo :**

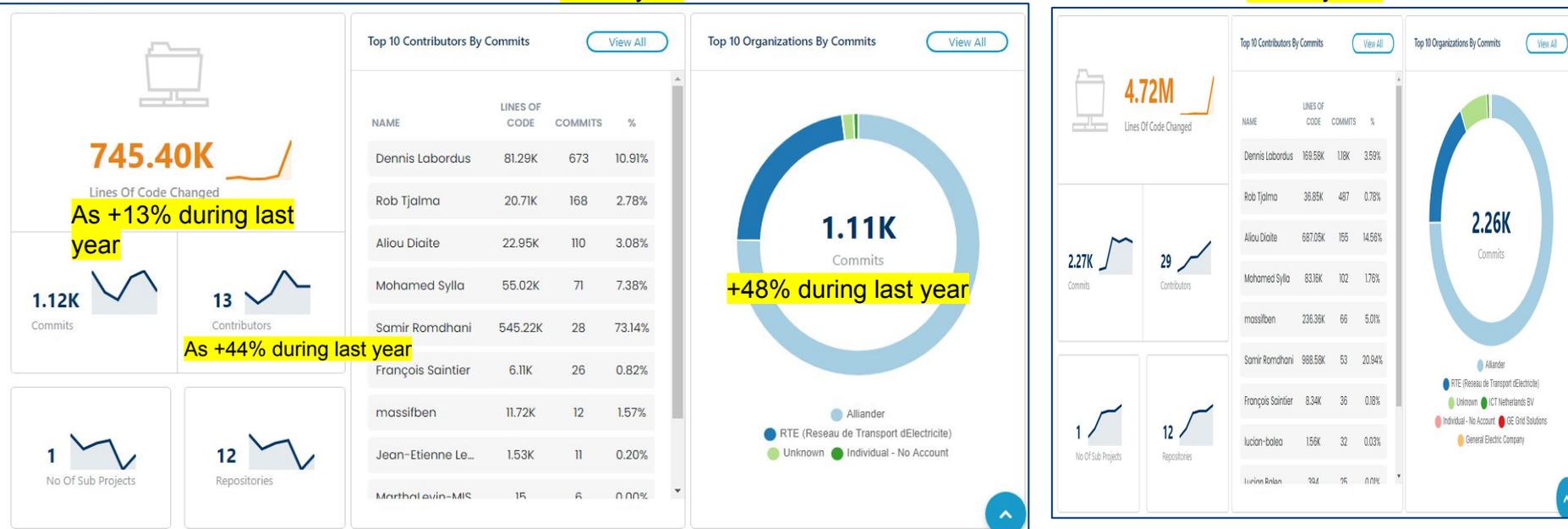
- [CoMPAS- OpenSCD](#)

**CII Badge URL:** [BadgeApp \(coreinfrastructure.org\)](#)

# Contributions

Last 1 year

Last 5 years



The contributor strength **increased** by **66%** during the last 1 Year.

**90.65%** of Pull Requests/Changesets have been submitted by the core maintainers during the last 1 Year.

The inflow of new issues have **increased** by **800.00%** during the last 1 Year.

The count of docker image downloads **increased** by **668.44%** during the last 1 Year.

The count of images pushed to docker hub have **decreased** by **33.33%** during the last 1 Year.

# Organizations contributing and/or using in production



## Upstream (openSCD):

SPRINTEINS

TRĀNSNET BW

OMICRON



TRANSPower

# OpenSSF Best Practices Badges

87% of Silver level reached

Id	Name	Description	Website	License	Owner	Last achieved at	Tiered %	Badge
5925	com-pas	The primary goal of the CoMPAS project is to develop open source software components related to IEC 61850 model implementation, specifically for profile...	<a href="https://github.com/com-pas">https://github.com/com-pas</a>	Apache-2.0	FredFousPro	2022-05-10 07:58:21	187%	

Remaining a few answer to study

Basics	16/17 ●
Change Control	1/1 ●
Reporting	2/3 ●
Quality	17/19 ●
Security	10/13 ●
Analysis	2/2 ●

All points to be studied in order to reach the silver level have been opened as an issue in Github in order to be resolved (we are planning to set a due date for that)

# Growth plan

We have defined our growth plan. It is composed of the following parts :

**Release plans for the next 18 months**

**Target end-Users**

**Identification of any regulatory or standards body requirements for deployment, and plans for implementation**

**Actions in favor of the promotion of the project and in order to reach target end-users**

- **Get the project into production**
- **Project promotion**
- **Documentation/demonstration**
- **Low barrier for entrance**
- **Get the education sector involved**
- **Quality**
- **Collaborate with others (strong collaboration with omicron)**
- **Meetup (January 2023 in FrancFort)**
- **Community management (Mai 2023)**

[CoMPAS growth plan - CoMPAS - LF Energy](#)



[Service to Map CIM Data to SCL Data](#)



[Validation Service to validate SCL File](#)



[marcvanraalte/fledge-configuration \(github.com\)](https://github.com/marcvanraalte/fledge-configuration)

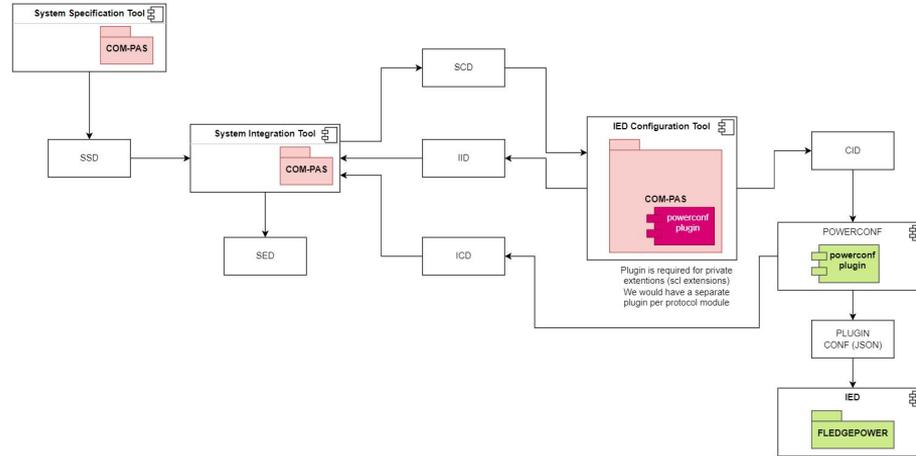
# Collaborations



Service to Map CIM Data to SCL Data



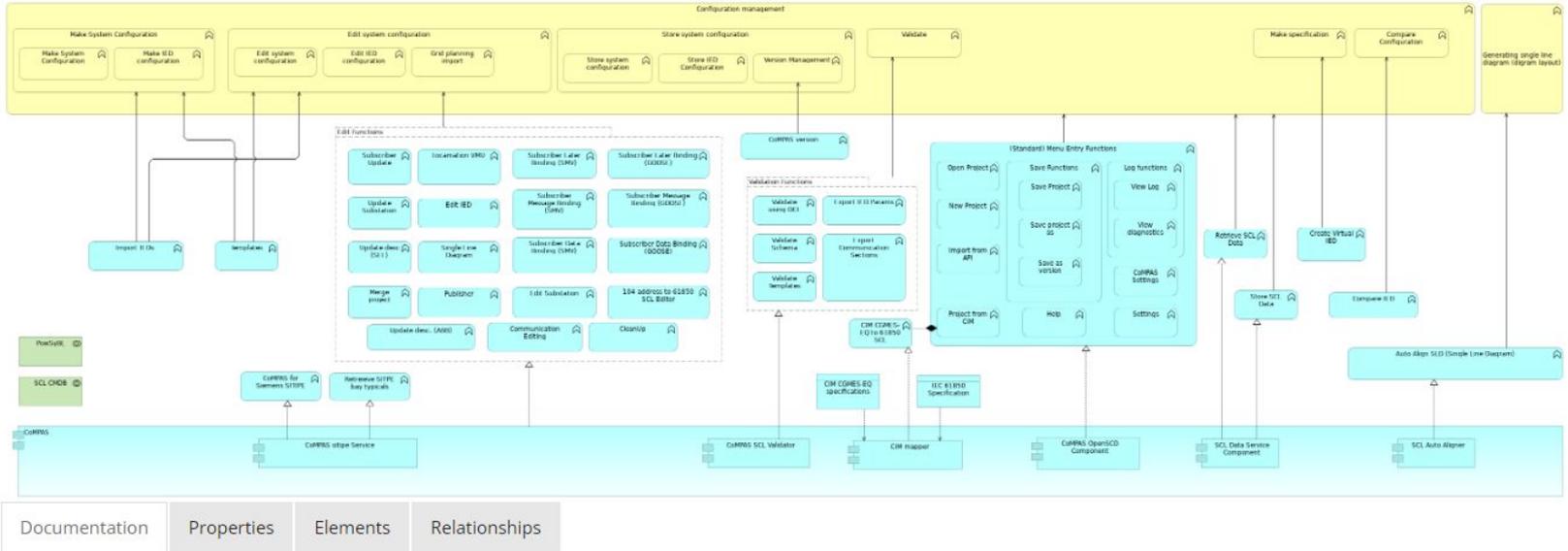
Validation Service to validate SCL File



PowerConf - CoMPAS/FledgePower integration - FledgePower - LF Energy

# New: improved Achi model!

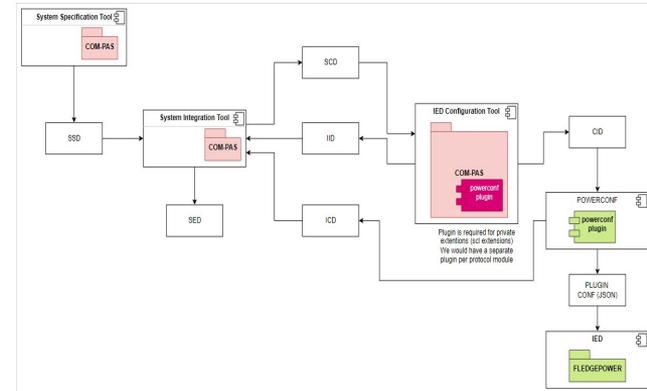
CoMPAS Realization (No Viewpoint) 



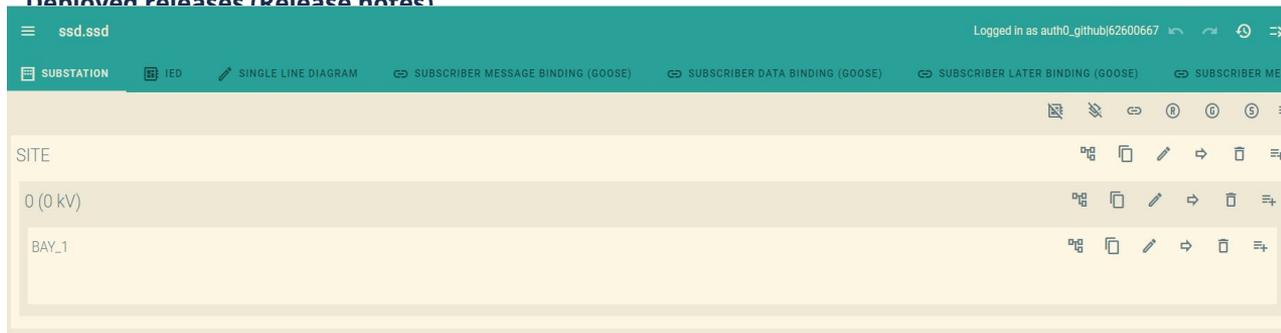
This is the project architecture view of the CoMPAS project. CoMPAS is going to provide common open source software blocks for the automating the process for configuring Substation Automation Systems and has the ability to integrate third-party tools. For more information on CoMPAS, check out the project's page: <https://lfenergy.org/projects/compas/>

# Key Achievements in the past year

- **Demo environment on AWS (<https://demo.compas.energy/>)**
- **Meetup at FrankFurt am main**
- **Strong collaboration (on OpenSCD and FledgePower)**
- **SITIFE plug-in (Siemens vendor plugin)**
- **Videos ([Learn the basics of CoMPAS](#))**
- **Substation section editor, Import IEDs, Functions, Model Power Transformers, Goose/SMV editors**
- **SCT : Library for generating SCD file (import substation, IEDs, signal binding, fault recording)**
- **Report Vulnerability activated on Github**
- **Presentation given on different events (IEC61850 week October 2022, SGTech March 2023)**
- **Deployed releases ([Release notes](#))**



There is only a CoMPAS powerconf plugin needed if IEC 61850 <private> types are needed.



# Areas the project could use help on

- **CI best practices (change owner; from Frederic to Aliou; reaching out to the CI best practices team did not help so far)**
- **Help the Open-SCD community if they like to join LFEnergy**
- **Get GE back on board**
- **Achieve growth plan goals**

# Feedback on working with LF Energy

- **Works well**
- **Not all TAC discussion are that relevant for the CoMPAS development. Attending the meetings takes time**

# Miscellaneous questions

# TAC Open Discussion

# OperatorFabric Annual Review

5:50 pm - 6:10 pm

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# Marketing/PR/Events updates

6:10 pm - 6:25 pm

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# Marketing and PR Updates

[dbrown@linuxfoundation.org](mailto:dbrown@linuxfoundation.org)  
+1 415-420-7880

- Research - Utility readiness research report and Microgrids report released at LF Energy Summit - please promote using our [marketing kit](#)
- NREL Net Load Forecasting Contest is now underway!
  - OpenSTEF successfully completed the test week the week of June 5; competition will occur June 18-July 16
- Partnering with consortium organized by Anto to apply for an EU Horizon grant - application due early October
- Kicked off work 5/18 on cybersecurity for energy systems white paper
- (Some) recent media coverage
  - [TechStrong.tv - Dan Brown, LF Energy, Aarthi Thyagarajan, Shell, & Christophe Villemer, Savoir-faire Linux](#)
  - [TFIR - Everyone Must Play Their Part In Shift To Decarbonization | Christophe Villemer – Savoir-faire Linux](#)
  - [pv magazine - Open source data can unlock the power of microgrids](#)
  - [OpenSource4U - Energy Sector's Transformation: 76% Utilities Digitize, 64% Embrace Open Source For Innovation](#)
  - [Smart Energy International - Survey: 76% of utilities are already implementing digitalisation plans](#)
  - [Industrial News UK - Survey: 76% of utilities are already implementing digitalisation plans](#)
  - [EENews Europe - Open Source Crucial to Realizing Full Potential of Microgrids](#)
- Outreach Committee meeting took place May 25 ([Deck](#) / [Minutes](#) / [Recording](#))
- Use this [form](#) to submit any comms/marketing support requests

# Events Updates

- LF Energy Summit - June 1-2, Paris
  - 151 onsite attendees, 100+ virtual attendees
  - Feedback onsite was universally positive!
  - Next step is loading session videos on LF Energy YouTube - we will utilize ChatGPT to help generate recap blogs of each session to share on our blog over time
  - MAC is going to launch an event subcommittee to start planning for 2024 event
- LF Energy Embedded Summit - June 30, Prague
  - Embedded Open Source Summit is nearly at capacity and we expect to sell out and close in-person registration in the next day or two; virtual registration is not capped and will remain available
- SustainabilityCon Europe - Sept 19-21, Bilbao
  - Proposal reviews have been completed; speakers will be informed of decisions on June 23, and scheduled announced on June 29
- DISTRIBUTECH - Feb 26-29, 2024, Orlando
  - Speaking proposals submitted last week for two LF Energy panels - one on grid modernization with open source, and another on open source standards/specifications for carbon data

# Closing and Next Meeting

6:25 pm - 6:30 pm

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# Next TAC Meeting

The next meeting of the LF Energy TAC is scheduled for 18 July 2023 at 8:00 am US Pacific Time/11:00 am US Eastern Time/5:00 pm Central European Time. Agenda will include:

- Recap of last TAC Meeting
- Grip Capacity Map Annual Review
- Arras Annual Review
- Marketing/PR/Events update



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