



TAC Meeting

21 March 2023

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Examples of types of actions that are prohibited at Linux Foundation meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at linuxfoundation.org/antitrust-policy. If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrave of the firm of Gesmer Updegrave LLP, which provides legal counsel to the Linux Foundation.

Agenda

Opening (15 Minutes) 4:00 - 4:10 pm

- **Landscape updates**
- **TAC Sponsors for projects**
- **Summary of last TAC meeting**

TAC Business (75 Minutes) 4:10-5:25 pm

- Archimate Presentation 4:10 -4:35
- Everest and OCPP Cloud Connector Update 4:35 - 4:45 pm
- SOGNO Annual Review 4:45 - 5:05 pm
- FledgePOWER Annual Review 5:05 - 5:20 pm
- Marketing for Projects 5:20 - 5:25 pm

Closing and Next Meeting (5 Minutes) 5:25- 5:30 pm

Project Review Cycle

Project	Current Level	Initially Accepted	Last Review Date	Next Review Date
FledgePOWER	Incubation	February 11, 2021	February 15, 2022	March 21, 2023
SOGENO	Early Adoption	October 27, 2020	March 8, 2022	March 21, 2023
OCPP Cloud Connector	Sandbox	March 8, 2022		March 21, 2023
Shapeshifter	Incubation	April 6, 2021	April 19, 2022	April 11, 2023
COMPAS	Incubation	May 5, 2020	July 12, 2022	June 20, 2023
OperatorFabric	Early Adoption	April 30, 2019	June 21, 2022	June 20, 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
Archimate Working Group	Active	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
EVerest	Incubation	October 12, 2021	December 6, 2022	December 19, 2023
OpenLEADR	Incubation	September 15, 2020	December 6, 2022	December 19, 2023
Dynawo	Sandbox	December 6, 2022		December 5, 2023
OpenFIDO	Sandbox	January 17, 2023		January 17, 2023
SEAPATH	Incubation	October 6, 2020	November 23, 2021	January 17, 2023
Hyphae	Incubation	December 8, 2020	February 7, 2023	February 20, 2024
Power Grid Model	Sandbox	February 7, 2023		February 20, 2024
Carbon Data Specification Consortium (CDSC)	Working Group	January 25, 2022		TBD
SAM (Super Advanced Meter)	Working Group	March 29, 2022		March 21, 2023* TBD

TAC Voting Members

New members in **bold**

Full Name	Account Name	Appointed By
Boris DOLLEY	RTE (Reseau de Transport dElectricite)	Vote of TSC Committee - OperatorFabric
Anne Tilloy	RTE (Reseau de Transport dElectricite)	Vote of TSC Committee - PowSyBI
Carmen Best	Recurve	Vote of TSC Committee - OpenEEmeter
Jonas van den Bogaard	Alliander	Membership Entitlement
Maarten Mulder	Alliander	Vote of TSC Committee - GXF
Benoît Jeanson	RTE (Reseau de Transport dElectricite)	Membership Entitlement
Antonello Monti	RWTH Aachen University	Vote of TSC Committee - SOGNO
Art Pope	Google	Membership Entitlement
Avi Allison	Microsoft	Membership Entitlement
Bryce Bartmann	Shell	Membership Entitlement

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
CoMPAS	Frederic Fouseret, RTE & Sander Jansen, Alliander (TAC Representative)
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.
OCPP Cloud Connector	Rebecca Wolkoff, Chargenet
Arras	David Chassin, SLAC
Dynawo	Marco Chiaramello, Benoît Jeanson, RTE
OpenFIDO	David Chassin, SLAC
Power Grid Model	Tony Xiang, Alliander
Super Advanced Meter (SAM)	Mark Nigge-Urcher, Alliander
Real Time Data Ingestion Platform (RTDIP)	Bryce Bartmann, Shell
Carbon Data Specification Consortium (CDSC)	TBD

Landscape now with more project info!

We are using the LF Energy Landscape to showcase more project information:

- Mailing List/Slack Channel
- LFX Insights
- SBOM
- Wiki
- TSC Meeting Notes
- Calendar
- Contribution Guidelines

ACTION: Project leads please review your entry and ensure it is accurate; issue PR for any changes needed.



LF Energy Early Adoption LF Project

Open Source Software License Mozilla Public License

CII Best Practices 25%

Crunchbase	crunchbase.com/organization/lf-energy	more... total: 52
LinkedIn	linkedin.com/company/lf-energy	
Twitter	@LFE_Foundation	Latest Tweet this week
First Commit	5 years ago	Latest Commit 3 weeks ago
Contributors	35	Headcount 1-10
Headquarters	San Francisco, California	
Mailing List	https://lists.lfenergy.org/g/sogno-discussion	
Slack Channel	#sogno	
LFX Insights	https://insights.lfx.linuxfoundation.org/projects/lfenergy%2Fsogno	
Wiki Page	https://wiki.lfenergy.org/display/HOME/SOGNO	
SBOM	https://github.com/lfscanning/spdx-lfenergy/tree/main/sogno	
TSC Meeting Notes	https://github.com/sogno-platform/tsc/tree/master/tsc/meetings	
Calendar	https://lists.lfenergy.org/g/sogno-tsc/calendar	
Contribution Guidelines	https://github.com/sogno-platform/tsc/blob/master/CONTRIBUTING.md	

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.”

ASK: Volunteer to be a TAC sponsor for a project

Project	Current Level	TAC Sponsor
Archimate Working Group	Working Group	
Arras	Sandbox	Antonello Monti
CoMPAS	Incubation	
Carbon Data Specification Consortium (CDSC)	Standards	
Dynawo	Incubation	Art Pope
Everest	Incubation	
FledgePOWER	Incubation	Benoît Jeanson
FlexMeasures	Incubation	
Grid Capacity Map	Incubation	
GXF	Early Adoption	Jonas van den Bogaard
Hyphae	Incubation	Antonello Monti
OCPP Cloud Connector	Sandbox	Bryce Bartmann
OpenEEmeter	Incubation	Carmen Best
OpenFIDO	Sandbox	
OpenGEH	Sandbox	
OpenLEADR	Incubation	
OpenSTEF	Incubation	Jonas van den Bogaard
OperatorFabric	Early Adoption	Boris Dolley
PowSyBI	Early Adoption	Anne Tilloy
Power Grid Model	Sandbox	Benoît Jeanson
Real Time Data Ingestion Platform (RTDIP)	Sandbox	
Super Advanced Meter (SAM)	Standards	
SEAPATH	Incubation	Benoît Jeanson
Shapeshifter	Incubation	Jonas van den Bogaard
SOGNO	Early Adoption	Antonello Monti

Updating overview deck

We are working to update the LF Energy overview deck to include a slide for each project.

ASK: Please provide to servicedesk.lfenergy.org

- **Technical Summary (max 100 words)**
- **Top Use Cases (max 3)**
- **Latest release info (including link)**
- **Link to architectural overview diagram**

Summary of Last TAC Meeting

- Meeting notes and deck at <https://wiki.lfenergy.org/display/HOME/Technical+Advisory+Council#TechnicalAdvisoryCouncil-MeetingMinutes>

Updates from the Board

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Archimate Presentation



Everest Project Status Update



OCPP Cloud Connector Update



OLF ENERGY

Annual Review for SOGNO

SOGNO

Brief Description:

SOGNO creates plug-and-play, cloud-native, micro-services to implement next generation of data-driven monitoring and control systems for grid automation. It simplify the life of utilities by enabling them to optimize their network operations through open source to deliver cost-effectively, and seamless, secure power supply for their customers. SOGNO introduces the idea of grid automation as a modular system in which components can be added through time. This is in opposition to classical monolithic solutions..

TSC Chairperson:

Antonello Monti (amonti@eonerc.rwth-aachen.de)

TSC Members and Affiliations:

Erdem Gümrükcü (RWTH-Aachen University)

Markus Mirz (PSI)

William Bariselli, Giuseppe Cofano (Google)

Key Links:

Github: <https://github.com/sogno-platform>

Website:

<https://www.lfenergy.org/projects/sogno/>

Artwork: N/A

Mailing lists:

- <https://lists.lfenergy.org/g/SOGNO-TSC>

OpenSSF Best Practice Badge URL: N/A

Organizations/projects contributing/using SOGNO

Technical steering committee



Project



Key Achievements in the past year

Commercial implementation at the scale of the whole city in Rome

- RomeFlex project aims create a local flexibility market in some areas of the city
 - Prosumers modulate their consumption/production
 - Offer their flexibility services to the DSO
- SOGNO implemented as DSO technical platform



<https://www.enlit.world/demand-response/rome-flexibility-project-begins/>

Key Achievements in the past year

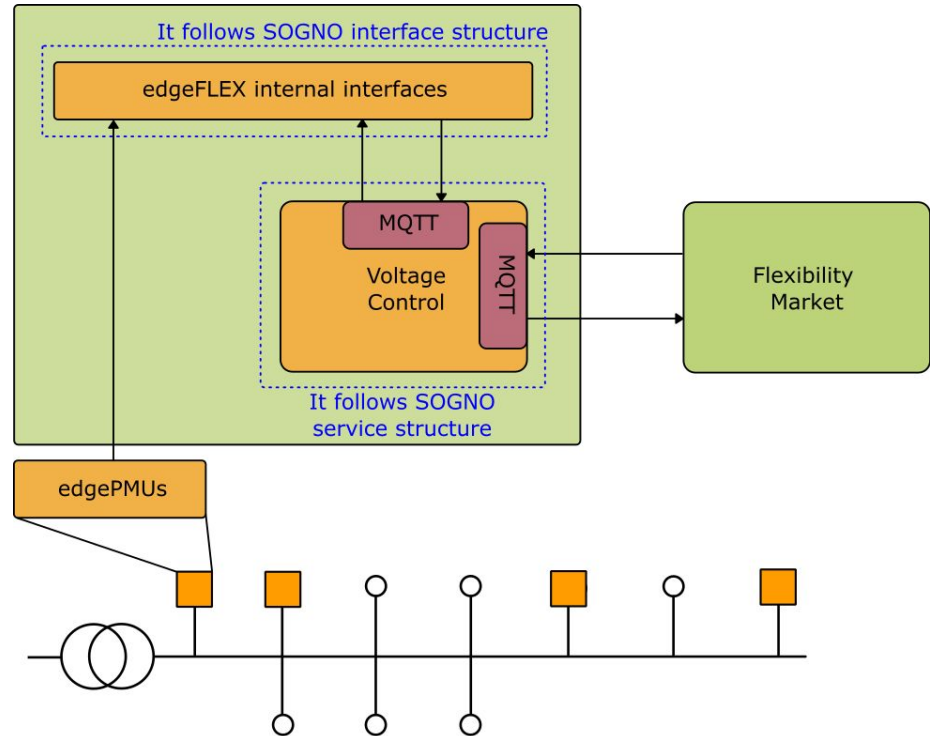
Field pilot in Edgexflex project

Implemented in the town of Wunsiedel (DE)

Real-time data

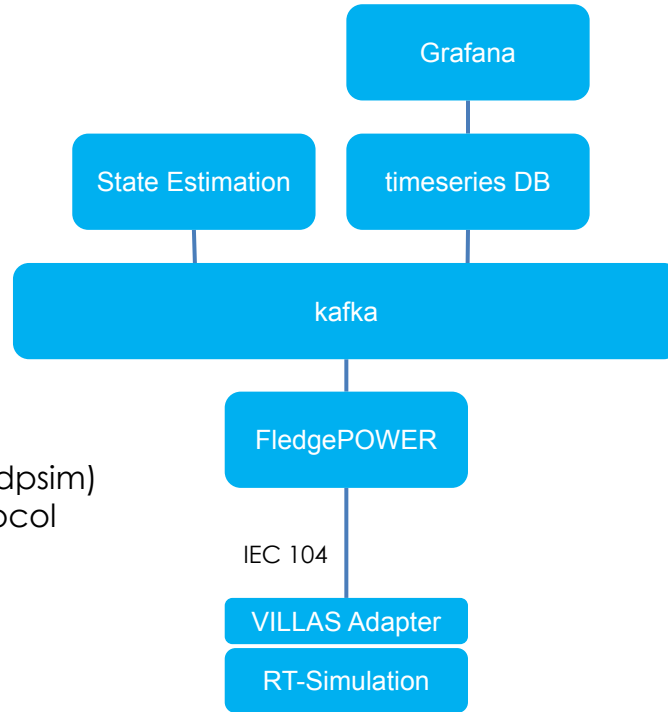
- acquired from the grid nodes and flexibility platform
- processed in DSO technical platform
- fed the voltage control microservice

To control flexible assets in the grid



Key Achievements in the past year

FledgePower demo

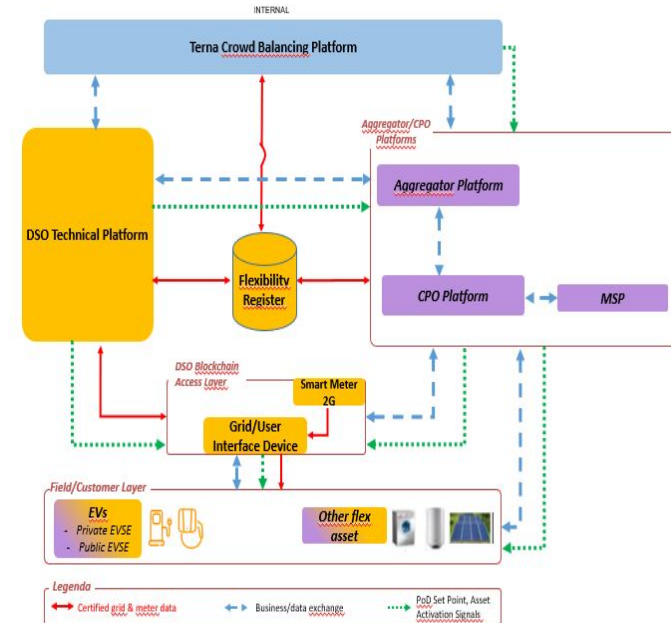


Grid measurements:

- Produced by the RT-simulation service of SOGNO (dpsim)
- Communicated to FledgePower over IEC 104 protocol

Growth Plan: High TRL Demos

- FLOW:
 - Representing DSO technical platform in the Demonstration Entire Value Chain (EVC) Rome, Italy
 - Algorithms to be integrated for coordination V2X-capable systems in urban electric vehicle (EV) charging hotspots
- BeFlexible:
 - EV routing service to be integrated into pilot in Spain

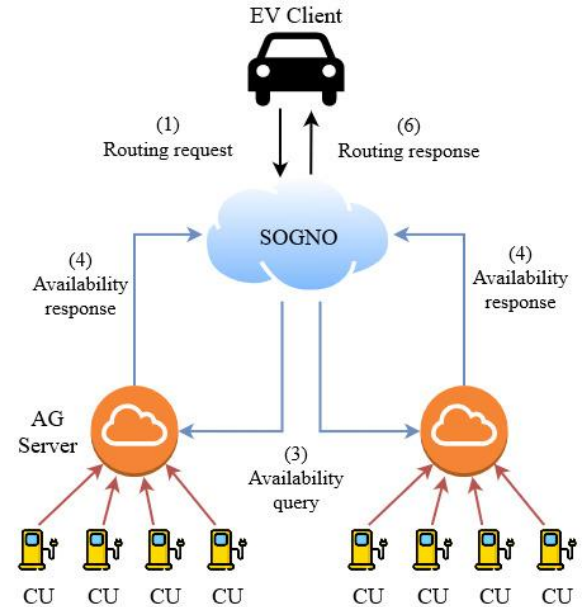


Growth Plan: Services in New Domains

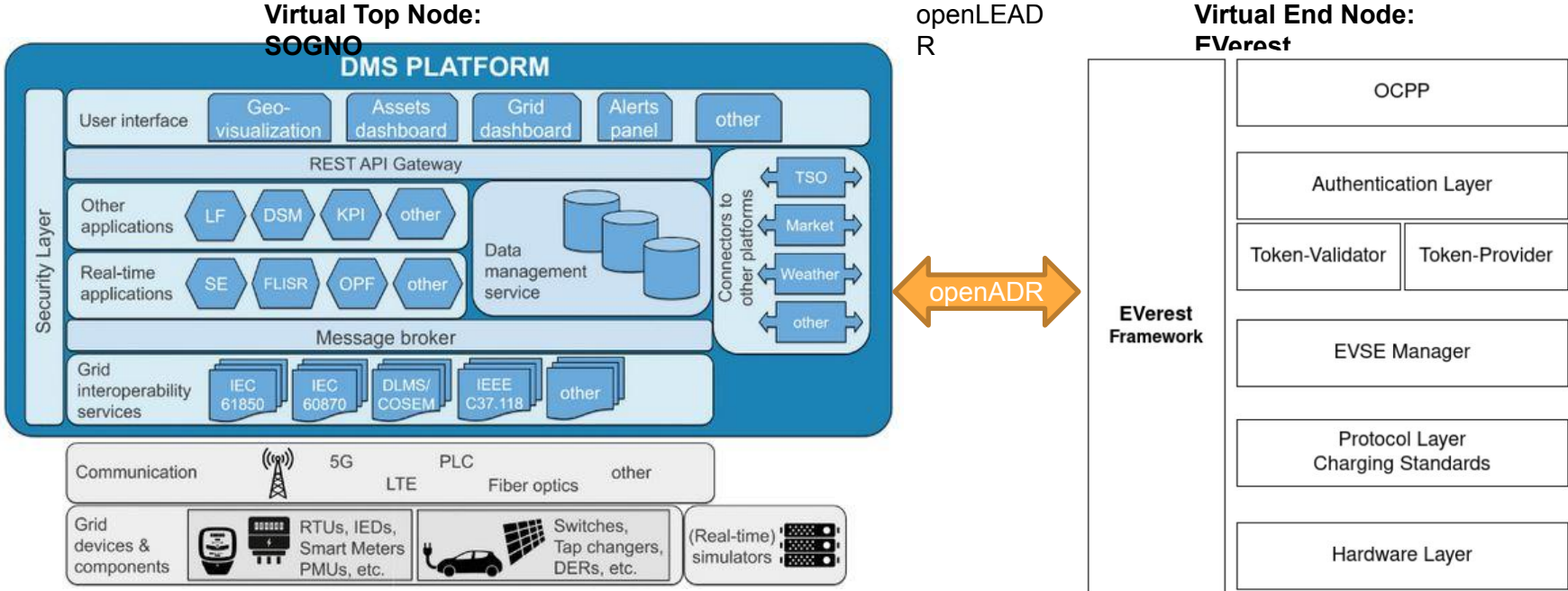
Electric Vehicle Routing in Charging Hotspots: evrich

- (1) EV driver sends a reservation request to SOGNO routing service API
- (2) SOGNO communicates with external services to learn road conditions
- (3) SOGNO sends availability queries to the CPO (AG) servers
- (4) CPO servers send availability response
- (5) SOGNO solves the optimal allocation problem (*charge cost minimization for EV driver*)
- (6) SOGNO sends the routing response

... prototype ready
... to be tested/integrated in pilots (BeFlexible and FLOW)



Growth Plan: Interaction with LF Energy Projects



Growth Plan: Video Tutorials

- Multi-level tutorials
 - Motivation
 - Step-by-step guide for deployment
 - Testimonial from users
- Will start step-by-step guide for generic service
- Goal is to cover all SOGNO services by time

Areas the project could use help on

- Enhance collaboration with other LF projects
 - Containerization of Hyphae functions to produce new SOGNO microservices e.g. microgrids operation optimization
 - Connectors to interact with other platforms in LFE ecosystem (EVERest)
- Growth opportunities:
 - Promoting existing SONGO services to potential users
 - Jointly searching funding opportunities for future developments
 - Development of a large activity funded by the German government

OpenSSF Best Practices



sogno-platform

[Expand panels](#) [Show all details](#) [Hide met & N/A](#)

Projects that follow the best practices below can voluntarily self-certify and show that they've achieved an Open Source Security Foundation (OpenSSF) best practices badge. [Show details](#)

If this is your project, please show your badge status on your project page! The badge status looks like this: [openssf best practices](#) [in progress 52%](#) Here is how to embed it: [Show details](#)

These are the [passing](#) level criteria. You can also view the [silver](#) or [gold](#) level criteria.

Basics	11/13
Change Control	6/9
Reporting	3/8
Quality	6/13
Security	9/16
Analysis	0/8

<https://bestpractices.coreinfrastructure.org/en/projects/5627#basics>

MUST criteria to be investigated

- Release notes
- Vulnerability report process
- Secure development
- Static code analysis

Feedback on working with LF Energy

- Expoliting research in long-standing projects with industry
- Motivation to produce re-usable, open source, and well documented code during research projects
- Identification of industry needs thanks to open community environment
- Leveraging synergies between LFE projects and focussing on the complementary areas

TAC Open Discussion

OLFENERGY

FledgePOWER Annual Review



OLF ENERGY

Annual Review for FLEDGEPOWER

FledgePower

Brief Description:

FledgePOWER is a multi-protocol translation gateway for power systems based on the industrial IoT LF Edge project Fledge.

TSC Chairperson:

Akli RAHMOUN akli.rahmoun (at) rte-france.com

TSC Members and Affiliations:

Mark RIDDOCH (DIANOMIC)

Daniel LAZARO (AVEVA)

Contributed by:

RTE and DIANOMIC

Key Links:

GitHub: [fledge-power \(github.com\)](https://github.com/fledge-power)

Website: [FledgePOWER - LF Energy](https://fledgepower-lfenergy.com)

Artwork: [artwork/projects/fledgepower at main · lf-energy/artwork \(github.com\)](https://github.com/lf-energy/artwork/projects/fledgepower-at-main)

Mailing lists:

- Post: fledgepower-tsc@lists.lfenergy.org
- Subscribe: fledgepower-tsc+subscribe@lists.lfenergy.org
- Help: fledgepower-tsc+help@lists.lfenergy.org

OpenSSF Best Practice Badge URL:

<https://bestpractices.coreinfrastructure.org/projects/5969>

Incubation Project review criteria

To be considered for the Incubation Stage, the project must meet the following requirements:

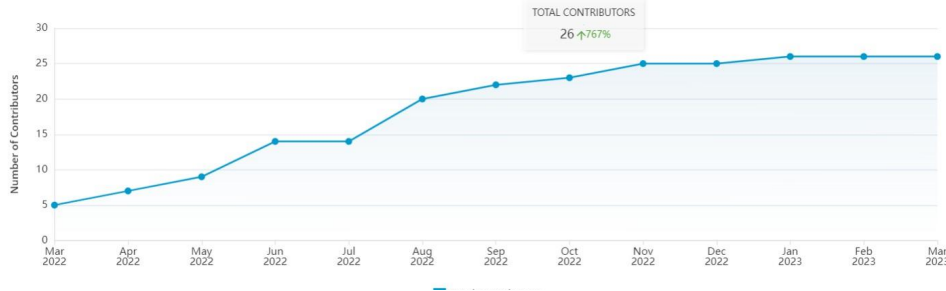
- Have an open and documented technical governance, including:
 - A LICENSE file in every code repository, with the license chosen an [OSI-approved license](#). [✓]
 - A README file welcoming new community members to the project and explaining why the project is useful and how to get started. [✓]
 - A CONTRIBUTING file explaining to other developers and your community of users how to contribute to the project. The file should explain what types of contributions are needed and how the process works. [✓]
 - A CODEOWNERS or COMMITTERS file to define individuals or teams that are responsible for code in a repository; document current project owners and current and emeritus committers. [✓]
 - A CODE_OF_CONDUCT file that sets the ground rules for participants' behavior associated and helps to facilitate a friendly, welcoming environment. By default projects should leverage the [Linux Foundation Code of Conduct](#) unless an alternate Code of Conduct is approved prior. [✓]
 - A RELEASE file that provides documentation on the release methodology, cadence, criteria, etc. [✓]
 - A GOVERNANCE file that documents the project's technical governance. [✓]
 - A SUPPORT file to let users and developers know about ways to get help with your project. [✓]
- Complete and approve the Technical Charter and agree to transfer any relevant trademarks to The Linux Foundation or its affiliate, LF Projects, LLC, and to assist in filing for any relevant unregistered ones. [✓]

Incubation Project review criteria (continued)

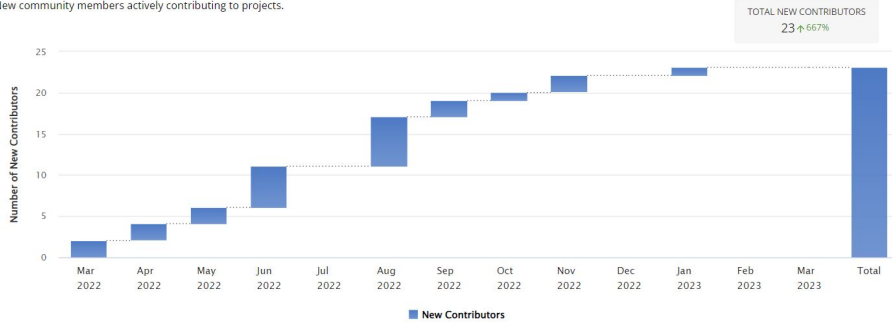
- Have achieved and maintained an [OpenSSF Best Practices Badge](#) at the '[Passing](#)' level. [✓]
- Have had a successful license scan with any critical issues remedied. [✓]
- Have a defined project mission and scope [✓]
- An overview of the project's architecture and features defined. [✓]
- The project roadmap defined, which should address the following questions. [✓]
 - What use cases are possible now?
 - What does the next year look like in terms of additional features and use cases covered?
- Community and contributor growth assessment [✓]
 - The current number of contributors and committers, and the number of different organizations contributing to the project.
 - Demonstrate a sustained flow of commits / merged contributions
 - A credible plan for developing a thriving user community, in particular expanding the number of committers and contributors?
 - An outline of the plan for the project to complete the requirements for the Early Adoption stage
- Receive the affirmative majority vote of the TAC.

Contributions

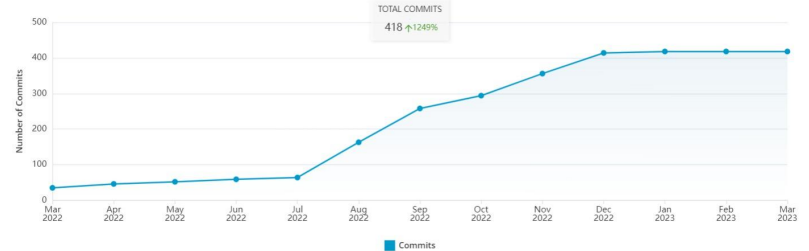
Unique aggregate contributors across all hosted projects.



New community members actively contributing to projects.



Individuals actively contributing to a project



Organizations contributing and/or using in production

- RTE



- DIANOMIC

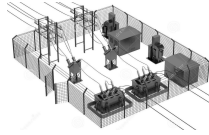


Key Achievements in the past year

- Stable release of plugins:
 - IEC104 south,
 - IEC104 north,
 - OPCUA north,
 - IEC104 to PIVOT / PIVOT to IEC104 translation
 - PIVOT to OPCUA translation
 - PIVOT model for Measurements, Status points and Controls
 - CI workflows for testing environment deployment

Road map 2023

Production



Deploy on Power system substation

Goal #1: Add multi center capacities to legacy IEC104 or HNZ substations for operations redundancy

Goal #2: Secure legacy IEC104 or HNZ substations with TLS

POCs

Integration with COMPAS 

Run on SEAPATH infrastructure 

Integration with OPFAB 

Integration with SOGNO 

Areas the project could use help on

Events support and promotion

Marketing and communication

Feedback on working with LF Energy

Support is very helpful

TAC Open Discussion

OLFENERGY

Marketing for Projects



Marketing and PR Updates

dbrown@linuxfoundation.org

+1 415-420-7880

- Digital transformation readiness research survey data analysis is complete; currently conducting qualitative interviews with SMEs to develop the full report. Will be released along with Microgrid report sponsored by Futurewei at LF Energy Summit.
- T&D World is producing a feature on LF Energy; Lucian and Anto scheduled for interviews.
- Entry submitted for NREL Net Load Forecasting Contest - thank you to Alliander for helping prepare the submission.
- Recent media coverage:
 - TFIR - [It's About Time Companies Start Generating Energy For Self Consumption | LF Energy Can Help](#)
 - The Register - [Atomic energy body proposes fusion framework to manage British energy grids](#)
 - TFIR - [LF Energy Aims To Create Open Specification Around Carbon Accounting](#)
 - Cloud7 - [\[Event\] LF Energy Summit – experts to discuss decarbonization tech in Paris](#)
 - TFIR - [LF Energy Summit 2023 Returns To Paris](#)
- Outreach Committee meeting took place Feb 23 ([recording](#), [minutes](#)) - next meeting Mar 23
- New private Slack channel (#advisory-committees) now live with members of Governing Board, TAC & MAC - click [here](#) if you are not already on the LF Energy Slack and ping Dan to add you to the private channel
- Use this [form](#) to submit any comms/marketing support requests

Events Updates

- SustainabilityCon North America - May 10-12, Vancouver
 - Agenda went live March 14
- LF Energy Summit - June 1-2, Paris
 - Agenda went live March 9
 - Early Bird pricing ended March 17; standard registration pricing valid through May 19
 - Sponsorships are still available! [Details](#)
- LF Energy Embedded Summit - June 30, Prague
 - Speaking proposals closed Feb 27 and are reviews are in progress
 - Agenda will be announced April 13
- SustainabilityCon Europe - Sept 19-21, Bilbao
 - Speaking proposals being accepted through May 2

IEC61850 Week Opportunities

The organizers of IEC61850 Week, taking place 16-20 October in Amsterdam, have reached out to Sander Jansen of Alliander expressing that after closing speaking submission, there are some large gaps in their program. They need speakers/projects to address:

14. Inter-Substation – implementing IEC 61850 enabled wide area networks based to support the reliable transfer of data between substations

15. Control Centre – interworking IEC 61850 and CIM to support the extended grid as the number of DER assets integrating into the grid increases

16. Hydropower – updating on the latest IEC 61850 standardization activity for hydropower and determining the implications for the community and future market development activity

20. Cybersecurity – leveraging IEC 62351 and IEC 62443 as framework for fully securing legacy IEC 61850 enabled systems and evolving virtualized and centralized substations

21. Data Management – leveraging Edge Computing, Cloud and AI&ML to support IEC 61850 enabled substation process

Note: Only representatives from utilities may speak for no cost; private organizations must sponsor the event in order to speak.

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Next TAC Meeting

The next meeting of the LF Energy TAC is scheduled for 11 April 2023 at 8:00 am US Pacific Time/11:00 am US Eastern Time/4:00 pm Central European Time.

NOTE: *New meeting invite for series titled 'LF Energy TAC meeting (2023)' from 'LF Energy (LFE) - Meetings <meetings@lfx.linuxfoundation.org>'. Register for meeting at: <https://zoom-lfx.platform.linuxfoundation.org/meeting/98588947265>*
Please remove all other meeting invites.

Agenda will include:

- Recap of last Board Meeting and TAC
- Shapeshifter Annual Review



Thank you!