

# Unifying Edge Computing— the Open Way

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# **Executive Summary**

## **Industry & Market Progress**

Launched almost three years ago, LF Edge continues to see massive global industry support accelerating the adoption and deployment of edge applications across sectors like telco, cloud, edge, IoT, IIoT, enterprise, AI, and more.

As a natural extension of cloud computing, the edge cloud construct is increasingly viewed as a key enabler for the "Fourth Industrial Revolution" in which the widespread deployment of the Internet of Things (IoT), the global sharing economy, and the increase of zero marginal cost manufacturing deliver unprecedented communication-driven opportunities with massive economies of scale. Key tenets of growth this year included:

- ▶ LF Edge has solidified its role in generating vendor/analyst-neutral terminology and creating the open source edge market. Together with the Glossary of Edge Computing (which is part of LF Edge) the creation of the annual State of the Edge Report serves as an ongoing and evolving industry resource to define how we view innovation at the edge.
- ▶ Continued unification of previously fragmented edge communities across telecom, IoT, enterprise, industrial, cloud edge, and more. Membership growth across industries and the addition of more projects to address market needs are just some of the ways LF Edge is enabling innovative collaboration, cross-market integration, scalability, interoperability, and more.
- ▶ Adoption and deployment of open source edge solutions are accelerating, with even more Akraino blueprints addressing AI, automotive, Smart Cities, Smart Classrooms, IoT, gaming, cloud edge, 5G, and more being used in trials and production. Concurrently, EdgeXFoundry's 2.0 release up-levels the framework with 4+ years of development to offer a more stable, secure, and user-friendly experience.

With the lightning-fast growth of the need for scalable edge computing, LF Edge is poised to be the center of gravity for open edge computing.

# Technical Community Metrics

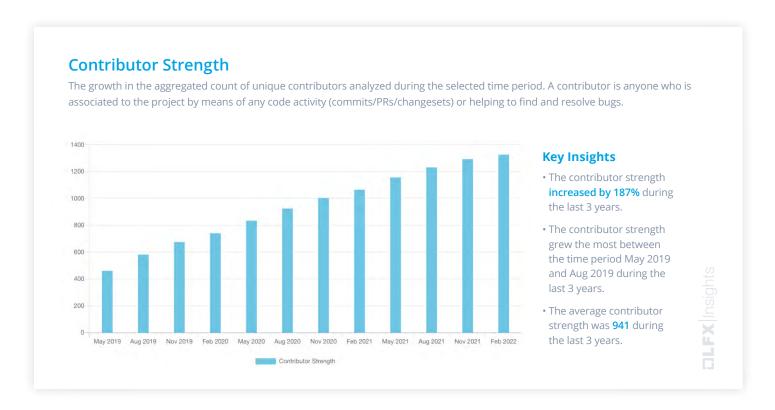
## **LF Edge Technical Community Metrics**

Open source fuels the world's innovation, yet building and sustaining engaged open source communities to deliver impactful, high-quality, and secure software at scale is challenging. From infrastructure to legal and compliance, from code security to marketing, quality to governance, the Linux Foundation has years of accumulated expertise and proven best practices, which we have spent the year productizing as the LFX Platform.

LFX is a suite of tools engineered to grow and sustain and grow the communities of today and build the communities of tomorrow.

The LFX Platform provides our members and project with tools to support every stage of an open source project, from funding to community management to application security. LFX is built to support the needs of all community participants; maintainers, contributors, community managers, security professionals, marketers, and more.

View the full community health metrics for <u>LF Edge here</u>. Stay tuned for more updates about how to leverage this tool!



# Update from the LF Edge Board



JASON SHEPHERD

VP of Ecosystem, ZEDEDA, and
LF Edge Governing Board Chair

As we enter into 2022, I wanted to take a moment to reflect on the great progress we made as a community last year, thanks to the efforts of all of the contributors across the projects, our Technical Advisory Committee (TAC), Outreach Committee and Board of Directors. Our mission as a community is to help organizations maximize their outcomes with edge computing solutions through a shared investment on foundational infrastructure that facilitates interoperability, security and scale. As the topic of edge computing continues to heat up we welcome you to join us to help shape the landscape.

During 2021, LF Edge welcomed ten new project member organizations: AMD, American Tower, F5, VMware, Digital Twin Consortium (DTC), Eclipse Foundation, mimik, Platform 9, Teal Communications, and Veea, Inc. Thanks to the EdgeX Foundry community for fostering the initial relationship with the DTC and Project EVE for establishing the initial collaboration here, as well as with the Eclipse Foundation's Edge and IoT community on behalf of LF Edge. We're looking forward to deeper collaboration with these organizations in the coming year. We also welcomed three new projects to the LF Edge family: Edge Gallery, eKuiper, and Project Alvarium, bringing our total to 11 projects focused on a broad range of open source enablers for edge computing.

In terms of project achievements for 2021, the Akraino community put out Release 5 and EdgeX Foundry dropped Jakarta 2.1 which is also the project's first Long Term Stable (LTS) release. The Project EVE community has now validated over 80 hardware models known to run EVE-OS to facilitate security and management of edge infrastructure. Fledge has continued to see strong community growth, and along with Project EVE continues to collaborate with other vertical industry efforts such as LF Energy, OSDU and CESMII. Open Horizon launched a new developer sandbox project website and continues to grow its community around their solution for edge container management.

Meanwhile, Home Edge launched their Dewberry release and State of the Edge released their 2021 report on the overall edge landscape. We're also

"As with any Linux
Foundation project,
LF Edge is a technical
meritocracy and
the best way to get
involved is to just
dive in and vote with
your keyboard by
hammering out code!"

continuing to see great collaboration across the projects and improvements to the community lab will better facilitate remote utilization of the resources.

As data gravity continues to shift away from the centralized cloud to a distribution from edge to cloud, organizations of all types will benefit from edge computing to lower latency, reduce bandwidth costs, and maximize security and privacy. Edge computing inherently involves a broad mix of hardware, software and skill sets and we all win if we collaborate on undifferentiated infrastructure and tools for interoperability so we can focus on value creation for our organizations and our customers.

As with any Linux Foundation project, LF Edge is a technical meritocracy and the best way to get involved is to just dive in and vote with your keyboard by hammering out code! Meanwhile, there are other opportunities to get involved both on the technical and marketing fronts. I encourage any organization interested in edge computing to join LF Edge as a member which brings benefits in terms of shaping the overall project trajectory and raises visibility for new business opportunities.

Here's to a fantastic 2022 as we build the last cloud together — the edge!

# LF Edge Governing Board



**RYAN ANDERSON** IBM Edge



**TOM ARTHUR** Dianomic



MARTIN BÄCKSTRÖM Ericsson



LISA CAYWOOD
Red Hat



COLE CRAWFORD
VaporIO



**WENJING CHU**Futurewei



JUSTIN DUSTZADEH Equinix



**FANGSHI HE** Baidu



MOONKI HONG Samsung



HATSUMI IINO (HAISHIMA) Fujitsu Ltd.



KAUSTUBH Joshi (KJ) AT&T



**ED KNAPP** American Tower



HENRY LAU
HP and EdgeX
Foundry



**DANIEL LAZARO** AVEVA



**DAVE LANDSMAN**Western Digital



DAVID LAKE



**GENG LIN** F5 Networks



**KANIZ MAHDI** VMware



**RENU NAVALE**Intel Corporation



**WALID NEGM** Altran



JASON SHEPHERD ZEDEDA



PRAKASH SIVA Radisys



**KEITH STEELE**IOTech Systems



JIM ST. LEGER Intel, TAC Representative



**TINA TSOU** Arm and Akraino



YACHEN WANG Tencent



JIM XU Zenlayer



REN "BILL" XUDONG Huawei



MOHAMMAD ZEBETIAN Charter

# LF Edge Members

## Premier Members





















































## General Members

























































## **Associate Members**







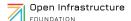






















# General Manager Update



**ARPIT JOSHIPURA** General Manager, Networking, Edge & IoT, the Linux **Foundation** 

In 2021, the LF Edge community focused efforts around the collaborative theme of "Unifying the Edge — the Open Way." With cross-verticals embracing the open source edge, we've seen an unprecedented rise of collaboration. As Jason mentioned above, membership has grown with an even more diverse group of organizations now taking part in our community and pledging to collaborate the open way (including AMD, American Tower, F5, VMware, Digital Twin Consortium (DTC), Eclipse Foundation, mimik, Platform 9, Teal Communications, and Veea, Inc.). Our project portfolio has also grown, with the addition of eKuiper, EdgeGallery and Project Alvarium, bringing our community expertise across the edge spectrum, from user edges to service provider edges, and from the application layer down through the infrastructure layer. Organizations of kinds, from enterprise, and from application to to organizations and industries of all kinds—from industrial manufacturing to

## Vertical Market Adoption of End to End Open Source Software

#### OPEN NETWORKING, EDGE AND IOT MARKET ADOPTION -























Transportation

Cities & Government



## NETWORKING

- 1. Private Networks 5G/LTE
- 2. Workloads across Multi-clouds
- 3. End to end visibility and monitoring



## **PROVIDERS**

- 1. Built on end to end open source 5G & edge
- 2. Developing countries with 5G and edge
- 3. Global connectivity



## Built on Open Source projects

- 5G Super Blueprints
- 3. Unified Cloud, Enterprise, Telco

#### **BUILT ON END TO END OPEN SOURCE PROJECTS**

























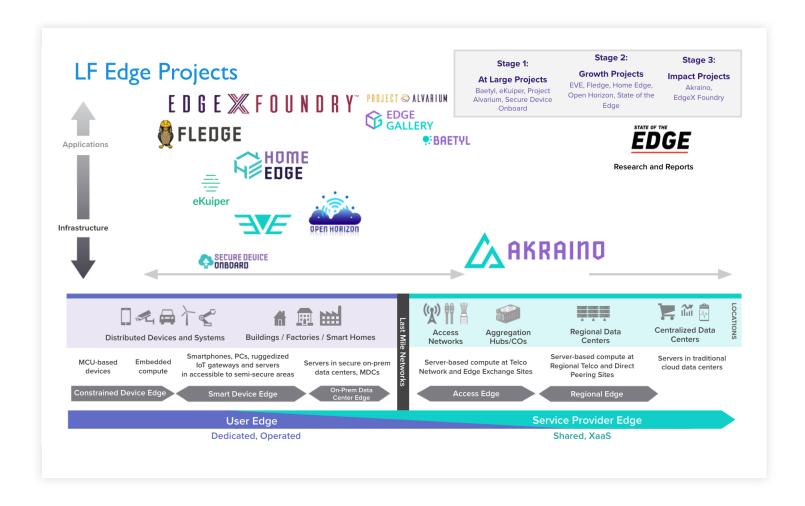


telcos to retail, building oil and gas, automotive, healthcare, and more — are embracing open source edge, and LF Edge is at the center.

I am incredibly proud of the entire community. The past few years have been challenging on a global level current generations have never before experienced. DEspite — and possibly because of— this, our community has continued to grow and flourish throughout the pandemic. In 2021 alone, the strength of our contributors grew by 25% and the number of commits increased by about 20% in 2021. If we count the entirety of the pandemic, those numbers rise to 64% (contribution strength) and 52% (number of commits).

This shows that as data migration from cloud to edge to cloud continues, the benefits of lower-latency, reduced CAPEX/OPEX, and faster processing will reach more and more organizations across verticals. LF Edge's goal of harmonizing the edge across IoT, enterprise, telco, cloud and more (and to keep those edges open and operable) will continue as the project grows. By leveraging end user input to drive and supply the necessary building blocks to facilitate integration and interoperability for Edge Computing across Telecom Service Providers, Cloud Providers, IOT & Enterprises, LF Edge enables rapid productization of edge platforms.

Big thanks to our entire community and ecosystem of members, developers, partners, and users — on to 2022! ■



# Technical Advisory Council Updates



JIM ST. LEGER

Open Source Strategy, Intel,
and LF Edge TAC Chair

Our first full pandemic year is now behind us. Alas, as we turned the corner to 2022 and found ourselves staring at the omicron variant. One of the things that makes me most proud of all the LF Edge projects is the fact that none of them missed a beat in our work-from-home virtual world. I feel a loss of connection due to our inability to meet face-to-face, both in developer sessions and also at some of our usual events such as ONE Summit and KubeCon. But this loss of real world engagement hasn't slowed us down, a huge credit to the people in the LF Edge project community. I'd like to feature some of the highlights of LF Edge for 2021.

## LF Edge Project Growth

LF Edge continues to be THE open source home of the best edge computing projects in the industry. We've put our project maturity life cycle to work several times, adding three new projects in 2021(Secure Device Onboard (SDO), eKuiper, and Alvarium). We moved Open Horizon from Stage 1 At Large to Stage 2 Growth. I'd like to say a special thank you to all the folks who volunteered to lead the evaluation sub-groups. It is a very important task that enables a thorough assessment of a project. I'm indebted to these people.

## **Shared Community Lab**

The LF Edge Community Lab has its origins in Akraino. The Akraino community needed platforms to host the multitude of blueprint solutions and feature projects which led to the creation of the lab. In January of 2021 LF Edge made the decision to move the lab up to the LF Edge level, enabling its use by any and all of the projects. The work between the Akraino labs folks, the University of New Hampshire InterOperability Lab (UNH/IoL) team, and others in our community was instrumental in this transition, making it truly seamless. Thanks to all of you for that great team effort.

#### **LFX Platform**

Open source projects have struggled to get an assessment of various metrics. The tools to enable a data-driven perspective either did not exist or were not available for free. The LFX Platform tool suite has risen up to meet

the need. LF Edge projects have been all too eager to try out the tools, often as alpha test users, and provide feedback, resulting in a rapid improvement of the tools. Nearly all of the LF Edge projects are in LFX Insights. Several have been onboarded into LFX Security. The LFX Mentorship tool has been used by Open Horizon (more on that later.) And the new Element chat tool has also been embraced by Open Horizon as an alternative to other chat platforms. In 2022 we will get all projects fully onboarded into the LFX Platform.

**Project Excellence** 

Among projects there is often a bit of a healthy competition to complement the camaraderie of open source. One of the ways a project can boast is by earning various badges. The Linux Foundation Core Infrastructure Initiative badge (CII badge) defines and recognizes best practices in open source. In 2021 the Home Edge project earned the CII Badge. They joined EdgeX Foundry as LF Edge projects that have earned the CII badge. I expect other projects to also earn the CII best practices badge in 2022.

## **Community and Developer Growth**

Open source communities are first and foremost about people. We gather to discuss, build, and support. We also recognize that bringing up the next generation of open source developers is the responsibility of everyone in our community. Coaching and mentoring the next generation is paramount to our long term success and viability. The team in the Open Horizon project exemplified this spirit through their mentoring of 23 people in 2021. This number includes 13 students from IBM's P-Tech high school program and 10 LFX Mentorship program. The effort continues into 2022.

#### **Events**

It was a disappointment to not have any in-person, community-wide gatherings in 2021. You do not realize how

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much you miss the direct human connection until you lose it. We did manage to run virtual technical sessions in several projects including Akraino, EdgeX, EVE, and others. There also were local gatherings by some project teams including Akraino in the bay area. We so very much look forward to connecting in real life in 2022.

#### **Support Resources**

Over the course of the year we said goodbye to Brett Preston who managed the entire LF Edge project from the initial inception to the early growth. We welcomed Kendall Waters Perez to our project, taking over the program manager responsibilities from Brett. We also bolstered our community support creating the role of TAC Vice Chair and having Joe Pearson voted into that role. It's nice to have a strong support team!

## **Cross-Community Collaboration**

LF Edge by design encourages collaboration across our projects. And over the past few years we've had strong teamwork. For example, when Open Horizon and Secure Device Onboard (SDO) joined LF Edge several projects reached out to them to explore opportunities. And of course the blueprints in Akraino are often inclusive of many project elements. Another

"Open source communities are first and foremost about people. We gather to discuss, build, and support. We also recognize that bringing up the next generation of open source developers is the responsibility of everyone in our community."

great example of cross-community collaboration is the Open Retail Reference Architecture (ORRA), a collaboration across EdgeX Foundry, Open Horizon, and Secure Device Onboard. It further brings in other open source community ingredients such as the Open Container Initiative (OCI), Kubernetes, and Project Flogo, as well as an external company partner TIBCO. Fledge has had a collaboration with the LF Energy project FledgePower, an operational technology (OT) focused effort for power systems. FledgePower includes RTE, the electrical transmission system operator in France, providing the invaluable end user perspective. These are but a few of the great LF Edge collaborations, both within the project and beyond. I look forward to additional similar engagements in 2022.

#### **End of Year Gift**

We did manage to make it through 2021 without any catastrophes. December gave us a test with the announcement of the Log4j and Log4Shell RCE exploit. I'd like to credit all of the LF Edge project communities for their rapid response, quickly evaluating all of their code base and build environments in search of vulnerabilities. In the few cases where they were found issues the teams quickly resolved them. It was a great team effort ensuring the security of our projects.

I'm proud of all that the LF Edge technical community has accomplished in 2021. We continue to learn and improve, a tradition we will carry into 2022. I'd like to close by thanking all of the community members for their support, both in their project areas, but especially in the Technical Advisory Committee (TAC) functions. I owe all of you my gratitude.

# LF Edge Project Updates



TINA TSOU Enterprise Architect, Arm, and Akraino TSC Chair



#### **STAGE 3 PROJECT**

## Akraino

Akraino Releases 4 and 5 were made available in 2021, including K8s ready blueprints and deployments such as Public Cloud Edge Interface, AI Edge, 5G MEC System, Integrated Edge Cloud, Integrated Cloud Native blueprint families, Automotive, IoT, Metaverse Areas, and more. All released blueprints have passed a vulnerability scanning process implemented by Akraino's security subcommittee. In addition, Akraino has enhanced its API map, integrated upstream components, explored downstream labs, and approved new incubation blueprints including buffer at the edge, smart data transition for CPS, and CPS robotics. Two blueprints entered maturity stage in 2021:

Connected Vehicle Blueprint and IEC Type 4: AR/VR oriented Edge Stack for Integrated Edge Cloud (IEC) Blueprint Family.

- ▶ In November 2021 Akraino cautiously restarted a live meeting schedule with a hybrid event in Palo Alto. A more extensive technical meeting is planned for March 2022.
- ▶ In 2021 Akraino delivered two releases (R4 in Feb and R5 in Sep) with over 20 blueprints participating, including 5+ new.
- ▶ We held two Akraino technical meetings with a wide representation from service providers, public cloud providers, technology providers, research institutions and developer communities.
- ▶ Akraino held Automotive and IoT Area workshops and presented to the Korean Institute on Communications and Information Sciences.
- ▶ We developed and agreed on the collaboration plan with ETSI MEC ISG, participated in the MEC Technical Meetings and took part in the ETSI MEC Plugtests 2021 (with the PCEI Blueprint demonstrating and conforming to the MEC013 Location API service).
- ► We held our first Akraino community awards, recognizing individual achievements, remarkable women of Akraino and Blueprints of the year.
- ▶ Our security subcommittee developed new automated security vulnerability identification features and increased efficiency in the blueprint security certification process.

- ► We held our first in-person Akraino Reunion meeting since the onset of the COVID-19 pandemic.
- ▶ We participated, by providing presentations and technical demonstrations, in the industry events, including LFN Developer and Testing Forum (Feb and Jun), Open Networking and Edge Summit and Open Edge Computing workshop.
- Akraino TSC welcomed multiple guest speakers on a variety of edge technologies during our weekly meetings.

"In the Year of Ox, Akraino received great contributions and passion from various regions and companies. In the Year of Tiger, I expect Akraino developers to move like tigers, seizing opportunities in robotics, metaverse, and more."

In the Year of Ox, Akraino received great contributions and passion from various regions and companies. Highlights included deployments, security, blueprint technical advancement, and adoption of our umbrella organization Linux

Foundation's Diversity, Equity and Inclusion (DEI) initiative. In the Year of Tiger, I expect Akraino developers to move like tigers, seizing opportunities in robotics, metaverse, and more. Happy Lunar New Year everyone!



JIM WHITE
Chief Technology Officer,
IoTech Systems, IBM and
EdgeXFoundry TSC Chair

## EDGE X FOUNDRY

#### **STAGE 3 PROJECT**

## EdgeX Foundry

2021 was a momentous year for the EdgeX Foundry project. Again this year, EdgeX had two releases, but each of these releases was significant for different reasons. Our spring release, codenamed Ireland, was the second major release from the project. EdgeX 2.0 was big. By definition, a major release usually contains significant new features or non-backward compatible capability. Indeed, the Ireland release contained both major new features and non-backward compatible (with any EdgeX 1.x release) changes. In general, this release took a huge step to eliminate, or at least significantly reduce, about four years of technical debt accumulation while also adding some key new capabilities to include more message bus communications, improved and simplified security, and a revamped API set providing better consistency and tracking of data through the EdgeX services.

Our second release of the year was code named Jakarta, version 2.1. This release was our first long-term support (LTS) release. Long term support is somewhat rare and newsworthy in open-source communities. Offering an LTS is the project community's pledge to adopters that EdgeX offers you a stable version of the platform that you can expect the community to stand behind and support for a period of two years — that we stand with you

in support of EdgeX in real world, commercial deployments of the platform.

In addition to the two new releases there were other important things happening on the project in 2021. A new graphical user interface was added, a refresh of the project's web site was completed (along with adding Chinese language support), the project established relationships with the Digital Twin Consortium and Ag Stack (one of LF's new projects), two large hackathon events were held in China, and the project announced the EdgeX Ready

"Offering a long-term support is the project community's pledge to adopters that EdgeX offers you a stable version of the platform that you can expect the community to stand behind and support for a period of two years — that we stand with you in support of EdgeX in real world, commercial deployments of the platform."

program (designed to highlight member organizations that demonstrate the ability to work with EdgeX).

2022 will again include two new releases, a return to live conference

events, host a U.S based EdgeX hackathon and launch a reward badge program to thank contributors — both of the last two will help raise awareness and attract new developers.

#### **STAGE 2 PROJECT UPDATES**



## **Fledge**

- ➤ Strong community growth: Fledge Power, OSDU Edge, CESMII trial
- ► Working towards Stage 3, Impact Stage application
- ► Public use case deployments wiki page updated wiki.lfedge.org/display/ FLEDGE/Fledge+Home



## **Project EVE**

- ► EVE 7.2.0 released github.com/lf-edge/eve/releases/tag/7.2.0
- ▶ Over 80 hardware models now verified to run EVE-OS
- ➤ Successfully completed first phase of EVE-OS integration with OSDU edge ref arch, collab w/Fledge
- ► EVE Design Summit was to be Dec 8-9 in Berlin <a href="www.lfedge.org/">www.lfedge.org/</a> event/eve-design-summit but has been postponed to TBD in 2022 zededa.com/blog/join-us-at-eve-design-summit-2021
- ► Q1 overhaul of project Wiki and project branding; EVE looking for a proper spirit animal mascot

#### **STAGE 2 PROJECTS (CON'T)**



#### **Home Edge**

- ➤ Dewberries released at the end of October: github.com/lf-edge/ edge-home-orchestration-go/ releases/tag/v1.1.0
- ➤ Desire to expand community contributors/engagement beyond Samsung.



## State of the Edge (SOTE)

- ► State of the Edge
  2021 report published September
  2021
- ➤ Currently forming the 2022 research working group — seeking participants.

## **Open Horizon**



- ► Open Horizon and

  SDO joined with EdgeX

  Foundry's effort on the Open Retail

  Reference Architecture
- ► We worked with over 23 mentees in various programs over 2021
- ► We expanded community feedback with our project roadmap by creating and publishing (and using) a Feature Request Lifecycle process
- ➤ We added a Secrets Manager to the core, and Intensivate ported our Agent to RISC-V

#### **STAGE 1 PROJECTS**



#### Baetyl

Released a new version, v2.2.



## Secure Device Onboard (SDO)

SDO's first release <u>FDO 1.0</u> supporting FIDO's FDO (FIDO Device Onboard) v1 specification came out in August.

## PROJECT ᠍ ∧LV∧RIUM

#### Alvarium

- ▶ Joined LF Edge as a Stage 1 project in October.
- ► Weekly development meetings have begun. Planning to build their TSC in early 2022.

## = eKuiper

## eKuiper

- ➤ Eight version releases in total, four of which are major releases which deliver more than 20 features requested by users.
- ► Collaborations Integrated with other open source projects: LF Edge project EdgeX Foundry and Baetyl; CNCF project KubeEdge and OpenYurt; and EdgeGallery.
- ➤ Presented in more than 6 technical conferences and meetups such as 
  "the global opensource technology conference", "Arch Summit" and 
  "Kubernetes on Edge Day."

# Update from the LF Edge Outreach Committee



SARAH BEAUDOIN

Director of Marketing

Communications and Partner

Marketing, ZEDEDA;

LF Edge Outreach

Committee Chair

It's no secret that 2021 was full of challenges across all aspects of our lives on a global level. While it's not what any of us had hoped or planned for, we've been fortunate in our ability as a community to continue to find creative ways to collaborate and connect as we work simultaneously to move the needle across the open edge. Individual projects have continued to expand and grow, as has the broader, collective LF Edge community.

As a committee, we successfully re-launched ourselves mid-year with the goal of coming together to promote the ideas and innovations happening all across the LF Edge and its larger ecosystems. We've produced more original content across community voices — from Akraino developers to EdgeX IoT ecosystem builders, to Project EVE designers, and more — and grown our web and social footprint in the absence of physical events. Our developer communities have continued to come together in smaller, more focused groups to hone in on core development, with in-person Design Summits, virtual hackathons and Demo Pavilions, and more.

For 2022, we look forward to continuing to promote the great work and development of the broad community that's evolved — and become stronger, and, in some ways, more productive — over a global pandemic. We are eager to come together and harness the collective fruits of collaborative labor that's taking the industry across vertical boundaries and show the world the power of open source at the edge. We welcome you to join us in this endeavor and can't wait to see what 2022 brings!

"For 2022, we look forward to continuing to promote the great work and development of the broad community that's evolved — and become stronger, and, in some ways, more productive — over a global pandemic."

# Industry Impact

## By the Numbers



33K
PRESS CLIP
MENTIONS



**8**PRESS RELEASES



**6B**POTENTIAL
AGGREGATE REACH



25+
MEDIA/ANALYST
BRIEFINGS



800K TWITTER IMPRESSIONS



12 ——
INDUSTRY EVENTS

#### **TOP QUOTES**

"We are in the era of the ecosystem and it is critical to have the right open infrastructure foundation & holistic approach....a great example of this in the IoT and Edge Computing world is the work of the LF Edge community. These types of communities work together to create a consistent, open and modular infrastructure foundation that creates a network effect for commercial solution providers to provide offers on top."

— JASON SHEPHERD, IOT NOW

# LF Edge On Stage at Industry Events

Big 5G Event

Cisco DevNet

**Cloud Native World** 

**DSP Leaders World Forum** 

**Edge Computing World** 

**Embedded IoT World** 

FierceTelecom Winter Blitz

Kubernetes on Edge Day at KubeCon + Cloud Native Con Europe 2021

Open Networking & Edge Executive Forum

Open Networking & Edge Summit

Open Source Conference 2021

**ZEDEDA Transform 2021** 

## Top Headlines



Linux Foundation's

Joshipura:

Disaggregation is at the heart of open source, cloud-native and edge

## **⊞**IoT Evolution •

Revving up Akraino with the R4 Release: Kubernets across the edge (IoT Evolution)

## **AUTOMATION** COM

Digital Twin
Consortium Partners
with LF Edge on Digital
Twin/Edge Platform
Interoperability

## **TFIR**

Meet FledgePOWER,
a bridge Between
Legacy and Modern
Edge Power
Systems (TFiR)

## **Venture**Beat

State of the Edge report projects edge computing will reach \$800B by 2028



Global edge
computing
infrastructure
market to be \$800
billion by 2028
(TechRepublic)



All About EVE: An Operating System for the Edge

## **NETWORKWORLD**

Top 5 Open Source
Infrastructure
Projects

#### **TOP QUOTES**

"Thanks to the rise of open source software, the cost of processing data at the edge is rapidly declining, noted Jacob Smith, co-chair of the State of the Edge initiative at the Linux Foundation and VP of bare metal at Equinix. 'You always want to bring the code to the data,' Smith said."

— MIKE VIZARD, VENTURE BEAT

"The Linux Foundation is home to a lot of different open-source collaborative projects, and probably the most famous one is by now Cloud Native Computing Foundation, the home for Kubernetes,' said Shaposhnik. 'We created a sister organization called LF Edge, and the division of labor between the two is pretty simple, making work on the project efficient...EVE targets smart device edge and on-prem data center edge."

— MATTHEW VULIPS, FRONTIER HUB

## LFEDGE

Thank you to the entire LF Edge global community for a successful 2021!

Learn more and get involved: www.lfedge.org