

Collaborative Innovation at the Open Edge

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Executive Summary

Industry & Market Progress

Edge Computing — as defined by the 2021 State of the Edge Report — is the delivery of computing capabilities to the logical extremes of a network in order to improve the performance, security, operating cost and reliability of applications and services. As a natural extension of cloud computing — and estimated by analysts to be at least four times the size 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 IoT, the global sharing economy, and the increase of zero marginal cost manufacturing deliver unprecedented communication-driven opportunities with massive economies of scale.

Now in its third year as an umbrella organization, LF Edge has become the center of gravity for some of the most impactful open source edge computing projects in the world, building an open, modular framework for edge computing. LF Edge's common governance and collaborative resources unify the open the edge market, with massive global industry support accelerating the adoption and deployment of edge applications across verticals, including Telecommunications, Cloud, IoT, Industrial IoT, Retail, Al/ML, Factory Floor, Smart Home, and more.

As data gravity continues to shift away from the centralized cloud to a distribution from edge to cloud, organizations of all types benefit from open edge computing, yielding lower latency, reduced bandwidth costs, and maximized security and privacy; it means the work of LF Edge is more crucial than ever. Key impacts of LF Edge in 2022 are evidenced by both the project's tenet publications, and a robust set of new use cases in deployment. Highlights include:

- ▶ For the Olympic Games Beijing 2022, Tencent collaborated with China Unicom and created a multi-access edge computing (MEC) platform to track and analyze real-time traffic data, based on Akraino's Connected Vehicle Blueprint.
- ▶ Project Alvarium is <u>providing trustworthy sustainability</u> reporting and validated carbon emission measurements for organizations that are accurately tracking their carbon footprint.
- ▶ <u>UC Davis and Opus One uses Fledge</u> to create safer wine-making conditions via multi-node wireless sensor network to produce world class wine.

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- Open Horizon components were leveraged in the <u>Mayflower</u> <u>Autonomous Ship</u>, which successfully sailed across the Atlantic ocean unmanned.
- ▶ Retailers use <u>EdgeX Foundry</u> to combine POS, RFID, Weight Scale and Computer Vision data to alert associates in real time, improving self-checkout efficiency and saving costs.
- ▶ A hiker used Fledge to collect temperature, humidity and air quality data while hiking on the beautiful Laugavegur trail in Iceland.

But this is just the tip of the iceberg—read on to see what else this amazing community accomplished, together, in 2022.



Arpit Joshipura, General Manager of Networking, IoT & Edge at The Linux Foundation, talking about the growth of LF Edge at ONE Summit Keynotes.

Technical Community Metrics

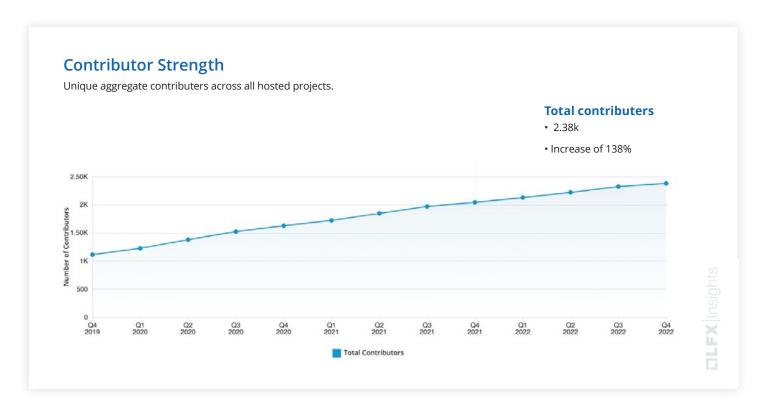
LF Edge Technical Community Metrics

One of the biggest challenges for open source projects is being able to define, track, and review key project metrics. LFX Insights analytics tool provides insights on the health of LF Edge projects and what trends are happening regarding the number of contributors, number of commits, etc.

LF Edge project communities have been increasingly active in the past three years. Some of the key project metrics include:

- ▶ LF Edge has a 25%+ year-over-year membership growth, 80% new project increase and over 27,000 global mentions since launch.
- ▶ The number of LF Edge contributors increased by 138%, with an average of 1,120+ contributors per year.
- ▶ The number of commits increased by 100% in the past 3 Years.

View the full community health metrics for <u>LF Edge here</u>.



Update from the LF Edge Board



TINA TSOU

Director Infra Ecosystem, Arm and
LF Edge Governing Board Chair

A warm welcome to 2022's newest LF Edge members: Y-Semi, Emerson, Qianyi, and XUAT -- thank you for joining us this year. We hope to develop strong bonds with all our new members as we continue working together.

I'd also like to congratulate all of our individual project communities (Alvarium, Akraino, EdgeX Foundry, eKuiper, EVE, Fledge, HomeEdge, SDO) for the progress made this year. We've seen more and more real-world deployments across a diverse set of use cases (including blueprints to address Robotics, Smart Data, OT, Metaverse, 5G, and Education & Healthcare, among others) and improvements to functionality, security & data privacy, connectivity, and more.

One of the community's biggest accomplishments in 2022 is the LF Edge Industry Solution Showcase, which debuted onsite ONE Summit in November. The event returned to an in-person format and we had the opportunity to showcase eight project demonstrations within the LF Edge booth kiosks, focused on specific verticals: Oil & Gas, Manufacturing, Telc, and Retail. This is the first step in highlighting LF Edge's mainstream deployments across a broad spectrum of organizations and communities. 2023 will be even better, with more details on the myriad of ways LF Edge can enhance edge computing.

None of this could be possible without member companies, developers, users and the LF Edge staff.

- ▶ Member companies have been generously providing resources to run a shared community lab, CI/CD, and community activities --including hackathons, developer events and project mini summits.Big thanks to all who helped fund this important work across the board and helped make our projects stronger.
- ▶ We also give thanks to **developers working hard within and across LF Edge**. We would not exist without our dedicated and passionate developers, who are the glue that binds our project communities together.

"We expect many opportunities (and some challenges) in 2023 and I am confident in the power of this strong community to continue playing a key role in Edge innovation."

▶ LF Edge Sub-committees. The collective efforts of the LF Edge Strategy Planning Committee (SPC), Technical Advisory Committee (TAC), and Outreach Committee yielded needed updates to LF Edge Project Lifecycle Description and Criteria, the creation of the Industry Solution Showcase; and the growing amplification of use cases and deployments.

With the rise of IoT, 5G/6G, AI, and Metaverse, Edge is at the precipice of leading technology innovations. The practical application of Edge Cloud in more industries and scenarios will become mainstream; the work of this community is paramount in setting the stage for scalable development of open source Edge technology and standards. We expect many opportunities (and some challenges) in 2023 and I am confident in the power of this strong community to continue playing a key role in Edge innovation.



LF Edge Governing Board



SAM ARMANI mimik



WENJING CHUFuturewei
Technologies



BRIAN DALY AT&T



FANGSHI HE Baidu



HENRY LAU HP



MICHAEL MAXEY
ZEDEDA



KEESANG SONG



TINA TSOU Infra Ecosystem, Arm, LF Edge Board Chair



TOM ARTHURDianomic



COLE CRAWFORD VaporIO



DAVE DENISON Emerson



MOONKI HONG Samsung



DANIEL LAZAROAVEVA



RENU NAVALEIntel Corporation



HAKAN SONMEZ IBM



YACHEN WANG Tencent



LISA CAYWOOD Red Hat



TREVOR CONNDell Technologies



JUSTIN DUSTZADEH Equinix



HATSUMI IINO Fujitsu Ltd.



GENG LIN F5 Networks



JOE PEARSON IBM, TAC representative



SVEN VAN DER MEER VMware



ERIC WATKO
American Tower



JIM XU Zenlayer



REN "BILL" XUDONG Huawei Technologies

LF Edge Members

Premier Members

















































General Members























































Associate Members





























Update from the General Manager



ARPIT JOSHIPURA

General Manager, Networking,
Edge & IoT, the Linux Foundation

As we enter into 2023, I wanted to take a moment to reflect on the great progress made as a community last year. Although we're learning to live with a global pandemic, an uncertain economy, and more colorful geopolitical issues, all of these challenges didn't slow down the growth of open source communities; with more innovation, and integration across verticals as the industry marches towards digital innovation.

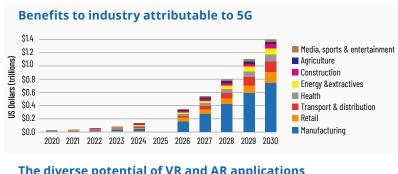
One of the things that makes me most proud of LF Edge project is the fact that the community did not miss a beat in our work-from-home virtual world. In 2022, the number of LF Edge contributors increased by 138%, with an average of 1,120+ contributors per year. With 65+ members and 25%+ year-over-year membership growth, more and more organizations have joined LF Edge's mission of unifying and providing edge computing projects,

5G and Edge critical in the next battle; a new normal!

Edge is 4x the size of the Cloud market!

"As businesses and governments establish their own new normal, **5G and Edge computing** will be necessary to deliver the automation, performance and cognitive insight required by many industries—including manufacturing, healthcare, energy and utilities, among others. Telecom operators will need to embrace open ecosystems to externalize innovation and accelerate new services."

Forbes



The diverse potential of VR and AR applications

Predicted market size of VR/AR software for different use cases in 2025



IoT frameworks and solutions/blueprints to serve the needs of Telecom Edge, Cloud Edge, IoT Edge, Industrial IoT Edge, Enterprise Edge markets, and more.

I wanted to also take a moment to look ahead to 2023, as well as recognize how the edge industry has shifted over the past year. 2022 was the tipping point for 5G, Edge & IoT deployments, all possible with Open Solutions, Open Collaboration and Open Communities. This year, the global collaboration in open source projects (including LF Edge) is better than

ever. Our community has worked collaboratively across geopolitical and macroeconomic headwinds, which we intend to continue in 2023.

I'd like to close by thanking our entire community and ecosystem of members, developers, partners, and users. I hope to see more in-person or virtual collaboration happen in LF Edge this year. Here's to a fantastic 2023 as we build the last cloud together — the edge!









Update from the Technical Advisory Council



JOE PEARSON

Edge Computing and
Technology Strategist at IBM,
and LF Edge TAC Chair

LF Edge projects and the Technical Advisory Council (TAC) found 2022 to be a year of navigating the new normal, building on past successes, and revisiting assumptions. Here's a whirlwind overview of the highlights:

Events

This year found us physically attending conferences, meetups, and hackathons where we finally met colleagues and collaborators face-to-face. Yet, some of us still had to attend virtually so the hybrid nature of these events was greatly appreciated and used.

Akraino held a joint hackathon this year with ETSI MEC. The globespanning competition attracted fourteen teams and encouraged solutions built with ETSI MEC APIs and using Akraino Blueprints. **EdgeX Foundry** held a China-based hackathon from June to October that greatly exceeded last year's involvement.

This October, several projects participated in <u>Hacktoberfest</u>, an effort once a year to encourage newcomers to learn about and contribute to open source projects. **Fledge**, **EdgeX Foundry**, and **Open Horizon** provided issues for participants to complete. In total, over 20 new contributors were minted and more than 45 issues merged and closed. This turned out to be an efficient way to grow our individual project communities.

ONE Summit was held in Seattle this November and LF Edge projects participated in a record eleven talks. Replays are available in the <u>YouTube</u> <u>Playlist</u>.

Releases

Over this year, our projects continued their standard <u>release candences</u>, with **EdgeX Foundry** designating <u>Jakarta</u> (2.1) their first LTS release last November and following up with <u>Kamakura</u> (2.2) and <u>Levski</u> (2.3) this year. **Akraino** issued the <u>Release 6</u> collection of 18 blueprints, with <u>Release 7</u> underway and slated for early 2023. **Baetyl** had their <u>v2.3.0</u> release in July. **eKuiper** went from v1.4.3 in March to v1.8 <u>this year</u> and came out

with a new logo. **EVE** continues their waterfall strategy from EVE-OS 7.9 in March to <u>v9.3.0</u> this December. **Fledge** hit <u>v2.0</u> this past September and has continued to issue point updates since. **Home Edge** had their <u>Eucalyptus</u> (vE) release in September as well. **Secure Device Onboard** shifted over to the FIDO Device Onboard (FDO) codebase to align with the FIDO Alliance nomenclature and progressed from v1.1.0 in January to v1.1.4 this December. And **Open Horizon** continued with progressive <u>feature releases</u> rather than numbered releases.

Adopters

One of the main reasons our edge computing projects exist is to provide and inspire real-world deployments. Towards that end, we should note when companies adopt our code and solutions. Here are a few from this year:

- ► The 2022 Winter Olympics used **Akraino's**Connected Vehicle Blueprint
- ► Aarna Networks adopted **Akraino's** <u>Public Cloud</u> <u>Edge Interface</u> blueprint
- ► **Alvarium** is being used by a biodigester facility in Chile to prevent greenwashing
- ► Eaton adopted **EdgeX Foundry** and is now participating on the project TSC
- ► Building Systems Integrators also uses **EdgeX Foundry** and **gave** a **demo**
- ▶ Fledge cited deployments at the UC Davis Winery of the Future, Koch Industries, and OSDU
- ► **Fledge** also has a European car parts manufacturer using their software

"This changing of the guard is a healthy sign of growing maturity in the projects and a confidence in organizational stability."

- ▶ **Open Horizon** accepted significant code contributions from both mimik and AccuKnox, and both joined their TSC
- ➤ **Secure Device Onboard** worked with Red Hat, and then co-presented at ONE Summit.

Growth and Transitions

As projects mature, the organizations may pivot or acquire a new emphasis, prompting a change in leadership. Over this last year we saw four such changes to TSC Chair positions. In two of those cases a project founder was swapped with a leader who had not been with the project as long. This changing of the guard is a healthy sign of growing maturity in the projects and a confidence in organizational stability.

LF Edge Project Updates



"In 2022, Akraino successfully completed its sixth release with 18 Blueprints, and added collaboration with 3 regional labs. Akraino held its Spring Technical Meeting, and its first hybrid Fall Summit at three different physical locations, with participants from many industries. Akraino also completed its annual TSC board election and TSC Chair/Co-chair election, with further focus on cloud application, infrastructure, MEC and analytics and Al at the Edge." *Jim Xu, Principal Engineer at Zenlayer Inc. and Akraino TSC Chair*

- ▶ Akraino Release 6 included 18 blueprints
- ▶ Planned a successful joint Hackathon with ETSI MEC with 15 teams worldwide
- ► Elected new TSC chair, Jim Xu from Zenlayer, and vice chair, Yin Ding from Google

PROJECT 🕸 ALVARIUM

"In 2022, <u>Project Alvarium</u> is very pleased to have offered the open source community an end-to-end reference implementation of metadata capture and scoring algorithm for calculating a data confidence metric. We are also pleased to have completed a deployment in the field to validate carbon credit tracking through a partnership with Dell Technologies, Zededa, IOTA and ClimateCheck. We look forward in 2023 to developing capabilities resident in the host and virtualization infrastructure to support data confidence for additional use cases."

Trevor Conn, Technical Staff Engineer at Dell Technologies, Alvarium TSC Chair

- ▶ Since joining LF Edge in late 2021, Alvarium has continued to build their community and plans to form their first Technical Steering Committee in early 2023.
- ▶ IOTA Foundation's Matthew Yarger <u>talked about</u> using Alvarium for RT carbon footprint tracking and digital monitoring reporting verification (MRV).



"Over the past year, <u>Baetyl</u> has continued to enhance its cloud-native support for a wider range of hardware and devices, further strengthening its compatibility with the K8S native language to serve as a bridge between various industrial devices and artificial intelligence applications.

For small edge devices with limited resources, Baetyl offers a refined bare process runtime mode, thus further reducing runtime resource consumption. This mode shares the same cloud-based management system as container mode and also supports managing GPUs.

In the new 2.3 release, Baetyl provides support for K8S YAML format, which enables developers to manage edge workloads and workloads on the cloud in a more consistent manner. Baetyl also adds adaptations to new versions of K8S, allowing developers to use v1.22.

On the application side, Baidu has constructed an edge-cloud converged AI platform based on Baetyl, where models trained on the cloud can be directly sent down to the edge for use. The platform has already completed dozens of customer cases in China." *Li Leding, Baetyl TSC Chair*

- ▶ Released v2.3, which includes enhanced cloud native/K8s support, default security, optimized installation methods.
- ▶ The Baetyl community improved their documentation to help developers run applications on Baetyl.

EDGE X FOUNDRY

"Since its inception in 2017, the <u>EdgeX Foundry</u> project has consistently released twice a year as we did again this year by releasing our 10th and 11th releases (codenamed Kamakura and Levski). Adoption of EdgeX continues to grow as demonstrated by new TSC members from the likes of Eaton and adopter presentations from companies like BSI and HCL. Recent planning was completed for EdgeX 3.0 which we expect to be available in the spring of 2023."

James Butcher, Product Manager at IOTech Systems, EdgeX Foundry TSC Chair & Jim White, Chief Technology Officer at IOTech Systems.

- ▶ EdgeX Foundry celebrated 5 years and it's 10th release, Kamakura
- ► <u>EdgeX 2.3 "Levski" release</u> included an enhancement to support the delivery of commands via the EdgeX message bus
- ▶ Elected a new TSC Chair, James Butcher from IOTech
- ▶ Hosted another successful EdgeX Challenge in China with 100+ teams participating in the Hackathon, who submitted proposals in medical, education, consumer industry and energy & industrial tracks. After four months of teams preparation, 37 teams made it to the final round of the Hackathon.



"The <u>eKuiper</u> community had a successful year in 2022, with new logo and website published, three releases and 10+ fix packs to deliver enhanced stateful analytic capability, connectivity and extensibility.

The strong growth of new adopters and use cases include CTG large-scale energy storage system, Qindao water group smart water service project and SCC smart factory."

Jiyong Huang, Chair of the eKuiper Technical Steering Committee and Senior Software Engineer of EMQ

- ▶ 3 new releases and over 10 fix packs to deliver enhanced stateful analytic capability, connectivity and extensibility
 - 1.5.0 with 7 major features and doc refactors
 - 1.6.0 with major features being rule graph API to help building drag-n-drop UI; sink cache to memory + disk for network error & automative resend after recovery
 - 1.7.0 with lookup table and analytics functions
- ▶ Strong growth of new adopters and use cases (Some public cases include CTG large-scale energy storage system, Qindao water group smart water service project and SCC smart factory.
- ▶ New website and new logo published



"Project EVE has successfully released its 9.0.0 release at the end of 2022 to conclude a year of tireless work from the community members. The project has added significant functionality for networking and storage and prototyped tools for automatically generating an SBOM including the transitive closure of dependencies."

Erik Nordmark, CTO at Zededa

- ▶ Continuing with one release every two weeks, with EVE 9.0.0 released towards the end of the year.
- ▶ Put in place an initial approach for LTS releases twice a year with EVE 8.12.X being the first LTS
- ▶ The contributor strength increased by 28% during the last 1 Year
- ▶ Added significant functionality for networking and storage
- ▶ Prototyped tools for automatically generating an SBOM including the transitive closure of dependencies



"Fledge/FledgePower finishes 2022 as the world's leading open source IIoT Platform with exponential growth in production deployments. We are proud of our Industrial contributors, integrators and users. These companies know OT and the requirements of the industrial 4.0 edge including: RTE, AVEVA, OSIsoft, Archer Daniel Midland, Google, General Atomics, Honda Racing, Dianomic Systems, Neuman Aluminum, JEA, Kapsch, Raesemann Enterprises, Alliander, Opus One, ACDP and UC Davis. Fledge added a wider class of data, support for set point control, many new industrial protocols, more edge intelligence and greater performance."

Mark Riddoch, Chief Software Architect at Dianomic Systems

- ▶ Fledge 2.0 release with support for enhanced data types, new plugins, and more
- ▶ New deployments from UC Davis Winery of the Future, Koch Industries, OSDU
- ▶ Google contributed pub/sub/IoT core to Fledge for edge MLOps/computer vision use cases with Vertex
- ▶ Elected a new TSC chair, Robert Raesemann



"The major features we have added to <u>Home Edge</u> in Y'22 are data Synchronization with Cloud, Android execution support which makes our framework for intelligent service offloading in smart home scenarios complete and thus provides data privacy with low latency response. And we are proud to be the first project in the LF Edge umbrella to achieve the Gold badge OpenSSF card." *Suresh LC, Chief Engineer at Samsung, Home Edge Maintainer*

- ▶ <u>Eucalyptus (vE) release</u> added several new features including:
 - Open Source Security Foundation (OpenSSF) Badge
 - Data synchronization to Cloud endpoints MQTT
 - · Platform enhancement
 - · Dependent bot integration
 - · Code enhancements
 - Auto numerical tagging of code when significant changes are incorporated
- ▶ Achieved the Gold OpenSSF Best Practices Badge



"Over 2022, the <u>Open Horizon</u> project has been improving community growth and engagement. Our <u>Mentorship program</u> has worked with IBM JumpStart, P-Tech, RCOS, and LFX to engage with at least 20 students and early career professionals. Two companies have joined our project as Partners and voting members of our Technical Steering Committee (TSC): mimik Technologies and AccuKnox. And we had a successful Hacktoberfest, engaging with 16 new Contributors, merging over 30 PRs from them."

Joe Pearson, Technology Strategist at IBM, Open Horizon TSC Chair

- ▶ Two new Partners added to the project and as TSC members: mimik and AccuKnox
- ► Launched major features: Automated Agent upgrade, High availability node group API, Cluster Agent namespaces
- ▶ Established security and vulnerability process and reporting mechanism
- ▶ Graduated 15 students through the various mentorship programs we participated in
- ▶ 82 new Contributors to the project



"In 2022, the <u>Secure Device Onboard (SDO)</u> community enhanced the security of SDO with addition of more security features like Mutual TLS, secure-by-default and added support for additional Host OS, databases to enable more customer deployments. The community has also upgraded SDO to successfully interop with RedHat implementation thereby standardizing our implementation and making it easier for industry adoption. The SDO Owner services which integrated into the Open Horizon project has the production delivery planned for 1H of 2023. In addition, the SDO project will be officially changing its name to 'FIDO Device Onboard' in Feb 2023. FIDO Alliance promulgates the FIDO Device Onboard (FDO) specifications."

Chanda Bhingarde, Senior Software Engineering Manager & Technical Product Manager at Intel

- ▶ Released FDO (Fido Device Onboard) 1.1.0 that includes major usability enhancements to enable FDO deployments for more users.
- ▶ FDO 1.1.3 release featured enhanced DB support with Mutual TLS & Maria DB
- ➤ Secure Device Onboard (SDO) project will be officially changing to Fido Device Onboard (FDO) in February 2023.

Update from the LF Edge Outreach Committee



SARAH BEAUDOIN

Sr. Director of Marketing

Communications and Partner

Marketing, ZEDEDA; LF Edge

Outreach Committee Chair

The past year has been eventful globally, as businesses move to a new post-pandemic normal while also navigating uncertain economic territory. Despite these challenges, we are seeing edge computing projects accelerate within organizations as it's increasingly understood that data-driven decision-making at the edge will drive new opportunities and transform traditional business practices.

We've seen this change within LF Edge, with field deployments leveraging LF Edge projects growing, and this in turn continues to help our broader LF Edge community grow and develop. As a committee, we have focused on highlighting these real-world use cases, from case studies showcasing Fledge to presentations and demos showcasing the value of cross-collaboration among projects, such as a clean energy use case with Alvarium and Project EVE, as well as a retail use case with EdgeX Foundry and Open Horizon (among others).

Finally, we continue to take the lead in creating a standardized edge taxonomy, and this year we published a follow up to our 2020 white paper that explores various edge requirements in-depth and explains how each LF Edge project fits within them. These efforts go hand-in-hand with an increased focus on leveraging our blog to communicate stories from across the community, from in-depth interviews with project members to driving awareness of capabilities within new releases such as with eKuiper and Home Edge, to exploring case studies showcasing field deployments.

For 2023, we look forward to continuing to tell the stories from our community and demonstrating the importance of open source in breaking down vertical silos and in building flexible architectures that are able to navigate the diversity of the edge. Driving awareness of potentials and pitfalls, sharing successes of customer deployments, and providing blueprints that illustrate best practices for those getting started will all help us to continue to develop the broader LF Edge community and become a reference point for any organization looking to construct their edge strategy.

Major Project Publications



State of the Edge Report

The community's flagship annual publication (and considered an official LF Edge project), The State of the Edge Report takes an in-depth look at the edge computing ecosystem each year as it evolves across verticals, growing more rapidly than the cloud market has in the past.

The 2022 report focused on three main emerging themes: connectivity, location, and application infrastructure. All three play a crucial role in the development of edge computing.

Thank you to Jacob Smith, VP Bare Metal Strategy & Marketing at Equinix, for his tireless work of publishing SOTE reports, and welcome Hakan Sonmez, Product Strategy Manager at IBM as the new SOTE project lead in 2023!

The report can be downloaded here.



White Paper: Sharpening the Edge II: Diving Deeper into the LF Edge Taxonomy & Projects

A 2022 follow-up to the LF Edge community's <u>original, collaborative</u>

2020 paper, this year's publication dives deeper into key areas of edge manageability, security, connectivity and analytics, and highlights how each LF Edge project addresses these areas individually and collectively.

A cross-community collaboration put together by members of the LF Edge Outreach Committee, Technical Advisory Committee, and project Technical Steering Committees, the paper shows maturation of the edge ecosystem and LF Edge's progress over the past few years in building an open, modular framework for edge computing, and addresses a balance of interests spanning the cloud, telco, IT, OT, IoT, mobile, and consumer markets.

The paper can be downloaded here.

Industry Impact

By the Numbers



70K
PRESS CLIP
MENTIONS



5 PRESS RELEASES



2.5B
POTENTIAL
AGGREGATE REACH



10 MEDIA/ANALYST BRIEFINGS



215K
TWITTER
IMPRESSIONS

TOP QUOTES

"Edge computing has increasingly become a priority for a growing number of organizations... the LF Edge arm of the Linux Foundation expects edge spending to jump to \$800 billion by 2028."

— TARYN PLUMB, VENTUREBEAT

On Stage at Industry Events

ONE Summit 2022

Open Source Summit North America

FODSEM

Open Source Summit Japan

Interop Tokyo

Open Source Summit LATAM

Open Networking & Edge Executive Forum Open Networking & Edge (ONE) Day Japan

OAI Workshop

OpenSource AceCon

Open Source Networking Day Taiwan

Open Atom Foundation Global Open Source Summit

i14y Lab Summit 2022

Project events

Akraino joint hackathon with ETSI MEC

Akraino Summit

EVE Berlin Meetup

EdgeX China Challenge

Top Headlines



IOTA and Dell build mega project Alvarium — Updates and future lookings

SMART ENERGY INTERNATIONAL

New edge computing solutions set to revolutionize the power industry



Organizations are
Accurately Tracking
Their Carbon
Footprint with
Secure Monitoring
at the Edge



Edge Computing
Trends to Watch in
2023 and beyond



LF Edge updates:
American Tower joins
as Premier Member,
EdgeGallery added
to Project Roster

VentureBeat

How the shift to Edge Computing is impacting Enterprises

TechCrunch+

Zededa lands a
cash infusion to
expand its edge
device management
software

NETWORKWORLD

Edge computing moves toward full autonomy



EdgeX Foundry
IoT framework
gets new metrics,
security, device
profile features



IBM Cloud
Satellite: A wider
playing field
for the cloud

TOP QUOTES

"Although 5G expansion and the emergence of 6G networks are boosting edge computing capabilities, space could aid edge computing cases even more, according to The Linux Foundation's '2022 State of the Edge' report"

— MARY K. PRATT, TECHTARGET

"Providers are working on solutions to seamlessly manage edge assets of almost any type and with any underlying technology.

Edge-oriented, open-source software projects, for example, such as those hosted by the Linux Foundation, can further drive scaled adoption."

MATTEO GALLINA,
 INFORMATION SERVICES GROUP

TLFEDGE

Thank you to the entire LF Edge global community for a successful 2022!

Learn more and get involved: www.lfedge.org