LF Edge

Welcome to the LF Edge wiki, where you will find information with a cross project focus. For individual projects, follow the links below.



LF Edge is an umbrella organization that aims to establish an open, interoperable framework for edge computing independent of hardware, silicon, cloud, or operating system. By bringing together industry leaders, LF Edge will create a common framework for hardware and software standards and best practices critical to sustaining current and future generations of IoT and edge devices.

We are fostering collaboration and innovation across the multiple industries including industrial manufacturing, cities and government, energy, transportation, retail, home and building automation, automotive, logistics and health care — all of which stand to be transformed by edge computing.

Questions? Please visit the FAQ.

Projects

Title	Project	Status	CII Badge	Technical Charter	TSC Chair	Description
Akraino	AKRAINO	STAGE 3: IMPACT	blocked URL	Akraino T... 2020.pdf	Chair: Yin Ding Co-Chair: Fukano Haruhisa	Aims to create an open source software stack that supports high-availability cloud services optimized for edge computing systems and applications. **Mail Lists**

Alvarium	PROJECT ALVARIUM	STAGE 1: AT LARGE	blocked URL	Alvarium ....docx.pdf	Trevor Conn	Project Alvarium, with initial code seeded by Dell Technologies, is aimed at building a framework and SDK for trust fabrics that deliver data from devices to applications with measurable confidence. Trust fabrics take a system-level approach by layering trust insertion technologies spanning silicon to cloud and will usher in an entire new era of business models and customer experiences driven by interconnected ecosystems. Initial contributing companies include Dell, the IOTA Foundation, Intel, Arm, VMware and ZEDEDA. **Mail Lists**
Baetyl	BAETYL	STAGE 1: AT LARGE	blocked URL	LF Edge T...l (1).pdf	Mengmeng Zhang	Baetyl (pronounced "Beetle") offers a general-purpose platform for edge computing that manipulates different types of hardware facilities and device capabilities into a standardized container runtime environment and API, enabling efficient management of application, service, and data flow through a remote console both on cloud and on prem. Baetyl also equips the edge operating system with the appropriate toolchain support, reduces the difficulty of developing edge calculations with a set of built-in services and APIs, and provides a graphical IDE in the future. **Mail Lists**
EdgeX Foundry	EDGE X FOUNDRY™	STAGE 3: IMPACT	blocked URL	EdgeX Fo...docx.pdf	James Butcher	EdgeX, your data liberated! Highly flexible open source software framework that facilitates interoperability between heterogeneous devices and applications at the IoT Edge, along with a consistent foundation for security and manageability regardless of use case. The open, vendor-neutral platform speeds developer and technology providers time to market by providing modular reference services for device-data ingestion, normalization, analysis and sharing in support of new IoT data services and advanced edge computing applications. **Mail Lists**
eKuiper	eKuiper	STAGE 1: AT LARGE	blocked URL	eKuiper T... (1).pdf	JiYong Huang	eKuiper is an edge lightweight IoT data analytics/streaming software implemented by Golang, and it can be run at all kinds of resource-constrained edge devices. One goal of eKuiper is to migrate the cloud streaming software frameworks (such as Apache SparkApache Storm and Apache Flink) to the edge side. eKuiper helps to bring computation closer to where data is generating, with an introduced rule engine to enable streaming applications on the edge side. **Mail Lists**

EVE		STAGE 2: GROWTH	blocked URL	Enterpris...arter.pdf	Erik Nordmark	An open abstraction engine that simplifies the development, orchestration and security of cloud-native applications on distributed edge hardware. Supporting containers, VMs and unikernels, EVE provides a flexible foundation for Industrial and Enterprise IoT edge deployments with choice of hardware, applications and clouds. **Mail Lists**
Fledge	FLEDGE	STAGE 3: IMPACT	blocked URL	Technical...9 (2).pdf	Robert Raesemann	Fledge is an open source framework and community for the Industrial Edge. Architected for rapid integration of any IIoT device, sensor or machine all using a common set of application, management and security REST APIs with existing industrial "brown field" systems and clouds. Fledge edge services include: Collect Data from any/all sensors, aggregate /combine/organize data. edge based alerting /anomaly detection /machine learning (TensorflowLIte, OpenVino), transform /filter data in flight, buffer data, analyze/visualize edge data, and deliver data to multiple local /cloud destinations. **Mail Lists**
Home Edge	HOME EDGE	STAGE 2: GROWTH	blocked URL	Home Edg...rter.pdf		Interoperable, flexible, and scalable edge computing services platform with a set of APIs that can also run with libraries and runtimes. **Mail Lists**
Open Horizon	OPEN HORIZON	STAGE 2: GROWTH	blocked URL	Open Hori...0 (1).pdf	Joe Pearson	Open Horizon is a platform for managing the service software lifecycle of containerized workloads and related machine learning assets. It enables management of applications deployed to distributed webscale fleets of edge computing nodes and devices without requiring on-premise administrators. **Mail Lists**
FIDO Device Onboard	FIDO DEVICE ONBOARD	STAGE 2: GROWTH	blocked URL	SDO LF Ed...18 v1.pdf	Randy Templeton	The mission of the FIDO Device Onboard project is to develop open source software to support an automated “Zero-Touch” onboarding service in order to more securely and automatically onboard and provision a device on edge hardware. This zero-touch model simplifies the installer’s role, reduces costs and eliminates poor security practices, such as shipping default passwords. **Mail Lists**

State of the Edge	STATE OF THE EDGE	STAGE 2: GROWTH	blocked URL	State of 2020.pdf	Hakan Sonmez	State of the Edge is an open source research and publishing project with an explicit goal of producing original research on edge computing, without vendor bias. The State of the Edge seeks to accelerate the edge computing industry by developing free, shareable research that can be used by all. **Mail Lists**

Mailing Lists

A full directory of LF Edge Mailing Lists can be found at https://lists.lfedge.org/g/main

Help Us Improve the Wiki

This Wiki is owned by the LF Edge Community. Contributions are always welcomed to help make it better!

In upper right, select Log In. You will need a Linux Foundation Account (can be created at http://myprofile.linuxfoundation.org/) to log-in. For a Wiki tutorial, please see Confluence Overview. Thank you!

Recent space activity

Nathan Phelps
OpenBao project proposal updated yesterday at 1:26 PM view change

Michael Maxey
Onboarding Key Instructions updated Mar 27, 2024 view change

Guido Gehlen
OpenTDX (Open transport Data eXchange) created Mar 27, 2024

Kendall Perez
Technical Advisory Council (TAC) updated Mar 20, 2024 view change

Joe Pearson
Open Horizon - Stage 2 - 2024-03-20 updated Mar 20, 2024 view change

Space contributors

- Nathan Phelps (16 hours ago)
- Michael Maxey (1 day ago)
- Guido Gehlen (1 day ago)
- Kendall Perez (8 days ago)
- Joe Pearson (8 days ago)
- ...