Akraino Release 3 ("R3")
Unifying LF Edge with Blueprints and Telco Edge Software

Kandan Kathirvel, TSC Chair, Akraino
Tina Tsou, TSC co-chair, Akraino
Akraino Release 3: Now available

LF Edge’s Akraino Project Release 3 Now Available, Unifying Open Source Blueprints Across MEC, AI, Cloud and Telecom Edge

- 6 New R3 Blueprints (total of 20) covering use cases across Telco, Enterprise, IoT, Cloud and more
- Akraino Blueprints cover areas including MEC, AI/ML, Cloud, Connected Vehicle, AR/VR, Android Cloud Native, smartNICs, Telco Core & Open-RAN, with — ongoing support for R1-R2 blueprints and more
- Community delivers open edge API specifications — to standardize across devices, applications (cloud native), orchestrations, and multi-cloud — via new white paper

SAN FRANCISCO – August 12, 2020 – LF Edge, an umbrella organization within the Linux Foundation that aims to establish an open, interoperable framework for edge computing independent of hardware, silicon, cloud, or operating system, today announced the availability of Akraino Release 3 (“Akraino R3”). Akraino’s third and most mature release to date delivers fully functional edge solutions— implemented across global organizations— to enable a diversity of edge deployments across the globe. New blueprints include a focus on MEC, AI/ML, and Cloud edge. In addition, the community authored the first iteration of a new white paper to bring common open edge API standards to align the industry.
Akraino Release 3 In the News

LF Edge's Akraino Edge Stack serves up more blueprints across MEC, AI, cloud and telecom edge.

Akraino Release 3 extends use cases.

LF Edge’s Akraino Project Release 3 now available.

Akraino Edge Stack Hits ‘Impact’ Stage.

The R3 version of LF Edge Akraino is officially released, Unifying OSS blueprints across MEC, AI, Cloud and Telecom Edge.
Akraino: The New Intelligent Edge
Akraino: Delivering a Fully Functional Edge Solutions
Unifying multiple industry sectors of edge across disciplines, including IoT, Enterprise, Telecom, and Cloud

• Ever since its launch in 2018, Akraino continues to gain community support for innovative creation of deployable Edge solutions with work going in more than 30+ Blueprints.
• Akraino blueprints are now globally adopted in commercial solutions to address several edge use cases.
• Akraino hosts sophisticated community and multiple user labs to speed the edge innovation.
• Akraino delivered fully functional new Blueprints for deployment in R3 to address edge use cases such as 5G MEC, AI Edge, Cloud Gaming at Edge, Android in Cloud, Micro-MEC and Hardware acceleration at the edge.
• Created framework for defining and standardizing APIs across stacks, via upstream/downstream collaboration and published a whitepaper.
• Akraino introduced tools for automated Blueprint Validations, security tools for Blueprint Hardening and Edge API’s in collaboration with LF Edge projects
• Akraino community has participated in several industry industry outreach events that featured participation to foster collaboration and engagement on edge projects across the entire ecosystem.
Robust Community Contribution

Deployable and fully functional edge stack for use cases across IIoT, Telco 5G Core & vRAN, uCPE, Provider Access Edge, SDWAN, Edge Media Processing, and Carrier Edge Media Processing

40+ companies are engaged across the globe
75% of LF Edge Premier Members are active in Akraino
Robust Cross-Industry Contribution, YTD & Q2 2020

Deployable and fully functional edge stack for use cases across IIoT, Telco 5G Core & vRAN, uCPE, SDWAN, Connected Vehicle, AR/VR, Edge Media Processing, and Carrier Edge Media Processing

https://lfanalytics.io/projects/lfedge%2Fakraino-edge-stack/dashboard
What is an Akraino Blueprint?

Community Integrated, tested, deployable, end to end Edge Stack

Benefits:
- Low Cost
- Large Scale
- Zero Touch Provisioning
- Industry Adoption
- OCP Whitebox/OEM H/W

Since launch in 2018, Akraino continues to gain community support for collaboration and validation with 30+ blueprints.
Akraino R3 Blueprints

Distributed Devices and Systems
- MCU-based devices
- Embedded compute

Buildings / Factories / Smart Homes
- Smartphones, PCs, ruggedized IoT gateways and servers in accessible to semi-secure areas

Last Mile Networks
- Servers in secure on-prem data centers, MDCs

User Edge
- Dedicated, Operated

Service Provider Edge
- Shared, XaaS

Infrastructure

LOCATIONS
- Aggregation Hubs/COs
- Centralized Data Centers
- Regional Data Centers
- Connected Vehicle
- KNI Provider Access Edge (PAE)

Applications

- ELIOT
- IOT GW/uCPE
- IEC - Type I

- 5G MEC - Cloud Gaming
- 5G MEC - Enterprise
- The AI Edge – Security
- Network Cloud Family
- Telco Appliance -Radio Edge Cloud (REC)

- Connected Vehicle
- KNI Provider Access Edge (PAE)

- 5G MEC - Enterprise
- The AI Edge – Security
- Network Cloud Family
- Telco Appliance -Radio Edge Cloud (REC)

- Connected Vehicle
- KNI Provider Access Edge (PAE)

- 5G MEC - Enterprise
- The AI Edge – Security
- Network Cloud Family
- Telco Appliance -Radio Edge Cloud (REC)

- Connected Vehicle
- KNI Provider Access Edge (PAE)
What’s Next in Akraino - 2H 2020

› New blueprints and enhancements to existing blueprints
› Standardize Public Cloud edge interface
› Standardize edge API’s & develop open edge API’s
› Enhance functionality and automation of edge workloads (e.g., Cloud Native)
› Further collaborations with cross-LF Edge projects, downstream and upstream communities.