

Welcome Notes

Akraino Technical Meetings - Spring 2021

Tina Tsou, , TSC Chair, Akraino

Oleg Brezin, TSC co-chair, Akraino

 LF EDGE

 THE **LINUX** FOUNDATION



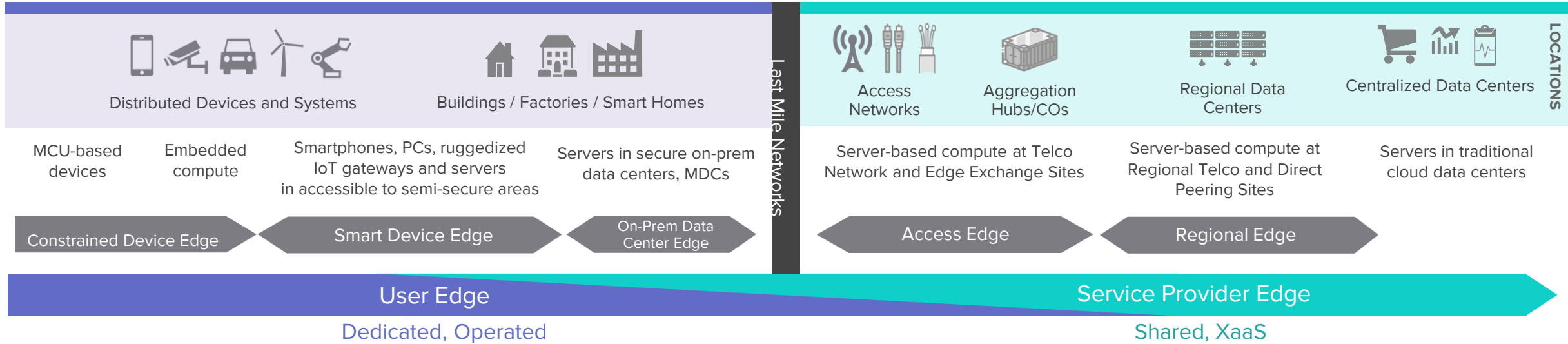
LF Edge Projects



Stage 1: At Large Projects
Baetyl, Open Horizon, Secure Device

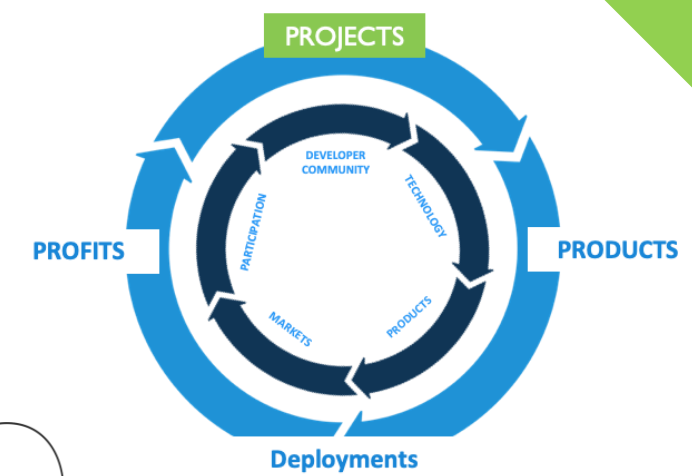
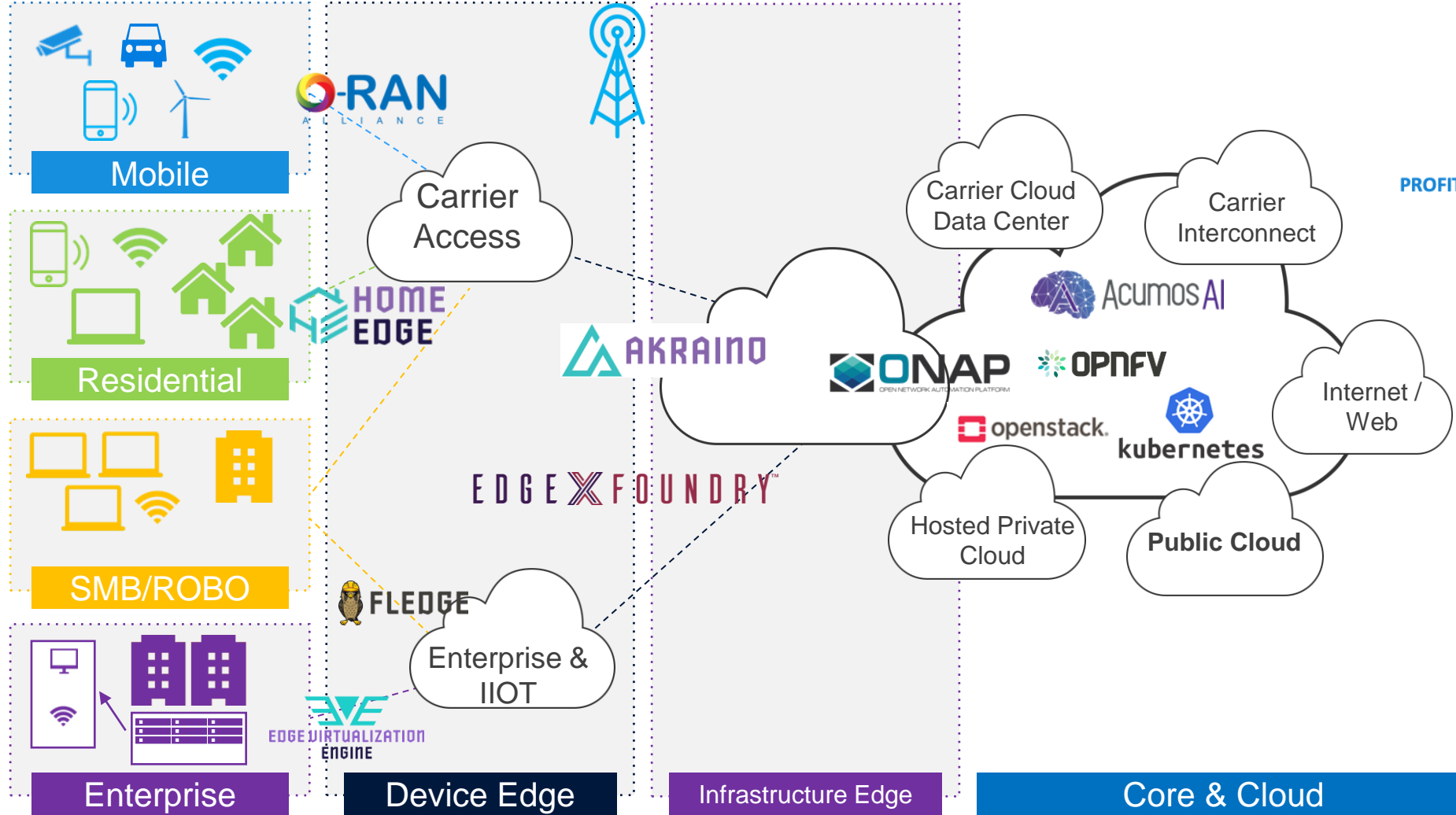
Stage 2: Growth Projects
EVE, Fledge, Home Edge, State of the Edge

Stage 3: Impact Projects
Akraio, EdgeX Foundry



LF Edge - the end to end context

Deployment ready Open Source - use cases



X-Project Collaboration

LF Edge Summary

Vision: Our software & projects enable rapid productization of Edge platforms by leveraging end user input to drive and supply the necessary building blocks (and/or frameworks, reference solutions) to facilitate integration and interoperability for Edge Computing across Telecom Service Providers, Cloud Providers, IOT & Enterprises

Projects

IMPACT - STAGE 3



GROWTH - STAGE 2



AT LARGE - STAGE 1



Premier Members



LF Edge Accelerating Community Collaboration



25+%

New Member
Y/Y increase



80%

New Projects increase
SOTE, Open Horizon, SDO...



25+

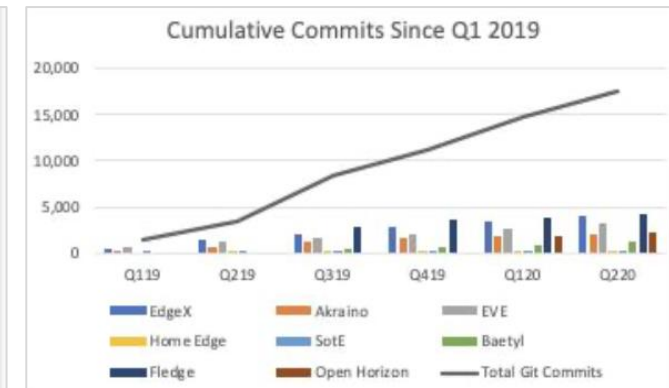
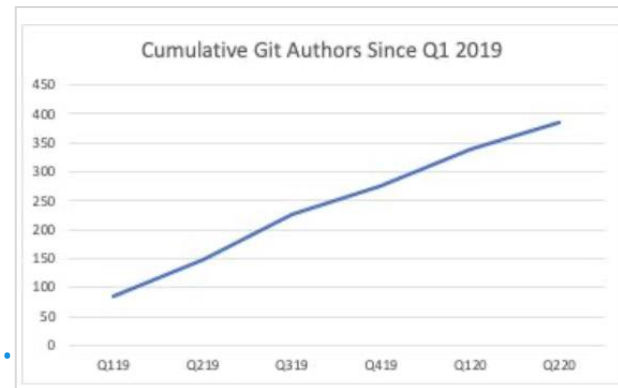
Global Deployments &
Commercial Products



6M+ /30+

EdgeX Downloads and
Akraino Blueprints in
development

160% Growth in Developers Y/Y, 4X Commits Y/Y



15800 global mentions since launch

Participation from Service Providers (Telco, Cloud, Cable), IOT, Enterprise ecosystem with a goal of Unifying Edge Frameworks & Life cycle management

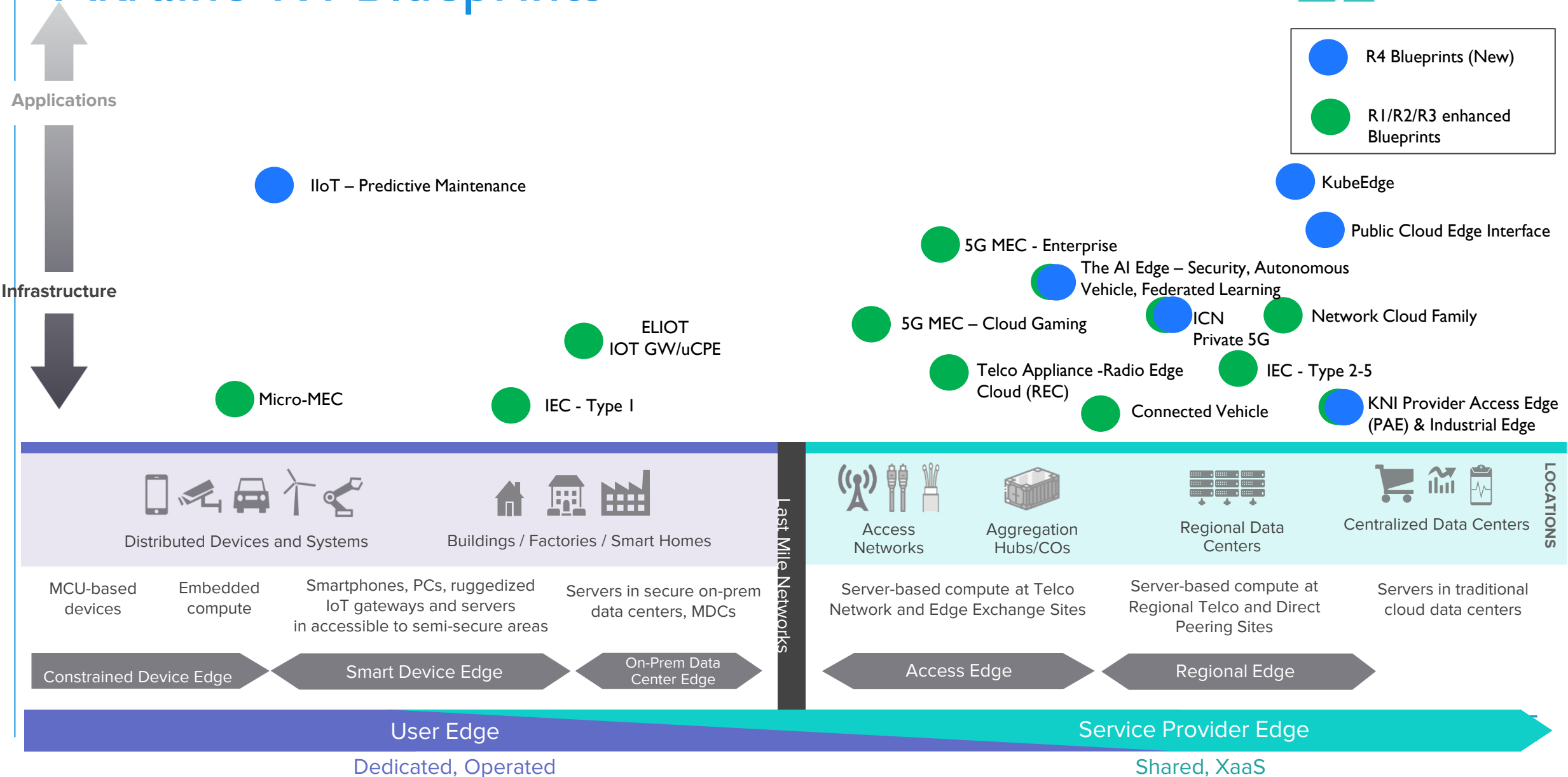
Akraino Release 4: Now available

Akraino Release 4 Enables Kubernetes Across Multiple Edges, Integrates across O-RAN, Magma, and More

- *7 New Akraino R4 Blueprints (total of 25+)*
- *Akraino is Kubernetes-ready with K8s-enabled blueprints across 4 different edge segments (Industrial IOT, ML, Telco, and Public Cloud)*
- *New and updated blueprints also target ML, Connected Car, Telco Edge, Enterprise, AI, and more*

SAN FRANCISCO – February 25, 2021 – [LF Edge](#), an umbrella organization within the [Linux Foundation](#) that creates an open, interoperable framework for edge computing independent of hardware, silicon, cloud, or operating system, today announced the availability of [Akraino](#) Release 4 (“Akraino R4”). Akraino’s fourth release enables additional blueprints that support various deployments of Kubernetes across the edge, from Industrial IoT, to Public Cloud, Telco, and Machine Learning (ML).

Akraino R4 Blueprints



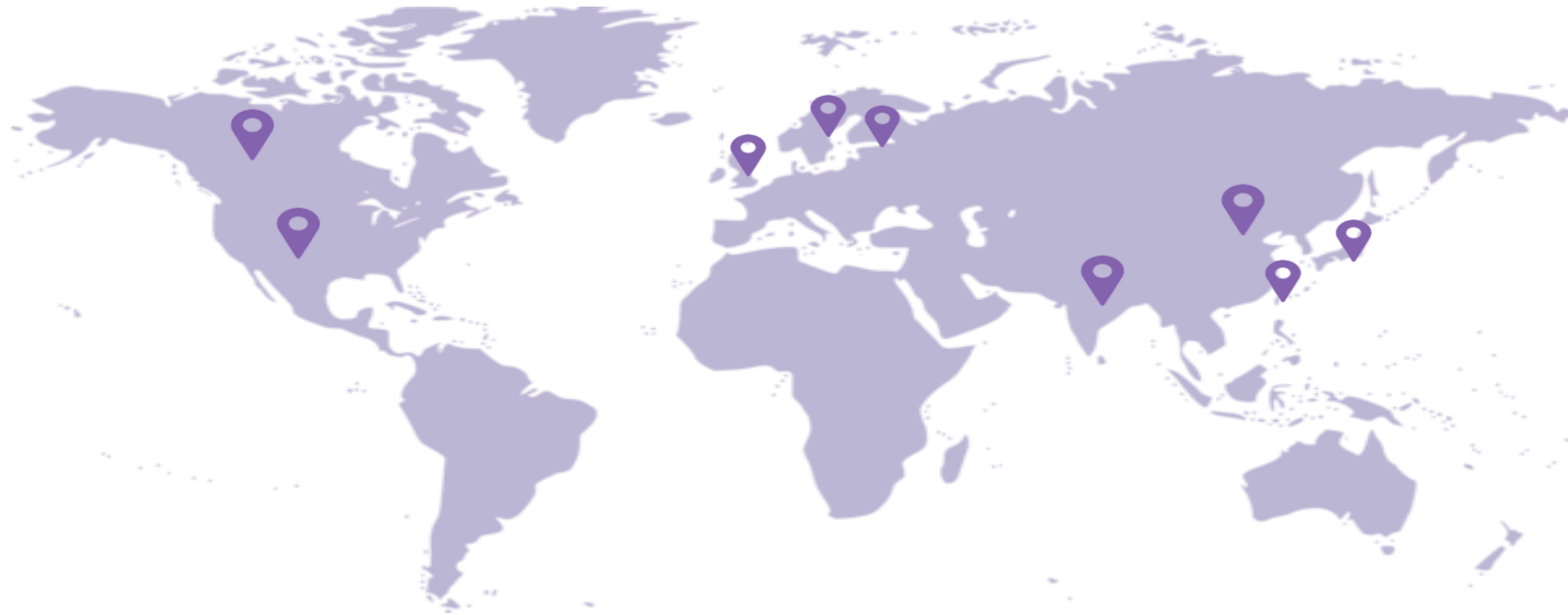
Akraino: Delivering a Fully Functional Edge Solutions

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

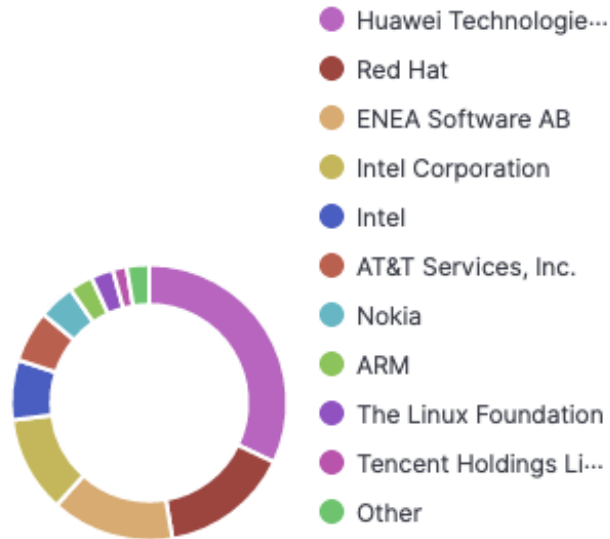


- ✓ 40+ companies are engaged across the globe
- ✓ 80% of LF Edge Premier Members are active in Akraino

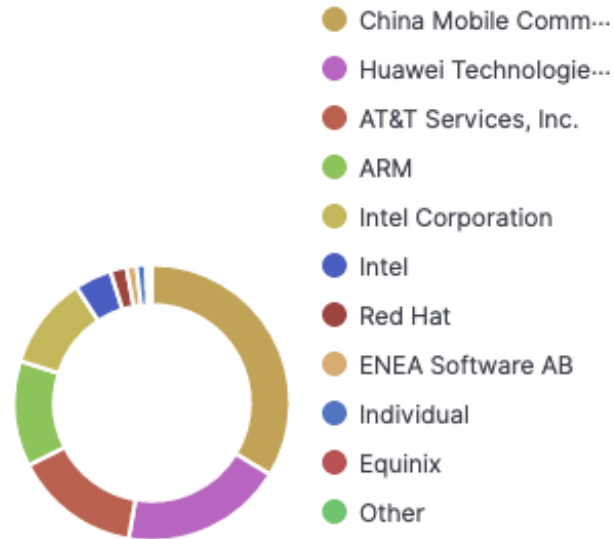
Robust Cross-Industry Contribution- 2020 (full year)

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

Commits Percentage By Organization



Lines Changed Percentage By Organization



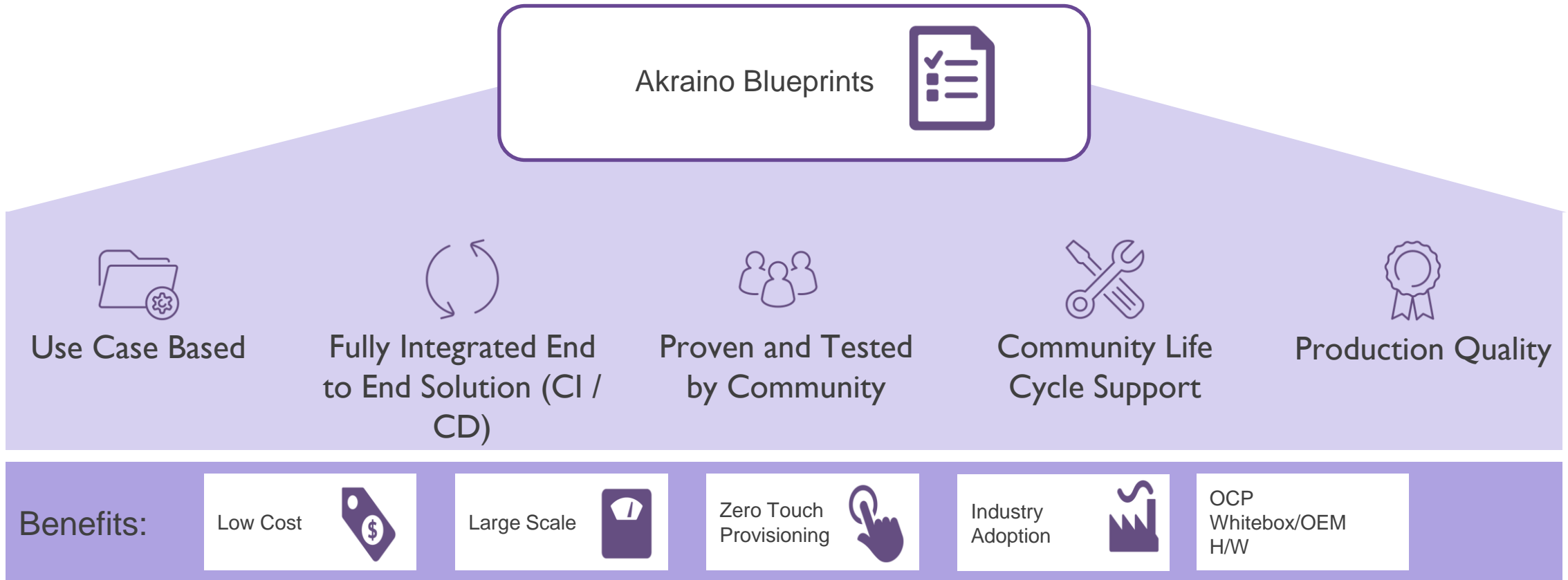
242 Unique Contributors From 70 Organizations

Top 10 Orgs

Intel Corporation
AT&T Services, Inc.
The Linux Foundation
Nokia
China Mobile
Red Hat
Tencent
Arm
ENEA Software AB
Huawei
ERICSSON

What is an Akraino Blueprint?

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



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

What's Next in Akraino - IH 2021



- › New blueprints and enhancements to existing blueprints
 - › Rural Edge for Tami-COVID19
 - › IoT Area
 - › Project Cassini - IoT and Infrastructure Edge
 - › Align Public Cloud Edge Interface with SDOs e.g. MEF LSO
 - › REC fully assembled and tested following the cloud ref. design of O-RAN
- › Continue API standardization and mapping
- › Define Platform Security Architecture and apply to blueprints
- › Enhance functionality and automation of edge workloads (e.g., Cloud Native)
- › Improvement of Release Process, CI/CD, Security Certification
- › Further collaborations with cross-LF Edge projects, downstream and upstream communities.