LF Edge TAC
Technical Advisory Council

5 May 2021

Meeting Details

› May 5, 2021 (@ 7:00am PDT)
› Meeting Info:
  › Meeting URL: https://zoom.us/j/94796108342?pwd=VjlaMTBxcXFQQ3pVcU85NTJvWkxaZz09
  › Calendar Subscription: https://lists.lfedge.org/g/TAC/calendar

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LF Edge TAC

Project/Member	Representative	Named Alternate	Project/Member	Representative	Named Alternate
Altran	Shamik Mishra	Nilanjan Samajdar	**HP Inc.**	Henry Lau	
Arm	Reed Hinkel	Tina Tsou	**Huawei**	JianGuo Zeng	Gabriel Yuyang
AT&T	Kaustubh Joshi (KJ)		**IBM**	Joseph Pearson	Ryan Anderson
Baidu	Leding Li		**Intel**	Jim St. Leger (TAC Chair)	Sharad Mishra
Charter	Jeffrey Saelens	Mohammad Zebetian	**Nokia**	Tapio Tallgren	
Dell	David Lake	Trevor Conn	**NTT**	Takeshi Kuwahara	
Dianomic	Mark Riddoch	Tom Arthur	**OSIsoft**	Daniel Lazaro	
Equinix	Justin Dustzadeh		**Radisys**	Adnan Saleem	Prakash Siva
Ericsson	Torbjörn Keisu	Andrew Wilkinson	**Red Hat**	Anil Vishnoi	Thomas Nadeau
Fujitsu	Toshimichi Fukuda	Hatsumi Iino	**Samsung**	MyeongGi Jeong	Chi-Hyun Cho
Futurewei	Chaker Al-Hakim	Deepak Vij	**Tencent**	Yachen Wang	Wei Chen

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Project/ Member	Representative	Named Alternate	Project/ Member	Representative	Named Alternate
Western Digital	Jorge Campello De Souza		**Akraino**	Tina Tsou	Oleg Berzin
Wipro	Subhas Mondal		**EdgeX Foundry**	Henry Lau	
ZEDEDA	Erik Nordmark	Roman Shaposhnik			

Topics

1. TAC Chair elections - Update (5 minutes)
2. Project Proposal - Subgroup Readout: Kuiper (20 minutes)
3. Global Open Source Technology Conference - CFP Opportunity
4. Upcoming Events / Next Meeting

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TAC Chair elections - Update

› Jim St. Leger reelected for another term

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Project Proposal -
Subgroup Readout: Kuiper

Proposal: Kuiper

› Proposal: https://wiki.lfedge.org/display/LE/Kuiper
› Timeline/Next Steps (Process):
  › Thursday, April 8, 2020: Proposal emailed to TAC
  › Wednesday, April 21: TAC Presentation (Meeting Recording, Slides)
  › --2 Week Review Period (ending Wednesday, May 5)
  › Friday, April 30: TAC Subgroup Review - Notes / Recording
  › **Today** - TAC Subgroup Readout / Vote initiated over email (if motion/second are raised)
    › Acceptance criteria for Stage 1: Receive a two-thirds vote of all TAC representatives that do not abstain the vote and a majority vote of the Governing Board's Strategic Planning Committee to enter into the At Large Stage.

Recommendation to <mark>Approve</mark> Kuiper at Stage 1

The TAC Project Review Subgroup for Kuiper recently met (April 30, 2021) to review the request of the Kuiper project to enter Stage 1, At Large Projects within LF Edge.

As a matter of formality, the subgroup believes that the project meets the expectations of the TAC for Stage 1 projects as set forth in the Project Lifecycle Document. Therefore, the subgroup recommends that the decision for accepting at Stage 1 should be approved per guidelines on the next page. Considerations for this decision included:

Positives
› Per PLD Stage 1 requirements, Kuiper has 2 TAC sponsors (Leding Li and Jiangua Zeng), and is distributed under Apache 2
› Fulfills a real need for stream data processing and transformation at the edge
› Active engagement and collaboration with other LF Edge projects (EdgeX Foundry, Baetyl)
  › Kuiper has been working closely with the EdgeX Project for over a year and has clearly demonstrated edge applicability and importance
  › Kuiper is the reference implementation "rules engine" or analytics capability as of the Geneva release of EdgeX Foundry
› As a mature software project, Kuiper already follows a number of industry best practices and coding standards.
  › Examples include: frequent release/agile processes, unit and function testing, automated CI/CD, semantic versioning, conventional commits, etc.
› Kuiper has a number of adopting organizations and partnerships with companies like Thundersoft and Jiangxing Intelligence in addition to their association to open source projects.
› Kuiper already has good user/adopter documentation in both English and Chinese

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Areas of Concern
› Integration with EdgeX Foundry has required Kuiper to take on a [dependency](#) with some of EdgeX's externally facing modules. This has the potential to couple Kuiper with EdgeX's release cycle in the case of a breaking change (such as V2).
  › Recommend support for schema-based validation on incoming messages to de-couple from upstream projects for this and future integrations
› Structure of project Github repository needs to be restructured using Go "best practices" and recommendations
  › An [issue](#) has been created for this but it's nearing 1 year since creation
› Much of the code base lacks standard copyright headers. If a standard copyright practice or policy for the project exists, it was not found in the proposal documentation set.
  › Recommend establishment of copyright policy and header template for use in all source.
  › Example: https://wiki.edgexfoundry.org/display/FA/Contributor%27s+Guide#Contributor'sGuide-SubmissionLicenseandCopyrights
  › Recommend establishment of a Wiki or other shared document site to address contributor guidance/policies in general (current [Wiki](#)page site is empty but might be a good place to provide contributor guidance as well as code of conduct).
› To date, Kuiper automated CI/CD processes do not include any type of security or vulnerability code scans and static analysis.
  › Recommend exploration and adoption of [Snyk](#), [CodeQL](#), or other similar analysis tools into the CI/CD process to automate scan of the code for issues. EdgeX and other LF projects can be leveraged to provide experienced guidance and implementation details if needed.
› To date, Kuiper TSC and leadership is entirely made from EMQ X. Most code contributions come from EMQ X
  › Elevation to Stage 2 and 3 will require more diversity of input and contributions

On behalf of the of the Kuiper subgroup, we strongly recommend the TAC vote to *APPROVE* the decision to accept Kuiper as a Stage 1 LF Edge Project.

Global Open Source Technology Conference - CFP Opportunity

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Global OpenSource Technology Conference (GOTC), a two days event organized by OpenSource China and the Linux Foundation APAC, will be held in parallel in Shanghai and Shenzhen. The GOTC will feature industry exhibitions, keynotes, collaborative sessions and breakthrough forums, and attendees will be able to discuss the latest and hottest open source projects, gain greater business opportunities from open source technologies, and join the open source community for global industry updates.

Time of the event

2021.07.09-10

Venue

Shanghai
Shenzhen

Scale

Onsite: 3000
Live online: Millions

OSCHINA
oschino.net

Theme of the Conference :

Promote opensource culture and
technology, build opensource
ecosystem

Conference Slogan:

Open Source， Open World

Schedule :

DAY1   AM   Keynotes

PM   Sub-Forums

Full Day Exhibition

DAY2   Full Day Sub-Forums

Full Day Exhibition

About the Confernece:

The conference will bring leaders of enterprise and top opensource projects
together, covering various hot technology fields such as Cloud Native, AI, Edge,
Blockchain, Opensource governance, etc. During the 2-day period, the conference
will bring the world's latest opensource technologies to developers, while sharing
opensource culture and philosophy and promoting the development and construction
of opensource ecology.

10+
Supporting Organizations

OSCHINA · THE LINUX FOUNDATION
CLOUD NATIVE COMPUTING FOUNDATION · LF EDGE
LF PUBLIC HEALTH · FINOS Fintech Open Source Foundation · OpenJS Foundation
HYPERLEDGER
LF AI & DATA · FinOps Foundation · open source initiative
THE LINUX FOUNDATION 开源软件大学 · TARS Foundation

100+
Enterprises invited

Huawei, Tencent, Baidu, Alibaba, Byte Dance, DiDi, Jingdong, China Mobile, ZTE, Oppo, Intel, VMWare and Many more...

300+
Opensource Projects

kubernetes · Prometheus · KubeEdge
envoy · OpenHarmony · HELM
ChubaoFS · Skywalking · KV
飞桨 · HYPERLEDGER INDY · ONNX
HYPERLEDGER FABRIC · TARS Foundation · LINKERD
ONAP · PULSAR · Dragonfly
AKRAINO EDGE STACK · node · [M]ˢ MindSpore
AcumosAI EDGEXFOUNDRY

3000+
Developers onsite

Global Open Source Technology Conference - CFP Opportunity

› 9-10 July, 2021 - Shenzhen/Shanghai
› https://gotc.oschina.net/en
› Arpit and other LF execs will be keynoting.
› Great opp to get in front of a broad audience and share insights on our projects as well as cross-project integration points.
› Link to CFP (deadline 15 May)

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Upcoming Events

Upcoming External Events

› Kubernetes on Edge Day: 4 May, 2021 - Virtual
› Think 2021: 11-12 May, 2021 - Virtual (ORRA presentation)
› Open Source Summit Europe / Embedded Linux Conference: **27-30 September, 2021 - Seattle, WA** (and Virtual)
  › CFP Deadline: 13 June, 2021
› OSPOCon: **27-29 September, 2021 - Seattle, WA** (and Virtual)
  › CFP Deadline: 13 June, 2021
› The Global Open Source Technology Conference (GOTC): 9-10 July, 2021 - Shenzhen/Shanghai
  › CFP Deadline: 15 May, 2021
› IoT Solutions World Congress: 5-7 October, 2021 - Barcelona, Spain
  › CFP closed (notifications in June)
  › Call for Testbeds is open (closes 20 May)
› Open Networking & Edge Summit North America: 11-12 October, 2021 - Los Angeles, CA + Virtual
  › CFP Deadline: 20 June 2021
› KubeCon + CloudNativeCon North America: 12-15 October, 2021 - Los Angeles, CA + Virtual
  › CFP is open (closes 23 May)

› Discussions around upcoming events occur in the LF Edge Outreach Committee
› Members may subscribe at: https://lists.lfedge.org/g/outreach-committee

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LF Live: Mentorship Series + LFX Webinar Series

› [An Introduction to Linux Tracing and its Concepts](#): 6 May, 2021
› [Optimized Continuous Delivery Pipelines](#): 11 May, 2021
› [High Performance Tracing in Production](#): 12 May, 2021
› [Building and Maintaining Your Own Secure Container OS](#): 13 May, 2021
› [Your Cloud Will Never Run Out Of Resources – Resource And Cost Management Techniques And Introduction To FinOps](#): 25 May, 2021

› Join the LF Live: Mentorship Series mailing list and be alerted when new sessions are added!
  › Sign up available at the bottom of https://events.linuxfoundation.org/lf-live-mentorship-series/

› Full list of LF Webinars (upcoming/recorded) available at https://linuxfoundation.org/webinars/

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Next Meeting

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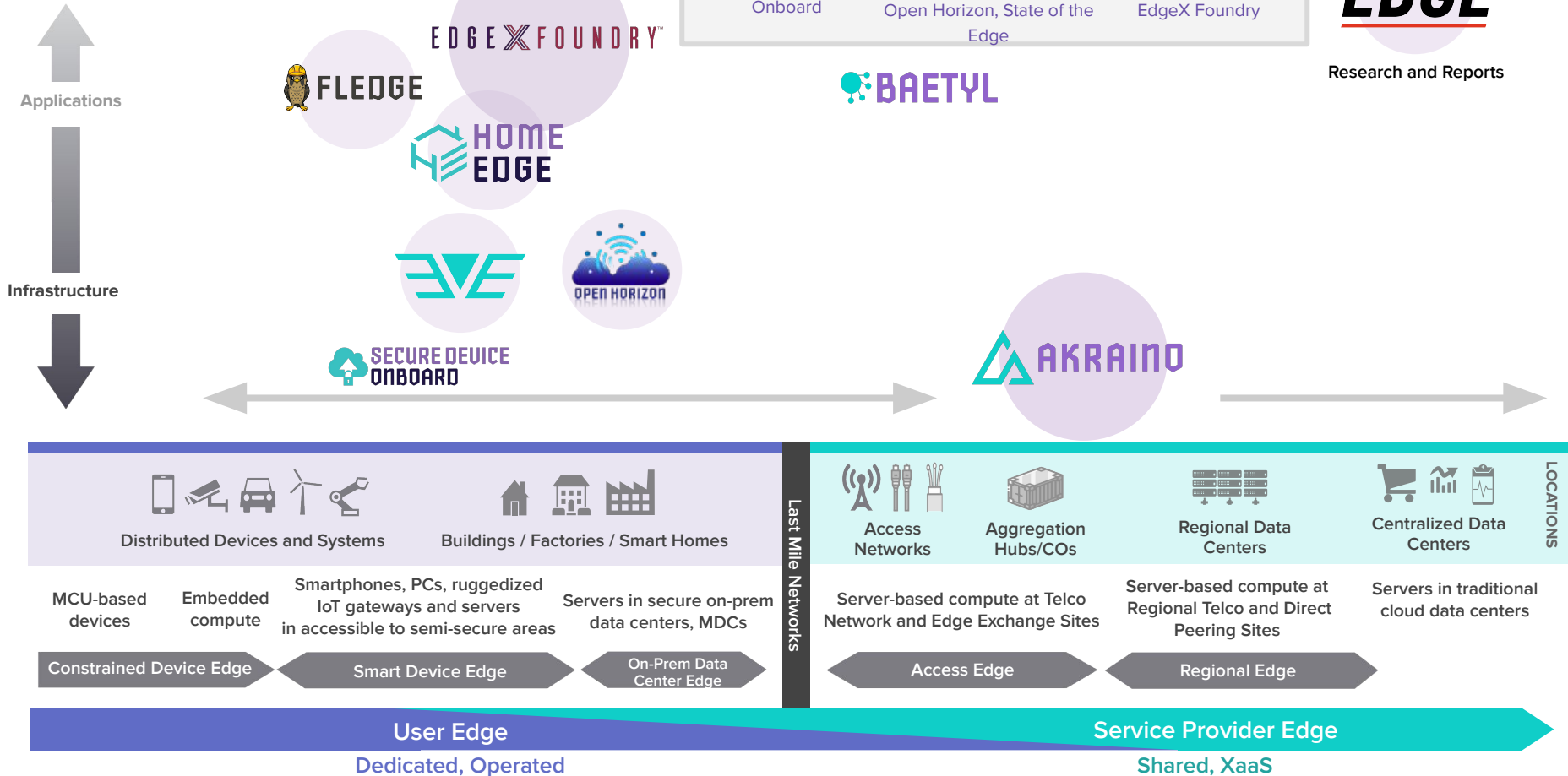# Next Meeting

› Next Meeting: Wednesday, May 19 @ 7am PT
  › Topics
    › API Mapping / MindManager tooling demo (*if ready*)
  › Future Topics
    › EdgeX Ireland Release (June 30 +)
    › EdgeX Ready
    › Open Retail Reference Architecture (June+)
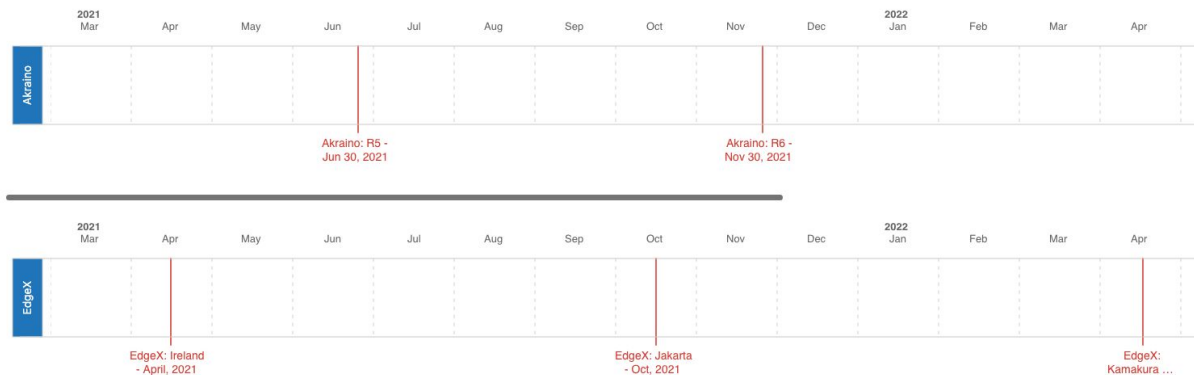
Thank You

Backup/Resources

LF Edge Projects

Stage 1:
At Large Projects
Baetyl, Secure Device Onboard

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

Stage 3:
Impact Projects
Akraino, EdgeX Foundry

Applications

Infrastructure

Distributed Devices and Systems

Buildings / Factories / Smart Homes

Last Mile Networks

Access Networks

Aggregation Hubs/COs

Regional Data Centers

Centralized Data Centers

LOCATIONS

MCU-based devices

Embedded compute

Smartphones, PCs, ruggedized IoT gateways and servers in accessible to semi-secure areas

Servers in secure on-prem data centers, MDCs

Server-based compute at Telco Network and Edge Exchange Sites

Server-based compute at Regional Telco and Direct Peering Sites

Servers in traditional cloud data centers

Constrained Device Edge

Smart Device Edge

On-Prem Data Center Edge

Access Edge

Regional Edge

User Edge
Dedicated, Operated

Service Provider Edge
Shared, XaaS

Upcoming Release Calendar

› Reminder to Projects to please review and update as needed
› https://wiki.lfedge.org/display/LE/Upcoming+Release+Calendar

Release dates are subject to change.

For the latest information on each Project's upcoming releases, or access to prior releases, please visit:

- Akraino - https://wiki.akraino.org/display/AK/Releases
- Baetyl - https://github.com/baetyl/baetyl/releases
- EdgeX Foundry - https://wiki.edgexfoundry.org/display/FA/Releases / https://wiki.edgexfoundry.org/display/FA/Roadmap
- EVE - https://github.com/lf-edge/eve/releases > waterfall release model
- Fledge - https://github.com/fledge-iot/fledge/releases
- Home Edge - https://wiki.lfedge.org/display/HOME/Roadmap+and+Release+Notes
- Open Horizon - https://github.com/open-horizon/anax/releases
- Secure Device Onboard - https://github.com/secure-device-onboard/release/releases
- State of the Edge - https://github.com/lf-edge/glossary/blob/master/edge-glossary.md

CII Best Practices Badge

› Identifies a set of best practices for OSS projects, focusing on security
› Provides a mechanism for projects to self-certify that they meet these criteria
  › Automation helps & prevents some false answers
› Full presentation here:
  › https://github.com/coreinfrastructure/best-practices-badge/blob/master/doc/cii-bp-badge-intro.pptx
› Website where projects can receive a badge here:
  › https://bestpractices.coreinfrastructure.org
› EdgeX Foundry, Home Edge and Open Horizon badging already in progress!
  › https://bestpractices.coreinfrastructure.org/en/projects/1226
  › https://bestpractices.coreinfrastructure.org/en/projects/4336
  › https://bestpractices.coreinfrastructure.org/en/projects/4300
› LF Edge Wiki tracks badge progress here: https://wiki.lfedge.org/
› Proposal: All LF Edge projects be encouraged to get a CII Best Practices badge

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TAC - Focus Areas for 2020 (what to emphasize / de-emphasize in 2021?)

Target areas identified for the TAC to direct focus, beyond PLD/Project Review

1. **Architecture (Tech > LF Edge) - Output: TBD (*White paper?*)**
2. APIs Document, Align and Publish
3. SDO/Consortiums expansion
4. **Forcing function - Use Case or Deployment > Demo across all projects**
5. Technical overlap/unification
6. Cross Project Collaboration
7. IT Efficiencies

Out of Scope for the TAC (for now)

1. Vertical Solutions (End User / SIG Program)
   a. At Board/SPC level

LF Edge TAC - Focus Areas for 2021: Continued Discussion

› One idea raised was for deeper (technical) solution briefs around Use Cases and Deployments
  › Would require commitment (volunteers) from the TAC, Projects, as well as the SPC
› (from prior discussion) White Papers
  › LF Edge level or Project level?
  › General (2020 introduced taxonomy/Projects) or Specific? (e.g. Security, Telemetry)
  › Who would be the audience?
  › Post publishing, vehicle for feedback? Success metrics?
› Other initiatives?
  › Open Edge Services Catalog - creation and cross-project support
  › Common way to document APIs for all the projects

LF Edge Webinar Series - 2020 Recordings

› Akraino Edge Stack
  › Held Thursday, April 2 - Your Path to Edge Computing with Akraino Edge Stack
  › On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTOSIqH7pL8iHrQ
› EdgeX Foundry
  › Held Thursday, April 23 - EdgeX Foundry 101: Intro, Roadmap and Use Cases
  › On-demand recording available at: https://zoom.us/webinar/register/4515850788014/WN_xCd6YPjEOrCwLiFhBWPKug
› Project EVE
  › Held Friday, May 29 - Building the "Android of the IoT Edge"
  › On-demand recording available at: https://zoom.us/webinar/register/6415888722675/WN_35oZJ3hrOE69snMaiIUTPg
› White Paper
  › Held Thursday, July 9 - Demystifying the Edge with the new LF Edge Taxonomy and Framework
  › On-demand recording available at: https://zoom.us/webinar/register/WN_icv5h6wFTcuw9O0xvMpgLw
› Fledge
  › Held Thursday, August 13 - How Google, OSIsoft, FLIR and Dianomic use Fledge to implement Industrial 4.0
  › Recording available at: https://www.youtube.com/watch?v=6JXNv3AJWog
› State of the Edge
  › Held Thursday, September 17 - State of the Edge: Exploring the Intersection of IoT, AI, 5G and Edge Computing
  › On-demand recording available at: https://zoom.us/webinar/register/8115959695936/WN_4rt-MmP1Rl6Vkzn3ULpiAA
› Home Edge
  › Held Thursday, October 15 - Home Edge: How Your Home Devices Get Deployed in An Edge Computing Services Ecosystem
  › On-demand recording available at: https://zoom.us/webinar/register/WN_uSlgb-R5O4etkDhxoSXISQ
› Open Horizon
  › Held Thursday, November 19 - Secure Application Management for Machine Learning & Constrained Devices
  › On-demand recording available at: https://zoom.us/webinar/register/WN_tYli1JZ1RWg1pml8FuPRPw

› More to follow...

Linux Foundation edX and Training Courses

› Business Considerations for Edge Computing:
https://www.edx.org/course/business-considerations-for-edge-computing

› Getting Started with EdgeX Foundry (LFD213):

https://training.linuxfoundation.org/training/getting-started-with-edgex-foundry-lfd213/

› Full list of courses available at https://training.linuxfoundation.org/

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Upcoming Project Events

› TBA

› Projects can add their events to this list by sending the Wiki page listing the information to info@lfedge.org

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Pushed to Next Meeting

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