LF Edge TAC
Technical Advisory Council

26 August 2020
Meeting Details

› August 26, 2020 (@ 7:00am PDT)
› Meeting Info:
   › Join Zoom Meeting
   › https://zoom.us/j/286673048
   ›
   › One tap mobile
   › +16699006833,,286673048# US (San Jose)
   › +16465588656,,286673048# US (New York)
   ›
   › Dial by your location
   › +1 669 900 6833 US (San Jose)
   › +1 646 558 8656 US (New York)
   › +1 855 880 1246 US Toll-free
   › +1 877 369 0926 US Toll-free
› Meeting ID: 286 673 048
› Find your local number: https://zoom.us/u/aeeh8tagXU
LF Antitrust Policy Notice

› LF Edge meetings involve participation by industry competitors, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

› Examples of types of actions that are prohibited at LF Edge meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at http://www.linuxfoundation.org/antitrust-policy. If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrove of the firm of Gesmer Updegrove LLP, which provides legal counsel to the Linux Foundation.
<table>
<thead>
<tr>
<th>Project/Member</th>
<th>Representative</th>
<th>Named Alternate</th>
<th>Project/Member</th>
<th>Representative</th>
<th>Named Alternate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altran</td>
<td>Shamik Mishra</td>
<td>Nilanjan Samajdar</td>
<td>GE Research</td>
<td>Joel Markham</td>
<td>James Ward</td>
</tr>
<tr>
<td>Arm</td>
<td>Reed Hinkel</td>
<td>Tina Tsou</td>
<td>HP Inc.</td>
<td>Henry Lau</td>
<td></td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>Kandan Kathirvel</td>
<td></td>
<td>HPE</td>
<td>Rodney Richter</td>
<td>Arun Thulasi</td>
</tr>
<tr>
<td>Baidu</td>
<td>Leding Li</td>
<td></td>
<td>Huawei</td>
<td>JianGuo Zeng</td>
<td>Gabriel Yuyang</td>
</tr>
<tr>
<td>Charter</td>
<td>Jeffrey Saelens</td>
<td>Mohammad Zebetian</td>
<td>IBM</td>
<td>Joseph Pearson</td>
<td>Ryan Anderson</td>
</tr>
<tr>
<td>Dell</td>
<td>Trevor Conn</td>
<td>Sean McGinnis</td>
<td>Intel</td>
<td>Jim St. Leger (TAC Chair)</td>
<td>Emad Attia</td>
</tr>
<tr>
<td>Dianomic</td>
<td>Bill Hunt</td>
<td>Tom Arthur</td>
<td>Inwinstack</td>
<td>Thor Chin</td>
<td></td>
</tr>
<tr>
<td>Equinix</td>
<td>Justin Dustzadeh</td>
<td></td>
<td>MobiledgeX</td>
<td>Vikram Siwach</td>
<td></td>
</tr>
<tr>
<td>Ericsson</td>
<td>Torbjörn Keisu</td>
<td>Andrew Wilkinson</td>
<td>Netsia</td>
<td>Mahir Gunyel</td>
<td></td>
</tr>
<tr>
<td>Fujitsu</td>
<td>Toshimichi Fukuda</td>
<td>Hatsumi Iino</td>
<td>Nokia</td>
<td>Tapioc Tallgren</td>
<td></td>
</tr>
<tr>
<td>Futurewei</td>
<td>Chaker Al-Hakim</td>
<td>Jane Shen</td>
<td>NTT</td>
<td>Takeshi Kuwahara</td>
<td></td>
</tr>
<tr>
<td>Project/Member</td>
<td>Representative</td>
<td>Named Alternate</td>
<td>Project/Member</td>
<td>Representative</td>
<td>Named Alternate</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>--------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>OSIsoft</td>
<td>Daniel Lazaro</td>
<td></td>
<td>Akraino</td>
<td>Kandan Kathirvel</td>
<td>Tina Tsou</td>
</tr>
<tr>
<td>Qualcomm</td>
<td>Lisa Lammens</td>
<td></td>
<td>EdgeX Foundry</td>
<td>Henry Lau</td>
<td></td>
</tr>
<tr>
<td>Radisys</td>
<td>Adnan Saleem</td>
<td>Prakash Siva</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Hat</td>
<td>Frank Zdarsky</td>
<td>Thomas Nadeau</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Samsung</td>
<td>MyeongGi Jeong</td>
<td>Chi-Hyun Cho</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seagate</td>
<td>Matt Shumway</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tencent</td>
<td>Yachen Wang</td>
<td>Wei Chen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wipro</td>
<td>Subhas Mondal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZEDEDA</td>
<td>Erik Nordmark</td>
<td>Roman Shaposhnik</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Topics

1. Annual Review: EdgeX Foundry [20 minutes]
2. Akraino: R3 Release [20 minutes]
3. Project Release Schedules [5 minutes]
4. Upcoming Events [5 minutes]
5. Next Meeting
Annual Review: EdgeX Foundry
Jim White, EdgeX TSC Chair
Annual Review: EdgeX Foundry

1. Project Annual Reviews - Overview/Process: https://wiki.lfedge.org/display/LE/Project+Annual+Reviews
2. EdgeX Foundry Self-assessment: https://wiki.lfedge.org/display/LE/EdgeX+Foundry+-+Stage+3+-+2020-08-26
3. Other Projects with reviews coming up:

<table>
<thead>
<tr>
<th>Project</th>
<th>Accepted</th>
<th>Last Reviewed</th>
<th>Next Review Due</th>
<th>Maturity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akraino</td>
<td>1/24/19</td>
<td>12/3/19</td>
<td>12/3/20</td>
<td>Stage 3 - Impact</td>
</tr>
<tr>
<td>Baetyl</td>
<td>8/5/19</td>
<td>8/5/19</td>
<td>9/12/20</td>
<td>Stage 1 - At Large</td>
</tr>
<tr>
<td>EdgeX Foundry</td>
<td>1/24/19</td>
<td>6/10/19</td>
<td>9/12/20</td>
<td>Stage 3 - Impact</td>
</tr>
<tr>
<td>EVE</td>
<td>1/24/19</td>
<td>5/21/19</td>
<td>9/12/20</td>
<td>Stage 2 - Growth</td>
</tr>
<tr>
<td>Fledge</td>
<td>6/27/19</td>
<td>7/19/20</td>
<td>7/19/21</td>
<td>Stage 2 - Growth</td>
</tr>
<tr>
<td>Home Edge</td>
<td>1/24/19</td>
<td>5/21/19</td>
<td>9/12/20</td>
<td>Stage 2 - Growth</td>
</tr>
<tr>
<td>Open Horizon</td>
<td>4/9/20</td>
<td>4/9/20</td>
<td>4/9/21</td>
<td>Stage 1 - At Large</td>
</tr>
<tr>
<td>State of the Edge</td>
<td>1/24/19</td>
<td>5/21/19</td>
<td>9/12/20</td>
<td>Stage 2 - Growth</td>
</tr>
</tbody>
</table>
EdgeX Foundry Annual Review Summary

› Annual Review Wiki Page: https://wiki.lfedge.org/display/LE/EdgeX+Foundry+-+Stage+3+-+2020-08-26
› The project continues to meet LF Edge stage 1,2 and 3 acceptance criteria
   › Admittedly, we may not always be meeting the criteria exactly as prescribed by PLD documents
   › Ex: governance and process matters are captured in our Wiki vs markdown files in some repository
   › Areas for improvement: highlighting our affiliation with LF Edge on the Web site and highlighting adoption/adopters
› Project Highlights
   › 6 successful and on-time releases over three years (7th coming in the fall)
   › Almost 7 million container downloads
   › 180 global contributors - averaging 30 committers a month
   › Adoption stories from the likes of Accenture, HP, ThunderSoft, and more now being captured and highlighted
   › Forthcoming website improvements and clean up (fall 2020)
   › 3rd successful (and drama-less) TSC election cycle completed in June
     › We average 50% change over in project leadership per year (a healthy mix of knowledge transfer and new blood into the project)
Akraino: R3 Release
Kandan Kathirvel, Akraino TSC Chair
Tina Tsou, Akraino TSC Co-Chair
Akraino: R3 Release

› https://www.lfedge.org/projects/release-3/
› See attached presentation
Project Release Schedules
### Project Release Schedules

- [https://wiki.lfedge.org/display/LE/Upcoming+Release+Calendar](https://wiki.lfedge.org/display/LE/Upcoming+Release+Calendar)
- Projects requested to update (or email Brett with updates and he can implement)

#### Upcoming Release Calendar

Created by Anonymous, last modified by Brett prudent on Aug 10, 2020

Below is meant to provide a snapshot into Upcoming Release Calendars for each of the Projects currently hosted under LF Edge. Release dates are subject to change.

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

- Alistage - [https://wiki.lfedge.org/display/LE/Releases](https://wiki.lfedge.org/display/LE/Releases)
- Beryl - [https://github.com/beryl/liberty/releases](https://github.com/beryl/liberty/releases)
- EVE - [https://github.com/lf-edge/eve/releases](https://github.com/lf-edge/eve/releases) / waterfall release model
- Fledge - [https://github.com/edgefx/edgefx/releases](https://github.com/edgefx/edgefx/releases)
- Home Edge - [https://wiki.lfedge.org/display/HE/Engine/ROADMAP](https://wiki.lfedge.org/display/HE/Engine/ROADMAP)
- Open-Relay - Coming Soon
- Secure Device Orchestration - Coming Soon

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aug</td>
<td>Sep</td>
<td>Oct</td>
<td>Nov</td>
<td>Dec</td>
<td>Jan</td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
<td>May</td>
<td>Jun</td>
<td>Jul</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Projects**

- Apache: R4 - Nov 30, 2020
- Apache: R5 - May 30, 2021
Upcoming External Events

› **DevOps World**: 22-24 September, 2020 - Virtual
  › Featuring presentations about EdgeX Foundry
› **Open Networking & Edge Summit North America**: 28-30 September, 2020 - Virtual
  › Demo pavilion and multiple sessions across LF Edge Projects
› **Edge Computing World**: 12-15 October, 2020 - Virtual
› **Open Source Summit Europe**: 26-29 October, 2020 - Virtual
› **KubeCon/CloudNativeCon North America**: 17-20 November, 2020 - Virtual
› **Open Source Summit Japan**: 2-4 December, 2020 - Virtual
› **IoT Solutions World Congress**: 11-13 May, 2021 - Barcelona, Spain

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

› State of the Edge
  › [State of the Edge: Exploring the Intersection of IoT, AI, 5G and Edge Computing](https://zoom.us/webinar/register/WN_4rt-MmP1Rl6Vknz3ULpIAA)
  › Scheduled for [Thursday, September 17 @ 9am PT](https://zoom.us/webinar/register/WN_4rt-MmP1Rl6Vknz3ULpIAA)
  › [RSVP at](https://zoom.us/webinar/register/WN_4rt-MmP1Rl6Vknz3ULpIAA)

› Akraino Edge Stack
  › [Your Path to Edge Computing with Akraino Edge Stack](https://zoom.us/webinar/register/WN_Zjdo4-5fTQSlqH7pL8iHrQ)
  › Held Thursday, April 2
  › On-demand recording available at: [https://zoom.us/webinar/register/WN_Zjdo4-5fTQSlqH7pL8iHrQ](https://zoom.us/webinar/register/WN_Zjdo4-5fTQSlqH7pL8iHrQ)

› EdgeX Foundry
  › [EdgeX Foundry 101: Intro, Roadmap and Use Cases](https://zoom.us/webinar/register/4515850788014/WN_xCd6YPJEOcWliFhBWPKug)
  › Held Thursday, April 23
  › On-demand recording available at: [https://zoom.us/webinar/register/4515850788014/WN_xCd6YPJEOcWliFhBWPKug](https://zoom.us/webinar/register/4515850788014/WN_xCd6YPJEOcWliFhBWPKug)

› Project EVE
  › [Building the “Android of the IoT Edge”](https://zoom.us/webinar/register/6415888722675/WN_35oZj3hrQE69snMajLUTP)
  › Held Friday, May 29
  › On-demand recording available at: [https://zoom.us/webinar/register/6415888722675/WN_35oZj3hrQE69snMajLUTP](https://zoom.us/webinar/register/6415888722675/WN_35oZj3hrQE69snMajLUTP)

› White Paper
  › Held Thursday, July 9 - [Demystifying the Edge with the new LF Edge Taxonomy and Framework](https://zoom.us/webinar/register/WN_icy5h6wETcuw9O0xvMqgLw)
  › On-demand recording available at: [https://zoom.us/webinar/register/WN_icy5h6wETcuw9O0xvMqgLw](https://zoom.us/webinar/register/WN_icy5h6wETcuw9O0xvMqgLw)

› Fledge
  › Held Thursday, August 13 - [How Google, OSIsoft, FI-IR and Dianomic use Fledge to implement Industrial 4.0](https://www.youtube.com/watch?v=6jXNv3AIWag)
  › On-demand recording available at: [https://www.youtube.com/watch?v=6jXNv3AIWag](https://www.youtube.com/watch?v=6jXNv3AIWag)

› More to follow...
Upcoming Project Events

› **EdgeX Challenge Shanghai 2020**
  - Launch Date: July 3rd, 2020 / End Date: October, 2020
  - Location: Shanghai + Online
  - Organizer: Linux Foundation APAC and Science & Technology Commission (STCSM) of Shanghai Municipal Government
  - Sponsors: Intel, VMware, InnoSpace, Dell Technologies, Thundersoft
  - Supporting Organizations: CCFA (China Chain Store & Franchise Association), Tencent, IOTech
  - Tracks:
    - Commercial (Retail, Hospitality, Banking, Education, etc.)
      - Using EdgeX, based on IOT, AI and data analysis technologies, build innovative applications related to consumer, merchandise, and store.
      - Use EdgeX to build multi-sensor correlated IoT applications.
      - Use EdgeX to build applications beneficial to defeat COVID-19.
      - Combine EdgeX with 5G, blockchain or service robot to build innovative applications
    - Industrial (Factories, Power, Oil/Gas, Utilities)
      - For the multi-edge node scenario, build an SDN + containerized IT solution based on EdgeX
      - In discrete or process (with lower latency requirements) manufacturing, use EdgeX to achieve low latency fault detection and response on the production line.
      - In Discrete Manufacturing, use EdgeX to Detect Product Defects Online
      - Using EdgeX to collect data, proceed with energy management of electric/gas/coal/oil, to improve energy efficiency. (Such as: building a thermodynamic model, completing heat meter data collection and automatic valve opening control to optimize heating efficiency)
      - Using EdgeX to realize remote unmanned monitoring of multiple data sources and automatic control of the on-site environment.
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/
Next Meeting

- Next Meeting: Wednesday, September 9 @ 7am PDT
  - Project Annual Review - TBD
    - Home Edge - October
    - Baetyl - ?
    - EVE - ?
    - State of the Edge - ?
  - TAC White Paper v2
  - Vertical Solution/End User Kickoff Event(s)
  - LF Expanded Mentorship Program
Thank You
Resources
Project Resources: Getting Started Checklist

2. Best Practices Guide for new, and existing, LF Edge Projects to define/refine/enhance their Project Management
3. Will be sent to Project TSC Leads for additional input / examples
4. Welcome feedback in the TAC as well
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 Projects / PLD Update - Pipeline

Note: Projects listed below have indicated some level of interest since Project Launch.

› Coaty (Siemens) *(invited August 21, 2019; targeting Q1)*
› Flogo (Tibco)
› Open19 (via Vapor.io)
› Wormhole (OSS name Flowgate)
› Rafay (Rafay Systems)
› Project Sandstar (Anka Labs, Inc.)
› Synse (Vapor.io)
› Cisco IoT/Agribusiness OS Project (Cisco)
› infinimesh (infinimesh)