

EDGE X FOUNDRY™

TSC Meeting

April 24, 2019



LF Antitrust Policy Notice

EdgeX Foundry 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 EdgeX Foundry 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.

Meeting Logistics

Time: April 24, 2019 7am PDT – 8am PDT

Join from PC, Mac, Linux, iOS or Android: <https://zoom.us/j/983155298>

Or iPhone one-tap (US Toll): +14086380968,983155298# or +16465588656,983155298#

Or Telephone:

Dial: +1 408 638 0968 (US Toll) or +1 646 558 8656 (US Toll)

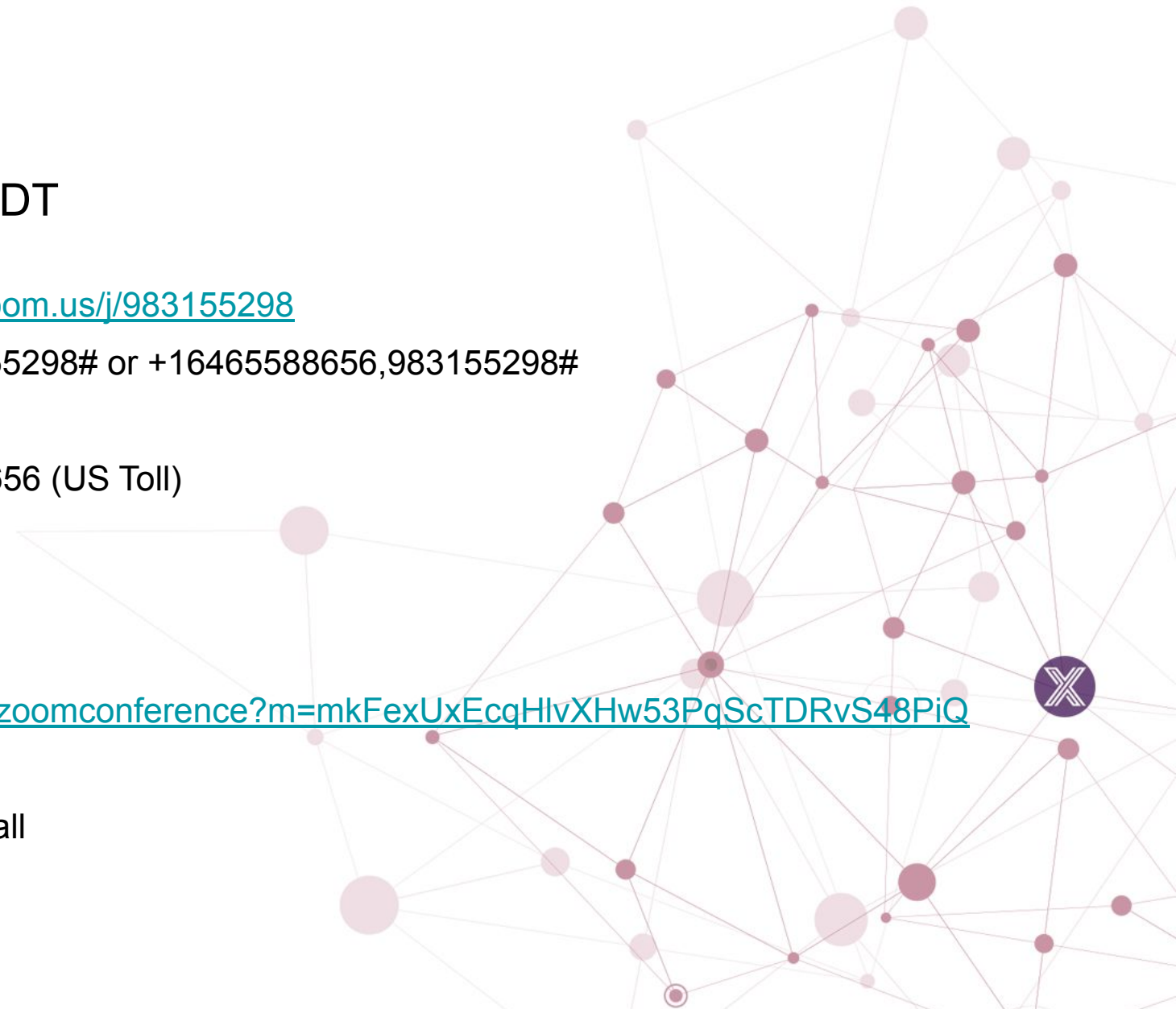
+1 855 880 1246 (US Toll Free)

+1 877 369 0926 (US Toll Free)

Meeting ID: 983 155 298

International numbers available: <https://zoom.us/join?j=983155298>

** TSC calls are recorded and added to Wiki post-call



TSC – Members Present Today

<u>Company</u>	<u>Name</u>	<u>Email</u>
IOTech	Andy Foster	andy@iotechsys.com
Mainflux	Drasko Draskovic	drasko@mainflux.com
Intel	James Gregg	james.r.gregg@intel.com
Mainflux	Janko Isidorovic	janko@mainflux.com
Dell	Jim White (TSC Vice Chair)	james.white2@dell.com
IOTech	Keith Steele (TSC Chair)	keith@iotechsys.com
Samsung	Moonki Hong	moonki1.hong@samsung.com
Dell	Randy Thompson	Randy.T@dell.com
IOTech	Steve Osselton	steve@iotechsys.com
Canonical	Tony Espy	espy@canonical.com
Dell	Trevor Conn	Trevor.Conn@dell.com

Current quorum = 6 members

Note: Quorum for TSC meetings requires at least fifty percent of all voting members of the TSC to be present. The TSC may continue to meet if quorum is not met, but will be prevented from making any decisions at the meeting. Except as provided in Section 7.c. and 8.a, decisions by vote at a meeting require a majority vote of those in attendance, provided quorum is met. Decisions made by electronic vote without a meeting require a majority vote of all voting members of the TSC.

Today's Agenda

- Strike Team updates
- WG Updates
- Fuji F2F Meeting Planning and Release Scoping
- Upcoming Events
- AOB



EDGE X FOUNDRY™

Strike Team Updates

Strike Team leads

- Freeze: May 28 (Tue after Memorial Day)
- Release date: June 20

Strike team Updates

- CBOR/binary support - **Toby** on point with Trevor and Janko to assist with core, supporting and export services changes
- Redis implementations of DB services - **Andre & Trevor**
- Initial performance (and load) testing infrastructure and results - **Andy**
 - LF support for TIG stack
- Certification Program - **Randy and Jim**
- SDK Unit testing (to the point short of any major refactoring) - **Steve**
- LFTOOLS / SIGL enhancements - **James** (Several Issues identified in testing - requires additional LF support)
- Kong Upgrade - **Tingyu**
- Device services (Edinburgh public availability of Modbus, MQTT, BACNet, BLE, Virtual Device, SNMP) - **Steve**
 - Dell to provide SNMP DS
- Security storing service secrets in Vault and protecting the master token - **Jim** and Tingyu with Intel resource assistance
- Documentation clean up - **Michael** with WG leads to nominate areas of need first and complete doc updates by deadline
- UI updates
 - IoTech UI - **Keith**
 - VMWare UI - **Jim** to check with Huaqiao
 - UIs not able to be updated will be archived to the Delhi release



EDGE X FOUNDRY™

Work Group Updates

Chairs

Working Group Chair Updates

- Around the horn
 - Core/Supporting - Trevor
 - Applications - Janko
 - Device Services - Steve
 - Test/QA - Andy
 - DevOps - James
 - Security - Jim
 - System Management - Jim
 - Certification - Randy
 - Vertical Solutions - Moonki
 - Developer Outreach - Michael

Core Working Group (24-Apr-19)

- CBOR
 - core-data (#1216) -- assigned to Anthony Bonafide, in progress
 - Benchmarking per Core WG Meeting 17-Apr-2019
 - Checksum versus Copy + ID Assignment in order to mark the event as pushed
 - Also more work needed w/r/t decoding types effectively from CBOR.
 - export-distro (#1217) -- also currently assigned to Anthony
- Core-contracts Model Validation
 - PR submitted on Thursday, last week. Approval from Lenny. Has not been merged yet.
 - Follow-up edgex-go integration PR is also nominally ready.
- Other efforts
 - Decoupling of DeviceProfile from Device struct (core-contracts issue #27)
 - Backlog groomed, we'll see how far we get before Edinburgh

Applications WG Update (10-Apr-19)

Work on the Application Function SDK is progressing according to plan.

Features planned for Edinburgh release are developed:

- FilterByDeviceID
- FilterByValueDescriptor
- TransformToXML()
- TransformToJSON()
- HTTPPost()
- MQTTPublish()
- Application Functions SDK is integrated with SMA and message bus is connected.

Work in progress

- Documentation

To do:

- CBOR for existing Export Services

Device Services WG Update (22-4-19)

- Go SDK
 - CBOR support integrated
 - CBOR checksum profiled
 - Integrating floating point encoding options
- C SDK
 - Auto Event support added
- General
 - Discussion on reading value descriptors device-sdk-go #150
 - Discussion on command handling device-sdk-go #218

Test/QA WG Update (04-24-19)

- Implemented additional Performance Test Cases
 - Create 50 devices concurrently with 5 different device profiles - once / per 5 secs continuously for 1 hour
 - Create 5 device profiles concurrently - once / per 50 secs continuously for 24 hrs
 - Create 50 value descriptors concurrently - once / per 5 secs continuously for 1 hour
- Performance test automation
 - PR #9 (Integrated with Jenkins pipeline) on edgexfoundry-holding is waiting to be merged
 - PR #338 on edgexfoundry/ci-management is under review.
 - Performance tests running successfully on Jenkins Sandbox – tests running sequentially
- Edinburgh objectives
 - Better visualization/dashboarding (Allure) of test results (complete)
 - Automated capture of resource metrics to monitor performance (basic tests working on Sandbox)
 - Security test automation - tests running on x86, requires Kong docker image for ARM (work by Security team in progress)
 - Code contributors will now be required to supply additional or updated blackbox tests (complete)
- Next QA/Test meeting Thursday 25th April, 4pm PDT

DevOps WG Update (04-24-19)

Several User Stories currently being worked in current sprint.

- Continued work on Jenkins Pipelines for go module semantic version tagging (git-semver)
 - Identified issues with missing triggers so merge jobs are not firing with new Pipelines
 - Manual work around will work for immediate future
 - Testing the sigul signing process for git repo tags and Docker images
 - **Risk:** Identified bugs - New Helpdesk ticket opened with priority on getting patches
- Debug and Assisting IoTech with Performance Tests on Sandbox
 - Tests are working in Sandbox but introduced OMM problems with AWS hosted TIG stack
 - Redeployed the solution - LF Infrastructure team engaged to resize the instances.
- **Risk:** New Device services will require build automation (device-opcua-c, device-bacnet)
- May need to again deprioritize the configuration work to integrate codecov.io to edgex-go repo (LF resource dependencies)

Next DevOps WG meeting - Thursday 7AM PDT

System Management WG Update (4-24-19)

- Jim traveling. Akram covering today.
- Documentation completed (thanks Akram)
- Working on the unified base of metrics keys
- Fuji roadmapping for F2F complete

Security WG Update (4-17-19)

- How EdgeX will address security issue (CVE style processes and planning) document ready for TSC review and approval.
 - Document is here (on the Secty WG wiki page):

<https://wiki.edgexfoundry.org/download/attachments/329467/EdgeX%20Process%20for%20Addressing%20Security%20Issues-v5.pdf?version=1&modificationDate=1555294780000&api=v2>

- Vote either at F2F or next TSC meeting.
- Other Edinburgh work...
 - Vault initialization program (to store db secrets)
 - Mongo init script (to use db secrets)
 - Go Vault Client Module - done and under review/changes
- Fuji roadmapping and planning

Certification WG Update (4-22-19)

- Plan substantially complete
 - Want to start with Device Services
 - Plan document being moved to wiki this week
-
- Meetings are on Mon at 7am PDT
 - Link to plan doc, minutes, and recording available on wiki

Vertical Solutions WG Update (4-9-19)

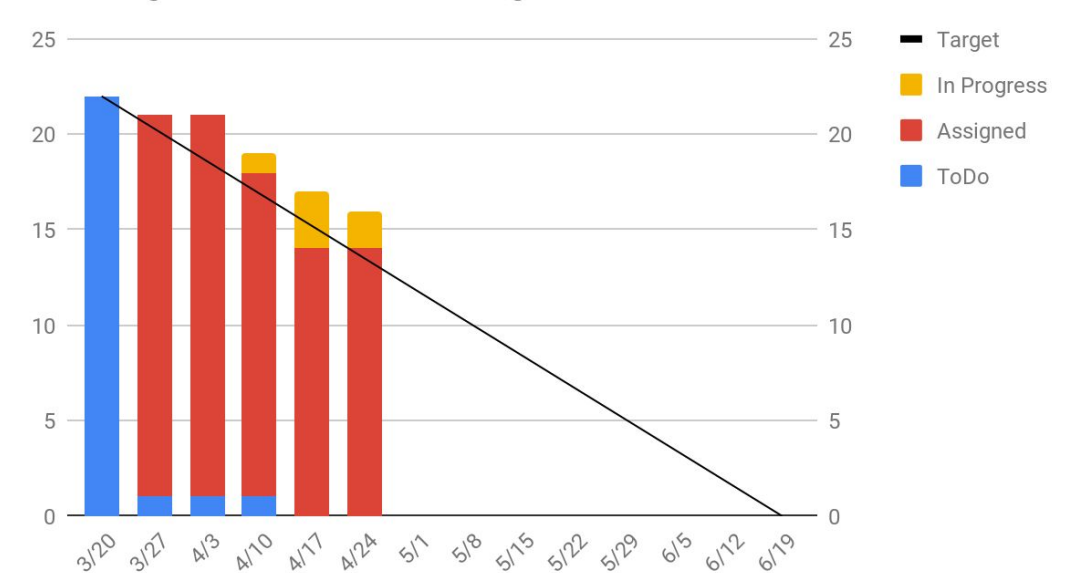
- Reviewed potential connection with OMG Retail Standards
- Upcoming Commerce Project call : Apr. 24th 4pm in PST
 - Zoom Meeting : <https://zoom.us/j/975881686>
 - Mobile
 - +1 669 900 6833 (San Jose)
 - +1 646 558 8656 (New York)
 - +1 855 880 1246 (US Toll-free)
 - +1 877 369 0926 (US Toll-free)
 - Meeting ID : 975 881 686
 - Find your local number : <https://zoom.us/u/aA4GBJBi8>

Developer Outreach (04-24-19)

- 2019 EdgeX Foundry Awards to be presented at IoT World in Santa Clara, California
- Cleaned up [RaspberryPi device service](#) example
 - Only supports GPIO (no AIO or I2C)
 - Snap packaging from Ian
 - Will demo it at Seoul
- Preparing for Seoul training

[ObjectBox](#) has added their database as an alternative to Mongo and Redis

Edinburgh Documentation Progress





EDGE X FOUNDRY™

Fuji F2F Planning and Scoping

Fuji F2F planning

- Agenda and deck near final
 - Latest deck [Here](#) (In the Wiki under TSC F2F)
- WG Chairs, provide Jim your Fuji scope slides or be prepared to have your own deck
- If you are taking a laptop into Samsung, don't forget to send Moonki your system info
- See you in Seoul!



EDGE X FOUNDRY™

EdgeX TSC F2F Meetings

EdgeX TSC F2F Meeting(s)

- **29 April - 2 May, 2019** -- Location Seoul, South Korea -- [Wiki page](#)
 - Latest agenda available on the [Wiki](#)
- **RSVP at <https://goo.gl/forms/oMptkNU90RRxhK5g1>**
 - **RSVP by EOD April 12**
 - Current registration count: 38 in-person; 7 dial-in
- Hotel/Travel: Recommended hotels listed on [Wiki](#)
 - Recommended Hotel is Sheraton Seoul Palace Gangnam
- **Getting to Venue, the meeting room information has been updated from the Wiki.**
<https://wiki.edgexfoundry.org/display/FA/29+April+-+2+May+2019%3A+Seoul+Technical+Meeting>
- **[NOTICE] Registration is required for the security identification in the venue, and we need additional information from the potential attendees in-person from RSVP or email to (moonki1.hong@samsung.com), for completing it.**
 - **Birthday (DD/MM/YY), Corporate Position, Nationality**
 - **Asset Information : Type (e.g. Macbook Pro, Samsung Notebook 9, etc.), Serial Number, EA**
**** Any USB stick (electronic devices), demokit and/or items should be registered.**
- **4 November - 8 November, 2019** -- Location Chandler, Arizona (USA) -- [Wiki page](#)



EDGE X FOUNDRY™

Upcoming Events

Full list of LF events available at
<https://events.linuxfoundation.org/>

Additional LF Edge events available at
<https://www.lfedge.org/events/>

Upcoming Events

- [Internet of Things World, May 13-16, 2019](#) | Santa Clara, CA
 - LF Edge will have a 20x20 booth
 - 4 booth demos confirmed:
 - Akraino Blueprints
 - EdgeX Building Automation (Community Demo)
 - Beechwoods EdgeX Demo
 - Project EVE
 - Need volunteers to help staff the booth -- Please email pr@lfedge.org if available

Discussions around upcoming events occur in the LF Edge Outreach Committee.

Members may subscribe at: <https://lists.lfedge.org/g/outreach-committee>

Additional Events & Speaking Opps

Full list of LF events available at
<https://events.linuxfoundation.org/>

Additional LF Edge events available at
<https://www.lfedge.org/events/>

- [IoT Tech Expo Global](#), April 25-26, 2019 | London
 - EdgeX is the media sponsor for the event and is providing a 20% off discount code “EDGEX20”
- [IoT Tech Expo Europe](#), June 19-20, 2019 | RAI, Amsterdam
 - Janko Isidorovic from Mainflux will give a presentation on EdgeX Foundry & participate in an IoT panel.
 - EdgeX is the media sponsor for the event and is providing a 20% off discount code “EDGEX20”
- [Open Source Summit China](#), June 24-26, 2019 | Shanghai
 - Arpit giving a keynote on LF Edge
- [Embedded Linux Conference \(ELC\)](#), August 21-23, 2019 | San Diego
 - Tingyu and Trevor (Dell) have applied for talks (Notifications May 13)
- [Open Source Summit](#) / [Embedded Linux Conference Europe](#), October 28-30, 2019 | Lyon
 - CFP due July 1
- [IoT Solutions World Congress](#), October 29-31, 2019 | Barcelona
 - [Call for Testbeds](#) is Open
 - January 7 - April 30: Submission
 - May 1 - June 20: Review
 - June 20 - June 30: Notification
 - July 5: Publication



EDGE X FOUNDRY™

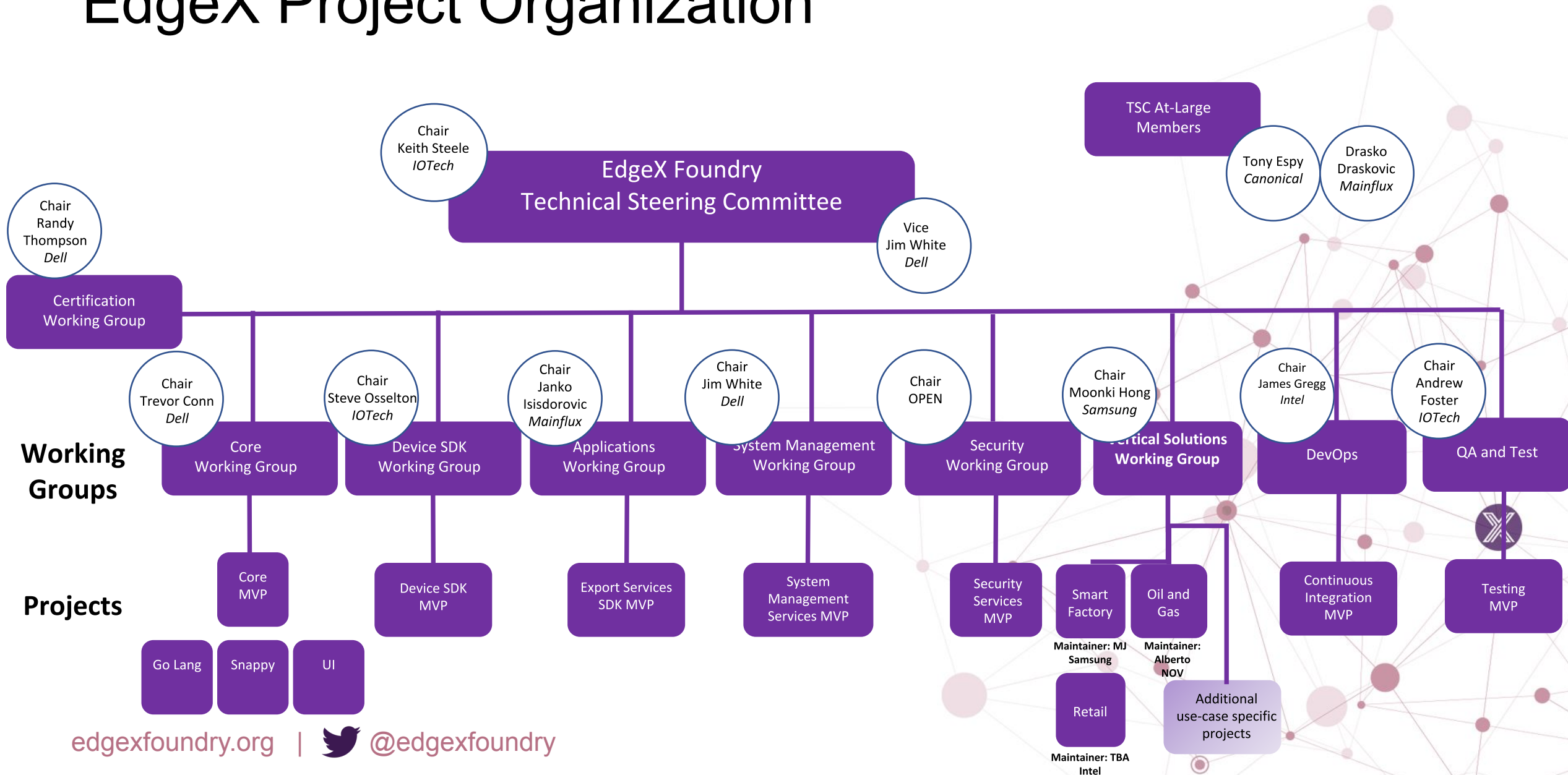
AOB / Reminders

AOB/Cadence

- Meeting Cadence Reminder
 - Currently held weekly at 7am PDT on Wednesday's
 - Calls without TSC quorum will still be used to review issues

- **Next Meeting: TSC F2F Meetings - Week of April 29**

EdgeX Project Organization



Marketing

- **CTA:** If your company will be presenting EdgeX at an upcoming event/webinar/other, please email pr@lfedge.org so that we can help promote

EdgeX in Market

- Page showcases momentum in the project, including solutions already available
- <https://www.edgexfoundry.org/edgex-in-market/>
- Email info@edgexfoundry.org if you have any additions

Project Contributions Welcome!

- Our objective is to make EdgeX use & deployment pervasive!
- EdgeX success is 100% dependent on the vibrancy of a proactive community
- Getting Involved
 - Project membership growing - want to join contact Mike Woster at LF (mwoster@linuxfoundation.org)
 - First Priority is the MVP - potential contributors please contact keith@iotechsys.com (people, equipment, technology)
 - If interested in adding new projects please contact the relevant working group chair

Project Resources

Quick links to most commonly used Community Resources

- Code: <https://github.com/edgexfoundry>
- Documentation: <https://wiki.edgexfoundry.org/>
- Discussion: <https://slack.edgexfoundry.org/>
- Mail Lists: <https://lists.edgexfoundry.org/mailman/listinfo>
- Twitter: <https://twitter.com/EdgeXFoundry>
- LinkedIn: <https://www.linkedin.com/company/22298339/>
- YouTube: <https://www.youtube.com/c/EdgeXFoundry>

EdgeX - Where to learn more

- EdgeX Foundry Wiki

<https://wiki.edgexfoundry.org/display/FA/EdgeX+Foundry+Project+Wiki>

- EdgeX Foundry Slack

<https://slack.edgexfoundry.org/>

- [Weekly EXF Technical Spin up calls](#)

30 minute deep-dive topics followed by 30 minute open Q&A

Call recordings are available on the [Wiki](#)

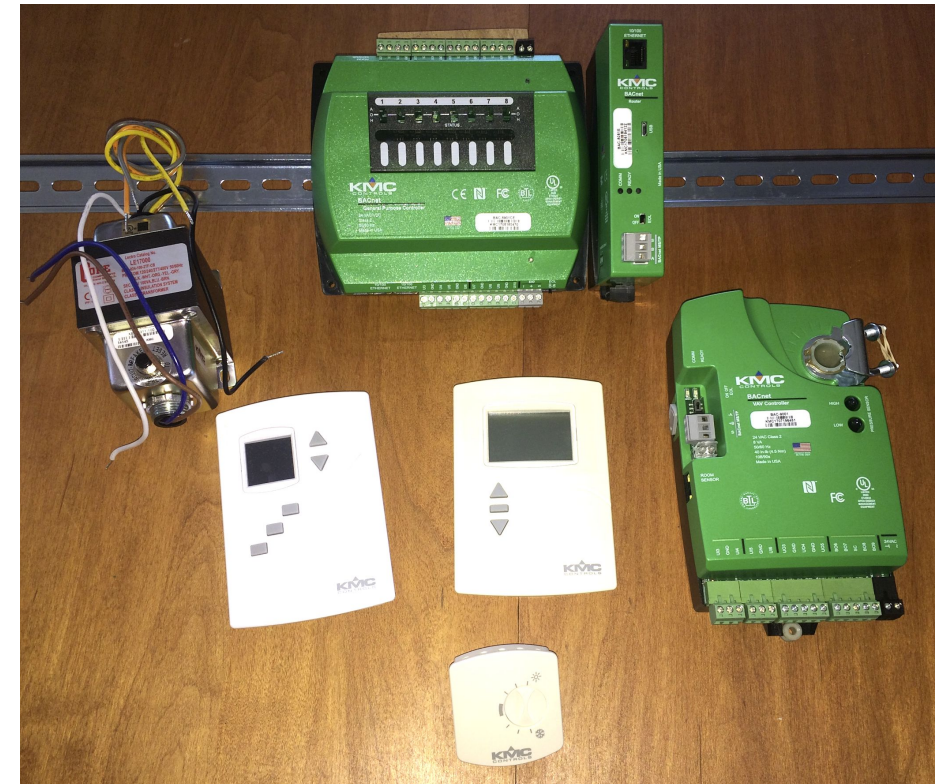
What is the Device Exchange?

- A great way to put your products in the hands of other members so they can help build a better EdgeX!

- <https://wiki.edgexfoundry.org/display/FA/Device+Exchange>



Special thanks to [Dave Bohlman](#) and [KMC Controls](#) for making this awesome kit and how-to guide available to members!!



Meetups

- Help us grow awareness!
- Present, and Tag, EdgeX in your local IoT Meetups
- <https://www.meetup.com/topics/edgex/>
- Email info@edgexfoundry.org for assistance

Related topics

New Technology Open Source Interoperability Smart Home Internet of Things

Open Standards Mobile Development Internet of Everything EdgeX

EdgeX ▾

Find out what's happening in EdgeX Meetup groups around the world and start meeting up with the ones near you.

Related topics:



Meetups: Reimbursement Program

- <https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=7602724>
- Wiki page built for the community to leverage
- Encourage community to begin introducing EdgeX in your local Meetup groups
- EdgeX Foundry will fund/sponsor the talk in which EdgeX is scheduled to be presented
 - Up to \$250 for F&B, once per Meetup group, per quarter
- Let us help drive traffic to your event! Email pr@lfedge.org once Meetup has been scheduled
- Post-event, please consider doing a blog about the event

Hackathons: How can you help?

- <https://wiki.edgexfoundry.org/display/FA/Hackathons>
- Provide any local volunteers onsite to help with technical work, potentially help judge, etc. (see list below of known hackathons coming up and locations)
- Sponsor breakfast/lunch/dinner for the participants (usually things like donuts/coffee, pizza lunch or cater sandwiches)
- Sponsor \$ rewards (incentives) for teams that successfully implement projects (these could even be projects that particular sponsors want to see accomplished - we just need them scoped appropriately so as to be something that can be accomplished in a 2 day period)
- Help provide or resource hackathon winner prizes
- Sponsor or provide any swag (t-shirts, mugs, etc.)
- Provide marketing assistance



EDGE X FOUNDRY™

Thank You