

EDGE X FOUNDRY™

TSC Meeting

April 10, 2019



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Meeting Logistics

Time: April 10, 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)

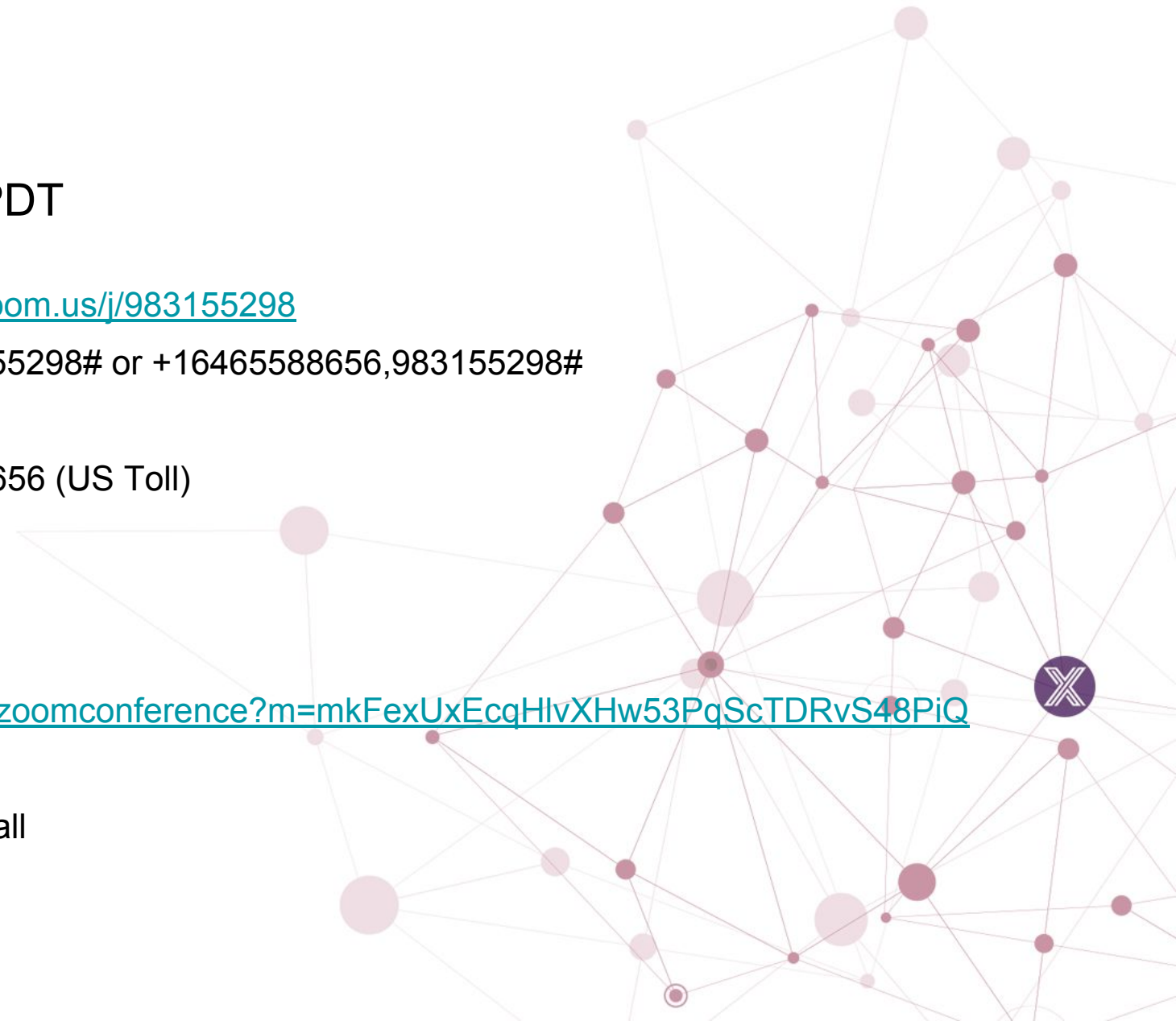
+1 855 880 1246 (US Toll Free)

+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
- Business Update
- EdgeX Awards
- Fuji F2F Meeting Planning and Release Scoping
- Upcoming Events
- AOB



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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
 - Strike team to determine best WG to use to review design and work issues
- 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**
- SIGL Static Analysis - **James** (with 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



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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 (10-Apr-19)

- Redis
 - PR for broad core/export service support merged.
 - TODO -- Docker-compose support, configuration mods
 - Andre is wrapping up notifications support based on IOTech work
- CBOR
 - Issues have been created for implementation tasks in edgex-go
 - core-data (#1216) -- assigned to Anthony Bonafide
 - export-distro (#1217) -- Janko to assign shortly
- Influx DB Support Removed
 - Massive improvement in Jenkins build times
 - ARM -- 1 hr 15 mins → 33 mins
 - x86_64 -- 41 mins → 15 mins
- Core Working Group Call tmrw (primary topic == core-command)

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 (8-4-19)

- Go/C SDKs
 - Adding support for auto events (ETA next week)
 - Additional command unit tests added by Felix
- General
 - Discussion on event double encoding issue device-sdk-go #233
 - Proposed resolution on core-contracts #62
 - Suggested update to GET to specify event generation device-sdk-go #240
 - Ongoing discussion on selection of JSON/CBOR event encoding
 - Simplification to Property Unit agreed core-contracts #64
 - Tony updating design document for PUT event generation behavior
 - Toby to analyse use of size field in binary data (required or not)
 - Steve to clarify device service availability for Edinburgh

Test/QA WG Update (04-10-19)

- Fixed issue [#195](#), [#196](#), [#197](#)
- Merged PR [#198](#), [#199](#)
- Automating the performance tests
 - Performance test automatically run on IOTech Jenkins via Jenkinsfile
 - Working on creation of Jenkins Jobs to support performance testing on EdgeX Jenkins Sandbox.
 - PR [#9](#) (Integrated with Jenkins pipeline) on edgexfoundry-holding is under review
 - PR [#338](#) on edgexfoundry/ci-management is under review.
- Edinburgh objectives
 - Better visualization/dashboarding (Allure) of test results (complete)
 - Automated capture of resource metrics to monitor performance - LF has completed deployment of TIG stack
 - 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 11th April, 4pm PDT

DevOps WG Update (04-10-19)

Several User Stories currently being worked in current sprint.

- Continued work on git-semver utility which automates release tagging working in the EdgeX Jenkins build environment via Jenkins Pipelines.
- Sigul to be enhanced to enable signing release artifacts - git tags and Docker images.
 - Release from last Thursday did not include the new enhancements needed so this is still WIP.
 - Need time to test with new git-semver utility / lftoos (sigul) and Jenkins Pipelines
- **Risk:** New Device services will require build automation
 - Need ETA
- New scope to add codecov.io config to edgex-go repo
 - Deprioritized until Sigul work completed
- EdgeX Helm Chart added by Justin Scott (Intel) as an initial contribution to edgexfoundry-holding.

Next DevOps WG meeting - Thursday 7AM PDT

System Management WG Update (4-10-19)

- Now working....
 - Documentation
- Fuji and Beyond (some sys mgmt and cross functional design issues)
 - Discussions on
 - Who knows what services are registered so SMA can do metrics and config
 - Service responsibility with regard to registration
 - Start/Stop/Restart functionality (bootstrapping who does it, what has to come up first, and associated questions)
 - Roadmapping and Fuji scoping for F2F

Security WG Update (4-10-19)

- Working...
 - Architecture for securing service secrets (DB username/password) - document circulating
 - Addressing security issues (CVE style processes & planning) - document circulating
- Securing service secrets (design and implementation)
 - modify secret store service initialization to create namespace & secrets
 - Share namespace definitions with the consuming services/scripts
 - Create bash script wrapper around mongo_init
 - Create a client Go module to fetch secrets (stretch)
 - Add code to SMA responders so that secret settings are not sent to SMA
- Kong upgrade - work completed and PR in - thanks Tingyu

Certification WG Update (4-8-19)

- Started creating a “shopping list” of work that will need to be done to execute certification process
 - Next: Discussion whether to start with Device Services or Core Services
-
- Meetings are on Mon at 7am PDT
 - Link to plan doc, minutes, and recording available on wiki

Vertical Solutions WG Update (3-27-19)

- Upcoming Commerce Project call : Mar. 27th 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 (04-10-19)

- 2019 EdgeX Foundry Awards voting begins today
 - 18 Nominations
 - 11 Nominees
- Updating [Getting Started - Developers](#) for Edinburgh
 - Added CLI instructions
 - Added Linux instructions for MongoDB init
 - Can we remove Java version of this doc?



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Business Update

Business Update

- We need to establish our working relationship with LF Edge with regards to 3 important topics:
- Edge V1 Launch
- Certification Process
- Funding Opportunities - carry over eg. IOT meetups, speaker slots, seminars etc



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Fuji F2F Planning and Scoping

Planning and Scoping

- Deck started for the F2F Meeting
 - [Fuji Deck](#)
 - **Day 1 Work Group topics to deep dive** on - Send Jim your needs
 - **Day 2 Business and Training topics** - Send Jim your ideas or wants
 - **Architectural issues** to discuss? - Send them to Jim
 - Teed up on day 1, covered in detail on day 2 (tech debt and new features/needs)
 - WG Chairs please **review and start to fill in your Fuji scope slides**
- Slack Channel for posting suggestions, topics, needs, etc.
 - <https://edgexfoundry.slack.com/messages/CHG5F4HS9>

WG Chair/Architect Day 1 - current proposal list

- High Availability - 12 factor, service orchestration, HA affects, instrumentation (Trevor Conn to lead)
- Persistence - decoupling from any DB impl (Trevor Conn to lead)
- Hardware Secure Module & Abstraction (Jim to lead)
- Application Services v2 (Mike, Lenny, Janko to lead)
- Securing service to service comms (Jim to lead)

Training and Business Day 2 - current suggestion

1.5 hour starter tutorial on EdgeX for newbies (tentative Michael H)

1.5 hour tutorial on EdgeX development – a starters guide for developers (Trevor C)

1 hour tutorial on EdgeX Device Service development with the Go SDK (DS team, Tony or Cloud??)

1 hour tutorial on EdgeX Application Services and functions SDK (tentative Mike/Lenny)

1.5 hour business discussion on Certification process - how does it get paid for and run (Randy to lead)

1.5 hour business discussion on EdgeX v1 - getting referencable clients, marketing, etc. (Keith to lead)

Some additional suggestions for tutorials

- PC computer running Windows or Linux OS + Containers + EdgeX stack.
 - a. Done via our “Newbie” tutorial?
- Use Raspberry Pi to simulate a device – generates some random output.
- Add device service to EdgeX.
 - a. Done via our DS tutorial?
- Create dashboard to show data coming in.



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EdgeX TSC F2F Meetings

EdgeX TSC F2F Meeting(s)

- **29 April - 2 May, 2019** -- Location Seoul, South Korea -- [Wiki page](#)
 - Technical Business Discussions + EdgeX 101 on Monday, April 29
 - Architect's Day / WG Breakout Sessions + Social Event on Tuesday, April 30
 - Technical F2F - Day 1 + Dinner Reception on Wednesday, May 1
 - Technical F2F - Day 2 on Thursday, May 2
- **RSVP at <https://goo.gl/forms/oMptkNU90RRxhK5g1>**
 - **RSVP by EOD April 12**
 - Current registration count: 33 in-person; 2 dial-in
- Hotel/Travel: Recommended hotels listed on [Wiki](#)
 - Rideshare sign-up: Brett will email those who have RSVP'd with link to sign up
 - **Update:** Recommended Hotel is Sheraton Seoul Palace Gangnam (11 out of 12 respondents are staying at)
- **[NOTICE] Registration is required for the security identification in the venue, and we need additional information from the potential attendees in-person from RSVP, for completing it. Will announce it shortly within this week.**
- **4 November - 8 November, 2019** -- Location Chandler, Arizona (USA) -- [Wiki page](#)



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Mail List / Calendar Updates

Brett Preston

Reminder: Changes coming to mail lists / calendaring

Latest update: Emails sent March 28 with instructions on how to subscribe to Groups.io / Wiki calendar(s)

Current status: All meeting scheduling, calendar invites, mail list management is dependent on one person.

Forward thinking: WG Chairs will be enabled to execute all of the above via self-service tools; while still having full access to PM for support. Akraino successfully migrated to this model a few months back and they now have 20 hosts on-boarded (reference <https://wiki.akraino.org/pages/viewpage.action?pageId=6128052>).

Google vs Outlook challenges no more: The new calendaring model accurately sends out updates when meeting(s) are modified.

Next Steps:

1. Google calendar invites will be sunset / removed on **April 12, 2019**. Reminders will be sent on April 8.
2. WG Chairs/Meeting Hosts provided Zoom log in and Groups.io Moderator status to allow them to both schedule new meetings and distribute invites to all on a particular mail list.
3. Email bpreston@linuxfoundation.org or message on Slack at Brett Preston with any questions



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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

- [EdgeX Meetup - Hangzhou, April 11, 2019](#) | Hangzhou, China
 - VMware, EMQ, Linaro, Intel & CertusNet will talk about their works around EdgeX
 - To join the EdgeX WeChat group, please email info@edgexfoundry.org
- [Internet of Things World, May 13-16, 2019](#) | Santa Clara, CA
 - LF Edge will have a booth
 - Submit related project demos to showcase in the booth to pr@lfedge.org

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

- [IoT Tech Expo Europe](#), June 19-20, 2019 | RAI, Amsterdam
 - Speaking Opportunity - Enterprise IoT Solutions Track - Janko Isidorovic/Drasko Draskovic, Mainflux (confirmed)
- [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
 - CFP Closed April 2; Notifications May 13
 - Tingyu and Trevor (Dell) have applied for talks
- [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

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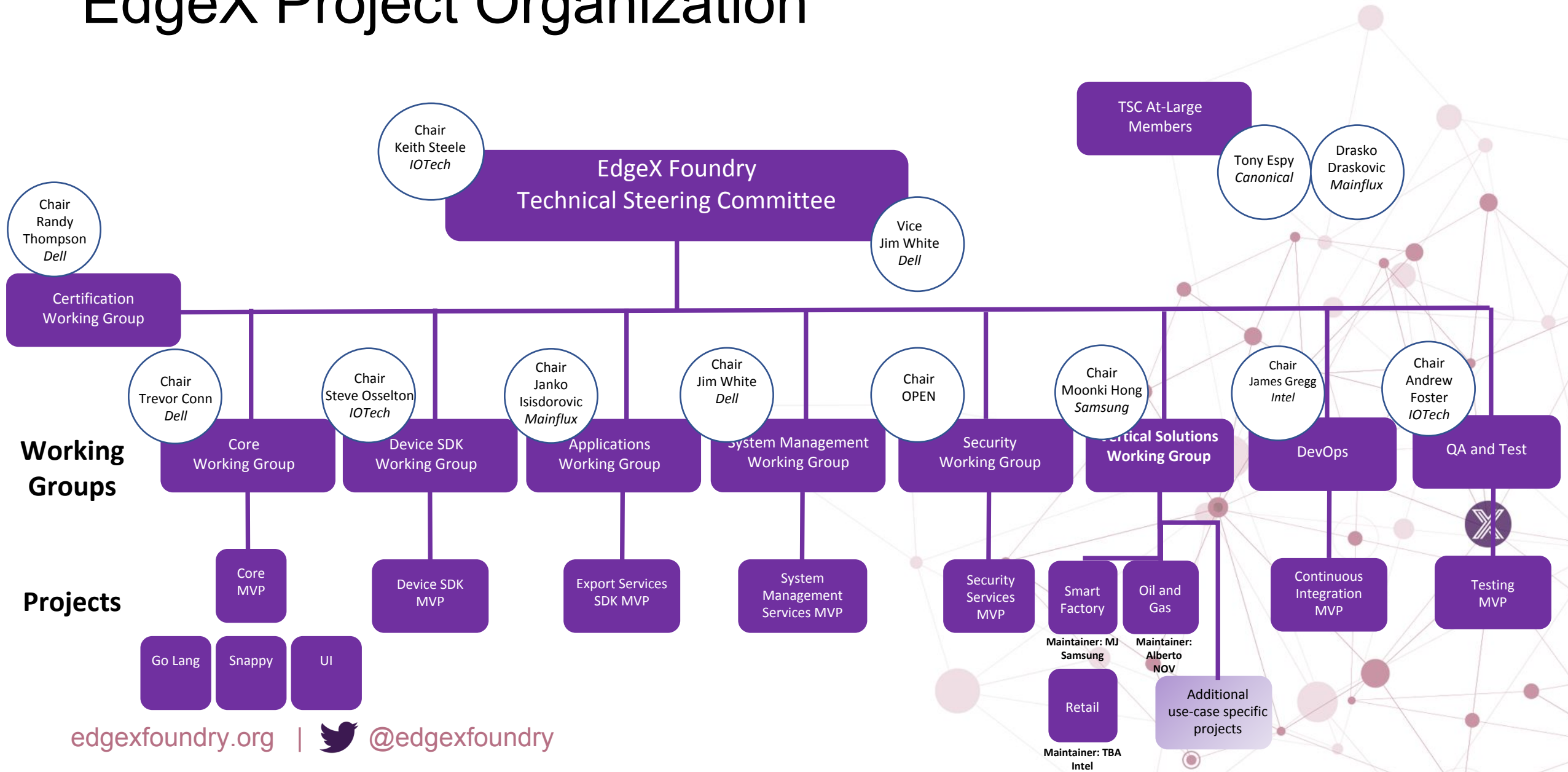
AOB / Reminders

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: April 17, 2019**

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](#)

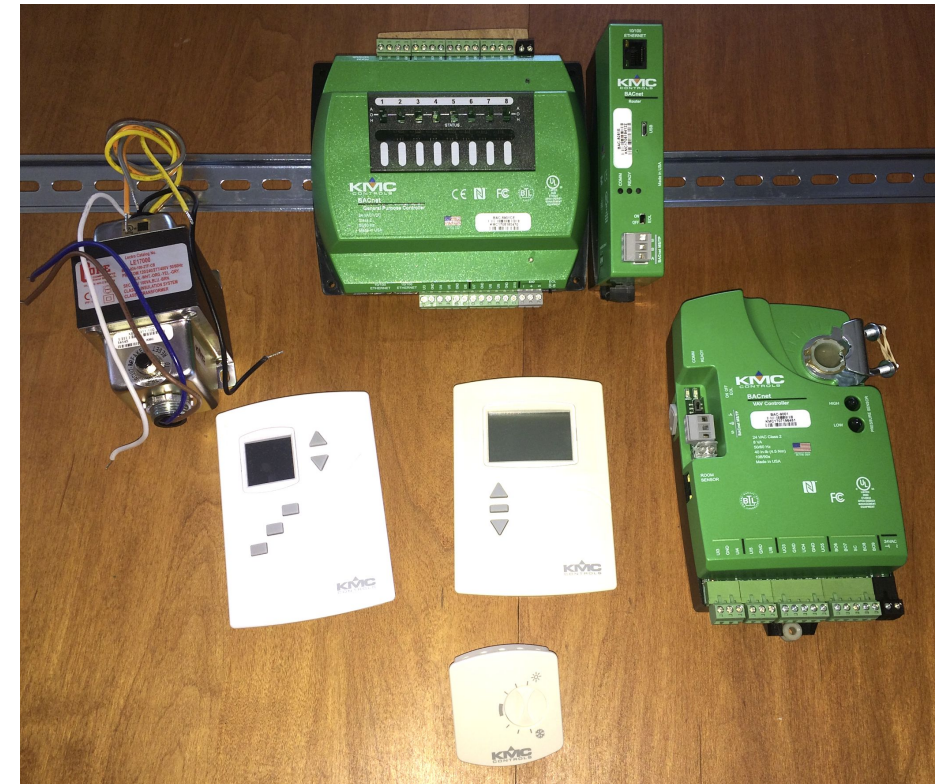
What is the Device Exchange?

- 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>

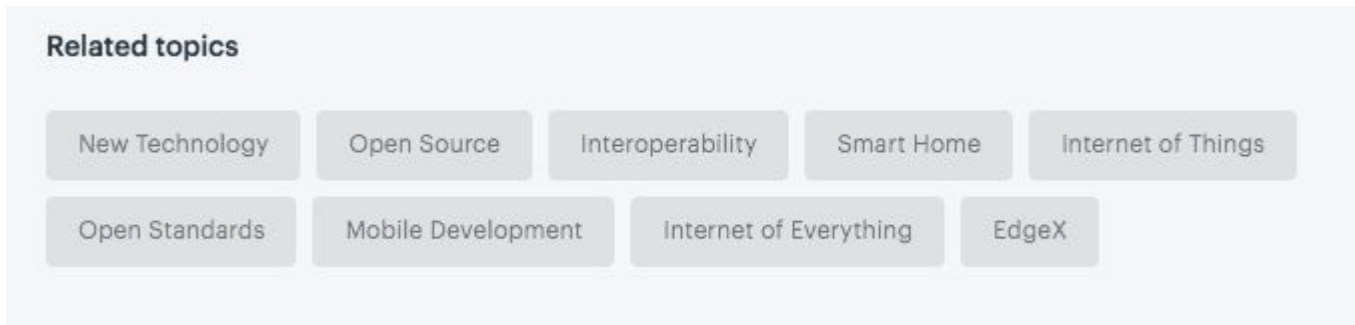


Special thanks to [Dave Bohlman](#) and [KMC Controls](#) for making this awesome kit and how-to guide available to members!!



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



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



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Thank You