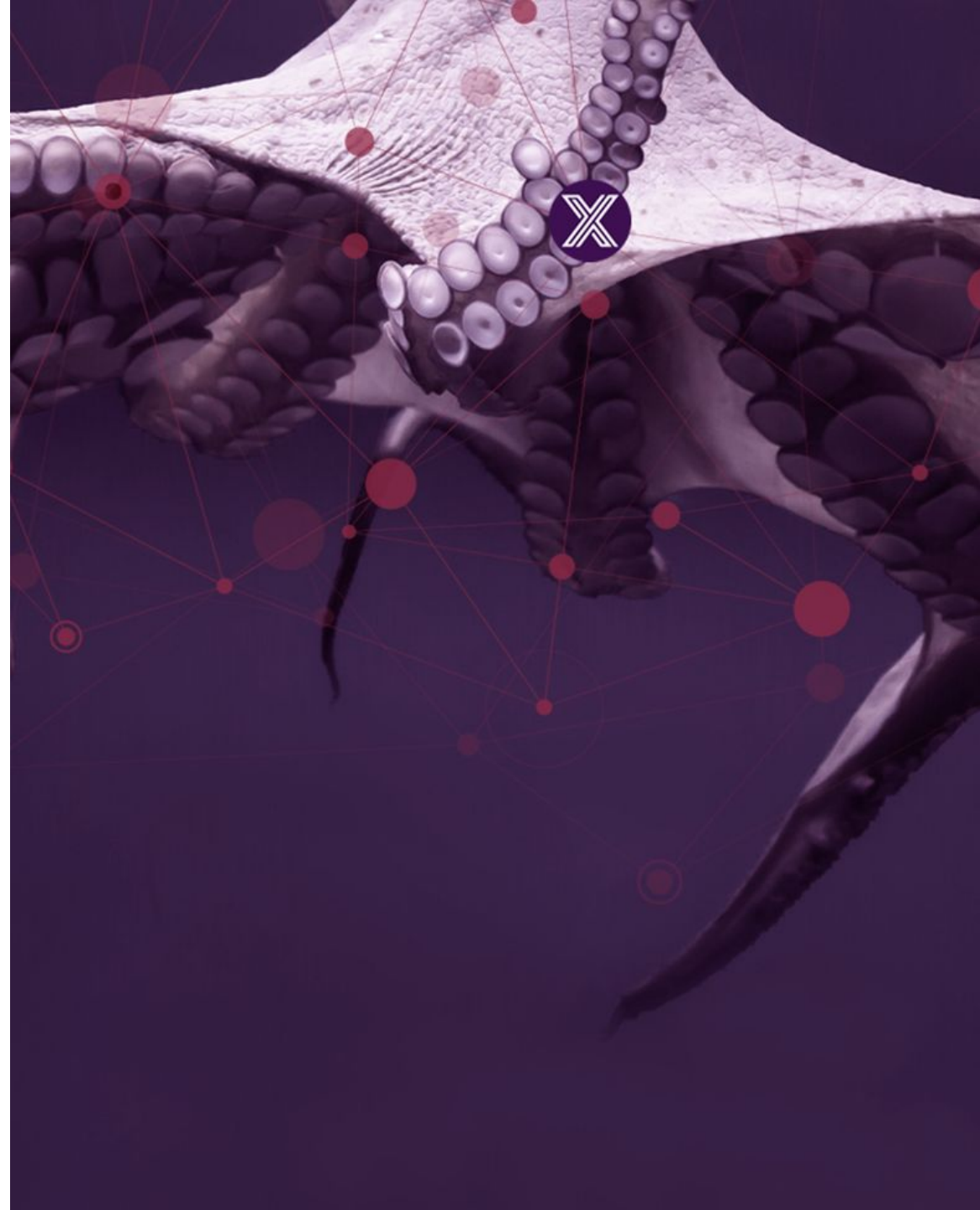


EDGE X FOUNDRY™

# TSC Meeting

June 26, 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: June 26, 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)

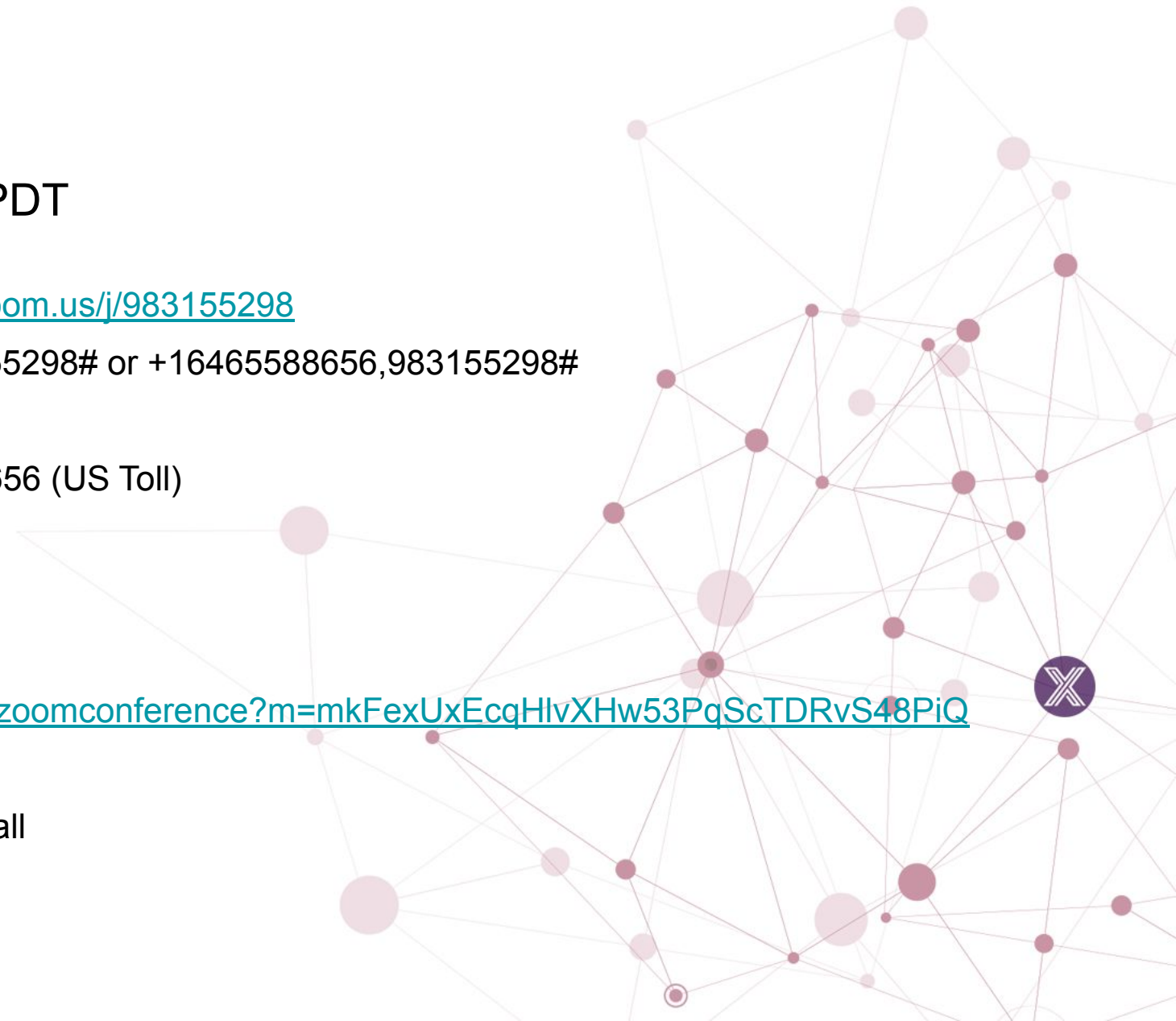
+1 855 880 1246 (US Toll Free)

+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>
Intel	Brad Corrion	<a href="mailto:bradley.w.corrion@intel.com">bradley.w.corrion@intel.com</a>
IOTech	Iain Anderson	<a href="mailto:iain@iotechsys.com">iain@iotechsys.com</a>
Intel	James Gregg	<a href="mailto:james.r.gregg@intel.com">james.r.gregg@intel.com</a>
Dell	Jim White (TSC Vice Chair)	<a href="mailto:james.white2@dell.com">james.white2@dell.com</a>
IBM	Joe Pearson	<a href="mailto:joe.pearson@us.ibm.com">joe.pearson@us.ibm.com</a>
IOTech	Keith Steele (TSC Chair)	<a href="mailto:keith@iotechsys.com">keith@iotechsys.com</a>
VMware	Malini Bhandaru	<a href="mailto:mbhandaru@vmware.com">mbhandaru@vmware.com</a>
Intel	Mike Johanson	<a href="mailto:michael.johanson@intel.com">michael.johanson@intel.com</a>
IOTech	Robin Chattergee	<a href="mailto:robin@iotechsys.com">robin@iotechsys.com</a>
Beechwoods	Rodney Hess	<a href="mailto:rodney@beechwoods.com">rodney@beechwoods.com</a>
RSA	Tingyu Zeng	<a href="mailto:tingyu.zeng@rsa.com">tingyu.zeng@rsa.com</a>
Canonical	Tony Espy	<a href="mailto:espy@canonical.com">espy@canonical.com</a>
Dell	Trevor Conn	<a href="mailto:Trevor.Conn@dell.com">Trevor.Conn@dell.com</a>

Current quorum = 7 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

- Release Final
- WG Updates
- Upcoming Events
- AOB



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# Release Planning

# Release Update

Release status: James, Lisa, Eric Ball, et. al

Build issues with edgex-ui-clojure (gitsemver), edgex-ui-go (conflicts with version files), device-snmp-go (credentials), mongo 4.0 (breaking on arm64)

Issues: Cloud, Lisa

Timeline for release artifacts





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# Work Group Updates

Chairs



# Working Group Chair Updates

- Around the horn
  - Core/Supporting - Trevor Conn
  - Applications - Mike Johanson
  - Device Services - Iain Anderson
  - Test/QA - Robin Chatterjee
  - DevOps - James Gregg
  - Security - Malini Bhandaru and Tingyu Zeng
  - System Management - Jim
  - Certification - Rodney Hess
  - Vertical Solutions - Brad Corrin

# Core Working Group (26-Jun-19)

- No major updates this week
- Feature work
  - Just about finished w/requirements for Value Descriptor rework
  - ProvisionWatcher discussions continue
    - How to handle a moving device??
    - Geneva deliverable
- Unit test coverage continues

# Applications WG Update (26-June-19)

- CI/CD Pipeline Updated (Thanks Lisa!)
- Updated to Go 1.12
- Compression and Encryption from existing Export Services complete
- Rules Engine direct from core data doesn't handle envelope around EdgeX event. Will be updated to handle both the envelope directly from Core Data and from App Functions SDK as well as from Export Services.
- Dynamic/Configurable Function Pipeline still WIP

# Device Services WG Update (26-6-19)

- Provision Watcher design
- Scoping for Fuji
- Device Profile changes
  - Mostly deferred to Geneva
  - Safe migration of confusing names in ResourceOperations
- Requirements document updates

# Test/QA WG Update (26-06-19)

- Blackbox Tests
  - Fixed issue [#22](#) related to running mongo on arm64, waiting for PR [#24](#) to be merged
- Performance Tests
  - Preparing automation script to collect data for performance summary report - target to have initial data set ready by end of the week, will review latest data at tomorrow's WG meeting
  - Updated latest status of JMeter data loss issue put on performance test issue [#31](#) and asking for help on slack
  - Updated document for developing performance test script. PR [#36](#) is under review
- Fuji
  - Created Test Plan template for new Device Services tests and have started drafting initial plan for review
  - Started planning for rollout of new Robot test framework
- Next QA/Test meeting June 27th, 4pm PST

# DevOps WG Update (06-26-19)

## Edinburgh Release

- Edinburgh release WIP - build issues as previously discussed will be focus for resolution
  - late requests for cutting branches for demo-grove-pi which missed code freeze
- Pre-Release Process changes were discussed in DevOps WG with verbiage submitted to the TSC for review.

## Fuji Scope - Container Scanning (Clair Server landing request)

- Update as of WW23 from LF Infrastructure team indicated the solution has been approved but not resourced yet.  
**Potential Risk** for Fuji if the landing doesn't happen.
  - Update Needed from Linux Foundation on this scope of work.
- Codecov global function completed by Tyler Powers
  - Working on coordination of the GitHub configs for all remaining repos
- SPIKE completed - Static Code Analysis Tools - will share in upcoming DevOps WG call
- edgex-go docs - migrated out, but needs a new build job created - will discuss in DevOps WG call

Next DevOps WG meeting - Thursday 7AM PDT



# System Management WG Update (6-26-19)

- Open Horizon discussion on going
- Fuji Focus
  - Set configuration work underway
  - Designing executor for metrics collection
  - Next items
    - Start/stop/restart all done by the executor to include stop/restart of SMA
    - Safe shutdown
    - WatchForChanges blocking function handling
    - SMA Translation layer (stretch)
- Added to roadmap
  - handling multiple key sets
  - caching

# Security WG Update (6-26-19)

Welcome from Tingyu and Malini!

- Refactored secret store service completed - PR pending review
- Refactored API gateway completed - PR merged
- SIR team welcomes Doug Gardner [doug.gardner@analog.com](mailto:doug.gardner@analog.com). Members: Doug, Jim, Tingyu, and Malini
- Fuji work -- plan is to release secret store code sooner than later for broader EdgeX team to use and report issues/concerns
- Hardware based secure Storage - exploring dates for a face-to-face in Santa Clara /CA July 29 week.
- Security Issues created with details (Tony idea - thanks) and Wiki updated. This provides a mix of static and dynamic.

# Certification WG Update (6-24-19)

- Largely waiting on work from QA/Test and Device Services WGs
- Will be working with both groups & Marketing going forward.
  
- No meeting next week; next meeting July 8th

# Vertical Solutions WG Update (6-25-19)

- Andy Laudato, CTO of Vitamin Shoppe, walked through his innovation plan and fielded many questions
  - Great overview about retail trends for those that would like to learn
  - Webcast is posted on the Commerce Project Wiki
- Seeking new energy and leadership for additional VS projects, starting with Industrial
  - All feedback is welcome
  - As well as leader nominees
- ORI Roadshow held in Chicago 6-24-19, soliciting ecosystem participation in Open Source and EdgeX
  - Kudos to Jason, Keith and extended teams for contributing as guest speakers

# Developer Advocacy (6-26-19)

- Setup in [LF Dev Analytics](#) staging environment
- Migrating docs to new [edgex-docs](#) repository
- Started Release 1.0 [landing page](#) (password: EdgeX1!)

## Highlights

**99**  
COMMITTERS

**17**  
ORGANIZATIONS



## Contributors

COMPANY | INDIVIDUAL

	NAME	COMMITTS	%
1	Dell	1,769	32%
2	IOTech	897	16%
3	Canonical, Ltd.	869	16%
4	Linux Foundation	728	13%
5	Intel	416	7%
6	(Unknown)	192	3%
7	Cavium	185	3%
8	circutor	146	3%
9	VMWare	114	2%
10	Mainflux	83	1%

## Commits

Commits and submitting contributors





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# EdgeX V1 Launch

Keith Jim and Camilo



# EdgeX V1 Launch

- EdgeX Messaging Document
  - Used to drive consistency across collateral
  - [https://docs.google.com/document/d/1fB-t9uAX7mA4fOUPmt4V2nZBqw26J5fjVQbi\\_\\_yOUdE/edit?ts=5cf1a74a#](https://docs.google.com/document/d/1fB-t9uAX7mA4fOUPmt4V2nZBqw26J5fjVQbi__yOUdE/edit?ts=5cf1a74a#)
- EdgeX V1 Marketing Sub Team Responsibilities
  - EdgeX June launch project manager (KPIs, milestones, etc.) **à Camilo Intel**
  - EdgeX budget request (June 1 – Nov 30) coordinator **à Camilo Intel**
  - EdgeX content coordinator (text, creatives, data sheets, white papers, use cases, examples, competitive analysis) **Jim White, Andy Foster, Keith Steele**
  - EdgeX webmaster **Ernesto Ojeda**
  - EdgeX digital market communications manager (mailing lists, emails, webcasts, etc.) **LinuX Foundation**
  - EdgeX digital advertising coordinator (GoogleAds, LinkedIn, etc.) **Linux Foundation**

# EdgeX IOT Solutions Congress

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## Silver Sponsor

- 5 Sponsorship Opportunities
- \$12,500 each
- 2 Secured, 1 pending
- Minimum requirement will be to demonstrate an LF Edge based project e.g EdgeX Demonstrator
- IOT World Solutions Congress  
Barcelona 29th-31st October 2019
- Pending final Budget Approval
- **Silver Sponsor Package**
- Congress
  - 1 parallel session speaker at the congress
  - 50 Congress Passes
  - 50% Congress discount for inviting customers
- Exhibition
  - 50 Exhibition area – only passes
  - 60 - 70m2 Surface space – Stand not included
- Networking
  - 2 Passes to the VIP Lounge networking area
  - 2nd level CTA in Sponsors Page for networking request
  - 2 Lead Retrieval devices
- Activities
  - Possibility of organizing an activity or a side event at IOTSWC19 (cocktail party, welcome reception, workshop, annual meeting, hackathon or similar)
  - 15% Discount on meeting room rental
- Customized Booth



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## Upcoming Events

# Upcoming External Events

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

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

- › [Open Source Summit Japan](#): 17-19 July, 2019 - Tokyo, Japan
  - › July 17: BoF - Getting the Edge in Edge Computing
  - › July 19: Tiejun Chen, VMware - Build Edge Computing with EdgeX Foundry over Kubernetes
  - › July 19: Hyde Sugiyama, Red Hat - Kubernetes Native Infrastructure and CoreOS Operator Framework for 5G Edge Cloud Computing
- › [Open Source Summit / Embedded Linux Conference](#) NA: 21-23 August, 2019 - San Diego
  - › LF Edge Members receive a 20% discount on registration. Email [info@lfedge.org](mailto:info@lfedge.org) for code.
  - › August 20: [LF Edge Mini-Summit](#) - Half-day, single-track event on the topic of IoT and Edge Computing
  - › August 21: Tingyu Zeng, Dell: An Agile Approach to Threat Modeling for Securing Open Source Project EdgeX Foundry
  - › August 22: Malini Bhandaru, VMware & Trevor Conn, Dell - IoT Action at the Edge - EdgeX Foundry 1.0 Released!
  - › August 23: Alexandre Courouble, VMware - Easy as a pi: EdgeX on Raspberry Pi for Automotive IoT
  - › August 23: Gavin Lu, VMware - Open and Neutral Edge Computing Architecture on Heterogeneous Devices
- › [Open Networking Summit EU](#): 23-25 September, 2019 - Antwerp, Belgium
  - › LF Edge Members receive a 20% discount on registration. Email [info@lfedge.org](mailto:info@lfedge.org) for code.

## Upcoming External Events continued

- › [Open Source Summit EU / ELC](#): 28-30 October, 2019 - Lyon, France
  - › October 31: LF Edge Mini-Summit - Half-day, single-track event on the topic of IoT and Edge Computing
  
- › Discussions around upcoming events occur in the LF Edge Outreach Committee
- › Members may subscribe at: <https://lists.lfedge.org/g/outreach-committee>

## Upcoming CFP Due Dates

- › [Open Source Summit Europe](#): Oct. 28 - 30, 2019, Lyon
  - › CFP Due: July 1
    - › <https://events.linuxfoundation.org/events/open-source-summit-europe-2019/program/cfp/>
- › [Embedded Linux Conference](#) (Co-located w/ OSS Europe): Oct. 28 - 30, 2019, Lyon
  - › CFP Due: July 1
    - › <https://events.linuxfoundation.org/events/embedded-linux-conference-europe-2019/program/cfp/>
- › [KubeCon + CloudNativeCon NA](#): Nov. 19-21, 2019, San Diego
  - › CFP Due: July 12
    - › <https://events.linuxfoundation.org/events/kubecon-cloudnativecon-north-america-2019/cfp/>



# EdgeX TSC F2F Meeting(s)

**4 November - 8 November, 2019** -- Location Phoenix, Arizona (USA) -- [Wiki page](#)

- Latest agenda available on the [Wiki](#)

## Venue

- Galvanize – 515 E. Grant Street, Phoenix, AZ 85004

## Coming Soon (before EoM June):

- **RSVP:** Links to register will be available on [Wiki](#). Will include registration for each section.
- **Hotel/Travel:** Recommended hotels



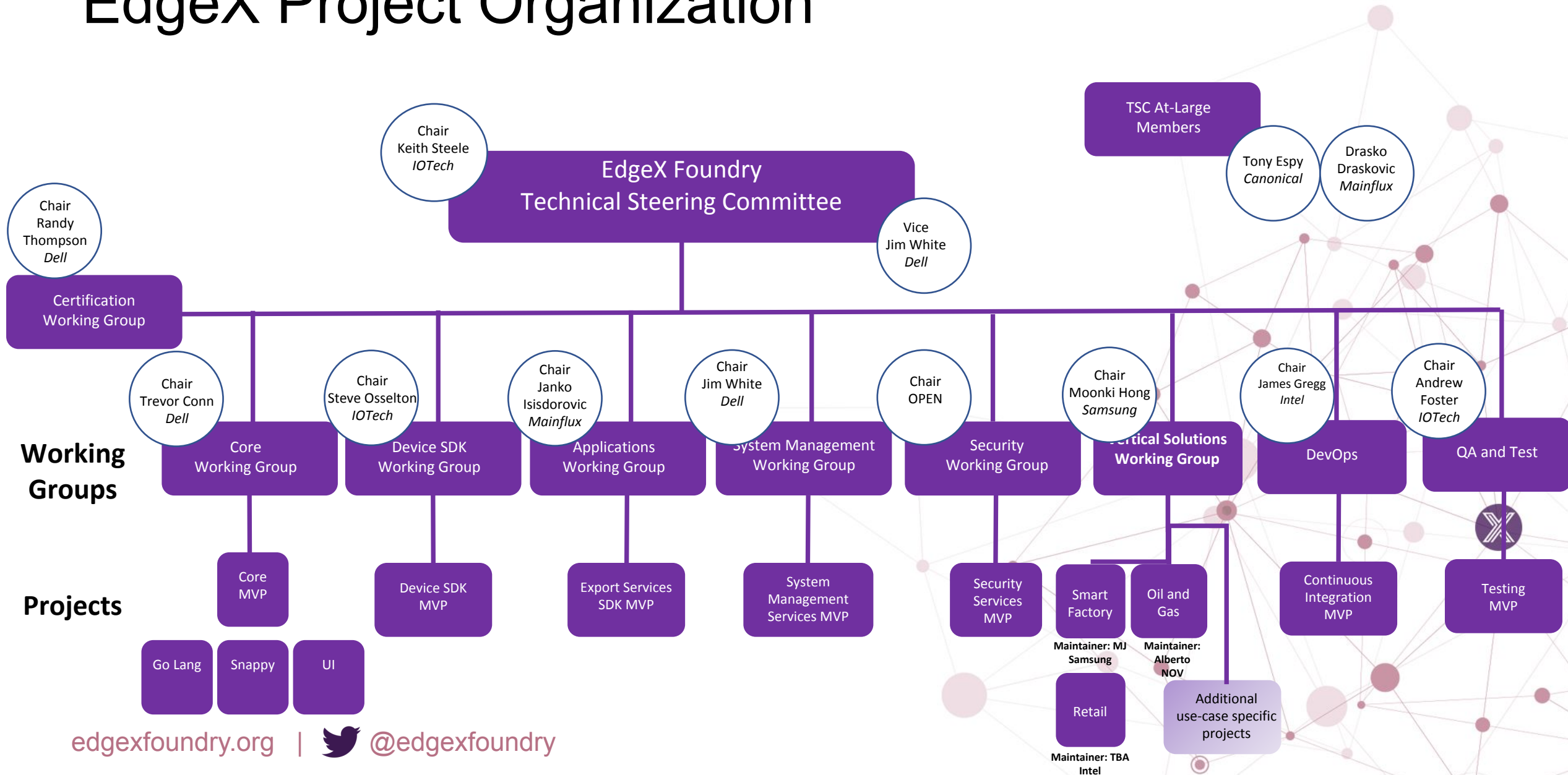
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AOB / Reminders

# 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: June 26, 2019**

# EdgeX Project Organization



# Marketing

- **CTA:** If your company will be presenting EdgeX at an upcoming event/webinar/other, please email [pr@lfedge.org](mailto: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](mailto: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](mailto:mwoster@linuxfoundation.org))
  - First Priority is the MVP - potential contributors please contact [keith@iotechsys.com](mailto: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](#)

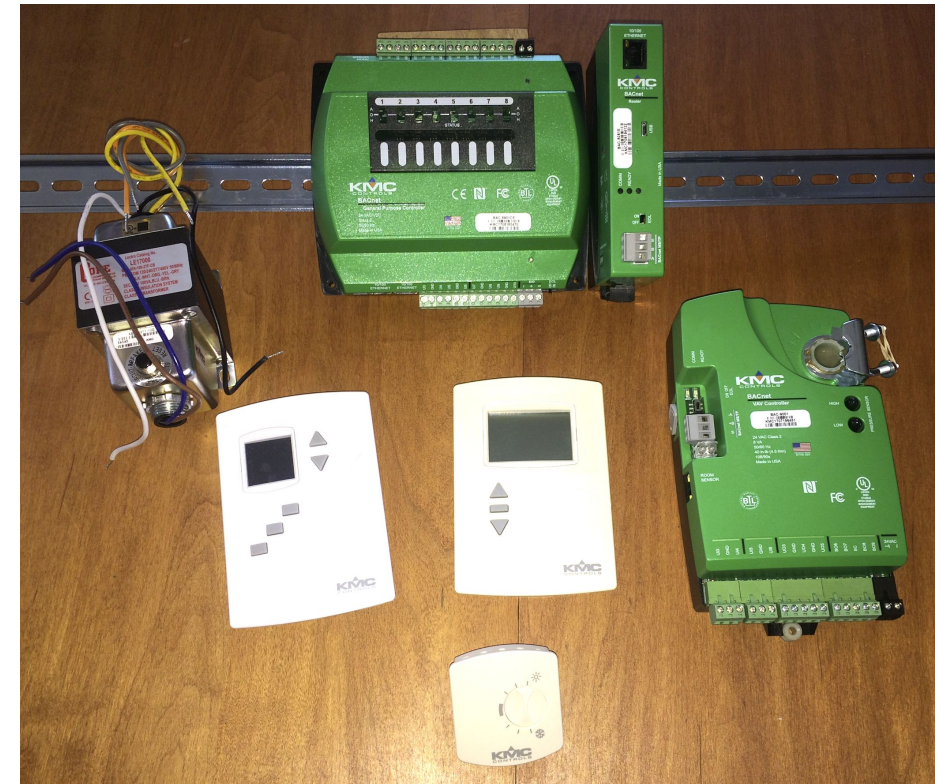
# What is the Device Exchange?

- 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](mailto: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](mailto: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