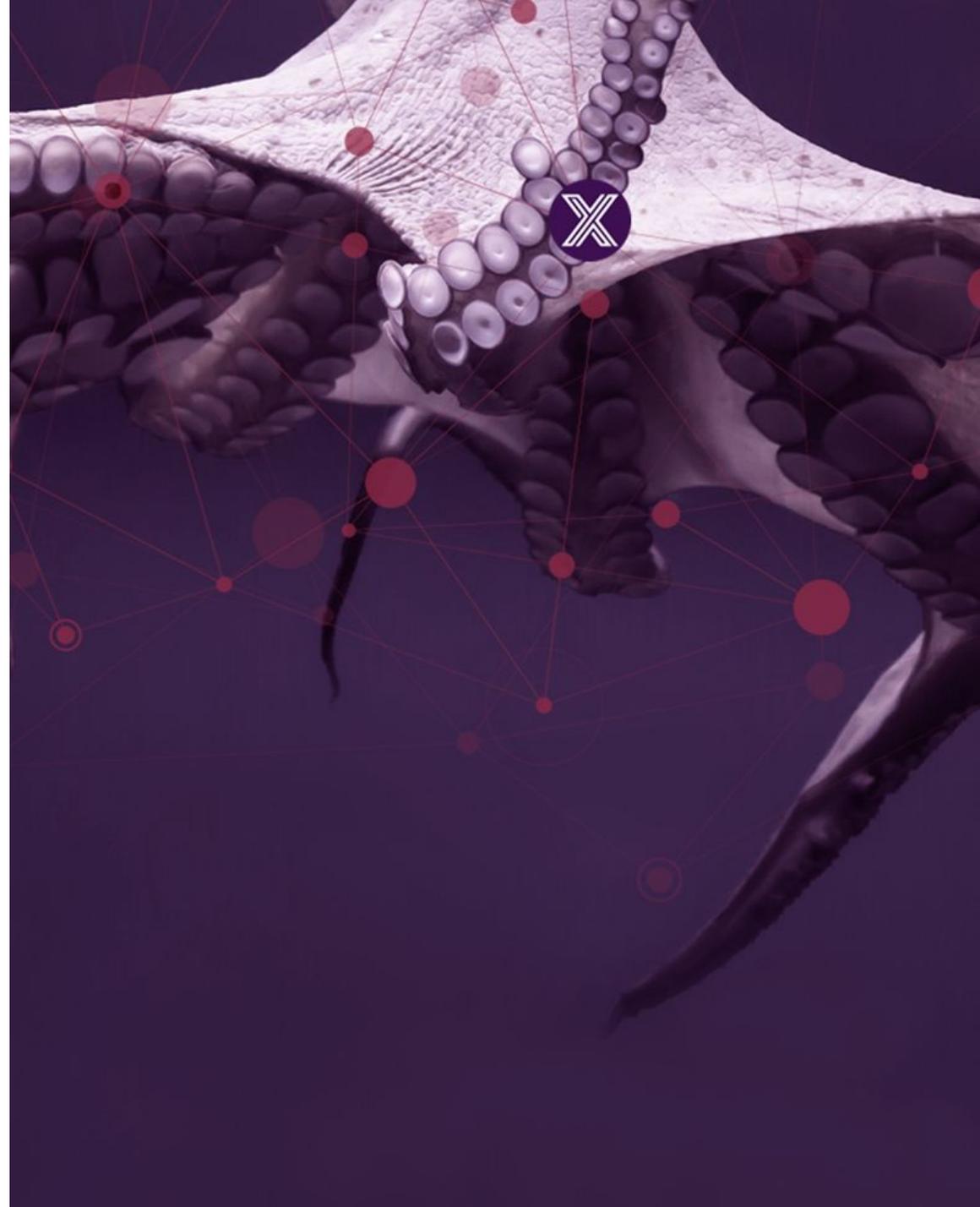


EDGE X FOUNDRY™

TSC Meeting

September 5, 2018



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: September 5, 2018 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 |
| ForgeRock | David Ferriera | david.ferriera@forgerock.com |
| Analog Devices | Doug Gardner | doug.gardner@analog.com |
| Mainflux | Drasko Draskovic | drasko@mainflux.com |
| Mainflux | Janko Isidorovic | janko@mainflux.com |
| The Linux Foundation | Jeremy Phelps | jphelps@linuxfoundation.org |
| 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 |
| IOTech | Steve Osselton | steve@iotechsys.com |
| Canonical | Tony Espy | espy@canonical.com |
| Dell | Trevor Conn | Trevor.Conn@dell.com |

Current quorum = 8 members

*Note: TSC meetings shall require a **quorum of two-thirds of the TSC total members to take a vote or make a decision.** If a TSC meeting fails to meet the quorum requirement, discussions may proceed, however there shall be no voting or decisions.*

Today's Agenda

- Delhi release dates/planning
- WG Updates
- Edinburgh F2F Planning
 - Agenda items and topics
 - Logistics
- EdgeX Community Demo Update
- IIC/EdgeX Workshop
- Upcoming Events
- AOB



EDGE X FOUNDRY™

Delhi Release Planning

Jim

Release Dates and features

See <https://wiki.edgexfoundry.org/display/FA/Delhi> for feature list

Still WIP - please provide updates/additions/corrections

Code freeze date: Oct 15th

Release date: Nov 9th

Allowing plenty of time between to better address DevOps and release related issues



California Release & Work Group Updates

Jim White

Working Group Chair Updates

- Around the horn
 - Core/Supporting - Trevor
 - Applications - Janko
 - Device Services - Steve
 - Test/QA - Andy
 - DevOps - Jeremy
 - Security - David
 - System Management - Jim
 - Vertical Solutions - Moonki
- Developer Outreach
- Others & Misc

Core Working Group (5-Sep-18)

- Data Persistence Project Group completed initial work
 - Will pick back up after DB abstraction and performance test harness in place (~Edinburgh)
- Glide dependencies versioned in master (PR 534 merged)
- Config-seed brought into edgex-go (PR 532)
 - Working with Jeremy on small changes to CI
 - Core-config-seed-go repo to be archived
 - Once merged, work will begin on Config V2
- Still need to tie off restructuring of export services (PR 494)
- Taking a serious look at GoKit (possibly Edinburgh)
 - More robust, modular API router
 - Support for tracing, authentication, microservice patterns
 - Mainflux already using this. De-facto recommendation at GopherCon.

Applications WG (9/5/18)

- X

Device Services WG Update (4th Sept 18)

- Go SDK progress
 - In foundry repository
 - Number of community contributions
- C SDK progressing
 - Not yet in foundry repository
 - Can support basic data read functionality
 - Currently being integrated with two C device services
- Common issues
 - Local scheduling mechanism being clarified
 - Need to support new systems management API

QA/Test WG Update (09/05/18)

- Current
 - No outstanding blackbox PRs
 - Assist DevOps with any help needed to get blackbox test running against ARM builds
- Next (Delhi)
 - Modify blackbox tests to support any RAML changes
 - Assist DevOps to setup better testing scoreboards
 - Draft Performance Test specification ready for review
<https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=18907573>

DevOps WG (8/29/18)

1). x

Security (9/5/18)

- Delhi work continues
 - Oauth Plugin for Kong
- HRoT (TPM) session held on Friday
 - 5 Intel SME's in attendance
 - Key takeaways:
 - Some combination of Secure Boot + measured boot with TPM is required for complete HRoT.
 - UEFI Secure Boot is the primary secure boot solution
 - Official OS support is limited
 - Best EdgeX strategy for now is to provide guidelines and recommendations for HRoT
 - Secure Storage abstraction will be a focus
 - software by default, HW possible.
 - Interested in an ARM based session in the future

System Management WG (9/5/18)

- Implementation update
 - Working prototype on Master (for Notifications, getting config)
 - More features to follow
- Roadmapping slide deck produced (Edinburgh, Fuji)
 - See Wiki or email Jim for copy
- Working on EdgeX v. “Gateway” Management scoping
 - To be discussed at Edinburgh F2F

Developer Outreach (9/5/18)

- Complete
 - Wiki cleanup/deprecation of old docs pages
 - [DIY Demo on RaspberryPi 3B+](#)
 - [Tech Talks relaunch](#)
- In Progress
 - Website layout refresh in progress (keeping old homepage text)
 - Google Analytics on new docs pages
- Coming up
 - Device Service creation walkthrough



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Edinburgh F2F Planning

Jim W & Brett

Edinburgh F2F

- Oct 23 - Architect's Day
 - Current list of Work Groups needing time on the 23rd?
 - System management (2-4 hours)
 - Security (2-4 hours)
- Oct 24-25: TSC meetings
- Planning Deck started
 - Please contact Jim W for agenda item requests & topic coverage
 - See <https://wiki.edgexfoundry.org/display/FA/23-25+October+2018%3A+Edinburgh+Technical+Meeting>
- Exploring Business Meeting to cover biz items

EdgeX TSC F2F Meeting(s)

- Wednesday & Thursday 24th/25th October -- Location Edinburgh, UK -- [Wiki page](#)
 - Working Group technical meetups on Tuesday, October 23
 - **RSVP at <https://goo.gl/forms/QR3WgP4ybB5KUT3w2>**
 - Current registration count: 30 in-person; 3 dial-in (3 are Tuesday only)
 - Tuesday Working Group Counts
 - Security: 7
 - Systems Mgmt: 2
 - Applications: 5
 - Device: 10
 - QA/Test: 2
 - Hotel/Travel: <https://events.linuxfoundation.org/events/elc-openiot-europe-2018/attend/venue-travel/>
 - For Wednesday night dinner/activity, Scotch whisky tasting!!
 - RSVP is required. RSVP as part of TSC registration above.
 - Current dinner count: 26
-
- April 2019 -- Location Seoul or Suwon (South Korea)

Do the highlighted groups need meeting time on Tuesday?

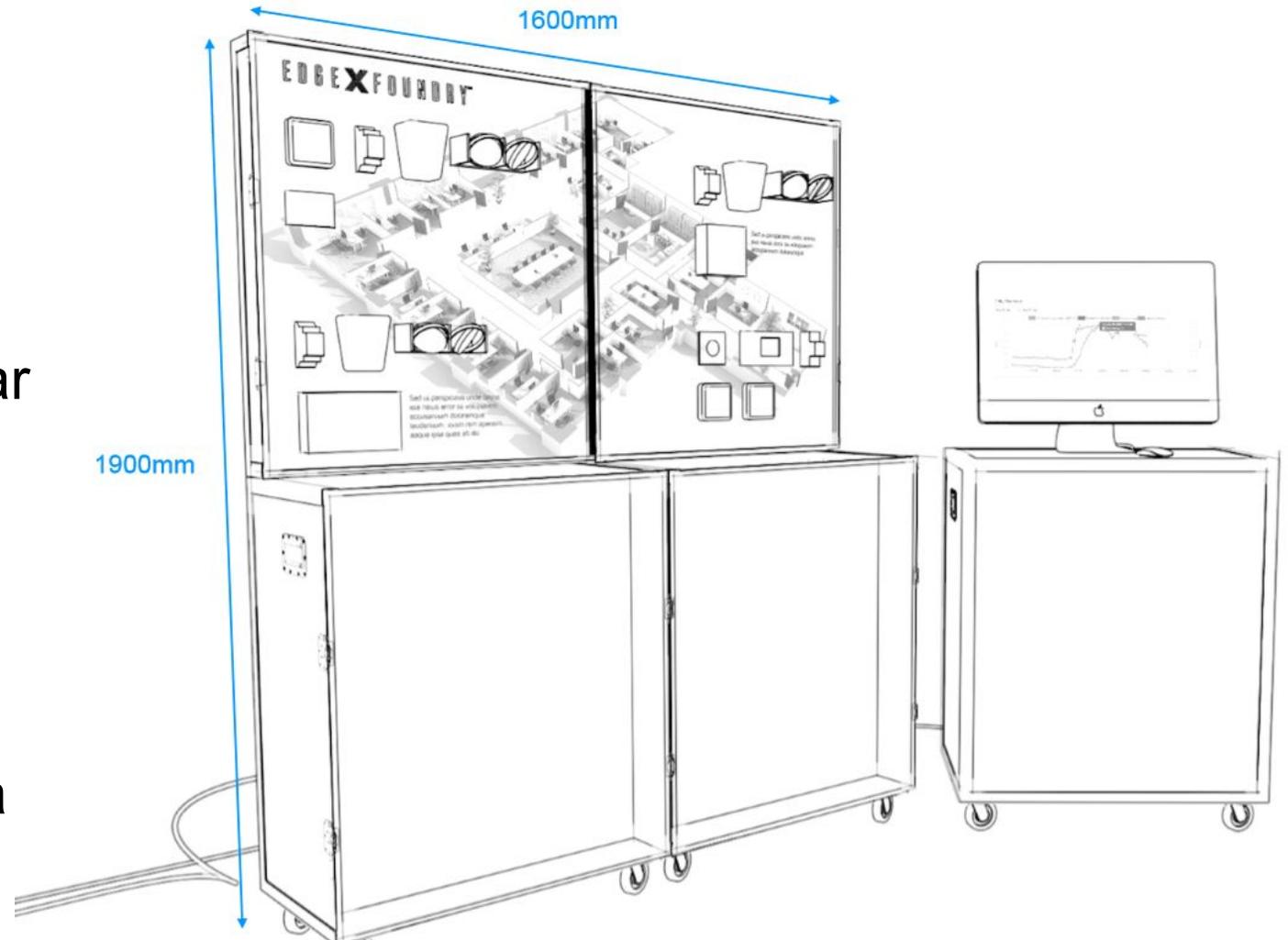


EdgeX Community Demo Update

Andy Foster

Stand Design

- Demonstrator stand design has been revised based on feedback from TSC
- Single wall design has been replaced with a more modular approach
- Will make transportation and setup much easier and more costs effective
- New design will enable demonstrator to be used at a greater variety of events





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IIC Updates

Riaz Zolfonoon

IIC/EdgeX Workshop

Sept 10-14

Chicago, IL

- Tuesday, Sept 11, 2018 @ 2:00 - 5:30 PM Central Time
- Hyatt Regency O'Hare in Chicago
- <https://www.iiconsortium.org/member-meetings.htm>

Next Steps:

- Content Planning (see Agenda on next slide)
- EdgeX Members planning to attend
 - David Ferriera, Dean Mocana, Doug Gardner, James Clardy, Jason Shepherd, Jim White, Keith Steele, Mario Comaj, Riaz Zolfonoon, Salim AbiEzzi, Todd Edmunds
 - **All non-IIC members need guest-pass to attend.** Please contact Brett for details.

Note: Just FYI and for planning considerations for those traveling to Chicago: At the same time as IIC meeting, there are also IMTS and Hannover Messe/USA shows in Chicago. On Friday 9/15, IIC and HMI/USA are planning a joint activity: Intelligent Transportation Forum.

<https://hannovermesseusa.com/>

Agenda

- 1. Introductions and Workshop Overview (10 min)**
Speakers: Sven Schrecker, SWG Chair, Wael William Diab, Liaison WG Chair, Keith: EdgeX (title)
- 2. Overview of the IIC Liaison Working Group (10)**
Speaker: Wael Diab, Senior Director, Huawei Technologies
- 3. Overview of EdgeX Foundry Initiatives/Activities (10)**
Speaker: Keith Steele (title)
- 4. IIC Security Initiatives (30)**
Speakers:
- 5. EdgeX Architecture/Security Overview (30)**
Speakers: Jim White/ David Ferriera
- 6. Break (15)**
- 7. System Management (15)**
Speakers: Salim
- 8. Panel Discussion & Q/A on Collaboration/Way Forward(55)**
Moderator: Sven Panelists: all presenters
- 9. Closing (5)**

Total: 3 hrs



EDGE X FOUNDRY™

Upcoming Events

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

Additional EdgeX events available at
<https://www.edgexfoundry.org/events/>

Upcoming Events

- IoT Faces Edge Computing Meetup, September 8 - Shanghai
 - Hosted by VMware China R&D and Wanxiang
 - Tiejun Chen (VMware) leading
- [EdgeX / IIC Workshop](#), September 11, 2018, Chicago, IL -- [Information](#)
- [Edge Computing Congress](#), September 18 - 20, 2018, Berlin
 - September 20 - 12:20 pm: Janko Isidorovic - Panel (Open Source & how EdgeX works with Akraino)
 - September 20 - 12:50 pm: Janko Isidorovic - Overview of EdgeX Foundry
- [Open Networking Summit Europe](#), September 25 - 27, 2018, Amsterdam, Netherlands
 - Community Partner: Save 15% on Attendee Registration with discount code ONSEU18COM15
- [IoT Scotland Meetup](#), September 27, 2018, Scotland
 - 6:30pm: Keith Steele - EdgeX Foundry overview
- [Redis Labs IoT Meetup](#), October 1, San Francisco
 - Dave Nielson - EdgeX Foundry lightning talk
- [Fog World Congress](#), October 1-3, San Francisco
 - Dr. May Wang - EdgeX Foundry overview (TBD)
 - Rob Schauble - Edge computing panel

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Additional EdgeX events available at
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Upcoming Events (continued)

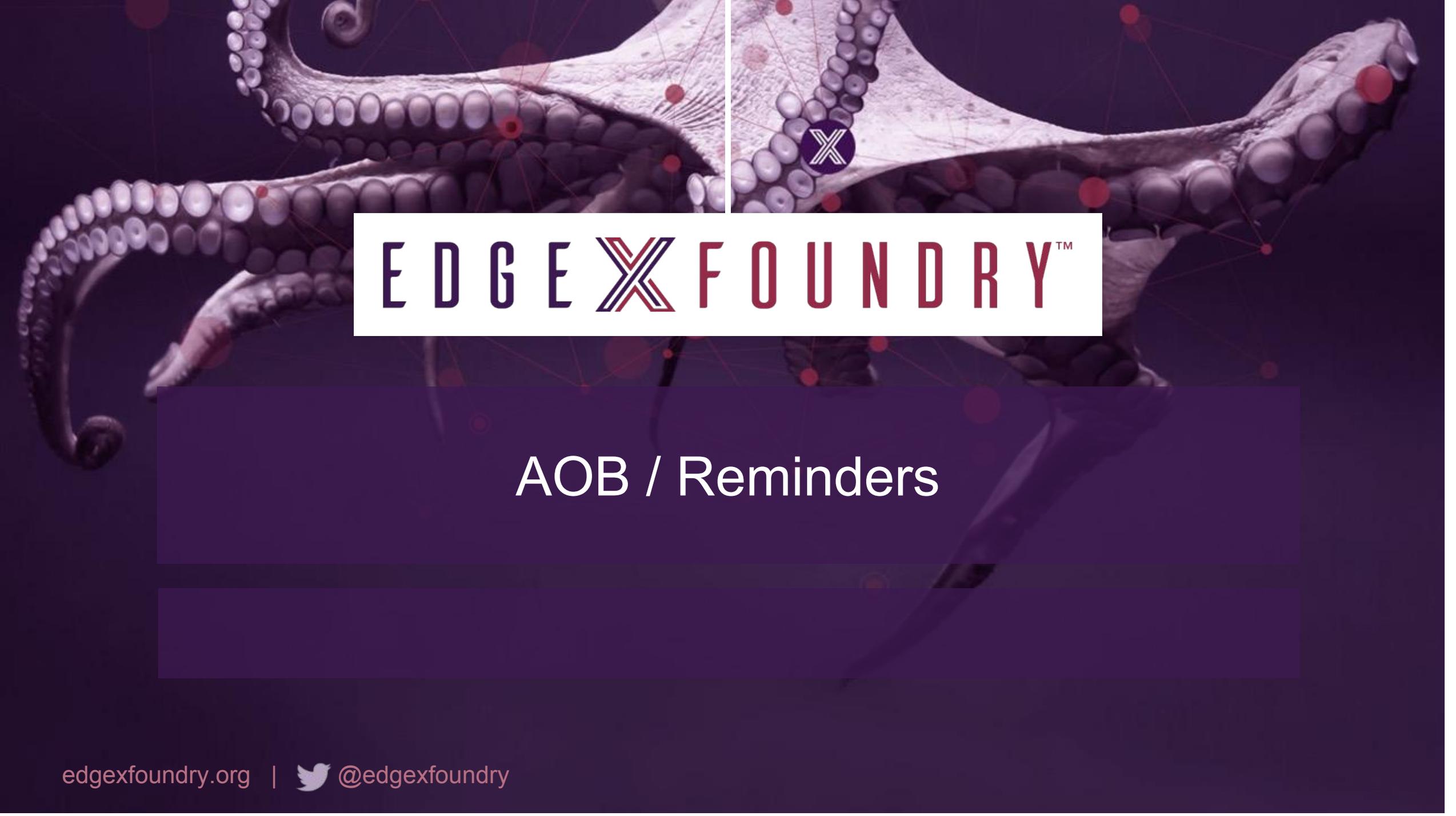
- [IOT Solutions World Congress](#), October 16-18, 2018, Barcelona
 - Exhibiting: Booth location - Gran Via, Hall 2, Level 0, Street B, Stand 271
 - Community Demo debut
 - Who is planning to be on-site?
 - Andy Foster (IOTech), Brett Preston (LF), Eldar Gizzatov (Basking), James Butcher (IOTech), Janko Isidorovic (Mainflux), Keith Steele (IOTech), Martina Ronca (IOTech), Michael Hall (LF), Mo Chehab (Basking) ...others?
- [Open Source Summit Europe](#) / [ELC / OpenIoT Summit Europe](#), October 22 - 24, 2018, Edinburgh, UK
 - Community Partner: Save 15% on Attendee Registration with discount code OSSEU18COM15
 - [Schedule announced](#)
 - EdgeX Sessions:
 - [Getting Started with EdgeX Foundry Workshop](#), Sunday October 21 at 1:30-5:15 pm, Jim White, Dell
 - [Extending Cloud-Native Principles to the Edge to Enable Scalable IoT Solutions](#), October 23 at 9-9:40 am, Jason Shepherd, Dell
 - [Building an Open IoT Solution with EdgeX Foundry and the Zephyr Project](#), October 23 at 12:20-1 pm, Michal Hall, EdgeX Foundry and Thea Aldrich, Zephyr Project
 - [Getting Lean and Distributed at the Edge](#), October 24 at 5:05-5:45 pm, Jim White, Dell

Upcoming Events (continued)/CFPs

- [Open Source Summit Europe](#) / [ELC](#) / [OpenIoT Summit Europe](#), October 22 - 24, 2018, Edinburgh, UK
(Continued)
 - Member sessions (for amplification)
 - [Can we Build a Safety Integrity Level System with Linux?](#) October 22 at 11:15-11:55 am, Tiejun Chen, VMware
 - [A Hybrid Solution to Address Real Time Virtualization.](#) October 22 at 5:05-5:45 pm, Tiejun Chen, VMware
 - Any other member presentations?
- [EdgeX Edinburgh Technical Meetings](#), October 23 - 25, 2018, Edinburgh, UK
- [Internet of Things Congress](#), October 24, 2018, Nuremberg, Germany
 - 2pm: Matthias Schorer - EdgeX presented in session on how to use microservice approach to IoT edge computing.
- [Symposium on Securing the IoT](#), October 29-31, Boston
 - Brad Kemp - EdgeX Foundry Overview (TBD)

CFP Upcoming Deadline:

- FIWARE Summit, November 26-28, Malaga Spain
 - Deadline - September 14, 2018
 - https://docs.google.com/forms/d/e/1FAIpQLSdr2ban4yHdP1O1STEBHDD-e2GOIy_RmNkgLZ3Aw5ZpDH4t5Q/viewform
- Members interested in joining the EdgeX [Speakers Bureau](#), please email pr@edgexfoundry.org



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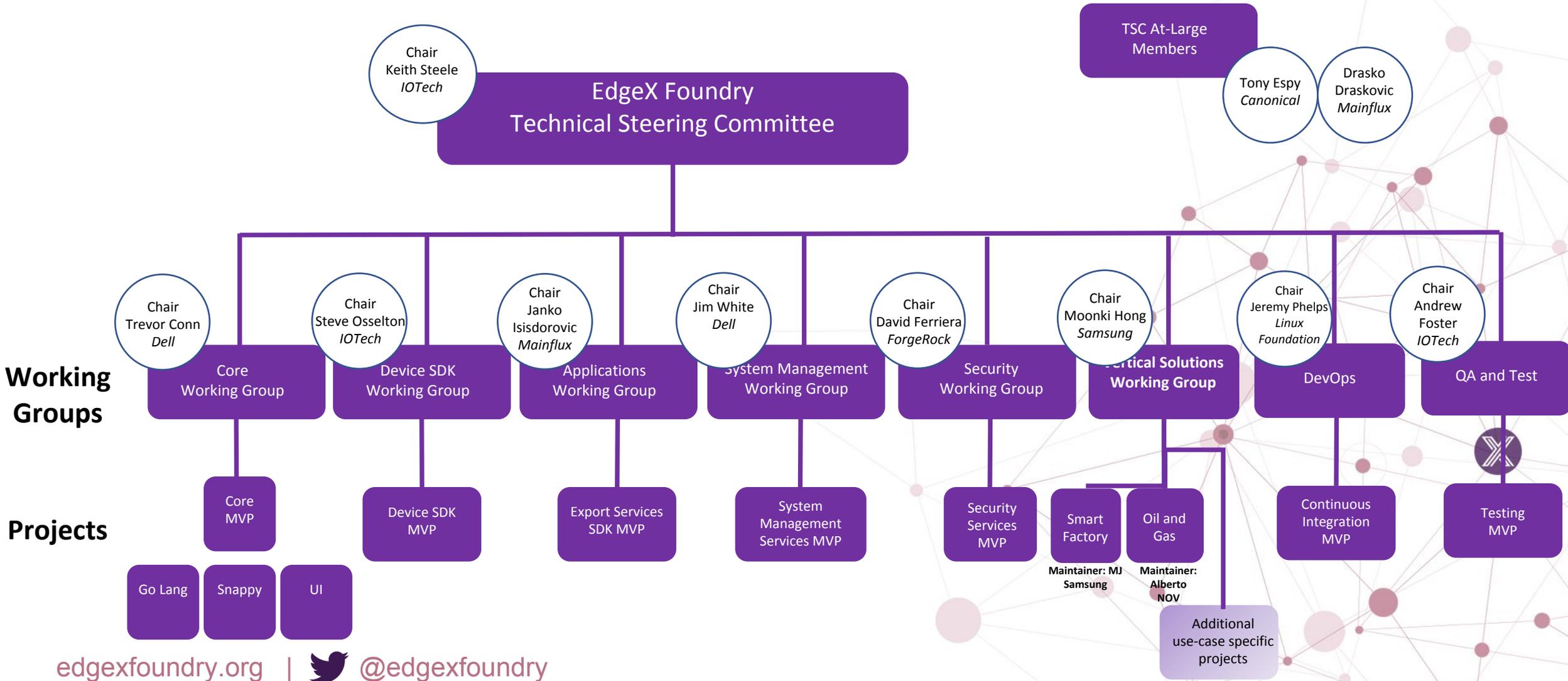
AOB / Reminders

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: September 12, 2018**

EdgeX Project Organization



Marketing

- **CTA:** If your company will be presenting EdgeX at an upcoming event/webinar/other, please email pr@edgexfoundry.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 Brett Preston at LF (bpreston@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://chat.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 Rocket Chat

<https://chat.edgexfoundry.org/home>

- [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



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@edgexfoundry.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