EDGE X FOUNDRY™

TSC Meeting

August 22, 2018

edgexfoundry.org | 🐦 @edgexfoundry
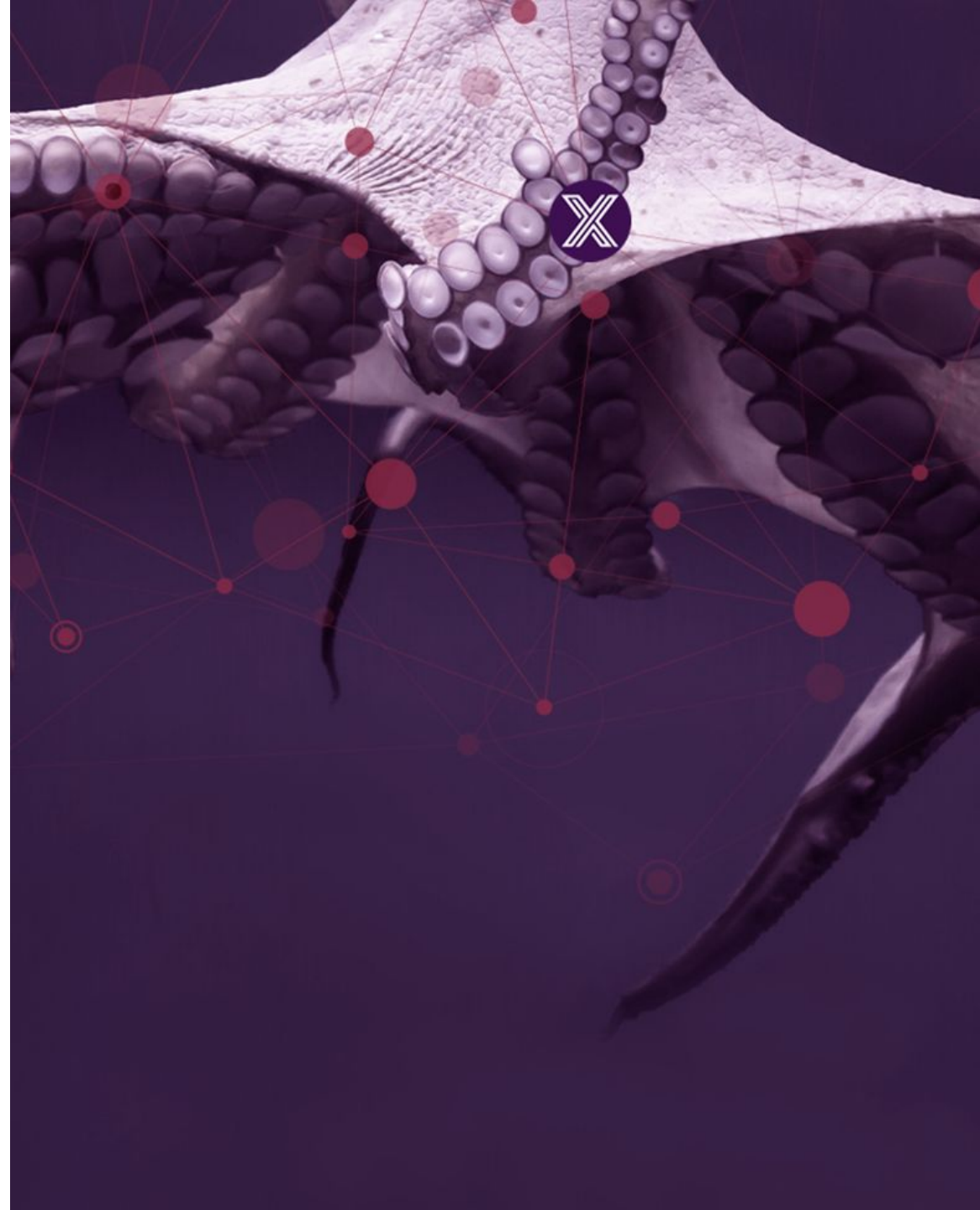
LF Antitrust Policy Notice

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: August 22, 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/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ

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

TSC – Members Present Today

Company	Name	Email
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.*

edgexfoundry.org | @edgexfoundry

Today's Agenda

- WG Updates
- Edinburgh F2F Planning
- EdgeX Community Demo Update
- Developer Outreach
  - Tech Talks
  - Documentation
  - Walkthrough
- Next TSC F2F Meetings
- IIC/EdgeX Workshop
- Upcoming Events
- AOB

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
- Others & Misc

Core Working Group (22-Aug-18)

- Not much to report this week due to vacation
- Thanks for feedback thus far on the unit test PR (#482).
  - Still need to review in detail
- Upcoming work items include
  - Config V2 implementation
  - Inclusion of "log level" threshold
    - DEBUG, INFO, ERROR, etc…
    - The ability to filter out logs by level got dropped in Java -> Go conversion

Applications WG (8/15/18)

- Preparing the proposal for redesign of Export Services to make them more scalable and modular. (Mainflux)
  - Need sync with Core, Security and Sys. Management WG
- Starting work on end to end tutorial for starting and setting EdgeX
- Delhi Features and Work:
  - Glide to Dep - Issue.
  - If enabled, mark pushed time after an event is sent in export distro
  - Add CouchDB implementation
  - Some bug fixing

Device Services WG Update (22 Aug 18)

- Presentation of device scheduling options (Tony Espy)
  - Presentation on Foundry Wiki
  - Agreement to try and reuse existing scheduling configuration support
  - Issues with current Java scheduler
  - Go scheduler not yet in California
- Work started on Go SDK backlog
- Work started on simple device and C SDK integration

Security (8/22/18)

- Held Delhi working session in Austin last week.
  - Design discussions on all Delhi release Items.
  - Delhi deliverables defined in more detail.
  - Added Delhi tab to Security Backlog with detail and priority order
- Weekly meeting canceled due to above session + vacations
- Delhi Progress: Vault worker in golang complete this week

System Management WG (8/21/18)

- Finalized the design doc for Delhi
    - https://wiki.edgexfoundry.org/display/FA/Phase+1%2C+System+Management+Delhi+Release
- Implementation underway
    - https://github.com/akramtexas/edgex-go/commits/sys-management-agent
- Roadmapping future releases (Edinburgh, Fuji)
-

QA/Test WG Update (8/22/18)

- Current
  - Completed review and merge of PRs [#53](#), [#59](#) and [#39](#)
  - Issued new PR [#73](#) "Modify support-notifications test script to meet the new API change in Go version"
  - Currently working to ensure automated blackbox tests are passing for ARM builds - on IOTech infrastructure initially

- Next (Delhi)
  - Modify blackbox tests to support any RAML changes
  - Assist DevOps to setup better testing scoreboards
  - Develop performance test strategy and automate tests (started)
  - Automated Security testing ?

DevOps WG (8/15/18)

1). Barcelona jobs removed.

2). ARM infra still in the works.

3). Double check that is ok to release california dot? (Is everyone ready?)
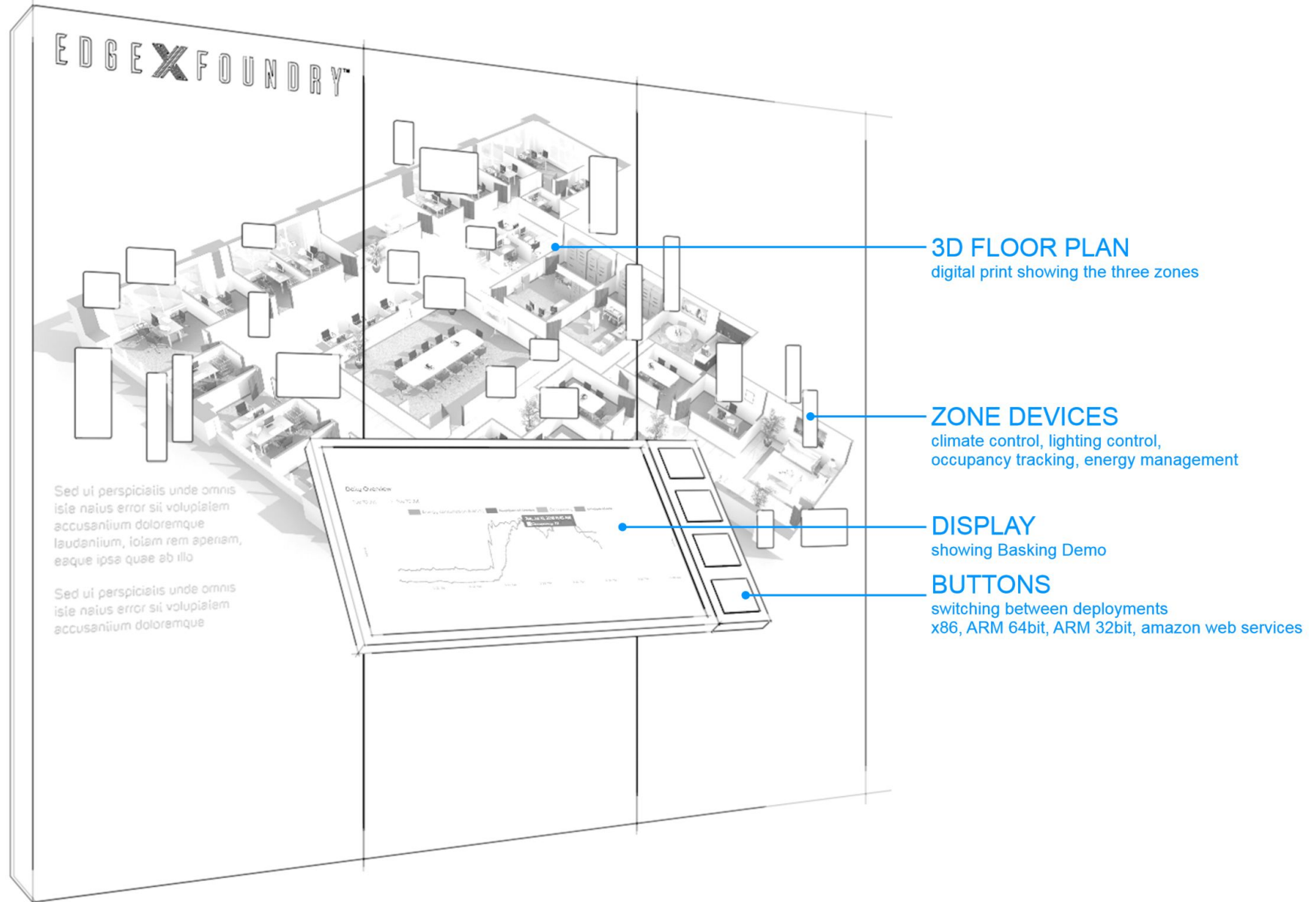
Edinburgh F2F

- Oct 23 - Architect's Day
- Oct 24-25: TSC meetings
- Which Work Groups need time on the 23rd?
- 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

EdgeX Community Demo Update

Andy Foster

Stand Design

EDGE X FOUNDRY

3D FLOOR PLAN
digital print showing the three zones

ZONE DEVICES
climate control, lighting control,
occupancy tracking, energy management

DISPLAY
showing Basking Demo

BUTTONS
switching between deployments
x86, ARM 64bit, ARM 32bit, amazon web services

IOTech

Developer Outreach

Michael Hall

Tech Talks - Next Series

- Tech Talks are resuming with first call scheduled for September 4th at 1:30pm CDT
- Planned topics:
  - Getting setup with EdgeX Foundry (Jim)
  - Creating a new Device Service (Steve?)
  - Creating a new Export Client (Janko?)
- Proposed topics:
  - Device Services deep dive
  - Export Service deep dive
  - Security Services
  - Rules Engine

New Documentation Site

- **https://docs.edgexfoundry.org**
- Built from edgex-go/docs sources
- Updated from the California branch through CI
- Point new users to these docs instead of the wiki or Github
- Will be removing old wiki content soon, redirecting to new docs

Updated API Walkthrough

- In edgex-go/docs/walk-through
- 10 easy to follow steps
- Shows the entire process from device registration to exporting
- Updated examples, fixed bugs and inconsistencies
- Added more screenshots & helpful tips
- https://docs.edgexfoundry.org/Ch-Walkthrough.html
  - (coming soon, waiting on issue #491)

Next TSC F2F Meetings

Brett Preston

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: 29 in-person; 3 dial-in (3 are Tuesday only)
  - Tuesday Working Group Counts
    - Applications: 5
    - Device: 10
    - Security: 7
    - Systems Mgmt: 2
    - 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: 25

- April 2019 -- Location Seoul or Suwon (South Korea)

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, Jason Shepherd: 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. **Joint IIC/EdgeX Activities** **(15)**
   Speakers: TBD

8. **Panel Discussion & Q/A on Collaboration/Way Forward(55)**
   Moderator: Sven Panelists: all presenters

9. **Closing** **(5)**

Total: 3 hrs

Upcoming Events

Upcoming Events - Confirmed

- [Open Source Summit North America](https://events.linuxfoundation.org/), August 29 - 31, 2018, Vancouver, Canada
  - Community Partner: Save 15% on Attendee Registration with discount code OSSNA18COM15
- [EdgeX / IIC Workshop](https://events.linuxfoundation.org/), September 11, 2018, Chicago, IL
  - Hosted jointly by:
    - IIC Security (Chair: Sven Schrecker, Intel)
    - Liaison Working Group (Chair: Wael William Diab, Huawei)
  - EdgeX Liaisons: James Clardy, NetFoundry, Riaz, Salim AbiEzzi VMware
- [Open Networking Summit Europe](https://events.linuxfoundation.org/), September 25 - 27, 2018, Amsterdam, Netherlands
  - Community Partner: Save 15% on Attendee Registration with discount code ONSEU18COM15
- [IOT Solutions World Congress](https://events.linuxfoundation.org/), October 16-18, 2018, Barcelona
  - CFP and Call for Testbeds have closed. Email pr@edgexfoundry.org if you were selected so that we can track/promote
  - EdgeX has secured a booth
    - Community Demo will debut at the show
  - Who is planning to be on-site?
    - Andy Foster (IOTech), Brett Preston (LF), Eldar Gizzatov (Basking), James Butcher (IOTech), Keith Steele (IOTech), Martina Ronca (IOTech), Michael Hall (LF), Mo Chehab (Basking) ...others?

Upcoming Events - Confirmed (continued)

- 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
    - 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?

Upcoming CFP Deadline/ Need a Volunteers

CFP Upcoming Deadline:

- Embedded World, February 26-28, 2019, Germany
  - Deadline - August 31, 2018
  - https://www.embedded-world.eu/home.html
- FIWARE Summit, November 26-28, Malaga Spain
  - Deadline - September 14, 2018
  - https://docs.google.com/forms/d/e/1FAIpQLSdr2ban4yHdP1O1STEBHDD-e2GOIy_RmNkgLZ3Aw5ZpDH4t5Q/viewform

Mae secured speaking opportunities - please email maemalynn@linuxfoundation.org if you would like to volunteer:

- Open Fog Consortium - October 1-3, San Francisco: We are looking for someone who is comfortable presenting an EdgeX presentation and on a panel to discuss how edge computing and fog computing work together.
- Broadband World Forum - October 23-25, Berlin: We are looking for someone to present an EdgeX presentation under the edge computing track.

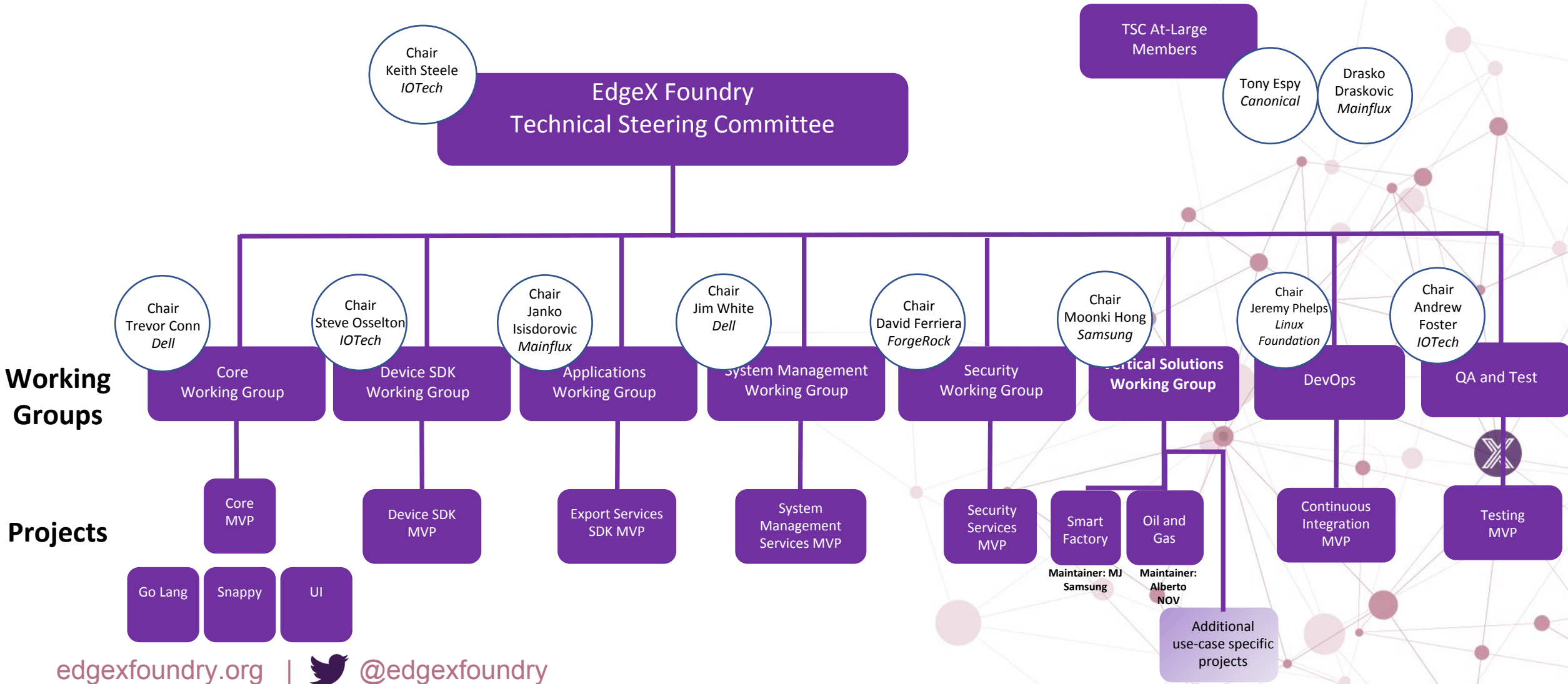AOB / Reminders

edgexfoundry.org | 🐦 @edgexfoundry

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: August 29, 2018**

EdgeX Project Organization

EDGE X FOUNDRY™

Chair
Keith Steele
IOTech

EdgeX Foundry
Technical Steering Committee

TSC At-Large
Members

Tony Espy
Canonical

Drasko
Draskovic
Mainflux

Working Groups

Chair
Trevor Conn
Dell

Chair
Steve Osselton
IOTech

Chair
Janko
Isisdorovic
Mainflux

Chair
Jim White
Dell

Chair
David Ferriera
ForgeRock

Chair
Moonki Hong
Samsung

Chair
Jeremy Phelps
*Linux
Foundation*

Chair
Andrew
Foster
IOTech

Core
Working Group

Device SDK
Working Group

Applications
Working Group

System Management
Working Group

Security
Working Group

Vertical Solutions
Working Group

DevOps

QA and Test

Projects

Core
MVP

Device SDK
MVP

Export Services
SDK MVP

System
Management
Services MVP

Security
Services
MVP

Smart
Factory

Oil and
Gas

Continuous
Integration
MVP

Testing
MVP

Go Lang

Snappy

UI

Maintainer: MJ
Samsung

Maintainer:
Alberto
NOV

Additional
use-case specific
projects

edgexfoundry.org | @edgexfoundry

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
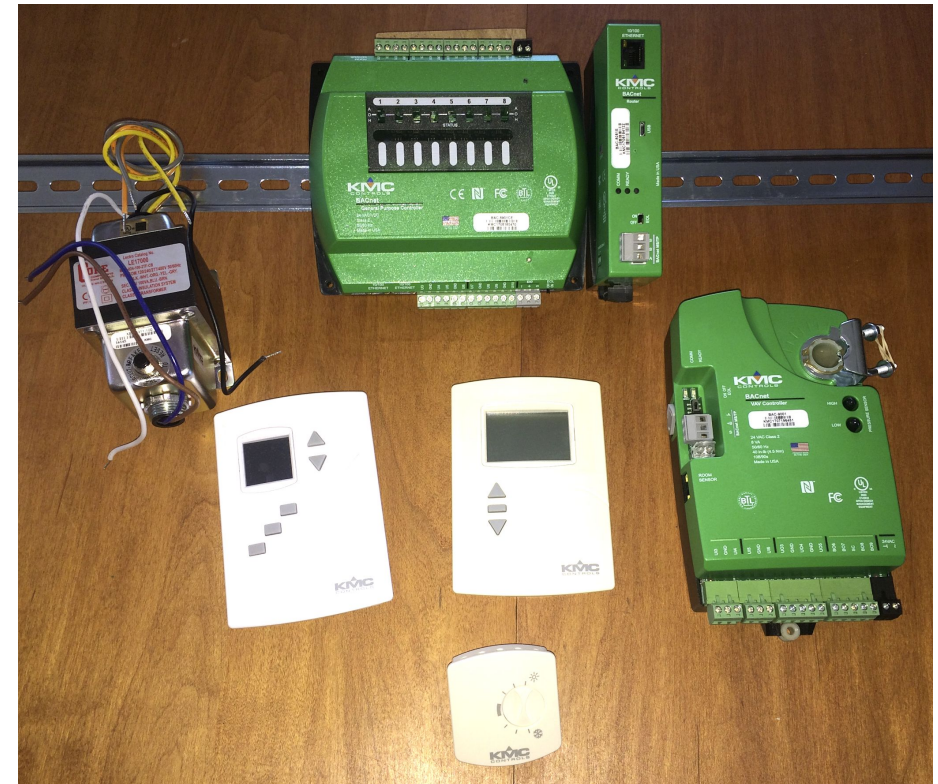
    Call recordings are available on the Wiki

What is the Device Exchange?

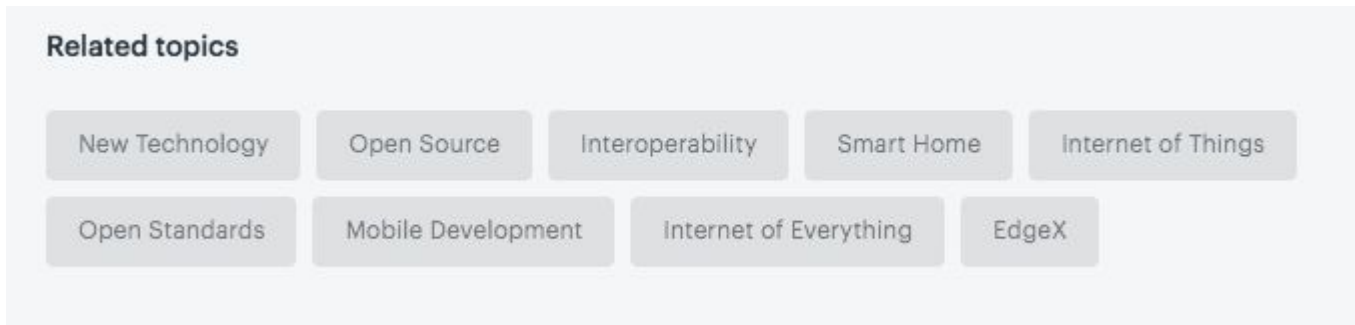• A great way to put your products in the hands of other members so they can help build a better EdgeX!

• 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

Thank You