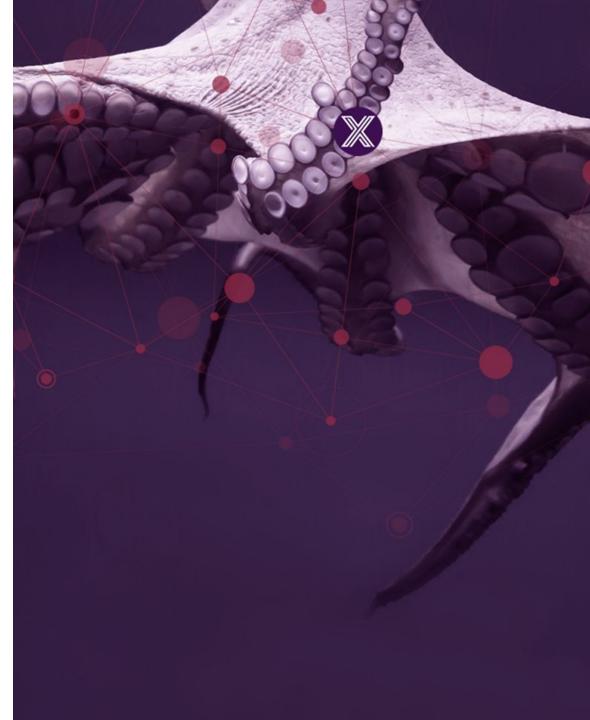


TSC Meeting

May 22, 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: May 22, 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/zoomconference?m=mkFexUxEcgHlvXHw53PqScTDRvS48PiQ

** 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.

edgexfoundry.org | @edgexfoundry

Today's Agenda

- Strike Team updates
- Release Planning
- WG Updates
 - Couple of TSC Votes needed
 - 1 Vote to move device-snmp-go to edgexfoundry
 - 2 Dot release for security services in July/Aug
- EdgeX Marketing Group Update
- TSC Elections
 - Voting Rosters
 - WG Chair nominations and elections
- Upcoming Events
- AOB



- 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
- LLFTools/SIGL enhancements- James
- Kong Upgrade Tingyu

Items in Green are believed to have been finished

- Device services
 - Go SDK changes complete
 - C SDK Changes complete (API)
 - C SDK CBOR still work still to complete (won't impact API's)
 - 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
- Ul updates
 - IoTech UI See next slide PR about to be issued
 - VMWare UI Jim to check with Huaqiao
 - Uls not able to be updated will be archived to the Delhi release

IOTech UI update

- Enhance Export Wizard (PR), including
 - Muti-step wizard
 - Auto-input device/reading values
- New Notification menu (PR), including
 - Create/Edit/Delete Notifications/Subscriptions
 - Display Notification/Subscription/Transmission list
 - Transmission by Notification Slug View
- Admin Login
 - Support login, logout
 - Password change



Schedule

Release code freeze (all): May 28

Tagging, artifact creation (Trevor, James, Lenny): starting May 28

Meetings that morning to organize the work

Release target: June 20



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 (22-May-19)

- CBOR
 - All work in the core services is dev complete!
- Bug fixes
 - Focus on this for Edinburgh code freeze
 - Allure report shows passing results at %99.02
- Redis
 - Two different PR approaches for enabling Redis via config-seed
 - PRs 1348 and 1359
 - Email sent for discussion on comapring merits yesterday morning.
 - May look to Core WG call for final decision
- Core WG Call tomorrow (10AM CST)

Applications WG Update (15-May-19)

Edinburgh Release Work in progress

- Documentation and tutorials for V1.0
- CBOR for existing Export Services

Fuji release Plan - Application services and export services

- With the Fuji release, the application services should be 100% functional replacements for export services (client and distro)
- An earlier decision not to support cloud IoT platforms directly was revisited. The feeling was that some examples at least needed to be provided to make connecting to cloud providers easier.
- Application services will now provide example services that get data to "the big 3" of :
 - Amazon IoT,
 - Azure IoT and
 - Google IoT Core
 - starting with Amazon and Azure for the Fuji release
- Adding support for Google or Chinese cloud providers (Tencent, Alibaba, etc.) is a stretch goal
- On the next App WG meeting IBM will present open horizon. https://github.com/open-horizon/



Device Services WG Update (22-5-19)

- Go SDK
 - CBOR support mainly done
- C SDK
 - Remaining work for Edinburgh: CBOR
- General
 - Discussion on how to specify registry location
 - Dynamic device registration support deferred till Fuji
 - Discussion on issue #276
 - Event caching support deferred till Fuji
 - Looking good for Edinburgh code freeze end of week

Test/QA WG Update (05-22-19)

- Fixed issue #168, #185, #200, #220, #222, #224, #228, #229
- Merged PR #216, #223, #225, #227, #230, #231
- Reviewing PR #233, #234, #236
- Performance Test
 - Opened ci-management issue #375 for adding schedule on performance test job. (I will fix it if no any concern.)
 - Added core-command test cases.
- Issue #1308 caused all of scheduler test cases failed on blackbox-testing
- Edinburgh objectives
 - Better visualization/dashboarding (Allure) of test results (complete)
 - Automated capture of resource metrics to monitor performance (job scheduled to run on main LF jenkins server every Saturday at 4am UTC) - work should be completed this week
 - Security test automation tests running on x86, scripts updated to run new Kong docker image for ARM work should be completed this week
 - Code contributors will now be required to supply additional or updated blackbox tests (complete)
- Next QA/Test meeting Thursday 23rd May, 4pm PDT



DevOps WG Update (05-22-19)

- Linux Foundation addressed LFTools / Sigul Defects
 Issue identified as undocumented feature with annotated tags
 - resolved but needs validation

Code Freeze 5/28

- Assumes all PRs are merged ahead of 5/28 that will make it into the release
- Developers / DevOps collaboration needed for successful release
 - Communicate the tasks / help needed ahead of time

Issues:

- Roadmap for addressing technical debt not understood by Linux Foundation for build dependencies (python version)
- Fuji Scope Container Scanning Needs Architecture AWS hosted solution may have some \$\$

Next DevOps WG meeting - Thursday 7AM PDT



System Management WG Update (5-22-19)

- Fuji Focus
 - Address some outstanding needs/fixes
 - Start/stop/restart all done by the executor to include stop/restart of SMA
 - Executor tracks completion and returns results
 - Executor for metrics collection
 - Setting configuration
 - SMA Translation layer (stretch)
 - Pick one protocol to start (SNMP, LWM2M, ...)

Security WG Update (5-22-19)

- Request Edinburgh dot release for service access to Vault
 - Next slide for plan and schedule
- Fuji work starting soon (scope per F2F below)
 - Generation of PKI
 - Distribution of per service Vault secrets
 - HW secure storage abstraction layer (design only)
 - How to protect the Vault Master Key
 - Ensuring the services running are those expected (and authorized)
 - Renew/refresh threat assessment
 - Need document defining what security is/does and can/will do

Edinburgh Dot Release

- To provide services access to Vault secret store
 - Database username/password foremost
- Work to complete
 - Resolve complexities encountered in service bootstrapping with the go-mod-core-security
 - Add command line parameter to use/not use secret store
 - Move go-mod-core-security to edgexfoundry github
 - Clean up and align security packages to other service standards
 - Unit/integration testing
- Timeframe: July or early August depending on Edinburgh status



Certification WG Update (5-20-19)

- Plan of Record available on Wiki
 - Self-assessment for Device services first
- Self-assessment package by end of year based on Fuji release

- Meetings are on Mondays at 7am PDT (1500 CET)
 - No meeting May 27 due to US Holiday
 - Considering change to biweekly for summer

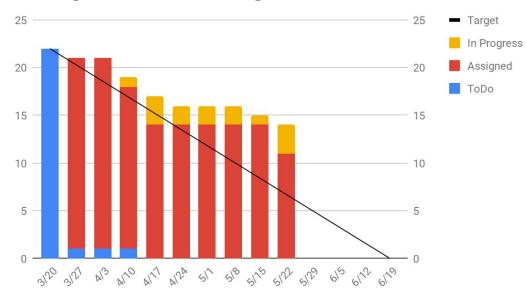
Vertical Solutions WG Update (4-9-19)

- 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 (05-22-19)

- Edinburgh Documentation Striketeam
 - Core Services
 - **#1069**, **#1168**
 - Support Services
 - **#804**
 - Application Services
 - **#1164**, **#1163**, **#1092**, **#1162**
 - Device Services & SDKs
 - **#1193**, **#1180**, **#1179**, **#1182**, **#93**







EdgeX Marketing Group

- Established to drive Marketing strategy and Implementation plan for EdgeX (V1 launch and Marketing plan thru 2020)
- Meetings are open Next meeting Friday 31st May 4.30pm UK time (830am Pacific)
 - 1st Report back from Marketing sub group led by Dennis Camilo assisted by Steve Jennis IOTech and the LF Edge Team
- To register to get invites to the Marketing Group meetings please join the Marketing Mailing list at
 - https://lists.edgexfoundry.org/g/EdgeX-Marketing and subscribe to the calendar



Addressing Security Issues for Edinburgh and beyond

- How EdgeX will address security issue (CVE style processes and planning) document has been approved by the TSC.
 - Now on the Wiki: https://wiki.edgexfoundry.org/display/FA/Security
- Malini Bhandaru is working to get this process in place.
 - SIR team setup
 - Security issue email list
 - Web page on EdgeX site
 - Population of CVE issue



General Schedule

Now - Monday, June 3: Establish list of Contributors, WG Chair Nominations

Now – Friday, June 7: TSC At-large nominations

Week of June 3 – June 7: WG Chairs elected by their perspective WGs

Week of June 10 – June 14: TSC At-large Elections

Week of June 17 – June 21: TSC Chair & Vice Chairman Nominations (by newly elected WG Chairs and TSC

At Large members)

Monday, June 24: End of current TSC term

Tuesday, June 25: 1st day of new TSC

Week of June 24 – June 28: TSC Chair Voting

Roster of work group contributors coming soon

Send nominations to Brett Preston: bpreston@linuxfoundation.org

Current Election Activities

- Going on Now
 - Workgroup and general contributors lists being assembled and approved
 - Lists available (spreadsheet form) in the TSC email forum and the Wiki
 - https://wiki.edgexfoundry.org/display/FA/2019+TSC+and+WG+Elections
 - Lists currently sent and reviewed by all WG chair.
 - In order to vote, you must be on this list (consult your WG chair if you don't see your name)
 - Taking nominations for WG chairperson or TSC at-large seats
 - Contact Brett Preston, Keith or Jim to nominate yourself or other
- WG Chairs hold your chairperson election by June 7th
- TSC at-large seat community wide election to take place week of June 10-14

Open issue: how to setup contributor list for Vertical Solutions WG?

Recommendation: open to all contributors



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

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

- <u>loT Tech Expo Europe</u>, 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
 - June 25: Arpit Joshipura, LF: Keynote on Edge Computing
 - June 25: Yenchen Wang, Tencent, LF Edge: Edge Open Source to Enable 5G, IOT and AI Development
 - June 25: Drasko/Janko, Mainflux: Integration of Edge & Cloud IoT Platforms
 - June 25: Xuan Jia, China Mobile: 5 Biggest Issues in Edge Computing
 - June 25: Multiple Speakers Panel: Edge Computing in the IoT
 - June 26: Tina Tsou, Arm: Your Path to Edge Computing
- Embedded Linux Conference (ELC), August 21-23, 2019 | San Diego
 - 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
- Open Source Summit / Embedded Linux Conference Europe, October 28-30, 2019 | Lyon
 - CFP due July 1

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

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

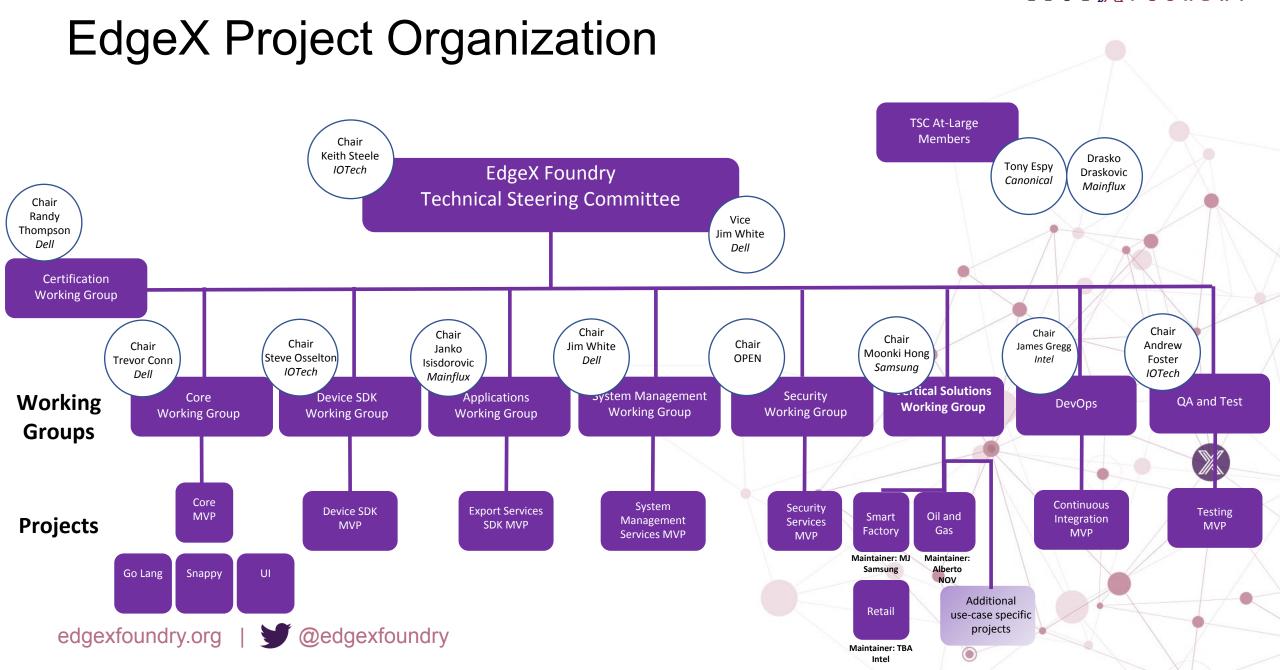


AOB/Cadence

- 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: May 29, 2019





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 <u>info@edgexfoundry.org</u> 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 <u>keith@iotechsys.com</u> (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 <u>Dave Bohlman</u> and <u>KMC Controls</u> 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 <u>pr@lfedge.org</u> 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



