

EDGE X FOUNDRY™

TSC Meeting

Aug 7, 2019



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Meeting Logistics

Time: Wednesdays 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>
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Canonical	Tony Espy	espy@canonical.com
Dell	Trevor Conn	Trevor.Conn@dell.com

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

- WG Updates
- Security WG F2F readout
- TSC votes
 - move of app-service-configurable from holding org to edgexfoundry org
- Geneva Face-to-Face in Phoenix AZ
- Upcoming Events
- AOB



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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 (7-Aug-19)

- Security-Proxy-Setup Migration
 - PR #1627 in edgex-go, review is underway
 - I cannot review/merge since I worked on the branch
- Vault Secrets Integration
 - Working w/Diana @ VMWare to create a backlog for this
- Commands now support querystring parameters
 - Limited use case, brought forward by Intel.
 - Integrated with Device Services

Applications WG Update (7-August-19)

- Black Box Tests Development is Complete
 - REST based to start
 - Depends on App Service Configurable and associated docker image before being able to create PR
- Kicked off:
 - Azure Export Functions for supporting IoT Hub (Thanks Cloud from IOtech!)
 - AWS Export Functions (Thanks Alec from VMWare!)
 - CloudEvent Exploration
- On Deck
 - Store and Forward Capability - Planned Agenda topic on 8/13. Please join!
 - Vault Integration when ready

Application Services

Functions (built into SDK)

Current/Complete:

Fuji

- AES Encryption NEW!
- GZIP Compression NEW!
- ZLIB Compression NEW!

Edinburgh

- Device Name Filter
- Value Descriptor Filter
- XML Conversion
- JSON Conversion
- MQTT(S) Export
- HTTP(S) POST Export

Future:

- MQTT(S) (Fuji) + Vault integration

Reference App Services (Fuji)

(built on top of SDK)

- Azure IoT Hub (Fuji)
- Amazon IoT Core (Fuji)
- Configurable AS (Fuji)

AVAILABLE
THIS WEEK

Device Services WG Update (7-8-19)

- Feature support
 - query-params (Go)
 - optionality on ValueDescriptor creation (C)
 - create/update/delete notifications (C now, Go imminent)
- Blackbox testing
 - demonstrator running with new framework
- New device services
 - bacnet, bluetooth expected in the next two weeks
 - commercial implementations of GPS and MEMS available

Device Services - current/coming

Open Source connectors (Current):

- Modbus (TCP/RTU)
- Virtual Device
- Random
- Grove C - ARM only
- SNMP
- MQTT

Open Source connectors (Future):

- BACnet (IP & MSTP) (Aug)
- OPC UA (Aug)
- Bluetooth (Aug)
- ONVIF Cameras (Oct)

Commercial connectors (Current):

- MQTT
- Modbus (TCP/RTU)
- BACnet (IP & MSTP)
- OPC UA
- GPS
- MEMS

Commercial connectors (Future):

- CAN SocketCAN, CANopen (Sept)
- EtherNet/IP (Sept)
- EtherCat (Sept)
- PROFINET (Sept)
- Siemens s5/s7 (Sept)

Test/QA WG Update (31-07-19)

- Blackbox Test
 - Fixed issue [#254](#), [#257](#)
 - Merged PR [#255](#), [#256](#), [#258](#)
 - edgex-go issue opened for the new failed test case <https://github.com/edgexfoundry/edgex-go/issues/1632>
- New Blackbox Test
 - Initial code of [edgex-taf](#) and [edgex-taf-common](#) are under reviewing.
 - Initial [robot file](#) of device virtual
- Performance Summary
 - Working on Redis and security supported cases
- Performance Test
 - Data lost issue : Last 4 runs were no data loss after updating the TIG infrastructure.
- Investigating RAML -> Swagger conversion
 - Preparing presentation of Swagger Hub account creation <https://swagger.io/tools/swaggerhub/>
 - [Swagger investigation](#)

DevOps WG Update (08-06-19)

Fuji Scope

- **Container Scanning**
 - Clair server has now been landed by Linux Foundation on AWS.
 - Troubleshooting with Daniel Nunez to debug issues with the endpoint (503 Errors)
- **Static Code Analysis Tools**
 - Checkmarx, SonarCloud and Snyk output from egex-go scan shared with Security WG
 - Coverity scan and output still WIP
- **Audit of GitHub repos / teams** of main edgexfoundry org completed with handoff to Lisa
 - Review and identify repo owners
 - Discuss in next DevOps WG
 - Changes to add repo owners will require TSC approval
- **Build Performance Optimizations** (new scope)
 - log archiving optimization made to the Jenkins freestyle jobs - Thank you Emilio
- **Proposal for Shared Infrastructure** under LF Edge umbrella introduced by Andrew Grimberg
 - Need clarifications for the list of questions that were not addressed in the DevOps WG

Next DevOps WG meeting - 8/18/2019 Thursday 7AM PDT

System Management WG Update (8-7-19)

- Open Horizon POC
- Review and acceptance of CLI tool
- Fuji Release Items
 - Metrics collection - implemented
 - Set configuration - working
 - Start/stop/restart by executor including SMA
 - Safe shutdown
- Deployment/orchestration/management survey

Security WG Update (8-7-19)

Tingyu & Malini

Productive Security F2F at Intel/ Santa Clara/CA (onsite:7 remote: 4)

Thank you Intel, Jim Wang and Bryon Nevis!!

Details: <https://wiki.edgexfoundry.org/display/FA/Hardware+Security+F2F+August+1%2C+2019>

- 1) Agreed to build in scripts to ascertain container start dependencies met (Ian Johnson to guide /snaps)
- 2) Move PKI setup code directly in EdgeX-go, in bite sized chunks, easier for review and can leverage the comprehensive common tests to increase overall code coverage. Jim Wang lead
- 3) Bryon shared multiple hardware options to support security - best decision will help parallel development of implementation backends.
- 4) Tingyu shared his thoughts on EdgeX threat model and boundaries.

- **Open Source Summit - EU acceptance “How secure is your Edge with EdgeX?”**
- **Upcoming security meeting: Synk demo**

Certification WG Update (8-5-19)

- Reviewed ongoing work with the Swagger version of Virtual Device
- Reviewed progress with the Robot Framework for Virtual Device automated testing

- Next meeting this Monday, August 12th, 10 a.m. EDT

Vertical Solutions WG Update (8-5-19)

- This week is an “off week”
- Last WG Focused on “Edge X Games” (aka hackathon)
 - Various delegations, but we used the WG to start discussing technical collateral preparations

Miscellaneous

- Welcome back Lisa - our release manager
 - WG leads - look to sync with Lisa on Fuji release items
- Vote request to move application service configurable to edgexfoundry org (from holding)



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Geneva F2F

Registration now open

EdgeX TSC Face-to-Face meeting (semi-annual)

- Capacity of 90. Currently with ~30.
- Planning for the Geneva release (and lessons learned on Fuji)
- Nov 4-7th
 - Nov 4th - Architects' topics must be a contributor (have at least one Git contribution) or have invitation of WG chair
 - Located @ Galvanize Phoenix at 515 E Grant St, Phoenix, AZ
 - Hotel and other logistical info available on the [Wiki](#)
- Register now at <http://www.cvent.com/d/b6qcr0>



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Upcoming Events

Upcoming External 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 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 - 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 for code.
 - Jim White's talk accepted

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
 - › **How Secure is your Edge with EdgeX? Tingyu and Malini**
 - › **Microservices at the Edge - Best Practices: Diana and Malini**
 - › **From API to CLI. Designing and building a CLI for EdgeX: Alex and Nikolay S**

- › 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

- › [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**

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](#)

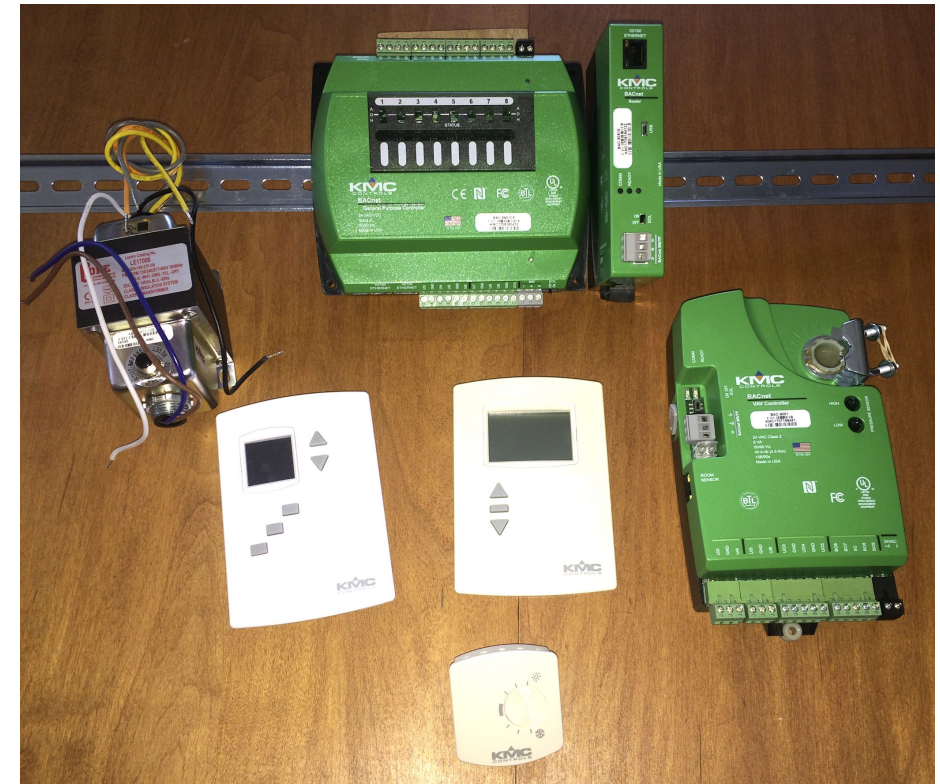
What is the Device Exchange?

- 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>

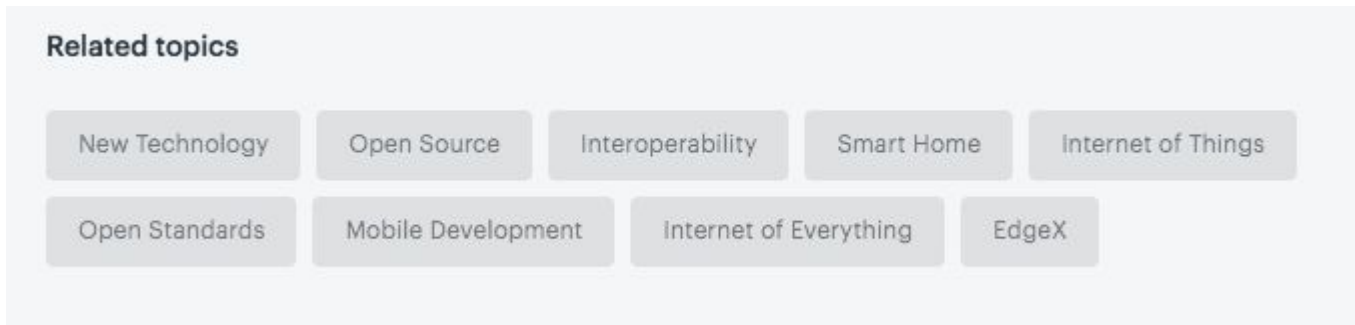


Special thanks to [Dave Bohlman](#) and [KMC Controls](#) for making this awesome kit and how-to guide available to members!!



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