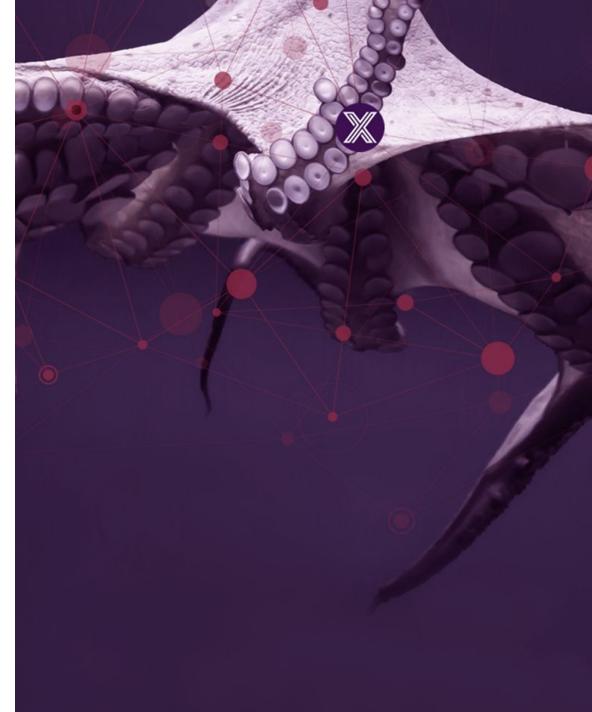


TSC Meeting

April 8, 2020



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: Wednesdays 8am PDT – 9am 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

<u>Company</u>	<u>Name</u>	<u>Email</u>
Intel	Camilo Dennis	camilo.a.dennis@intel.com
IOTech	lain Anderson	iain@iotechsys.com
Intel	James Gregg	james.r.gregg@intel.com
IBM	Joe Pearson	joe.pearson@us.ibm.com
IOTech	Keith Steele (TSC Chair)	keith@iotechsys.com
VMware	Malini Bhandaru	mbhandaru@vmware.com
Intel	Mike Johanson	michael.johanson@intel.com
IOTech	Robin Chattergee	robin@iotechsys.com
Beechwoods	Rodney Hess	rodney@beechwoods.com
RSA	Tingyu Zeng	tingyu.zeng@rsa.com
Canonical	Tony Espy	espy@canonical.com
Dell	Trevor Conn	Trevor.Conn@dell.com
Dell	Michael Estrin	m.estrin@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.

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Today's Agenda

- Hanoi Planning
- Release Czar Readout
 - Geneva release info
- WG Updates
- ADR vote release automation workflow
- Mongo deprecation discussion / decision
- Logging deprecation discussion / decision
- EdgeX Award Nominees (voting to commence)
- Hanoi Conf Training decision
- Pre-wire readout (time permitting)
- Upcoming Events (Dev Advocate)



Hanoi Planning Conference Tasks

- Survey Monkey on desire for training (done)
 - https://www.surveymonkey.com/r/CLCLQ9V
 - Read out next meeting
- Hanoi Planning Conference dates selected (done)
- Hanoi Registration Website (done)
 - https://events.linuxfoundation.org/edgex-foundry-hanoi-release-planning-conference-spring/
 - Email sent to all of you that have registered please re-register for this virtual event!
 - Thank you Dell and Intel for sponsoring!!!!!
- Hanoi Wiki page updated (done)
 - Detailed agenda (jim to do on pre-wire completion)
- Training planning/schedule (depends on survey results)

High level conference agenda

Monday, Apr 27: 7-11 AM - Introductions, Agenda & Logistics, Business Topics, Architecture topic tee-up

Tuesday, Apr 28: 7-11 AM - Cadence Check, Architectural discussion

Wednesday, Apr 29: 5-9 PM - Hanoi scoping (General, Core, Application, Device service, TestQA, UI, System Management, Security Devops, Certification,...)

Thursday, Apr 30: 7-11 AM - Hanoi scoping continued, Ireland roadmapping

Friday, May 1: 7-11 AM - Action item review, Lessons learned for next meeting, "Unconference" - open time for any topic



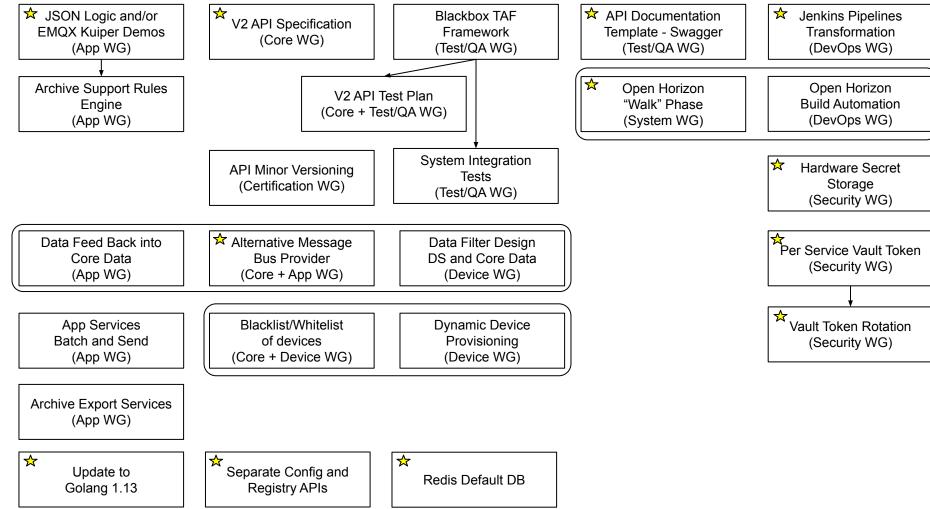
Geneva Freeze and Release dates

TSC approved

- Freeze: 12pm GMT, April 22 (Wed, week before planning meeting)
- Release: 12pm GMT, May 13 (Wed two weeks after planning meeting)

See Geneva release notes for details (on Slack)

EdgeX Geneva Release Overview





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 Michael Estrin
 - Open Horizon Joe Pearson
 - Certification Rodney Hess
 - Vertical Solutions Camilo Dennis and Henry Lau
 - Updates from Release Czar Lisa
 - Updates from Dev Advocate Aaron

Core Working Group (8-Apr-2020)

- Removal of Config-Seed is complete
- Expecting initial PRs of V2 API impl from IOTech shortly
 - Will give PR review priority
- Core WG call @ 10AM US/Central tomorrow
 - Call for agenda items
 - Currently only proposed item is backlog review

Applications WG Update

Complete:

HTTP Export w/ secrets merged Cloud Event To/From Transformation (provided in App Service Examples)

Work In Progress:

- Updating App Service Configurable with MQTT message bus support, JSONLogic and BatchAndSend
- MQTT secret support (Draft PR open)
- 2nd SecurityStore client for service specific secrets (ready for merge)
- Documentation update for edgex-docs

Next up:

- Example of JSONLogic in app-service-examples
- App Working Group Meeting held on Fridays @ 9AM PDT
 - Next meeting Friday, Apr 10th

Application Services

Functions (built into SDK) Current/Complete:

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed
- PushToCore

EXPERIMENTAL

- Device Name Filter
- Value Descriptor Filter
- NEW!

NEW!

- Batch
- JSONLogic Filtering
- XML Conversion
- JSON Conversion
- MQTT(S) Export
- HTTP(S) POST Export

Features

- Store and Forward
- Web Server
- Configurable App Service



MQTT Event triggers (via go-mod-messaging)



Reference/Example App Services (Fuji)

(built on top of SDK)

Azure IoT Hub

Amazon IoT Core

- IBM Watson IoT
- Cloud Event Transformation
- Secret Retrieval Example

AVAILABLE

AVAILABLE

NEW!

Device Services WG Update (8-April-20)

In review:

- Dynamic discovery (Go)
- Type information in Readings (Go)
- Array datatypes (C)

To do:

- Startup registry/configuration changes (ADR0005) (C)
- Array datatypes (Go)

Device Services - current/coming

Open Source connectors (Current):

- Modbus (TCP/RTU)
- Virtual Device
- Grove C ARM only
- SNMP
- MQTT
- BACnet (IP & MSTP)
- **ONVIF Cameras**
- REST

Open Source connectors (Future):

- OPC-UA (post-Geneva)
- **GPS**
- Bluetooth (Geneva)
- BLE in Go for Thingy 52 (lan Johnson)

Commercial connectors (Current):

- GPS
- MEMS
- Zigbee
- Bluetooth
- EtherCat
- PROFINET

Commercial connectors (Future):

- CAN SocketCAN, CANopen
- EtherNet/IP
- Siemens s5/s7

Test/QA WG Update (08-04-2020)

- Blackbox Tests (Postman)
 - Issue opened for failed testcases
 - Issue edgex-go#2448, support-notifications can't start up normally with mongo db non-security mode (fixed, but the issue is still open)
 - Issue <u>device-sdk-qo#465</u>, for failed tests on core-data
 - Fixed issue
 - Issue edgex-go#2463, API Gateway can't work normally (just fixed)
 - Issue edgex-go#2464, Provision Watcher Update blackbox test failures in Mongo (just fixed)
 - Issue #424, device-virtual and core-data tests failed by error "502 bad gateway" (just fixed)
 - Issue #425, AppServiceConfigurable SDK initialization failed (just fixed)
 - Issue #420, to remove config-seed from all scripts.
 - PR #419 and #422, to fix kong access token parsing issue for security tests
 - New test
 - Add core-data reading test for new properties: #416 under review
- Blackbox Tests (TAF)
 - PR <u>edgex-taf-pipelines#4</u>, to enable security test is waiting for review.
 - PR <u>edgex-taf-pipelines#6</u>, to set running scheduler for functional-test (**just merged**).
 - PR <u>ci-build-images#129</u>, to reduce the size of compose image is waiting for review
 - Merged PR edgex-taf #63 for core service compatibility test
 - Integration/functional test scenarios (Introduce slide)
 - PR edgex-taf #56, #58, #60, #62 to add robot files are ready for review

Testcases Number Count (Master Branch)

os		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Mongo	1414	110	31	104
		Redis	1414	4	31	0
x86_64 / CentOS	Security	Mongo	1434	368	103	265
		Redis	1434	N/A	N/A	N/A
arm64 / Ubuntu	Non Security	Mongo	1414	108	32	104
aimo47 obdittu		Redis	1414	4	34	0
arm64 / Ubuntu	Security	Mongo	1434	366	103	263
dillot / Obdillo		Redis	1434	N/A	N/A	N/A

DevOps WG Update (04-08-2020)

Geneva

- Jenkins Transformation to Pipelines
 - Work continues on the transformation to Jenkins Pipelines
 - Multiple stories related to release automation for Geneva WIP
 - Create global function to handle docker images for the automated release
 - Implementation of new global function EdgeXReleaseGitTag
 - Still have multiple stories to get the snap release functionality into the release automation RISK
 - Identified an issue with missing GPG key on Jenkins service account
 - Working with LF for a solution
 - LFTools / Sigul latest version that supports Python 3.x RISK
 - Need input from LF on alternative signing tool
 - ADR to outline the release automation flow for EdgeX
 - TSC approval needed for ADR007

Hanoi

- Pre-Planning and some backlog grooming with additional scope related to release automation
 - Backlog grooming discussed in 04/02/20 DevOps WG meeting with decision to drop some of the backlog work items since
 - Started Explore with Linux Foundation on roadmap 2020-beyond
 - Andrew Grimberg invited to the DevOps WG meeting this week

Next DevOps WG Meeting 04/09/2020 @9:00AM PST

System Management WG Update (Apr 8, 2020)

- Last Friday's (April 3rd) meeting was cancelled
- Next meeting: Friday, April 10th @ 10AM CST

Open Horizon Integration Update

- Walk Phase progress (extended to May):
 - Adding SMA service in progress
 - Showing Device Random data done
 - Replacing Device Random w/ModBus
 - <u>Documenting</u> configuration options
- DCM found a bug where we're pulling nightly Docker images, overriding tags.
 Temp fix in progress.
- Governing Board SPC still voting on OH, they'll meet again tomorrow



Security WG Update (04-01-2020)

- Ongoing work for Geneva release (160 items done, 4 items in progress, 4 items backlog)
- SIR team update No major issues found
- Security WG meeting cancelled this week

Certification WG Update (4-6-20)

- Discussed validating device profiles; will move this topic to Device Services WG
 - Context: Device vendors providing EdgeX-compliant device profiles for their sensors

Next meeting is Monday, April 13th, 9 a.m. PDT

Vertical Solutions WG Update (Apr 1st, 2020)

- March 31 meeting cancelled
 - Did not get confirmation from Connexus
 - Conexxus drives at convenience stores and top use cases in the c-store industry

- China webinars: https://wiki.edgexfoundry.org/display/FA/China+Events
 - Feb 28: Create new Device Service (VMWare)
 - Mar 6: Write export service and scheduling plan (VMWare)
 - Mar 13: Add device and service monitoring (ThunderSoft)
 - Mar 20: Use with NodeRed (IOTech)

Marketing update 4/1

- Created sub-team to drive Website project with El Roboto (3rd party)
 - Folder with key documents milestones and information at the Marketing WG wiki https://wiki.edgexfoundry.org/display/FA/Marketing+WG

- Topcoder challenge. 85+ registrations as of 3/31
 - Launched on 3/21 https://www.topcoder.com/challenges/3011
 - Banner placed in EdgeX Foundry website
 - Submissions start 4/4

Miscellaneous (Jim)

- Asia time-zone friendly TSC meetings starting in May after Geneva release (May 13)
 - Check your calendar for meeting update starting May 13
- DevOps WG Decision no fix to broken Fuji CI/CD build jobs
 - Should we have an emergency need to fix Fuji, we'll revisit what to do
- Vote required on Lisa ADR on release automation flow
 - https://github.com/edgexfoundry/edgex-docs/pull/110
- Mongo deprecation (Andre says he'll make deadline)
 - Are we ok to marke Mongo deprecated in compose files for Geneva?
 - Do we need to mark anything else deprecated (edgex-go/internal/pkg/db/mongo??)

Logging Service Deprecation

At pre-wire, decision: deprecate logging service with Geneva, remove at Hanoi

- mark compose files
- set default config (causes all services to log to stdout)
 - EnableRemote = false
 - File = "
- SMA impact? Impact to UI?
- No changes to UI or other work until Hanoi when it gets removed
- Discussion & decision??

2020 EdgeX Award Nominees (Congratulations)

There were a lot of great people that contributed this year. Thank you to all the nominators and nominees. TSC members - look for email with voting instructions coming to you soon. Nominees to be announced at the Hanoi Planning Conf.

INNOVATION	CONTRIBUTION
Michael Estrin (2)	Bryon Nevis (4)
James Gregg	Lisa Ranjbar (3)
Rocky Jin	Ernesto Ojeda (3)
Brad Corrion	Ramya Ranganathan (2)
Camilo Dennis	James Gregg

Special shout out to Mike J & Cloud Tsai who were nominated but won last year.

Past Winners

Espy & Drascovic (Innov), Foster & Drascovic (Cont) -2018 Conn, Tsai (Innov), Goddell & Johanson (Cont) - 2019

Hanoi Planning Conference Training

Survey monkey

- 17 responses
- 13 yes hold training
- 2 no; 2 maybe depending on time

Timezone affiliation:

- Central Europe 1
- UK 2
- EST 2
- CST 4
- PST 5
- Japan 1
- India − 2

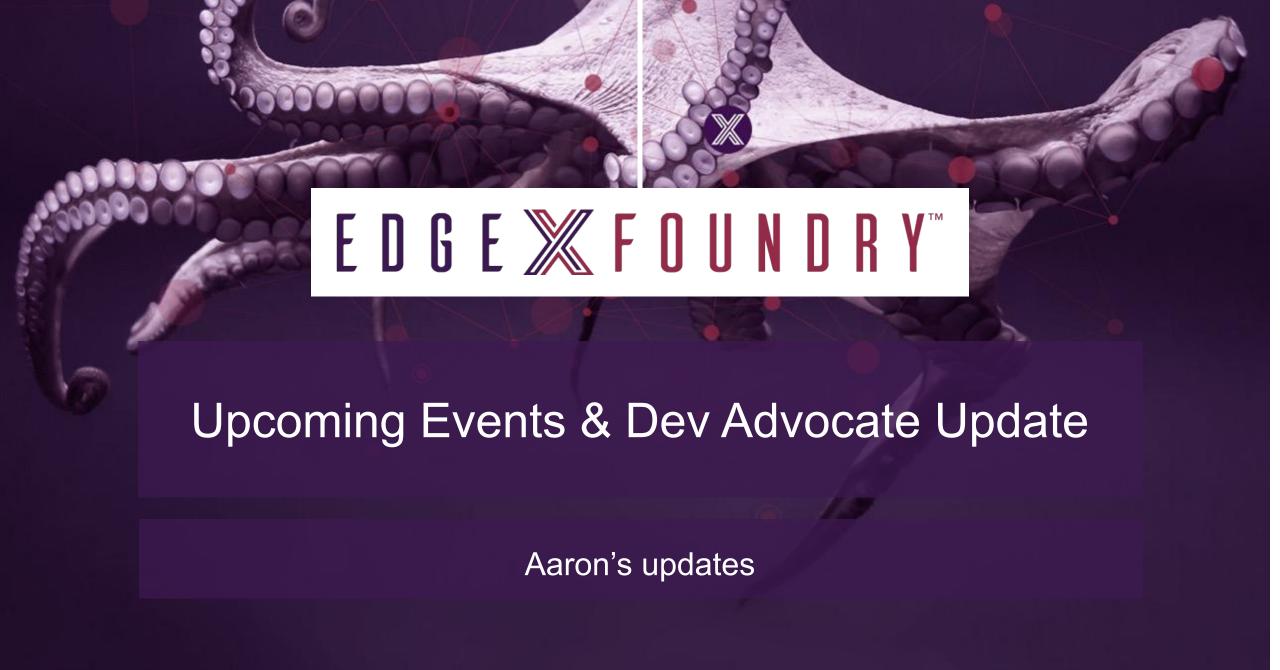
Training requests

AN	SWER CHOICES *	RESPONS	SES '
→ Introduction to EdgeX - how to get up and running		40.00%	6
 Becoming a contributor to EdgeX - how to download EdgeX, make Github contributions via Pull Requests, how to test your work, how to document your work, etc. 		33.33%	5
*			6
→ How to use the app functions SDK to create EdgeX application services		33.33%	5
→ How to use the configurable application service		26.67%	4
→ How to use Kuiper rules engine with EdgeX		53.33%	8
▼ EdgeX configuration - what can be configured, how it works, how and where to modify it		40.00%	6
→ How the EdgeX API Gateway works		40.00%	6
•	→ How to use the EdgeX command Line interface (CLI)		5
→ An introduction to the EdgeX user interface		40.00%	6
	Other topic(s) - please specify Responses	20.00%	3

Others: handle authentication with EdgeX API Gateway, use and leverage Vault, EdgeX benefits with external architectures/technology

Prewire Review

Time permitting



Upcoming External Events

- Open Source Summit North America: 22-24 June, 2020 Austin, TX
 - CFP Closed. Schedule announced April 16.
- IIOT World: 30 June, 2020 Virtual
 - Jim White: "Using Open Source Technology to Manage IoT/Edge Solutions."
- Open Source Summit Japan: 15-16 September, 2020 Tokyo, Japan
 - CFP Open: https://events.linuxfoundation.org/open-source-summit-japan/program/cfp/
- FutureNet: 22-23 September, 2020 London
 - Mike Woster: "Achieving a common architecture: the holy grail or fantasy?"
- Open Networking & Edge Summit North America: 28-29 September, 2020 Los Angeles, CA
 - **ONES Unconference Track**
- Open Source Summit Europe: 26-28 October, 2020 Dublin, Ireland
 - CFP Open: https://events.linuxfoundation.org/open-source-summit-europe/program/cfp/
- loT Solutions World Congress: 27-29 October, 2020 Barcelona, Spain
 - CFP Open: https://www.iotsworldcongress.com/get-involved/become-a-speaker/
 - Call for Testbeds Open: https://www.iotsworldcongress.com/activities/testbeds/
- Open Networking & Edge Summit Europe: TBD Q4, 2020 Antwerp, Belgium
 - CFP Open: https://events.linuxfoundation.org/open-networking-edge-summit-europe/program/cfp/
- Discussions around upcoming events occur in the LF Edge Outreach Committee
- Members may subscribe at: https://lists.lfedge.org/g/outreach-committee



LF Edge Webinar Series

- EdgeX Foundry
 - EdgeX Foundry 101: Intro, Roadmap and Use Cases
 - April 23 @ 9am PT
 - Register for the Webinar at: https://zoom.us/webinar/register/4515850788014/WN xCd6YPjEQrCwLiFhBWPKuq

- Akraino Edge Stack
 - Your Path to Edge Computing with Akraino Edge Stack
 - Held Thursday, April 2
 - On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTQSlqH7pL8iHrQ
- More to follow...

