

EDGE X FOUNDRY™

TSC Meeting

June 8, 2022



Antitrust Policy Notice

- › Linux Foundation 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 Linux Foundation 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 Updegrave of the firm of Gesmer Updegrave 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/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>	<u>Position</u>
IOTech	Iain Anderson	iain@iotechsys.com	Device Services WG Chair
Intel	Ernesto Ojeda	ernesto.ojeda@intel.com	Dev Ops WG Chair
IOTech	Jim White	jim@iotechsys.com	Outreach WG Chair
Intel	Bryon Nevis	bryon.nevis@intel.com	Security WG Chair
Intel	Lenny Goodell	leonard.goodell@intel.com	Applications & Analytics WG Chair
IOTech	James Butcher	james@iotechsys.com	Core/Test/QA WG Chair

Gavin Lu (VMWare), Tony Espy (Canonical), Melvin Sun (Intel)

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

- Jakarta LTS Release
 - This week?
- WG Updates
- ADR updates
- Doc updates
- EdgeX TSC Elections
 - Proposed TSC changes
- Miscellaneous
 - Tech Talks



EDGE X FOUNDRY™

Work Group Updates

Chairs

Release Czar (2022-6-8)

Kamakura (2.2.0):

- Released (2022-5-11)
- C SDK / Device Services

Jakarta (LTS) Patch (2.1.1):

- go-mods, SDKs, Changelogs released
- Scheduled for 2022-6-8

Updated Release Checklist:

<https://wiki.edgexfoundry.org/display/FA/Release+Checklist>

Working Group Chair Updates

- Around the horn
 - Product Manager - Lenny Goodell
 - Applications - Lenny Goodell
 - Core - James Butcher
 - Device Services - Iain Anderson
 - DevOps - Ernesto Ojeda
 - Release Czar - Bill Mahoney
 - Security - Bryon Nevis
 - PRC Updates
 - Outreach - Jim White
 - Certification - Rodney Hess
 - Marketing - Camilo Dennis
 - Vertical Solutions (and LF Edge TAC) - Henry Lau

Product Manager (06/08/22) - Levski

[Cross Cutting Issues](#)

Icebox (1)

- Lite Builds (no security features) via Build Tags

Backlog (8)

- System Events (aka CPE) (UC/ADR/Impl)
- Commands via MessageBus (aka N/S MessageBus)
- Secure MQTT MessageBus
- Microservice Auth
- eclipse/paho.mqtt.golang 1.4.1 (License update to v2.0)

In Progress (2)

- [Securing Consul with Access Token](#)
 - C SDK/Services - **WIP**
- Request new Consul token on Auth failures
 - C SDK/Services - **WIP**
- Explore goweight to see impact of individual libs
 - Mixed results
- Go 1.18
 - Smoke Test - **TBD**
- NATs MessageBus
 - go-mod-messaging - **Pending PR**
- Additional Metrics
 - App Services - **Defined**
 - Device Service - **Defined**
 - Core - **TBD**

Done (0)

Applications WG Update (06/08/22) - Levski

Completed (4)

- [build: \[LLRP\] Update to released SDK and go-mods and change log for 2.1.1 patch #84](#)
- [build: \[ASC\] Update to released SDK and go-mods and change log for 2.1.1 patch #426](#)
- [build: \[SDK\] Update change log and released go mods for 2.1.1 patch #1120](#)
- Decided on which addition metrics (**Just SDK**)
 - Size of data exported (HTTP and MQTT)
 - Requires **Histogram** metric type to be added.
 - Number of invalid messages received (i.e. error decoding)
 - Number of errors that terminate a pipeline (per pipeline)
 - What is the current store and forward queue size (**stretch**)
 - Message latency for received from MessageBus to hand off to Pipeline (**stretch**)

New (1)

- [build\(deps\): bump github.com/eclipse/paho.mqtt.golang from 1.3.5 to 1.4.1 #1121](#)
 - License changed from Eclipse Public License 1.0 to v2.0
 - Requires updating the attribution file.

WIP (0)

- None

Backlog (11)

- <https://github.com/orgs/edgexfoundry/projects/23>

ICE BOX (5)

- Leftovers not planned for Levski

Next

- Go 1.18 (waiting on Smoke Test)
- Add additional metrics

eKuiper

- No update

Project Board: <https://github.com/orgs/edgexfoundry/projects/23>

Next meeting **Jun 14th, 2022 @ 3:30pm Pacific**

Application Services - Kamakura

Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB)
- Conversion (XML & JSON)
- PushToCore **** DEPRECATED****
- ~~MarkAsPushed~~
- Encryption (AES256)
- Encryption (AES) **** DEPRECATED****
- Export
 - MQTT
 - HTTP POST & PUT
- Filtering
 - By Profile Name
 - By Device Name
 - By Source Name
 - By Resource Name
- JSONLogic
- Set Response Data
- **ToLineProtocol (transforms Metric DTO)**

Features

- Store and Forward
- Batch and Send
- Web Server
- Configurable App Service
- Vault Integration for Secrets
- MQTT Event triggers
- Filter by Topics
- Custom Triggers
- Publish Topics and URL Placeholders
- Structure Custom Configuration
- Background Publishing
- Received Topic
- Context Storage
- Clients
 - Logging, Event
 - Command
 - Device, DeviceService
 - DeviceProfile
 - Notification
 - Subscription
 - Registry

Reference/Example App Services

(built on top of SDK)

Released Services

- App Service Configurable
- App RFID LLRP Inventory

Examples

- Simple Filter
- Simple Filter and MQTT Export
- Simple Filter and HTTP Export
- Simple CBOR
- Cloud Export

- Cloud Event Transformation
- Secret Retrieval
- JsonLogic
- Send Command
- Convert & Publish
- Custom Target Type
- IBM Watson IoT (ASC Profile)
- Custom Trigger
- Influx DB & Flege Exports

Core WG Snapshot (8 June 2022)

- Levski:
 - TAF
 - Functional tests: 594 - all passing
 - Integration tests: 47- all passing
 - Performance tests: 10 - all passing
 - WIP
 - Performance Metrics Report
 - Draft for review <https://wiki.edgexfoundry.org/display/FA/Kamakura+Data>
 - Working on extra page that explains conditional build options
 - Update to Go 1.18 - on hold until July
 - Core Metrics - planning which metrics to collect. **Tomorrow's meeting**
 - Kanban board for N/S message bus implementation. **Tomorrow's meeting**

Core Project Board Status

- 8 New Issues (+0)
- 0 Release Backlog (+0)
- 0 In Progress/QA (+0)
- 28 Done (+11)
- 17 Icebox (-1)

QA/Test Project Board Status

- 2 New Issues (+0)
- 0 Release Backlog (+0)
- 1 In Progress/QA (+0)
- 1 Done (+1)
- 2 Icebox (+0)

Next meeting: **Next Week** Thursday 9th June @ 8am Pacific Time

Device Services WG Update (8 June 2022)

- Metrics list for device services in progress
- Kickoff for use of GitHub “Discussions” feature
- Project board triage : 17 issues new/backlog; 3 in progress/review
- Copyright issues for containers - may contain code under more restrictive licenses
- device-camera-usb : requires recent distribution eg Bullseye, Jammy, Alpine 3.13

Next meeting: June 13th

Device Services - current/coming (as of v2.2)

Open Source connectors (Current):

- Modbus (TCP/RTU) in Go
- Virtual Device in Go
- SNMP in Go
- MQTT in Go
- BACnet (IP & MSTP) in C (v1 only)
- ONVIF Cameras in Go
- REST in Go
- Grove in C
- CoAP in C
- LLRP / RFID in Go
- GPIO in Go

Open Source connectors (Future):

- UART in Go
- OPC-UA in Go

Commercial connectors (Current):

- BLE in C
- Zigbee in C
- GPS in C
- CAN in C
- CANOpen in C
- MEMS in C
- EtherCat in C
- EtherNet/IP in C
- PROFINET in C
- OPC-UA in C
- OPC-UA Pub/Sub in C
- Siemens S7 in C
- File reader in C

There are additional commercial MQTT (Go), Modbus (C), REST (Go), ONVIF (C) and BACnet (in C) that have added features over the community editions

DevOps WG Update (06-08-2022)

Pipeline Related

- [#390](#) [Complete] Fix version mismatch issues for Go based LTS builds
- [#388](#) [Complete] Optimize edgex-go SPIFFE/Spire docker image builds
- [#400](#) [Backlog] Go 1.18 upgrade for Go pipelines.

Other

- [In Progress] Jakarta LTS Patch Release Support
- [#389](#) [Backlog] Help optimize local developer make docker builds
- [#391](#) [Complete] Add repo badges to README for device-onvif-camera
- [#392](#) [Complete] Add repo badges to README for device-usb-camera

Next DevOps WG Meeting: Thursday, June 09, 2022 @ 9AM PST

Security WG Update

Next Meeting: 6/15

- Meeting cancelled due to chair schedule conflict
- Will review OpenSSF best practices survey

<https://bestpractices.coreinfrastructure.org/en/projects/1226>

(expected to take several security WG meetings)

Security Project Board Status

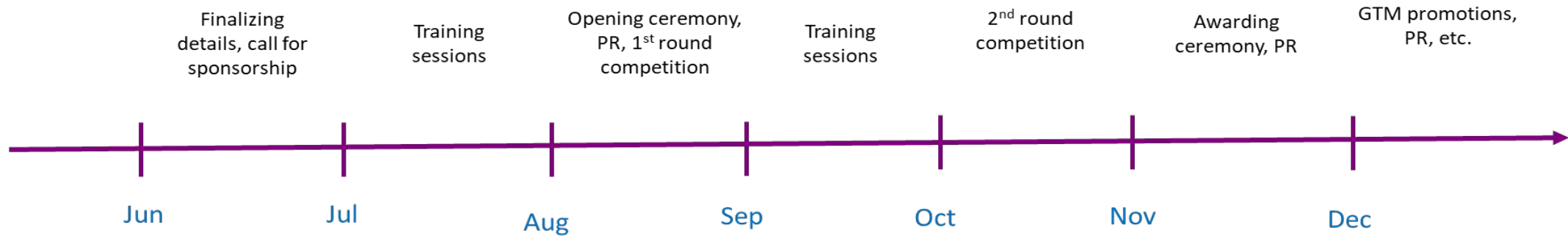
- 3 New Issues
- 8 Release Backlog (n/c)
- 2 In Progress/QA
- 2 In review
- 4 Done

Secure Consul Project Board Status

- 0 In-review
- 0 In-progress
- 2 Phase 1 To-do
- 1 Phase 2 To-do
- 4 Phase 3 To-do

EdgeX China- EdgeX challenge 2022 (China region)

Timeline



Call for sponsorship

Level	Cost		Benefits			
	RMB	USD	Logo exposure on KV, news reports, blogs	Keynote	Judge	OSS ingredient included in EdgeX Hackathon
Strategic Partner	260K	40K	Y	Y	Y	Y
Diamond	100K	15K	Y	Y	Y	
Gold	70K	10K	Y	Y		
Silver	35K	5K	Y			

EdgeX China community channels:

- Website: <https://cn.edgexfoundry.org/>
- OSChina: <https://www.oschina.net/group/edgex-foundry>
- CSDN: <https://blog.csdn.net/edgexfoundry>
- Zhihu: <https://www.zhihu.com/people/edgex-foundry>
- Bilibili: <https://space.bilibili.com/550595847>

Outreach WG (5/11/22)

Ready/Certification

- Rodney working on Wiki update
- Rodney working on EdgeX Ready for Individuals presentation for TSC consideration

Social Media

- Blog post on Levski planning, EdgeX Awards available for review (going out next week)
 - <https://docs.google.com/document/d/14Kq8VgNRIDojc5FI30XQWISSniLs5VlyODIhLPAAIkg/edit?usp=sharing>

Events

- Wait and see mode
- Hackathon decision by July 1

Next meeting Monday June 20th at 9am PST

WebSite Changes (order or priority)

- China website contract signed
- Looking at spend of funding for (\$4500 budget)
 - Security Audit issues
 - SEO updates (shared between English and China sites)
- Update some content (diagrams, et al) - internal

Outreach WG - recommend to the TSC

- Continue to meet bi-weekly or as needed
- Make Outreach a project role
- Looking for new leader

ADR **PROCESS** review

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
Develop UC/Requirements template	Available for review https://github.com/edgexfoundry/edgex-docs/pull/775	Farshid	
Update ADR template and process documents	combined with Farshid's PR	Jim White	
Parent/Child device relationship	Levski release	Eaton	Core
control plane events	Levski release	Lenny	Core
core data cache	Levski release		Core
Record and replay service	Future release		App Services
global configuration	EdgeX 3.0 item (not in scope now)		
URI reference (profiles, config, etc.)	EdgeX 3.0 item (not in scope now; may be sub part of global config)		

Document work

#685 L [build/run ARM32]

in progress

#641 L [EdgeX w/ K8s]

#599 L [build/run on Windows]

PR submitted

Nice to have

#643 M

#642 L

#598 L

#489 M (with #121, #21)

Miscellaneous

- EdgeX Elections
 - Nominations
 - Lenny - App WG
 - Cloud - Core
 - Bryon - Security
 - Iain - DS WG
 - Ernesto - DevOps WG
 - Outreach open - recommend moving to project role vs TSC WG
- EdgeX role nominations (TSC approved roles - not elected)
 - PM - Lenny
 - Release Czar - Bill
 - EdgeX Ready/Certification - Rodney
 - UI Project team - Gavin
 - Vertical Solutions - Henry

At - Large Nominations
Farshid Tavakolizadeh
James Butcher
Melvin Sun
Gavin Lu
Tom Brennan

Recommendation

Requires TSC approval

Move Outreach to role; Add additional TSC at-large position

Add another TSC at-large position

Would allow all nominations to go forward for 1 year

No elections required

Future Considerations for the new TSC

- A few large industrial companies are considering participation
 - Re-establish a vertical solutions for industrial project team
- Create positions for PRC to help foster evangelism and bring more PRC stories to the TSC
- Use existing at-large positions to bring on more industrial companies
- Consider position of TSC Vice-chair
- Consider how at-large seats serve in positions that allow for more / better transition in the future

Upcoming Tech Talks

Tech Talks - mid-May through June

- Revising the old tech talks
- ✓ May 31- Getting started (Jim)
- ✓ June 7 - Build an AS (Lenny)
- June 14 - Build a DS (Jim)
- June 21 - Build a Device Profile w/ mention of Ready program (James)
- June 28 - Getting started with Snaps (Canonical)

Registration Links

June 7-28: https://zoom.us/webinar/register/WN_hyrYdafeR5mSM5oLcM75hA



EDGE X FOUNDRY™

Thank You