

EDGE X FOUNDRY™

TSC Meeting

September 22, 2021



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

- Fall schedule approved
- WG Updates
- Issue/PR policy approved
- Ireland Documentation Wrap
- LTS Testing
- Monthly Architect's meeting update



EDGE X FOUNDRY™

Work Group Updates

Chairs

Jakarta Release Schedule - now approved!

- Freeze date: Oct 27th
- Release date: Nov 17th
- Kamakura planning (virtual): Nov 1-4th

Working Group Chair Updates

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

Release Czar (09-22-2021)

Jakarta Release Dates

- Freeze date: Oct 27th
- Release date: Nov 17th
- Kamakura planning (virtual): Nov 1-4th

Current Release Activity:

- device-camera 2.0.1 - Pending Approval

Product Manager (8/8) - Jakarta

Cross Cutting Issues

In Progress (8 +1)

- Securing Consul with Access Token
 - C Device SDK - TBD
 - C Device Services - TBD
- **Secure Message Bus connection**
 - C Device SDK - TBD
 - C Device Services - TBD
- Secret Provider for All
 - DS SDK C - **DONE**
 - C Device Services - TBD
- **Commit go.sum & remote tidy script**
 - App Services - **DONE**
 - edgex-go - TBD
 - go-mods - TBD
 - Device Services - TBD
- **add a "make lint" target**
 - edgex-go - **DONE**
 - Others - TBD
- **Upgrade Base Images to alpine3.14**
 - App Services - **DONE**
 - Other - TBD
- **New PR template**
 - App Services - **DONE**
 - go-mod-secret - **PR**
 - go-mod-bootstrap - **PR**
 - Others - TBD
- **Metrics ADR - WIP**

Done (1)

- Quotes in TOML files inconsistent

Backlog (3, -1)

- Implement Generate/Inject passwords into Vault
- Support complex object types in Reading
- Use generic interface in the Event Tagging value

Icebox (0)

Applications WG Update (09/14/2021)

Completed

- Dispositioned use of MaxResultCount & MaxRequestSize
 - Doesn't make sense for the App Service REST APIs
 - Need to remove from TOML files

WIP

- Nothing

eKuiper

- Working on 1.40 (<https://github.com/lf-edge/ekuiper/milestones>)
 - New Plugin using nano message protocol using IPC
 - Implemented env overrides for configuration
 - Connection Pool to share connections between Sources and Syncs (Edgex and MQTT)

Next

- TBD

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

Application Services - Ireland

Functions (built into SDK)

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

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)

- Simple Filter
- Simple Filter and MQTT Export
- Simple Filter and HTTP Export
- Simple CBOR
- Azure IoT Hub
- Amazon IoT Core
- Cloud Event Transformation
- Secret Retrieval
- JsonLogic

- Send Command
- Convert & Publish
- Custom Target Type
- IBM Watson IoT (ASC Profile)
- Custom Trigger
- Influx DB Export
- Fledge Export

Core WG Snapshot (22 Sep 2021)

- Ireland / 2.0.1
 - Documentation: home straight (2 remaining issues in review)
- Jakarta:
 - Done
 - TAF Config testing
 - [#177](#) Kong worker processes set to 1 as default. Kong mem usage down to ~120MB
 - TAF: 542 Functional, 36 Integration, 10 Performance

Core Project Board Status

- 3 New Issues (-1)
- 17 Release Backlog (+4)
- 0 Bug Backlog (+0)
- 1 In Progress/QA (+0)
- 48 Done (+4)
- 4 Jakarta Stretch (+0)
- 9 Icebox (+0)

QA/Test Project Board Status

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

Next meeting Thursday September 23, 2021 @ 8am Pacific Time

Device Services WG Update (22-Sep-21)

- Patch release for camera DS pending validation
- Final 2.0 documentation PRs in review
- Issues (New / Backlog) : 30 (-3)

Next meeting: October 4th (no meeting next week)

Device Services - current/coming (as of v2.0)

Open Source connectors (Current):

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

Open Source connectors (Future):

- LLRP / RFID in Go
- UART 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

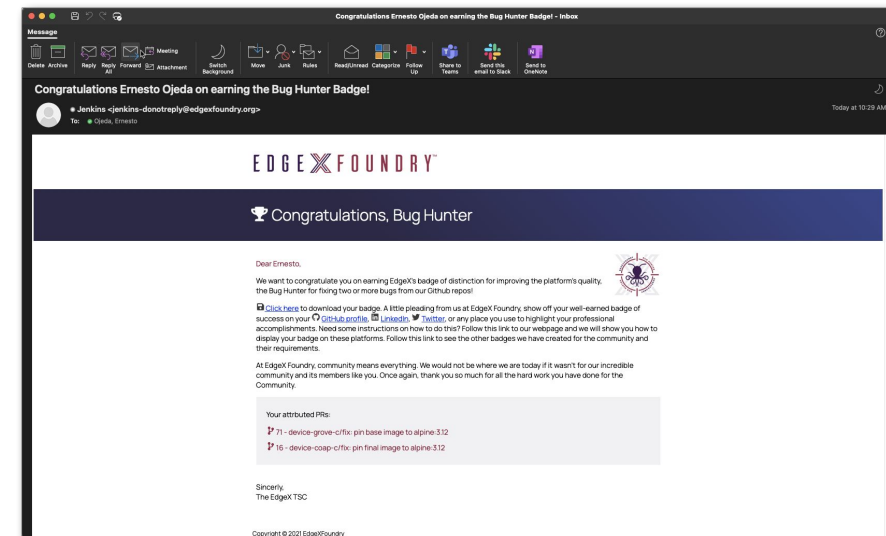
DevOps WG Update (09-22-2021)

Pipeline Related

- [In Progress] LTS artifact rebuild planning.
 - Potential pipeline/release changes required to accommodate rebuilding of artifacts.

Other

- [Finalizing] Spike Developer Badge Program
- [Hold] Master --> Main branch rename.
 - [Hold] /edgexfoundry All done except edgex-docs



Next DevOps WG Meeting Thursday, September 30, 2021 @ 9AM PDT

Security WG Update

Next Meeting: Today & September 29 (no meeting next week)

- Added new “make lint” target with most linters disabled - WIP to enable default linter set
- [ADR for creation of secret store tokens for delayed-start services](#) is ready for review
-
- Today's topics
 - Backport remote user management to Ireland?
 - CORS double-dipping
 - Present ADR (possible demo if time)

Security Project Board Status

- 1 New Issues (0)
- 4 Release Backlog (-1)
- 1 In Progress/QA (0)
- 3 In review (-4)
- 15 Done (+5)

Secure Consul Project Board Status

- 2 Phase 1 To-do (0)
- 1 Phase 2 To-do (0)
- 4 Phase 3 To-do (0)

Updates on EdgeX in Chinese speaking regions

EdgeX challenge 2021

- Final competition is scheduled on Sep 25-26th (UTC+08).
- Sincere thanks to the Chinese speaking EdgeX experts as judges from global community:
 - Henry Lau (HP)
 - Jim Wang (Intel)
 - Cloud Tsai (IOTech)

EdgeX facebook group in Taiwan (Chinese speaking)

<https://www.facebook.com/groups/438629920847609>

Outreach WG (9/22/21)

Certification

- EdgeX Ready social media blitz to re-emphasize the program
- Research ongoing

Vertical Solutions

- Looking for next Adopter Series presenter(s)

Developer Badge Program

- Working on Wiki Page, email message, marketing/social media, badges, etc.
- Roll out with Jakarta release



EdgeX Challenge - Smart *

- Planning in progress
- Vertical uses - smart ag, smart manufacturing, smart building and smart utilities (“*smart **”)
- Looking for volunteers to help with program rules, marketing, etc.
- Looking for sponsors (or help to recruit sponsors)

Event Planning

- On hold pending more news on travel
- Hannover Messe, IOT SWC possible targets in spring 2022

Outreach WG continued

Blog/Vlog plan

- Blog Sept: 2 blogs -> Performance Results & EdgeX Ready
- Vlog Sept: Getting started with EdgeX 2.0 APIs
- Blog Oct: 2 blogs -> EdgeX in Building Automation (user story) & EdgeX 3.0
- Vlog Oct: EdgeX 2 use of the message bus
- Blog Nov: Jakarta release and EdgeX Badge program
- Vlog Nov: ??

ADR review (in order of priority)

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
Metrics / #268	Reviewed & updating	Jim White	Core
ADR on dynamic service list / #377	Reviewed & arch's looking at related / updating	Jim White	Core
ADR on unit of measure / #386	Needs review	Jim White	Core
ADR on V2 CLI/Client / #525	Needs review	Siggi Skulason	Core
ADR for delay start service secret store token	Needs review / Secty WG next meeting	Bryon Nevis	Security

* - indicates some work this week

Miscellaneous topics and announcements

- Issue and PR policy approved
 - New PR template being put in place
- edgex-ui-go committers added

Ireland Documentation remaining to-dos

- Walkthrough and SNMP examples finished/in review
- Consider Ireland docs a wrap
 - Branching
 - Renaming master -> main
 - opening Jakarta docs

Remaining to-dos (to be done with Jakarta)

- Tools CLI (awaiting v2 of CLI)
- In security
 - SSH Tunneling example
 - Swarm for DS example
- In DS sections
 - Update to profile docs to suggest use of upper camel case naming
 - default behavior to publish by message bus (via Redis Pub/Sub)
 - bus topic setup
 - auto-import for static devices/profiles
 - secrets provisioning / secret retry loop
 - API documentation
 - device discovery
 - binary data/CBOR

Additional LTS Testing

Per last week's TSC meeting, it was requested that additional testing be done for LTS.

Working with working group chairs, I am canvassing the community for what additional testing is needed. Here is the list so far:

- Test any configuration not already handled by new TAF tests (manually if needed)
- Test reboot of the system. Make sure EdgeX can come back up
- Test device services (with real hardware where possible)

Additional needs???

Monthly Architect's meeting

- CORS support
 - Adding support into bootstrap package and implement in each service
 - Add to edgex-go and device service SDK (need to implement from scratch in C SDK)
 - Removing from Kong (keeping things consistent in secure and non-secure modes)
- Service List ADR
 - Architects to look at new security ADR, existing registry ADR and this ADR and possibly take next steps (which may include doing nothing)
- Metrics ADR reviewed
 - Need to update the ADR
 - go-metrics library needs to be explore (what can it do and how it works) for impacts



EDGE X FOUNDRY™

Thank You