

EDGE X FOUNDRY™

TSC Meeting

September 15, 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

- WG Updates
- Badge program (as part of the DevOps update)
 - Demo by Ernesto and DevOps
 - TSC approval vote requested
- New LTS Policy approved
- EdgeX Challenge approved
- Issues and PR policy update
 - PR Template suggestion
- Ireland Documentation
- Fall schedule
 - Freeze date
 - Planning meeting
 - Release date
- Monthly Architect's meeting agenda



EDGE X FOUNDRY™

Work Group Updates

Chairs

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 (8/8) - Jakarta

Cross Cutting Issues

In Progress (7 +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
- **Metrics ADR - WIP**

Done (1)

- **Quotes in TOML files inconsistent**

Backlog (4, +2)

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

Icebox (0)

Applications WG Update (09/14/2021)

Completed

- Dispositioned Bug [#500](#) to ICE box
 - Unable to recreate.
 - Will try once more when LLRP App Service is migrated to V2
- Custom Trigger support for multiple pipelines
 - Doc PR on hold: <https://github.com/edgexfoundry/edgex-docs/issues/571>
- Pipeline per Topic enhanced for multiple topics
 - Updated Doc PR on hold: <https://github.com/edgexfoundry/edgex-docs/issues/548>

WIP

- Implement use of MaxResultCount & MaxRequestSize
 - Where it makes sense

eKuiper

- No update this week

Next

- TBD

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 (15 Sep 2021)

- Ireland / 2.0.1
 - Documentation nearing completion (9 remaining issues on board)
- Jakarta:
 - Done: TAF Config testing
 - TAF: 542 Functional, 36 Integration, 9 Performance
 - 1 Failed Performance (Kong memory usage is more than the threshold of 300MB)
 - Ongoing discussions - Object Value Types [#3679](#). Next steps agreed in Device WG Call

Core Project Board Status

- 4 New Issues (-1)
- 16 Release Backlog (-1)
- 0 Bug Backlog (+0)
- 1 In Progress/QA (+0)
- 44 Done (+4)
- 4 Jakarta Stretch (+0)
- 9 Icebox (+2)

QA/Test Project Board Status

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

Next meeting Thursday September 16, 2021 @ 8am Pacific Time

Device Services WG Update (15-Sep-21)

- Bugfix for camera DS
 - Patch release now?
- “Object” type for Readings - demo implementations TBD
- Doc updates continuing
- Issues (New / Backlog) : 33

Next meeting: September 20th

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

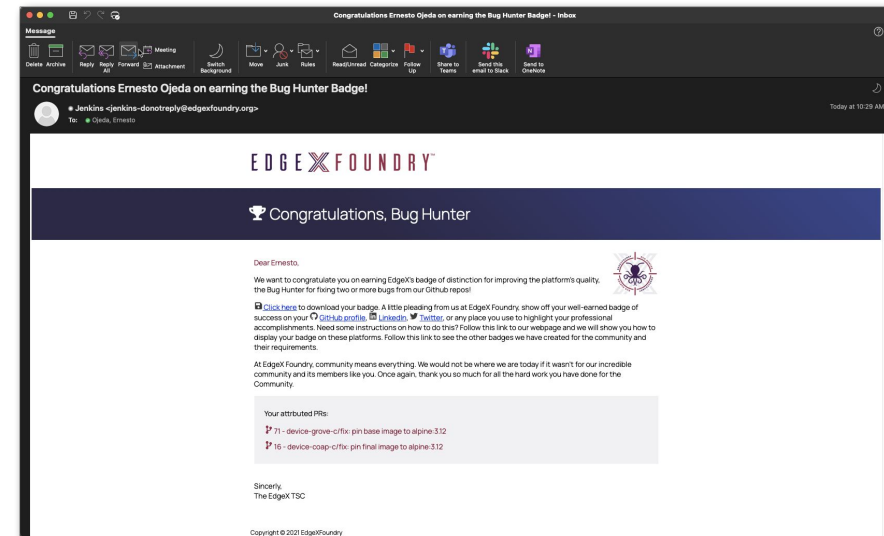
DevOps WG Update (09-15-2021)

Pipeline Related

- [Backlog] Alpine 3.12 Security Support Ends May 1, 2022, suggest moving to Alpine 3.14 May 1, 2023
 - <https://endoflife.date/alpine>
 - golang:1.16-alpine3.14 is available
- [Backlog] LTS artifact rebuild planning.
 - Potential pipeline/release changes required to accommodate rebuilding of artifacts.

Other

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



Next DevOps WG Meeting Thursday, September 23, 2021 @ 9AM PDT

Placeholder for Badge program

Release Czar (09-015-2021)

Current Release Activity:

- None this week

Prior Release Activity:

- (Complete)(August 20) - app-rfid-llrp-inventory (1.0.0)
- (Complete)(August 20) - device-rfid-llrp-go (1.0.0)
- (Complete)(August 4) - app-functions-sdk (2.0.1)
- (Complete)(August 4) - app-service-configurable (2.0.1)
- (Complete)(August 4) - device-coap-c (2.0.1)

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

No Updates on Sep 15th

Upcoming events with EdgeX in September

- Sep 16th: Edge Cloud open source software summit by 5G MEC associations in Shanghai (face-to-face)
- Sep 24th: EdgeX workshop by Advantech in Taiwan (virtual)
- Sep 25-26th: F2F competition of EdgeX challenge 2021

(Shanghai, Beijing, Shenzhen) (face-to-face)

- Sep 27th: ACE (AI, Cloud, Edge) summit & EdgeX Q3 meetup co-hosted by VMware & Intel in Beijing (virtual)

Outreach WG (9/8/21)

Working on Events for 2022 & Blog/Vlog topics for fall

Certification

- Research ongoing

Vertical Solutions

- Open Retail Reference Architecture sub-project
 - Demo available under project page
- Advantech presented yesterday
- UST Global upcoming

EdgeX Challenge

- With approval of the Challenge - this will be a big focus of upcoming meetings
- Looking for volunteers to help organize and implement the challenge.

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	Needs review	Jim White	Core
ADR on dynamic service list / #377	Needs review	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	Bryon Nevis	Security

* - indicates some work this week

Miscellaneous topics and announcements

- New LTS Policy has been approved (in place for Jakarta)
 - See <https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=69173332>
- As mentioned, TSC approved EdgeX Challenge 2022
 - Planning to get underway
- Issue and PR policy ready for TSC vote
 - Based on this, a new PR Template has been suggested
- BN: edgex-ui-go only has 2 committers

PR Template Checkbox set (per LG)

PR Checklist

- I am not introducing a breaking change (flag in conventional commit message if you are)
- I am not introducing a new dependency (add notes below if you are)
- I have added **unit tests** for the new feature or bug fix **(if not, why)**
- I have fully integration tested this the new feature or bug fix **(if not, why)**
- I have opened a PR for the related docs change **(if not, why)**

<link to PR>

Ireland Documentation remaining to-dos

- Walkthrough (PR being worked)
- Tools CLI (awaiting v2 of CLI)
- SNMP example/demo
- Update to profile docs to suggest use of upper camel case naming
- Some device service documentation updates
 - 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

Monthly Architect's meeting - 20th @ 1pm EDT

- CORS - how do we address this in both secure/unsecure modes
 - Bryon (Security WG) will be on vacation
- ADR reviews (metrics, UoM, Service List, Delay-start services)
- Declarative Kong
 - Bryon (Security WG) will be on vacation
- Best place for decisions (below those of ADR level)
- 3rd party lib review process

Proposed Jakarta Schedule

Freeze date: Oct 27th

Release date: Nov 17th

Kamakura planning (virtual): Nov 1-4th

Impacting dates

- Thanksgiving (US): Nov 25th
- Veterans day (US): Nov 11th
- Digital Twin World: 19 Oct
- IOT Expo: Nov 23-24
- KubeCon: Oct 11-15
- ONES: Oct 11-15





EDGE X FOUNDRY™

Thank You