

EDGE X FOUNDRY™

TSC Meeting

August 25, 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)

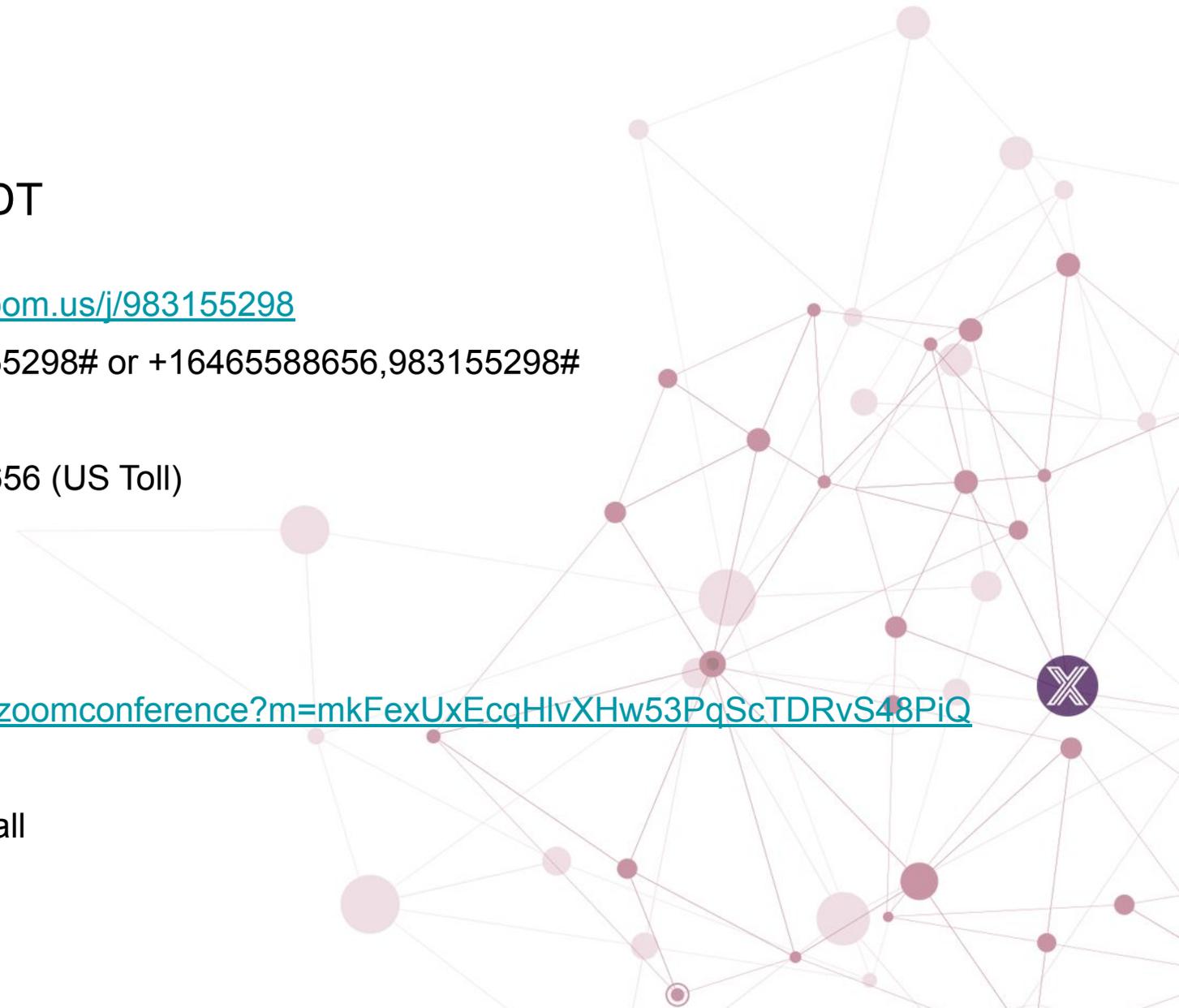
+1 855 880 1246 (US Toll Free)

+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
- Monthly architect's meeting reschedule
- Misc
 - EdgeX Challenge / Hackathon
- Ireland Documentation



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 (8/4) - Jakarta

[Cross Cutting Issues](#)

In Progress (5, +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
- **PR templates require Docs PR link**
 - Device SDK - **DONE**
 - App SDK - **DONE**
 - ASC - **DONE**
 - Remaining - TBD
 -
- **Metrics ADR - WIP**

Related Docs PR now required (if applicable)

Related Docs PR: [edgexfoundry/edgex-docs#551](https://github.com/edgexfoundry/edgex-docs/pull/551)

Done (1, +1)

- **Quotes in TOML files inconsistent**

Backlog (2)

- Implement Generate/Inject passwords into Vault
- **Support complex object types in Reading**

Icebox (0)

Applications WG Update (24-August-2021)

Completed

- rfid-llrp-inventory-service 1.0.0 has been released

WIP

- Pipeline per Topic (PRs open)
 - <https://github.com/edgexfoundry/edgex-docs/pull/551> (Draft for Jakarta)
 - <https://github.com/edgexfoundry/app-functions-sdk-go/pull/938>
 - <https://github.com/edgexfoundry/app-service-configurable/pull/313> (Draft pending on #938)

eKuiper

- Edgex Sink to publish back to Edge MessageBus (only non-secure mode)
- Planned enhancement to sync Source and Sink to use same client if configured the same (will fix Sink for secure mode)
- 1.3.1 release next week
 - <https://github.com/lf-edge/ekuiper/issues?q=is%3Aopen+is%3Aissue+milestone%3A1.3.1>

C/C++ Application Service SDK proposal

- Presented by Tom Brennan (Eaton)
- Not a general purpose SDK like in Go
- Create digital twin for all the devices on the north side for a single protocol such as ModBus

Next

- Wrap up Pipeline per Topic PRs
- Disposition Bug [#500](#)
- **Next week's meeting is canceled**

Next meeting **September 7, 2021 @ 9am Pacific**

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 (25 Aug 2021)

- Ireland / 2.0.1
 - Documentation nearing completion
 - Performance doc 99% done
- Jakarta:
 - Current WIP: EdgeX CLI V2, TAF Snap, Complex Object Types Discussion [#3679](#)
 - TAF: All passing. 541 Functional, 32 Integration, 10 Performance

Core Project Board Status

- 3 New Issues (+1)
- 12 Release Backlog (+2)
- 0 Bug Backlog (+0)
- 1 In Progress/QA (+1)
- 33 Done (+1)
- 4 Jakarta Stretch (+0)
- 8 Icebox (+0)

QA/Test Project Board Status

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

normal - Next meeting Thurs Aug 26, 2021 @ 8am Pacific Time

Device Services WG Update (25-Aug-21)

- RFID-LLRP device service released (for Hanoi)
- MQTT DS enhancements in scope
 - multi-level topics (alternative ingestion format)
 - ability to send multi-reading Event

Next meeting: September 13th

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 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 (08-25-2021)

Pipeline Related

- [Complete] [#345](#) EdgeX DevOps: Optional Dockerfile.build in pipeline
- [Backlog] Alpine 3.12 Security Support Ends May 1, 2022, suggest moving to Alpine 3.14 May 1, 2023
 - <https://endoflife.date/alpine>
 - golang:3.16-alpine3.14 is available
- [Backlog] LTS artifact rebuild planning.
 - Potential pipeline/release changes required to accommodate rebuilding of artifacts.

Other

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

Next DevOps WG Meeting Thursday, September 2, 2021 @ 9AM PDT

Release Czar (08-25-2021)

Current Release Activity:

- (Complete)(August 20) - app-rfid-llrp-inventory (1.0.0)
- (Complete)(August 20) - device-rfid-llrp-go (1.0.0)

Prior Release Activity:

- (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 (August 25)

Next Meeting: Today & September 1

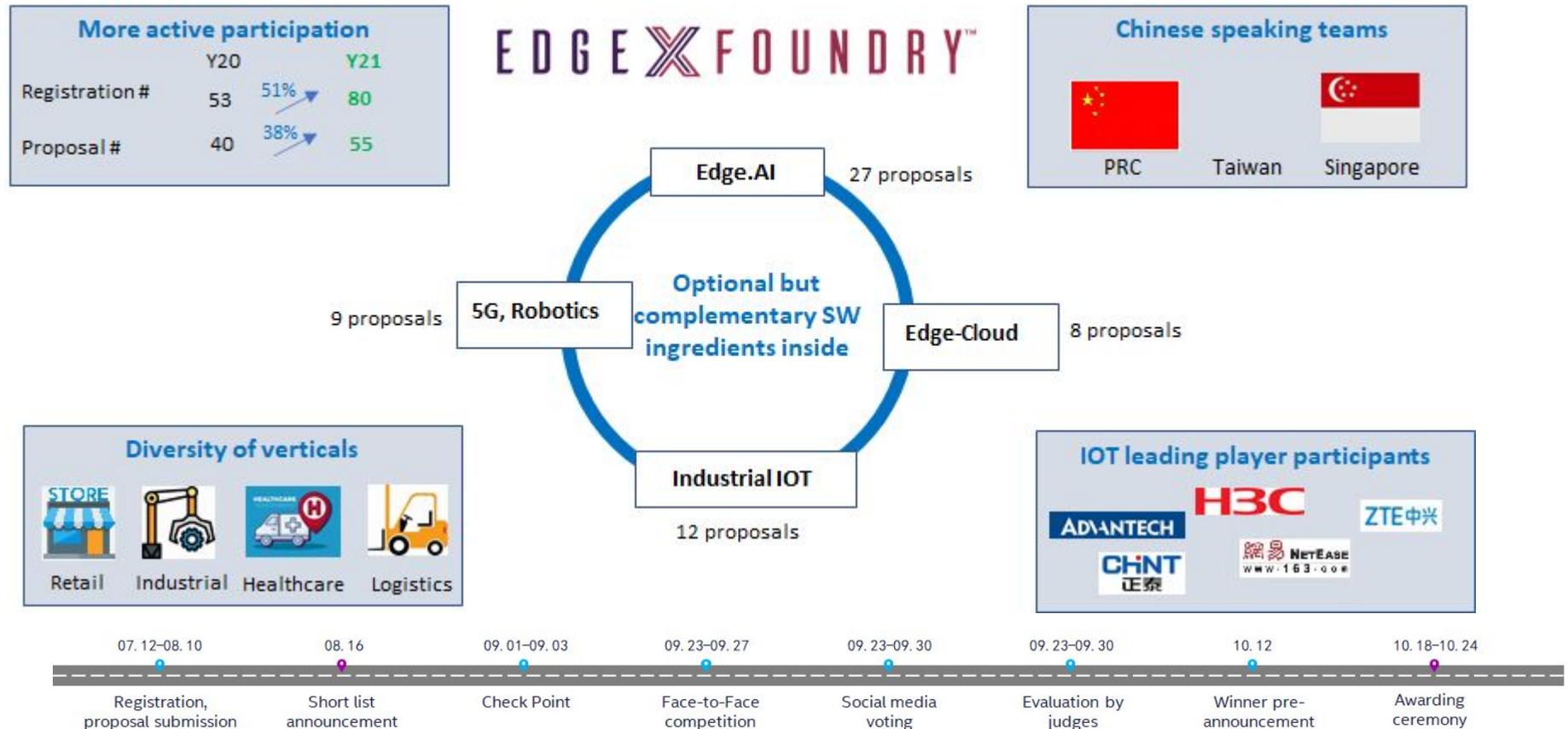
CodeQL enabled for edgex-go. Zero findings!

New critical CVE in alpine 3.12 affects almost every existing container; will discuss in security WG.

New	Backlog	Development	In Review	Done
Security board (projects/28)				
1 (+1)	12 (-1)	1 (-2)	2 (+2)	8 (+5)
Consul board (projects/41)				
	4 / 1 / 2 (nc)	0	0	3

Updates on EdgeX in PRC

- EdgeX challenge 2021: 35 selected from 55 proposals for next round in Sep end



Outreach WG (8/23/21)

Certification

- research ongoing

Vertical Solutions

- Open Retail Reference Architecture sub-project
 - Architect document published
- Advantech Sept 14, 8am PDT - registration link now available on web site

Hackathon

- Outreach committee updated
- Survey Monkey to explore vertical / use case focus
 - <https://bit.ly/EdgeXChallenge2022>

LTS

- Tiger team met - finalizing the docs.
- Present to Outreach and then TSC in coming weeks

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

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

* - indicates some work this week

Miscellaneous topics and announcements

- Monthly Architect's meeting rescheduled
- CodeQL being added to edgex-go repository

Ireland Documentation remaining to-dos

✓ Intro

Getting Started

- ✓ Quick start
- ✓ Getting Started with Docker
- ✓ Getting Started with Snap

✓ Getting Started Developers

- ✓ Getting Started Go Developers
- ✓ Getting Started C Developers
- ✓ Working in a Hybrid Environment
- ✓ App Functions SDK
- ✓ Device Services SDK
- ✓ C SDK
- ✓ Go SDK

Tools; CLI

- ✓ Security (multiple pages)

Microservices

- ✓ Cross Cutting
- ✓ Configuration & Registry
- ✓ Core Services
- ✓ Supporting Services
- ✓ System Management
- ✓ Device Services
- ✓ App Services

Examples and Tutorials (most have been updated)

~~EdgeX on RaspPi4~~

Add a device SNMP

Walkthrough

~~EdgeX Hands on Tutorial~~

- ✓ Reference

New Business

PRs submitted without template content

Readdress template after rules discussion

Do we need to simplify PR template?

Also people not submitting issues prior to PR

Rule: code change requires issue (features or bugs)

discussion: not for development work; yes for bugs

CI build - not issue

Jim to send out email - start discussion

vote after that



EDGE X FOUNDRY™

Thank You