

EDGE X FOUNDRY™

TSC Meeting

August 11, 2021



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Meeting Logistics

Time: Wednesdays 8am PDT – 9am PDT

Join from PC, Mac, Linux, iOS or Android: <https://zoom.us/j/983155298>

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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
- Upcoming monthly architect's meeting
- Misc
 - LF Edge project review
 - Governance, Owner and Adopters pages on each repository
 - Clean up of committers to all repositories
- Ireland Documentation
- Migration tools and documentation (what's needed)



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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 (4)

- [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
- **Metrics ADR - WIP**

Done (0)

-

Backlog (+1)

- Implement Generate/Inject passwords into Vault
- **Quotes in TOML files inconsistent**

Icebox (0)

Applications WG Update (10-August-2021)

Done

- Arthur from Jiangxing Intelligence presented AI/ML framework
 - AI/ML pipeline with REST API to create and configure
 - Next step is for Arthur to create an example in edgex-examples repo
 - Showcase Edgex integration
 - Receive inputs from EdgeX
 - Publish outputs to EdgeX

WIP

- rfid-llrp-inventory-service PR and validation
- Pipeline per Topic (just getting started)
- eKuiper 1.3.0 release on August 12th
 - Docker Image size reduced
 - Option for direct connect to MessageBus Event Requests (Skip ap-rules-engine)
 - Bug fixes
 - New EdgeX Integration Tutorial

Next

- Continue working Pipeline per Topic

Next meeting **August 17, 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 (11 Aug 2021)

- Ireland / 2.0.1
 - Documentation nearing completion (Update Later)
 - [Performance results](#), doc to follow
- Jakarta:
 - Current WIP: Minor bug fixes & ticket review, Config testing, Snap TAF
 - TAF: All passing. 541 Functional, 30 Integration, 10 Performance

Core Project Board Status

- 1 New Issues (-10)
- 11 Release Backlog (+4)
- 1 Bug Backlog (+0)
- 0 In Progress/QA (-1)
- 16 Done (+8)
- 7 Icebox (-20)

QA/Test Project Board Status

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

Next meeting Thurs Aug 12, 2021 @ 9am Pacific Time

Device Services WG Update (11-Aug-21)

- C device services
 - SecretStore support added to SDK
 - Startup issue on v2 with MQTT MessageQueue - workaround in evaluation
 - device-grove-c v2 with Pi4 support being tested (Mengyi @ Canonical)
- Documentation
 - Request for improvement in developer documentation - issue created

Next meeting: August 16th

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 (08-11-2021)

Pipeline Related

- [In Progress] [#345](#) EdgeX DevOps: Optional Dockerfile.build in pipeline
- [Complete] [#346](#) EdgeX Spike go.sum research to enable commit back to repo
 - We will be committing go.sum files back to repos
- [Complete] [#347](#) EdgeX DevOps: Generate repo badges for newly promoted repos

Other

- [In Progress] Master --> Main branch rename.
 - `/edgexfoundry` All done except edgex-docs
 - `/edgexfoundry-holding` [IT-22695](#) Rename for all existing and new holding repos
- [Hold] Spike Developer Badge Program

Next DevOps WG Meeting Thursday, August 26, 2021 @ 9AM PDT

Release Czar (08-11-2021)

Current Release Activity:

- No updates this week.

Most Recent 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 (July 28)

Next Meeting: Today & August 18 (no August 4)

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

Updates on EdgeX in PRC

- EdgeX challenge 2021: Ideation submission closed on Aug 10th, total 55 proposals received.
 - Broad coverage: mainland China, Taiwan, Singapore
 - Vertical cases: retail, industrial, healthcare, logistics
 - Big names participants: Advantech, H3C, Netease, ZTE...
 - Evaluation ongoing, shortlist to be announced on Aug 16th, program development & roadshow scheduled on Sep 25-26th.

Outreach WG (8/10/21)

Certification

- Outlined next steps for “EdgeX Certified”
- Research other project programs and connect with potential users of the program on needs
- Present to Outreach and then TSC at fall meeting

Vertical Solutions

- Open Retail Reference Architecture sub-project
 - Architect document publishing v1 shortly
- Adopter series 2 events upcoming in August/September (UST Global, Advantech)
- Advantech Sept 14, 8am PDT - registration link now available on web site

Marketing

- Press release and blog post on Ireland out

Hackathon

- Tiger team formed to come up with plan for 2022 event

LTS

- Tiger team meeting this Friday.
- Present to Outreach and then TSC in coming weeks

Next Meeting - Aug 23

Topics: 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

* - indicates some work this week

Miscellaneous topics and announcements

- Monthly Architect's meeting on Monday
 - Potential topics list
 - ADR reviews (metrics, UoM, Service List)
 - Declarative Kong
 - Best place for decisions (below those of ADR)
 - 3rd party lib review process
- LF Edge project review
- Addition of Governance.md and Adopters.md pages to each repository
 - Per LF Edge request
- Clean up of committers to all repositories
- Jim out next Wednesday (Aug 18)
 - Meeting cancelled unless someone wants to hold the meeting

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

Migration Tools (and remaining docs?)

On the basis of completed migration documentation, what else do people feel we need?

Other docs?

- Profile migration guide?

Any Tools?

- Profile

- Database

- Config



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Thank You