

EDGE X FOUNDRY™

TSC Meeting

May 5, 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>

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)

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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	Keith Steele	keith@iotechsys.com	Outreach WG Chair
Kong	Colin Hutchinson	colin@konghq.com	Security WG Chair
Intel	Mike Johanson	michael.johanson@intel.com	Applications & Analytics WG Chair
IOTech	James Butcher	james@iotechsys.com	Test/QA WG Chair
IOTech	Jim White	jim@iotechsys.com	Core WG Chair

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

- EdgeX Award Winners
- WG Updates
- Inconsistency in service naming
- Go 1.16 move
- ADR review
- Miscellaneous updates
- Upcoming Events (Dev Advocate)

Congratulations - Your 2021 EdgeX Award Winners



Innovation Award

Lenny Goodell

Ernesto Ojeda

Contribution Award

IOTech dev team

(Cloud Tsai, Jack Chen,
Lindsey Cheng, Ginny Guan,
Wendy Huang, Bruce Huang,
Jude Hung, Chris Hung, Felix
Ting, & Cherry Wang)

Cloud Tsai



EDGE X FOUNDRY™

Work Group Updates

Chairs

Working Group Chair Updates

- Around the horn
 - Release Czar - Bill Mahoney
 - Product Manager - Lenny Goodell
 - Applications - Mike Johanson
 - Device Services - Iain Anderson
 - Test/QA - James Butcher
 - DevOps - Ernesto Ojeda
 - Security - Colin Hutchinson
 - Outreach - Keith Steele
 - Certification - Rodney Hess
 - Marketing - Camilo Dennis
 - Vertical Solutions (and LF Edge TAC) - Henry Lau
 - Core/Supporting - Jim White

Release Czar (May 5, 2021)

Ireland (2.0.0) Release - Key Dates

- Freeze Date:
 - Monday, June 21st, 2021 (6 weeks)
- Jakarta Virtual Planning Meeting:
 - June 21-24 (Monday - Thursday)
- Release Date:
 - Wednesday, June 30th, 2021 (8 weeks)
- EdgeX 2.0.1
 - ~ August 2021
- Jakarta Release:
 - ~ Early November 2021

Release Concerns:

Please let Lenny, Jim and myself be aware of issues as soon as possible.

Product Manager (5/4)

In Progress (10, +2)

- **V2 Implementations**
 - Support Notifications APIs - **WIP**
 - TAF testing V2 APIs - **WIP**
 - Support Scheduler APIs - DONE
 - Device SDKs - DONE
 - Core Services - DONE
- **V2 Consumption**
 - Support Notification Clients - TBD
 - Support Scheduler Clients - **WIP**
 - App SDK V2 Clients - TBD
 - Device Random - **DONE**
 - Device REST - DONE
 - Device ModBus - DONE
- **V1 Code removal**
 - Core/Support Services - TBD
 - App Services - DONE
 - Device Services - DONE
- Securing Consul with Access Token
 - Device SDK C - **TBD**
 - Security Services - **WIP**

Cross Cutting Issues

- Device Service send Events via MessageBus implementation
 - Device SDK C - **PR**
 - Kuiper password inject - **WIP**
 - C Device Services - TBD
 - Core Data Subscribe - TBD
 - Device REST - **DONE**
 - Device Random - **DONE**
- Secret Provider for All
 - Secret Store Setup - **DONE**
 - DS SDK C - **WIP**
 - Camera Device Service - TBD
 - C Device Services - TBD
 - Go Device Services - DONE
 - App Services - DONE
- **Switch to Go 1.16**
 - CI pipeline - **DONE**
 - Update Core/Support files - TBD
 - Update App SDK files - TBD
 - Update ASC files - TBD
 - Update Device SDK Go files - TBD
 - Update Go Device Service files - TBD

- Metrics ADR - **WIP**
- Clients Config overrides ` ` => ` `
 - go-mod-bootstrap - **PR**
 - Compose files - **PR**
 - All other services - TBD
- Secure Message Bus connection - **WIP**

Done (12, +/-0)

- Use service keys for Clients config
- Switch Service to 2.0 config path for Consul
- Registry Usage ADR
- LoggingClient DIC bug fix
- ADR Message Bus from Device Service to App Services
- ADR Secret Provider for All
- Remove Mongo code
- See project board for more...

Backlog (1, +/-0)

- Implement Generate/Inject passwords into Vault

Icebox (0, -1)

Applications WG Update (5-May-2021)

WIP:

Update sample template service to use Redis instead of ZMQ by default

Working with Kuiper on injecting secrets (Proof of concept done, working on making more robust)

Old WIP :)

- Reviewing edgexfoundry-holding/rfid-llrp-inventory-service - Changes in-progress
- Documentation Updates

Application Services

Functions (built into SDK)

Current/Complete:

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed
- PushToCore
- Device Name Filter
- Value Descriptor Filter
- Batch
- AddTags
- JSONLogic Filtering
- XML Conversion
- JSON Conversion
- MQTT(S) Export
- HTTP(S) POST Export
- HTTP(S) PUT Export

NEW!

NEW!

Features

- Store and Forward
- Web Server
- Configurable App Service
- Vault Integration for Secrets
- MQTT Event triggers

NEW!

Reference/Example App Services (Geneva)

(built on top of SDK)

- Azure IoT Hub
- Amazon IoT Core
- IBM Watson IoT
- Cloud Event Transformation
- Secret Retrieval Example

Device Services WG Update (5-May-21)

Done

- device-random upgraded to v2

WIP

- MessageBus for C (in review)
- GPIO, RFID service reviews

Items descoped for v2.0

- Tooling for migration
- Record / replay
- Reading filtering in the device service (stretch)
- Dynamic addition of resources to profiles (stretch)

Project status: 23 issues backlog + 7 new (net +1)

Next meeting: May 10th

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

Open Source connectors (Future):

- Bluetooth Low Energy in C (2021) - contributed
- OPC-UA in C (2021) - under dev
- GPIO (2021) - contributed
- UART (2021) - contributed
- GPS

Commercial connectors (Current):

- File Exporter in C
- 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
- ONVIF in C
- Siemens S7 in C

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

Commercial connectors (Future):

- ZeroMQ (Q1 2021)
- RFID (Q1 2021)

QA/Test WG Update (4th May)

- TAF tests
 - Status: All TAF tests passing (now 419 Functional Tests)
 - Fixed Issues
 - Issue [#352](#), [Secure Consul Ph. 2] Modify tests/scripts for testing consul accesses in secure mode
 - Issue [#377](#), Update scripts that pull compose file for name change
 - Issue [#384](#), Implement intervalAction V2 API tests for support-scheduler
 - Issue [#389](#), Starting device-modbus fails with failure while creating SecretClient
 - Issue [taf-pipelines#64](#), enable device-virtual related tests.
 - Working issues
 - Issue [#391](#), Update doc for local run and deploy edgex without compose file.

Next Meeting May 18th, 8am PST

TAF Functional Test Cases

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	419	0	0	0
x86_64 / CentOS	Security	Redis	419	0	0	0
arm64 / Ubuntu	Non Security	Redis	419	0	0	0
arm64 / Ubuntu	Security	Redis	419	0	0	0

Jenkins Job: [functional-test](#)

TAF Integration Test Cases

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	6	0	0	0
x86_64 / CentOS	Security	Redis	6	0	0	0
arm64 / Ubuntu	Non Security	Redis	6	0	0	0
arm64 / Ubuntu	Security	Redis	6	0	0	0

Jenkins Job: [integration-test](#)

TAF Performance tests

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	10	0	0	1
arm64 / Ubuntu	Non Security	Redis	10	0	0	1

Jenkins Job: [performance-test](#)

DevOps WG Update (05-05-2021)

Pipeline Enhancements

- [#102](#) [Hold] Docker image renaming. On hold until 30 days before Ireland release.
 - Will discuss rollout plan next WG meeting.
- [#335](#) [Complete] Update Go pipelines to use Go 1.16
 - Some issues did occur, need to run `go mod tidy` before running tests or compiling

Other

- [#327](#) [In Progress] Automated CHANGELOG creation
- [#332](#) [In Progress] edgex-compose .env file automation
- [Backlog] Developer Badging Program
- Open Horizons DevOps Help

DevOps WG Meeting May 6, 2021 @ 9:00 AM PST

Security WG Update (May 5)

- Next Meeting: Today & May 12
- Backlog
 - Security Board: 10 (+2)
 - Consul Board: 3 (-2)
- Development
 - Security Board: 0 (0)
 - Consul Board: 2 (0)
- In Review
 - Security Board: 1 (-1)
 - Consul Board: 0 (0)
- Done
 - Security Board: 76 (+1)
 - Consul Board: 36 (+1)

Outreach WG Updates (5/5/21)

Certification Team

- Internal testing of infrastructure started

Vertical Solutions Team

- Open Retail Reference Architecture sub-project:
<https://wiki.edgexfoundry.org/display/FA/Open+Retail+Reference+Architecture>
- Next call tomorrow (5/6/21) at 10 a.m. PDT
- Now meeting every week; participation welcomed

Marketing Team

- Working to respond to LF Edge Outreach survey

Core Working Group (5-5-2020)

- Ireland
 - Support services (notifications)
 - TAF tests (work underway)
 - System Management service
 - Integration / use of V2 APIs (work underway)
 - Documentation
 - Message bus support (work underway)
- status
 - 21 in backlog (-2)
 - 16 in bug backlog (-3)
 - 3 in progress or QA(-2)
 - 171 done (+10)
- Next call - 4/29/21 @ 8AM PDT
 - New ADR service list and Metrics reviews (time permitting)
 - Backlog and Bugs Triage (around 11 issues back to icebox)

Service naming

we have inconsistency in the names we are using for service keys that should be fixed for Ireland

edgex-go service's have the `edgex-` prefix

App service configurable has just the `app-` prefix

Devices services have a mix of prefix and postfix.

This naming inconsistency has become an issue in secure mode now that we are using the service key for the Consul ACL and SecretStore.

Propose we drop the `edgex-` prefix and postfix like `-go` , so the names are like this:

core-data

core-metadata

support-scheduler

security-secretstore-setup

app-rules-engine

device-mqtt

device-rest

device-virtual

Go 1.16 migration

Testing complete

Dev Ops work

Developers to move at their leisure

WG leads to move repositories ASAP

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	Refreshed - needs review	Jim White	Core
ADR on dynamic service list	Added - needs reveiw	Jim White	Core

* - indicates some work this week

Miscellaneous Issues/Topics

- China TSC - May 20th
 - Topic/speaker
- Adopter series - May date open
- Digital Twin Consortium update
- Kuiper LF Edge project update
- Topcoder update



Upcoming Events & Dev Advocate Update

Aaron's updates

Upcoming External Events

- › [Kubernetes on Edge Day](#): 4 May, 2021 - Virtual
- › [Think 2021](#): 11-12 May, 2021 - Virtual ([ORRA](#) presentation)
- › [Open Source Summit Europe / Embedded Linux Conference](#): **27-30 September, 2021 - Seattle, WA** (and Virtual)
 - › [CFP](#) Deadline: 13 June, 2021
- › [OSPOCon](#): **27-29 September, 2021 - Seattle, WA** (and Virtual)
 - › [CFP](#) Deadline: 13 June, 2021
- › [The Global Open Source Technology Conference \(GOTC\)](#): 9-10 July, 2021 - Shenzhen/Shanghai
- › [IoT Solutions World Congress](#): 5-7 October, 2021 - Barcelona, Spain
 - › [CFP](#) closed (notifications in June)
 - › [Call for Testbeds](#) is open (closes 20 May)
- › [Open Networking & Edge Summit North America](#): 11-12 October, 2021 - Los Angeles, CA + Virtual
- › [KubeCon + CloudNativeCon North America](#): 12-15 October, 2021 - Los Angeles, CA + Virtual
 - › [CFP](#) is open (closes 23 May)
- › Discussions around upcoming events occur in the LF Edge Outreach Committee
- › Members may subscribe at: <https://lists.lfedge.org/g/outreach-committee>



LF Edge Webinar Series

Akraino Edge Stack

Held Thursday, April 2 - [Your Path to Edge Computing with Akraino Edge Stack](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTQSIqH7pL8iHrQ

EdgeX Foundry

› Held Thursday, April 23 - [EdgeX Foundry 101: Intro, Roadmap and Use Cases](#)

› On-demand recording available at: https://zoom.us/webinar/register/4515850788014/WN_xCd6YPjEQrCwLiFhBWPkug

Project EVE

› Held Friday, May 29 - [Building the “Android of the IoT Edge”](#)

› On-demand recording available at: https://zoom.us/webinar/register/6415888722675/WN_35oZJ3hrQE69snMaiJUTPg

White Paper

› Held Thursday, July 9 - [Demystifying the Edge with the new LF Edge Taxonomy and Framework](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_icv5h6wFTcuw9O0xvMpgLw

Fledge

› Held Thursday, August 13 - [How Google, OSIssoft, FLIR and Dianomic use Fledge to implement Industrial 4.0](#)

› Recording available at: <https://www.youtube.com/watch?v=6JXNv3AJWog>

State of the Edge

› Held Thursday, September 17 - [State of the Edge: Exploring the Intersection of IoT, AI, 5G and Edge Computing](#)

› On-demand recording available at: https://zoom.us/webinar/register/8115959695936/WN_4rt-MmP1RI6Vkzn3ULpiAA

Home Edge

› Held Thursday, October 15 - [Home Edge: How Your Home Devices Get Deployed in An Edge Computing Services Ecosystem](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_uSlgb-R5Q4etkDhxoSXISQ

› More to follow...





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Thank You