



TSC Meeting

Dec 14, 2022



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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
Intel	Bryon Nevis	bryon.nevis@intel.com	Security WG Chair
Intel	Lenny Goodell	leonard.goodell@intel.com	Applications & Analytics WG Chair
IOTech	Cloud Tsai	cloud@iotechsys.com	Core & Test/QA WG Chair

At Large Members:

Gavin Lu (VMWare), Farshid Tavakolizadeh (Canonical), Melvin Sun (Intel), James Butcher (IOTech), Tom Brennan (Eaton)

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

- HCLTech
 - Introduction to HCL's use of EdgeX
- Working Group Updates
- ADR and UCR updates - Common Configuration Discussion
- Doc updates
- Miscellaneous



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HCLTech

Overview of the use of EdgeX at HCL



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Work Group Updates

Chairs

Working Group Chair Updates

- Around the horn
 - Product Manager - Lenny Goodell
 - Applications - Lenny Goodell
 - Core - Cloud Tsai
 - Device Services - Iain Anderson
 - DevOps - Ernesto Ojeda
 - Release Czar - Bill Mahoney
 - Security - Bryon Nevis
 - PRC Updates - Melvin Sun and Gavin Lu
 - Outreach and Marketing
 - Certification - Rodney Hess
 - LF Edge TAC - Jim White

Product Manager (11/30/22) - Minnesota [Cross Cutting Issues](#)

Icebox (3)

- Lite Builds (no security features) via Build Tags
- Go 1.19 (<https://tip.golang.org/doc/go1.19>)

Done (0)

Backlog (0)

- Update TBD

In Progress (2)

- **Update mods to v3 - WIP**
- **Flattening of consul - WIP**
- **Remove ZMQ**
 - **go-mod-messaging - done**
 - **edgex-go - done**
 - App SDK - TBD
 - App Services - TBD
 - Go Device SDK - TBD
 - Go Device Services - TBD
 - C SDK - TBD
 - C Device Services - TBD
- **Common Config**
 - UCR - **done**
 - ADR - **WIP**
 - Implementation - TBD
- **Microservice Auth**
 - UCR - WIP
 - Prototype with OpenZiti - WIP
 - ADR - WIP
 - Implementation - TBD

Applications WG Update (11/30/22) - Minnesota

Newly Completed (6)

- feat: Expose Set and Clear operation of pipelines in Application Service interface [#1220](#)
- refactor: Renamed GolangRuntime to FunctionPipelineRuntime [#1229](#)
- refactor: Remove deprecated SetFunctionsPipeline code [#1231](#)
- refactor: change mqtt subscribe for multiple sub [#1232](#)
- refactor(sdk): remove deprecated LoadConfigurablePipeline function [#1234](#)
- refactor!: update module to v3 [#1241](#)

New (0)

- Support multiple triggers [#1233](#)
- Use Config Stem constants from Core Contracts [#1236](#)
- Fail to start APP service with bootstrapping failed [#1239](#) - should be fixed by update to v3

WIP (3)

- refactor(sdk): remove deprecated Process code [#1240](#)
- refactor!: Use config stem from common constants [#1238](#)
- refactor(sdk): remove deprecated EncryptWithAES code [#1235](#)

Done for Minnesota (0)

Backlog (18)

- <https://github.com/orgs/edgexfoundry/projects/50/views/2>

ICE BOX (7)

Next

- refactoring for deprecated and config changes

eKuiper

- 1.8.0 in progress
 - <https://github.com/lf-edge/kuiper/milestone/14>
 - Alpha available.
 - <https://github.com/lf-edge/kuiper/releases/tag/1.8.0-alpha.1>
 - <https://github.com/lf-edge/kuiper/releases/tag/1.8.0-alpha.2>

Project Board: <https://github.com/orgs/edgexfoundry/projects/50/views/2>

Application Services - Minnesota

Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB)
- Conversion (XML & JSON)
- PushToCore **** DEPRECATED****
- **EventWrapper - NEW**
- Encryption (AES256)
- Encryption (AES) **** DEPRECATED****
- Export
 - MQTT
 - HTTP POST & PUT
- Filtering
 - By Profile Name
 - By Device Name
 - By Source Name
 - By Resource Name
- JSONLogic
- Set Response Data
- **ToLineProtocol (transforms Metric DTO) - NEW**

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
- Service Metrics - **NEW**
- Clients
 - Logging, Event
 - Command
 - Device, DeviceService
 - DeviceProfile
 - Notification
 - Subscription
 - Registry

Reference/Example App Services

(built on top of SDK)

Released Services

- App Service Configurable
- App RFID LLRP Inventory

Examples

- Simple Filter
- Simple Filter and MQTT Export
- Simple Filter and HTTP Export
- Simple CBOR
- Cloud Export

- Cloud Event Transformation
- Secret Retrieval
- JsonLogic
- Send Command
- Convert & Publish
- Custom Target Type
- IBM Watson IoT (ASC Profile)
- Custom Trigger
- Influx DB & Flege Exports
- Camera Management - **NEW**

Core WG Snapshot (14 Dec 2022)

- TAF:
 - Functional tests:
 - Non-Security **606** tests - 20 failed, due to [#4238](#) ; Security **606** tests - 20 failed, due to [#4238](#)
 - Integration tests:
 - Non-Security **122** tests - all passed ; Security **125** tests - all passed
 - Performance tests:
 - Non-Security **10** tests - all passed ; Security **10** tests - all passed
- Discuss the removal of SMA code

Core/QA Project Board Status

- 35 New Issues (-2)
- 16 Release Backlog (+6)
- 3 In Progress/Review (+3)
- 11 Minnesota Done (+2)
- 0 Icebox (+0)

Next meeting: Tuesday Jan 4th 2023 @ 4 PM Pacific Time

Device Services WG Update (14 December 2022)

Release status:

- BACnet ready for 2.3.1 release; USB camera for 2.3.0?

REST DS enhancement:

- PR in for review

Next meeting: January 9th

Device Services - current/coming (as of v2.3)

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 and USB Cameras in Go
- REST in Go
- CoAP in C
- LLRP / RFID in Go
- GPIO in Go

Open Source connectors (Future):

- 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
- WebSockets in Go

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 (12-14-2022)

Pipeline Related

- [#421](#) [Backlog] Upgrade pipeline to Go 1.20 (Feb 2023)
- [#203](#) [Backlog] Create Go 1.20 base CI image

Other

- Reminder: DevOps WG meeting moving to once per month. Same day and time Tuesday 9AM PST.

Next DevOps WG Meeting: Tuesday, January 10, 2022 @ 9AM PST

Release Czar (2022-12-14)

- Levski - 2.3.0 - Released Nov 9th

EdgeX Release Process: <https://wiki.edgexfoundry.org/display/FA/Release+Checklist>

Security WG Update

Next Meeting: 12/14 (today)

- Review project board
- Microservice authentication implementation updates
 - Microservice authentication UCR
<https://github.com/edgexfoundry/edgex-docs/pull/898>

Security Project Board Status

- 1 New Issues
- 10 Release Backlog
- 3 In Progress/QA
- 3 In review (+1)
- 1 Done (+1)

Helm Chart - Board Status

- 11 To do
- 0 In progress
- 1 In review
- 7 Done

EdgeX China Update

EdgeX Challenge China 2022 Complete

- (Chinese) Press Release: <https://mp.weixin.qq.com/s/rsbPO2mpoV24e-KNBIJbDQ>
- Congratulations to all involved, a huge effort:
 - 64 entries, 37 teams into the finals, 4 months of training, competition and roadshow

EdgeX China Q4 Summit - TODAY

- Dec 14th 2022
- EdgeX Challenge winners will be presenting their solutions
- IOtech Edge Builder (Edge Deployment and Management) will be presented

EdgeX China community channels:

- Website: <https://cn.edgexfoundry.org/>
- OSChina: <https://www.oschina.net/group/edgex-foundry>
- CSDN: <https://blog.csdn.net/edgexfoundry>
- Zhihu: <https://www.zhihu.com/people/edgex-foundry>
- Bilibili: <https://space.bilibili.com/550595847>

Outreach WG (12/13/22)

Ready/Certification

- No updates

Events

- Intel Student Hackathon for early 2023
- Edge F2F next spring
 - nice if it could be collocated with other LF event
 - COVID &/or travel budget issues

WebSite Changes (order or priority)

- Issue with docs search being addressed by LF

Next meeting Dec 19, 9am PST
Topics?



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Other Topics

Quick Summary: EdgeX 3.0 High Level Updates

Theme / Title	In Scope	Priority	T-Shirt	Breaking	Notes
Common Configuration	✓	High	L	✓	UCR approved. ADR in progress
URIs for Configuration	✓	High	M/L	-	UCR needed asap
Configuration Formats	✓	Med	L	✓	Documentation to describe the need
Parent/Child Devices	✓	Med	S/M	-	ADR not needed; Eaton to raise PR
Extending Device Data	✓	Med	L	-	ADR required (Eaton)
Provision Watch via Device Metadata	✓	Med	S/M	-	ADR not needed; Eaton to raise PR
Notification Service Improvements	Stretch	Low	S/M	-	
Core Data Cache	✓ (UCR)	Med	S/M	-	UCR in scope; options in Core Data, Scheduling
Lowering the JSON Overhead	Stretch	Low	S/M	-	Need more customer stats (IOTech)
Replace Kong, Consul, Vault with Lighter Options	Stretch	Med	L/XL	-	Eaton solutions available, testing ongoing
EdgeX Lite	Stretch	Low	S	-	Incubation work

UCR & ADR Review (as of 11/29/22)

UCR/ADR Name	Status	Owner	Work Group
Core Data Cache	UCR for review: https://github.com/edgexfoundry/edgex-docs/pull/884	Jim White	Core
Common Configuration	UCR merged: https://github.com/edgexfoundry/edgex-docs/pull/892 ADR in progress: https://github.com/edgexfoundry/edgex-docs/pull/909	Lenny	Core
URI reference (profiles, config, etc.)	UCR needed	Lenny	Core
Microservice authentication	UCR and ADR for review: https://github.com/edgexfoundry/edgex-docs/pull/659	Bryon	Security

Document work (as of 12/13/22)

Docs that should be done for Minnesota

PR #914 - L [update docs for 3.0]

#913 - S [remove V2/Edgey sections]

#899/900 - L [why EdgeX security requirements are met]

#859 - L [version warning popup]

#855 - L [extend Go SDK API docs]

#843 M [SE indexing old docs]

#732 L [role based access for Mosquitto]

#714 L [images to LFS]

#642 L [export to cloud]

#667 L [how to build containers]

#489 M (with #121, #21) [consume/send binary]

Miscellaneous

- Propose to cancel remaining EdgeX TSC / Architects Meetings in December
 - Restart TSC Meeting on January 11th, alternate with Architect's Meetings from Jan 18th
- EdgeX UI / CLI Tooling Poll: <https://github.com/orgs/edgexfoundry/discussions/34>
 - Put out on slack and edgex-devel
- EdgeX USB Camera Video Tutorial: <https://www.youtube.com/watch?v=qoGdiAfJq-4>
 - please share/circulate etc



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Thank You