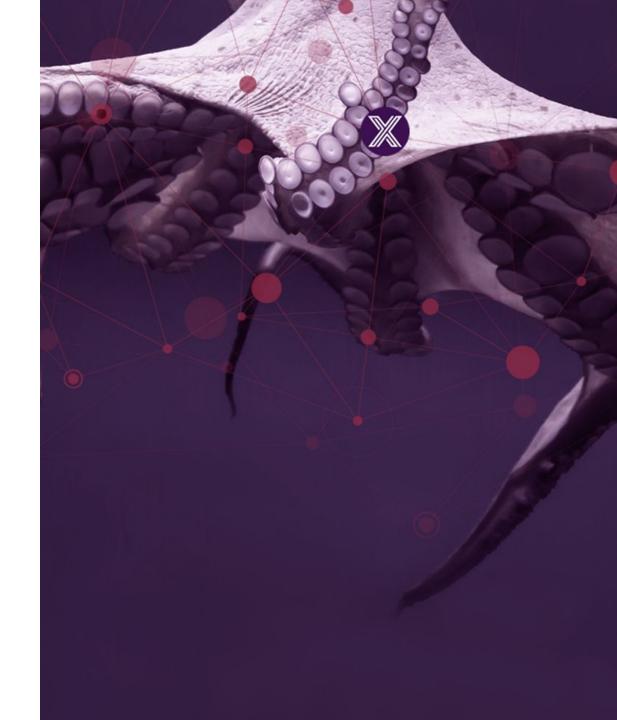# TSC Meeting

March 22nd, 2023

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Meeting Logistics

Time: Wednesdays 8am PDT – 9am PDT (Alternate Weeks)

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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+1 877 369 0926 (US Toll Free)

Meeting ID: 983 155 298

International numbers available: https://zoom.us/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ

** TSC calls are recorded and added to Wiki post-call

TSC – Members Present Today

Company	Name	Email	Position
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 = 6 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

- Working Group Updates
- UCR & ADR Updates
- Doc Updates
- Miscellaneous
  - Minnesota release date planning

Work Group Updates

Chairs

Working Group Chair Updates

- Around the table:
    - 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 (03/21/23) - Minnesota

Icebox (1)
- Lite Builds (no security features) via Build Tags

Backlog (1, -1)
- V3 Rest API version bumps

In Progress (6, +2,-4)

- **Switch to YAML for config files**
  - go-mod-bootstrap - **DONE**
  - edgex-go - **DONE**
  - App SDK - **DONE**
  - Device SDK Go - **DONE**
  - App Services - **WIP**
  - Go Device Services - **WIP**
  - C Device SDK/Service - TBD

- **URIs for Files**
  - UCR - **Approved**
  - ADR - **Approved**
  - Implementation - TBD

- **Microservice Auth**
  - UCR -**Approved**
  - ADR - **Approved**
  - Prototype with OpenZiti - **WIP**
  - Implementation - **WIP**

- **Common Config**
  - UCR - **DONE**
  - ADR - **DONE**
  - go-mod-bootstrap - **DONE**
  - core-common-config-bootstrapper - **DONE**
  - Compose - **DONE**
  - edgex-go - **DONE**
  - App SDK - **DONE**
  - App Services - **DONE**
  - Go Device SDK - **DONE**
  - Go Devices Services - **DONE**
  - edgex-go Snap - **DONE**
  - Helm example - TBD
  - C SDK/Services - TBD
  - -cc/–commonConfig - **WIP**

- **Secret Path => SecretName refactoring**
  - go-mod-core-contracts (Secret DTO) - **DONE**
  - go-mod-secrets - **DONE**
  - go-mod-bootstrap - **DONE**
  - edgex-go - **DONE**
  - Go Device SDK - **DONE**
  - Go Device Services - **DONE**
  - App SDK - **DONE**
  - App Services - **WIP**
  - C SDK/Service - TBD

- **Remove use of TOML package**
  - go-mod-configuration - **WIP PR**
  - go-mod-bootstrap -**WIP PR**
  - edgex-go - **WIP**
  - SDKs/Services - TBD

Done (11, +3)
- V3 Go Mods
- Remove ZMQ
- Flattening of consul
- Get Command Parameter type
- Consistent Command-line options and Override names
- MessageBus Config refactoring
- Remove old metrics collection
- **Go 1.20**
- **MessageBus Request API**
- **Consistent MessageBus Topic wildcards**
- **Topics as constants and Add service name to multi-level topic when publishing Events**

Applications WG Update (03/21/23) - Minnesota

Newly Completed (5)

- App LLRP Common Config
- App LLRP internal Topics
- App SDK Consume watch common writable
- Go 1.20, Alpine 3.17 and linter v1.51.
- APP SDK YAML config file

Newly added (2)

- BUG - Change TargetType value from Consul didn't affect before restart service #1361
- BUG - Update store and forward configuration got runtime error #1355

WIP (1)

- App LLRP YAML config file
- ASC YAML config file

Done for Minnesota (62, +10)

Backlog (5, -1)

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

ICE BOX (9)

Next

- More refactoring for 3.0

eKuiper

- Continue to work on 1.9.0 with Release March 30th
  - https://github.com/lf-edge/ekuiper/milestone/17
  - Pre-release 1.9.0-alpha.1
    - https://github.com/lf-edge/ekuiper/releases/tag/1.9.0-alpha.1
- Released 1.8.2 (bug fixes)
  - https://github.com/lf-edge/ekuiper/releases/tag/1.8.2

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

Next meeting **April 4th, 2023 @ 3:30pm AZ**

Application Services - Minnesota

Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB)
- Conversion (XML & JSON)
- PushToCore **** DEPRECATED****
- **EventWrapper** - <mark>NEW</mark>
- 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)** - <mark>NEW</mark>

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 - <mark>NEW</mark>
- 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 - <mark>NEW</mark>

Core WG Update (22 Mar 2023)

- TAF:
  - Functional tests:
    - Non-Security **589** tests - 10 failed / Security **590** tests - 26 failed
  - Integration tests:
    - Non-Security **121** tests - 46 failed / Security **124** tests - 48 failed
  - Performance tests:
    - Non-Security **10** tests - all pass / Security **10** tests - - 1 failed

- QA Progress
  - Keep tracking the impact of breaking changes and adjusting the test scripts

- Core Progress
  - Common configuration feature is under development
  - Protocol properties and Resource properties value type changed
  - URL escape is implemented, and working on command RegEx
  - Provision Watcher model restructure

- Any Other Business
  - Discuss auto discovery proposed changes https://github.com/edgexfoundry/edgex-go/issues/4422 and https://github.com/edgexfoundry/go-mod-core-contracts/issues/813

Note: ThunderSoft has agreed to take on maintenance / advancement of EdgeX UI.

They may reach out to Lenny, Cloud and others for some guidance and assistance around 3.0 APIs

Next meeting: Tuesday March 28th 2023 @ 5 PM Pacific Time

Device Services WG Update (22 March 2023)

- Go SDK - Provision Watcher updates, Regex support for read requests, YAML support
- Microservice REST authentication - merged for Go and C
- Camera Device services re-released for Levski
- Project board - 19 issues backlog (+2), 3 in progress / review (-1)

Next meeting: March 27th

Device Services - current/coming (as of v3.0)

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 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), and BACnet (in C) that have added features over the community editions

DevOps WG Update (3/21/2023)

Pipeline Related

- #928 [Complete] Spike - Research mkdocs-swagger-ui
- #4832 [Complete] edgex-docs swagger-ui-tag implementation
- #421 [Complete] Upgrade pipeline to Go 1.20 (Feb 2023)
- #203 [Complete] Create Go 1.20 base CI image
- #423 [Backlog] POC Simple GitHub Actions and Simple Reusable workflow for Go builds

Other

- N/A

Next DevOps WG Meeting: Tuesday, April 11, 2023 @ 9AM PST

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Release Czar (2023-3-22)

Tentative Upcoming Releases
- Minnesota - *May 2023*

Recent Release History
- device-usb-camera   2.3.1 - *2023-3-21*
- device-onvif-camera 2.3.1 - *2023-3-21*
- device-sdk-go   2.3.1 - *2023-3-20*
- device-usb-bacnet   2.3.1 - *2023-1-5*
- device-usb-camera   2.3.0 - *2023-1-5*

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

Security WG Update

Next Meeting: 3/21 (today)

- 6 tickets left on release backlog, all non-blocking
    - Remaining: security service metrics, API fuzzing, GoKart trial, BYOV UCR, Helm board reference
    - All breaking changes are in. Awaiting bug reports from TAF.
    - #4467 details a test case that fails when "mosquitto" snap is installed

Security Project Board Status

- 1 New Issues (0)
- 2 Release Backlog (-2)
- 3 In Progress/QA (0)
- 0 In review
- 46 Done (+21)

Helm Chart - Board Status

- 15 To do (+1)
- 0 In progress
- 0 In review (-1)
- 16 Done (+1)

Outreach Update (3/21/23)

Social Media

Next meeting: April 17th @ 10am PDT

- Eaton has stepped up to do a Use Case promotion with LF
    - WIP - more to come
- Community is now in charge of its own LinkedIn/Twitter posts
    - Discussed strategy in yesterday's Outreach meeting
    - Posting 2-3 times a week (thanks to Sophie, Gavin and IOTech team for help)
    - If you have a post you'd like to make, let Jim/James/Gavin know

Events

- Intel Student Hackathon
    - No through June (winners announced in July)
    - Registration open til April 20th
    - https://edgex-hackathon.com/

Ready/Certification

- No updates

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EdgeX China Update

Intel Hackathon Planned March-June 2023. Starts March 20th

- Focusing on EdgeX and home automation
- Joint Global Initiative:
  - UK - virtually@Exeter Uni
  - USA - virtually@Arizona State Uni
  - China - F2F@Shanghai Jiaotong University + virtually across other Universities in China
- More details to come

EdgeX Personnel Changes in China

- VMware (main contact Gavin Lu) looking to focus on other development areas
- Thundersoft (main contact Gavin Zhang) interested in membership and code contributions (especially UI)
- Melvin Sun helping to coordinate meetings etc. More to come

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 approved
URIs for Configuration	✔	High	M/L	-	UCR approved. ADR approved
Configuration Formats	✔	Med	L	✔	Issue here
Microservice Authentication	✔	High	L	✔	UCR approved, ADR approved
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 Retention	✔ (UCR)	Med	S/M	-	UCR approved; ADR not needed. Impl with Core WG
Lowering the JSON Overhead	Stretch	Low	S/M	-	Need more customer stats (IOTech)
Replace Kong, Consul, Vault with Lighter Options	Stretch	Med	L/XL	-	Kong being replaced as part of Microservice Authentication
EdgeX Lite	Stretch	Low	S	-	Incubation work

UCR & ADR Review (as of 2/22/23)

UCR/ADR Name	Status	Owner	Work Group
BYO Vault	UCR review; stretch goal for Minnesota	Jim	Security

Document work (as of 3/21/23)

Docs that should be done for Minnesota

#985 - L [Document summary of data model changes in v3] (new)

~~#979 - M [URL escape for device command / resource name]~~ (done)

~~#969 - M [add description for new field props of DTOs]~~ (done)

#956 - S [Device GPIO port doc]

~~#950 - S [Misplaced DTO Validation page]~~ (done)

#913 - S [remove V2/Edgey sections]

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

#855 - L [extend Go SDK API docs]

#732 L [role based access for Mosquitto]

#714 L [images to LFS]

#667 L [how to build containers]

#642 L [export to cloud]

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

EdgeX 3.0 Minnesota Release Schedule - for TSC discussion

- Per our [planning schedule policy](#)
- Possible May release dates of May 10th, 17th, 24rd or 31st (all Wednesdays)

Wed May 10th	Wed May 17th	Wed May 24th	Wed May 31st
Code Freeze: Apr 19th (Wed)	Code Freeze: Apr 26th	Code Freeze: May 3rd	Code Freeze: May 10th
Pre Wire: May 4th (Thurs)	Pre Wire: May 11th	Pre Wire: May 18th	Pre Wire: May 25th
Planning: May 15-18 (Mon-Thurs)	Planning: May 22-25	Planning: May 29-June1	Planning: June 5-8

- US Memorial Day: May 29th
- UK holidays - May 1st, 8th, 29th
- Germany holidays - May 1st, 18th, 29th
- Taiwan Holidays - May 1st

Thank You