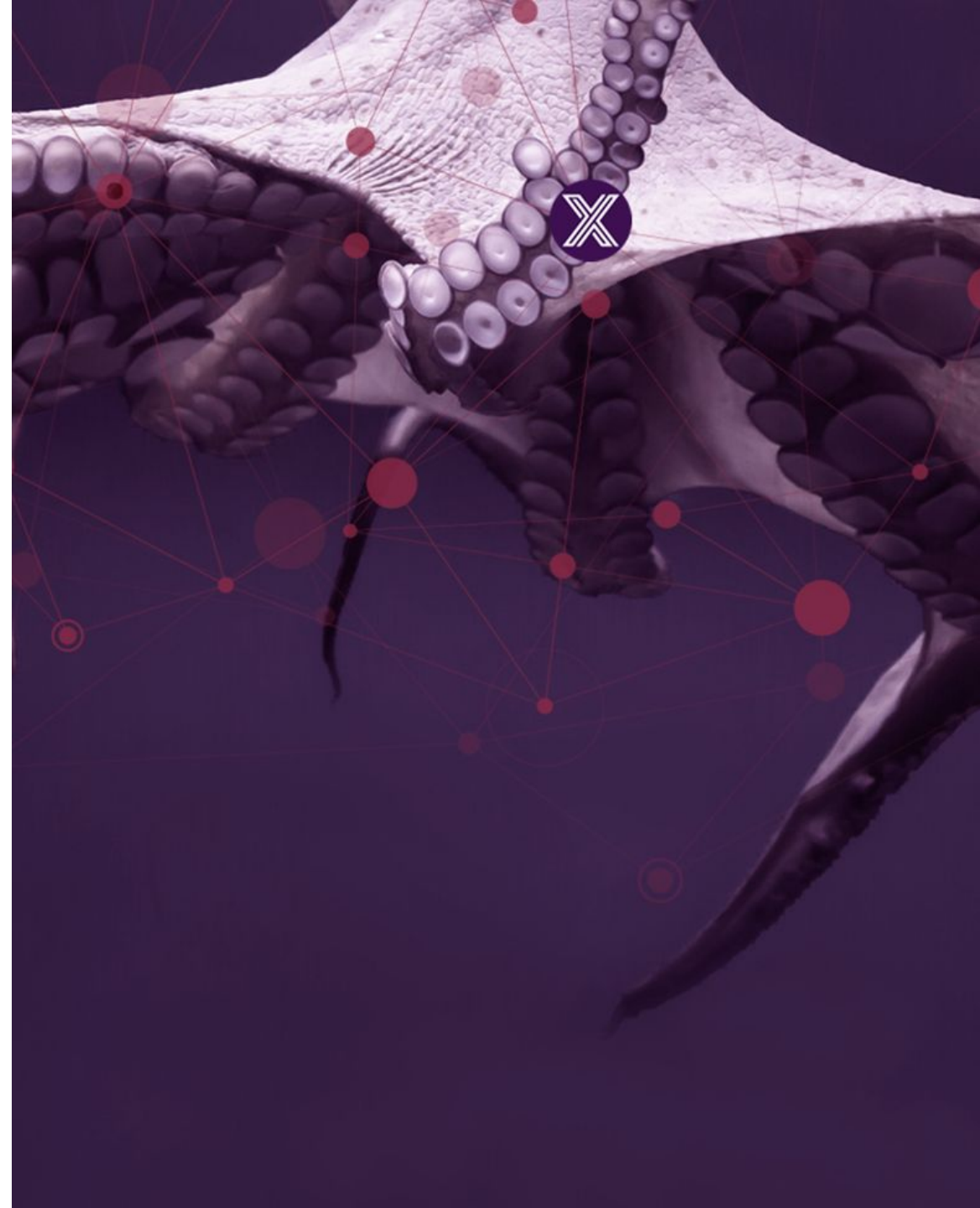


EDGE X FOUNDRY™

TSC Meeting

March 8th, 2023

edgexfoundry.org |  [@edgexfoundry](https://twitter.com/edgexfoundry)



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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)

+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/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ>

** 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 = 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
- Doc updates
- Miscellaneous
 - Minnesota release date planning
 - Clock changes again!





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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 (03/08/23) - Minnesota

[Cross Cutting Issues](#)

Icebox (1)

- Lite Builds (no security features) via Build Tags

Backlog (2)

- V3 Rest API version bumps
- Switch to YAML for config files

In Progress (8, +2)

- **MessageBus Request API**
 - go-mod-messaging - **DONE**
 - Core Command - **DONE**
 - App SDK - **DONE**
 - App Services- **WIP**
 - Go Device SDK - **DONE**
 - Go Device Services - **WIP (non-TAF)**
 - C SDK/Services - TBD
- **Consistent MessageBus Topic wildcards**
 - Go Services - **DONE**
 - C SDK/Services - TBD
- **Go 1.20**
 - Smoke tests of build - **DONE**
 - DevOps base CI image - **WIP**
 - Update Dockerfiles for all services - TBD

- **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 - **WIP (non-TAF)**
 - Go Device SDK - **DONE**
 - Go Devices Services - **WIP (non-TAF)**
 - edgex-go Snap - **DONE**
 - Helm example - TBD
 - C SDK/Services - TBD

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

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

- **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 - **WIP** (TAF **DONE**)
 - App SDK - **DONE**
 - App Services - **WIP**
- **Topics as constants and Add service name to multi-level topic when publishing Events**
 - Go Device SDK - **DONE**
 - Go Device Services - **WIP (non-TAF)**
 - Core Data - **DONE**
 - App SDK - **DONE**
 - App Services - **WIP (non-TAF)**
 - C SDK/Services - TBD

Done (7)

- 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



Applications WG Update (03/08/23) - Minnesota

Newly Completed **4**

- Move swagger files to V3 folder #1286
- Web server crashes due to a nil pointer error when enabling HTTPS #1315
- Core Command message bus Time out #4413
- refactor(sdk)!: Renamed secretName to secretValueKey and secretPath to secretName #1337

Newly added **(0)**

-

WIP **(1)**

- § [MQTT Export] Error registering metric when MQTT Broker is reconnected #1320

Done for Minnesota **(52, +4)**

Backlog **(6, -2)**

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

ICE BOX **(9, +1)**

Next

- More refactoring for 3.0

eKuiper

- 1.9.0-alpha.0 released
 - <https://github.com/lf-edge/ekuiper/releases/tag/1.9.0-alpha.0>
- 1.9.0 planned to be release March 30th
 - <https://github.com/lf-edge/ekuiper/milestone/17>

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 Update (08 Mar 2023)

- TAF:
 - Functional tests:
 - Non-Security **589** tests - **9 failed** / Security **590** tests - **590 failed**
 - Integration tests:
 - Non-Security **121** tests - **30 failed** / Security **124** tests - **124 failed**
 - Performance tests:
 - Non-Security **10** tests - all pass / Security **10** tests - - 10 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
- 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>
 - Core WG meeting time changed since next week (Mar 14) due to the daylight saving time



Device Services WG Update (8 March 2023)

Minnesota development:

- Go SDK - URL-escaping for device/resource names, publish on write, startup resequencing
- C SDK - MessageBus abstraction (WIP)
- Discovery enhancement proposals - <https://github.com/edgexfoundry/edgex-go/issues/4422>
- Potential new DS x2 : Bluetooth, CANbus (HCL contribution)
- Project board - 17 issues backlog (-4), 4 in progress / review (+2)

Next meeting: March 13th



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 (3/8/2023)

Pipeline Related

- [#928](#) [Complete] Spike - Research mkdocs-swagger-ui
- [#4832](#) [Complete] edgex-docs swagger-ui-tag implementation
- [#421](#) [In Progress] Upgrade pipeline to Go 1.20 ([Feb 2023](#))
- [#203](#) [In Progress] Create Go 1.20 base CI image
- ~~Working with Jim on edgex-docs robots.txt and sitemap~~ Done!
 - As new releases/versions come out, we will need to update robots.txt and sitemap.xml (room for some devops/release management automation)

Other

- N/A

Next DevOps WG Meeting: Tuesday, March 14, 2023 @ 9AM PST



Release Czar (2023-3-8)

Tentative Upcoming Releases

- Minnesota - *May 2023*

Recent Release History

- 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: 3/8 (today)

- Token-based authentication rollout underway
 - Affects every EdgeX repository, directly or indirectly – [edgex-go](#) and [edgex-compose](#) are up-to-date
 - device-sdk-go must be updated to at least 3.0.0-dev.46 in consuming device services
 - device-sdk-c PR is still pending and hasn't been bumped to 3.0.0 yet
 - **Please start running regressions to weed out any bugs. Known issues:**
 - **support-scheduler aging hook needs auth support added to outgoing HTTP request**
 - **Proxy routes for /rules-engine and /app-rules-engine are crosswired and/or missing**
- Discussion: Do we want to enable GitHub secret scanning for our repos?
 - Would need to give elevated GitHub privileges to the SIR team to disposition findings.

Security Project Board Status

- 1 New Issues
- 4 Release Backlog
- 4 In Progress/QA
- 5 In review
- 25 Done

Helm Chart - Board Status

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



Outreach WG (3/7/23)

Ready/Certification

- No updates

Social Media

- Community is now in charge of its own LinkedIn/Twitter posts
- Looking to post 2-3 times a week.
- If you have a post you'd like to make, let Jim/James/Gavin know

Events

- Intel Student Hackathon
 - March-June
 - Virtual event with f2f portions
 - May be a need for volunteer helpers (stay tuned)

Docs via Google Search

- Now fixed!!!
 - Thanks to Ernesto and Laura Alveraz (IOTech) for assistance on this long running issue
 - Required robots.txt and sitemap.xml files along with Google SEO work.
 - As new releases/versions come out, we will need to update robots.txt and sitemap.xml (room for some devops/release management automation)

Next meeting: Mar 20th @ 9am PDT

Will be discussing

LinkedIn social media account - control & content

Intel home edge hackathon (Mar-June)

Conferences and events



EdgeX China Update

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>

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





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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 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)

All UCR and ADRs required for Minnesota are approved and merged

<i>UCR/ADR Name</i>	<i>Status</i>	<i>Owner</i>	<i>Work Group</i>



Document work (as of 3/7/23)

Docs that should be done for Minnesota

- #979 - M [URL escape for device command / resource name] (new)
- #969 - M [add description for new field props of DTOs] (new)
- #956 - S [Device GPIO port doc]
- #950 - S [Misplaced DTO Validation page]
- ~~#924 - L [common config documentation] (done)~~
- #913 - S [remove V2/Edgey sections]
- #899/900 - L [why EdgeX security requirements are met]
- ~~#859/843 - L [Search of docs go to latest; version warning popup] (done!)~~
- #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-June 1	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



Miscellaneous

Time changes: Clocks soon to go forward

- This weekend in the US, Sun March 26th in UK/Europe
- Impact this time round *should* be minimal 😊





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Thank You