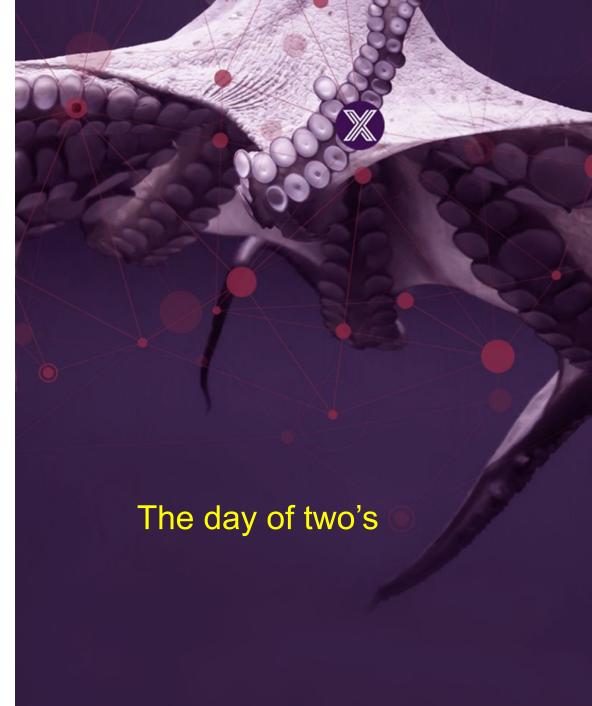


TSC Meeting

February 2, 2022



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# Meeting Logistics

Time: Wednesdays 8am PDT – 9am PDT

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

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: <a href="https://zoom.us/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ">https://zoom.us/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ</a>

\*\* 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.

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# Today's Agenda

- WG Updates
- ADR updates
- Miscellaneous



## 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 (02/02/22) - Kamakura Cross Cutting Issues

Icebox (0)

Backlog (0, -1)

In Progress (9, +1/-1)

- **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
- CORS for all (secure and non-secure)
  - Go services DONE
  - C SDK TBD
- Request new Consul token on Auth failures
  - Go Services DONE
  - C SDK/Services TBD
- Implement Generate/Inject passwords into Vault
  - Go Services DONE
  - C SDK/Services TBD

- Add a "make lint" target
  - Go Device Services WIP
  - LLRP App Service DONE
  - edgex-go DONE
  - App Services DONE
  - go-mods DONE
  - Go Device SDK DONE
  - C Device Services N/A
- Use of Registry when create Clients
  - go-mod-bootstrap WIP
  - edgex-go TBD
  - App SDK TBD
  - Device SDK TBD
- Metrics ADR WIP

### Done (5, +1)

- Add service name to common response DTOs
- Switch to Go 1.17
  - Strange issue with failing Device SDK unit test (removed -race)
- Update Swagger publishing to use version 2.2.0 (docs to point to 2.2.0)
- No ZMQ on Windows
- Secret store tokens for delayed-start services ADR

## Applications WG Update (02/02/2022)

### Completed

- Tests should run cleanly when passed the "-race" argument
- Compose: Update to using eKuiper 1.4 (unpinned to patch)

#### **WIP**

- [LLRP] use background publisher instead of Push to Core
- App SDK Controller tests not actually run

#### New

- [LLRP] Update snaps for a Jakarta Release
- [LLRP] Remove Mock CommandClient (Kamakura) OnHold

#### **Protocol App Services**

- Defining high level requirements
  - https://docs.google.com/document/d/1TXFg5tkbDlFa2tj0yf TZcQ4NPNfo-Y8c/edit?usp=sharing&ouid=104667835989 061964851&rtpof=true&sd=true
  - o Jim White latest details?

#### **Next**

Metrics once ADR is approved

Project Board: <a href="https://github.com/orgs/edgexfoundry/projects/23">https://github.com/orgs/edgexfoundry/projects/23</a>

#### eKuiper

No update this week

Reminder: Bi-weekly morning App Service WG meetings are now being used for Eaton's discussions on C++ Protocol App Service. These discussions will continue on February 15th, 2022 @ 9am PST



## Application Services - Ireland

### Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB )
- Conversion (XML & JSON)
- PushToCore
- MarkAsPushed
- 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

### **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
  - o 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 (02 Feb 2022)

- Kamakura:
  - TAF Functional tests: 545, Integration tests: 43, Performance tests: 10
    - 1 Performance Test failure StartupTime002 Get service startup time without creating containers
      - Needs more analysis
      - msg="couldn't retrieve database credentials: Error, path (redisdb) doesn't exist in secret store"
  - #3777 PR Merge Process. Discussed at length in last week's call. OK for now.

### **Core Project Board Status**

- 12 New Issues (+1)
- 9 Release Backlog (+1)
- 0 Bug Backlog (+0)
- 2 In Progress/QA (+2)
- 33 Done (+3)
- 2 Kamakura Stretch (+0)
- 12 Icebox (+0)

### **QA/Test Project Board Status**

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

## Device Services WG Update (2 Feb 2022)

#### **Device Services**

- GPIO: PR for v2.x updated
- UART: Code for review updated
- CoAP: PR for Secret Store use

#### **SDKs**

- Updates for common responses, registry use for client endpoints
- Inconsistent handling of Array reading data to be resolved

### **Project board**

- 30 issues New+Backlog (-2)
- 7 In Progress+Review (+1)

Next meeting: February 7th

# Device Services - current/coming (as of v2.1)

#### Open Source connectors (Current):

- Modbus (TCP/RTU) in Go
- Virtual Device in Go
- SNMP in Go
- MQTT in Go
- BACnet (IP & MSTP) in C (v1 only)
- ONVIF Cameras in Go
- REST in Go
- Grove in C
- CoAP in C
- LLRP / RFID in Go
- GPIO in Go

#### Open Source connectors (Future):

- UART in Go
- OPC-UA 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

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 (02-02-2022)

#### **Pipeline Related**

- [Complete] edgex-docs issue with Ireland branch not pushing changes to gh-pages
- [In Progress] #59 Spike: rewrite git-semver in python
- [In Progress] Linux Foundation will be working on Ubuntu 20 based build agents for use in the pipelines
  - Will also be migrating away from CentOS due to EOL
- [Backlog] edgex-docs release automation
- [Backlog] Setup bi-weekly builds for less active repos for Snyk vulns

#### Other

N/A

Next DevOps WG Meeting: Thursday, February 17, 2021 @ 9AM PST

## Release Czar (2022-2-02)

No Updates This Week.

Upcoming:

Kamakura - ½ way to May 2022

# Security WG Update (2/2/22)

### Next Meeting: Feb 2

- Discussion: authentication across REST/MQTT bridges
- Delayed service start ADR status
  - Planning to start integration of SPIRE components into edgex-compose soon
- Inherited base image vulnerabilities status
  - Can't corroborate pipeline snyk emails with manual pull and scan. The only package out of date in upstream 3.14.3 is ca-certificates-bundle.

### **Security Project Board Status**

- 4 New Issues (+1)
- 5 Release Backlog (-1)
- 2 In Progress/QA (+1)
- 2 In review (+1)
- 15 Done (+1)

### **Secure Consul Project Board Status**

- 0 In-review
- 0 In-progress
- 2 Phase 1 To-do
- 1 Phase 2 To-do
- 4 Phase 3 To-do

## Updates on EdgeX China Project

Intel, Baidu, and 3 EdgeX adopters are working together on EdgeX + Baetyl joint solution whitepaper (under final review) and promotion video (<a href="https://www.bilibili.com/video/BV1ba411q7ga">https://www.bilibili.com/video/BV1ba411q7ga</a>), with 3 industries/partners as follows, to be published in 1H'22.

- Medical cart (Healthcare segment): HYDsoft corporation
- IDC energy saving (Energy segment): Process Vision corporation
- Waterway management (Transportation segment): H3C corporation

### EdgeX China community channels:

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



# Outreach WG (2/2/22)

### Next meeting Monday Feb 7 at 9am PST

### **Certification**

V2 API support for EdgeX Ready program

### Marketing Efforts

- Working on new tech talks
  - V2 API video
  - Message Bus video

## **ADR** review

| ADR name and PR number                         | Status   | owner         | Work Group |
|--|--|---------------|------------|
| Device profile changes / #605                  | final reviews - 2 approvals already                        | Jim White     | DS         |
| Metrics / #268                                 | small updates being done - final review notice later today | Jim White     | Core       |
| ADR on unit of measure / #386                  | small updates today - for re-review later today            | Jim White     | Core       |
| Device functions / #644                        | discussed in last DS Working Group; Under review           | Iain Anderson | DS         |
| North-south message bus / #656                 | updates by EOW   | Jim White     | Core       |
| Microservice Authentication / #659             | discussed in security WG  On hold for the moment           | Bryon Nevis   | Security   |
| control plane events                           | Needed per planning meeting (low priority this release)    |               |            |
| cmake options to optimize dependencies         | Needed per planning meeting                                | Eaton         |            |
| Global config                                  | Needed per planning meeting (low priority this release)    |               |            |
| Securing the EdgeX message bus when using MQTT | Needed per planning meeting                                |               |            |
| device parent/child relationship               | Needed per planning meeting (labels vs other option)       | Eaton         |            |

