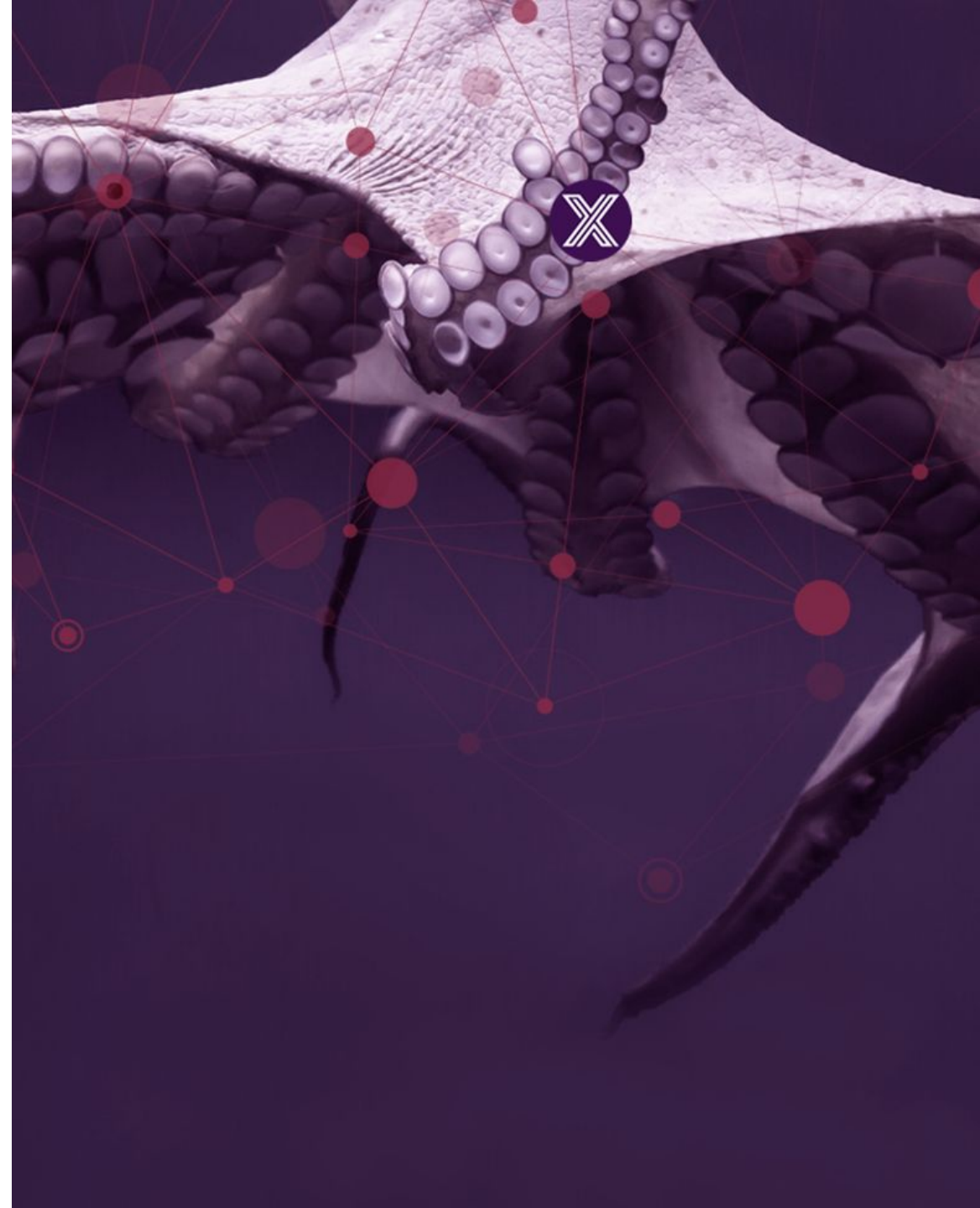# EDGEXFOUNDRY™

TSC Meeting

January 12, 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)

+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

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
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.

Today's Agenda

- WG Updates
- EdgeX Smart * Challenge - status and call for help
- ADR updates
- Miscellaneous
    - IOTech's DCT tool - v2

Work Group Updates

Chairs

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 (01/11/22) - Jakarta

In Progress (9, +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**
    - edgex-go - **DONE**
    - App Services - **DONE**
    - go-mods - **DONE**
    - Go Device SDK - **DONE**
    - Go Device Services -**TBD**
    - C Device Services - **N/A**

- **Metrics ADR - WIP**
- Switch to Go 1.17 - WIP
-

Done (3, +1)
- **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

Backlog (0, -1)

Icebox (0)

Applications WG Update (01/11/2022)

Completed
- Publish Swagger to 2.2.0 version
- LLRP App Service missing volume for inventory snapshot data (edgex-compose)

WIP
- Migration of LLRP App Service (In validation)

New
- None

Protocol App Services
- Defining high level requirements
  - https://docs.google.com/document/d/1TXFg5tkbDIFa2tj0yfTZcQ4NPNfo-Y8c/edit?usp=sharing&ouid=104667835989061964851&rtpof=true&sd=true

Next
- Metrics once ADR is approved

Project Board: https://github.com/orgs/edgexfoundry/projects/23

eKuiper
- 1.4.1 Released : https://github.com/lf-edge/ekuiper/releases/tag/1.4.1
- 1.4.2 to be released soon : https://github.com/lf-edge/ekuiper/milestone/5?closed=1
- Next will be 1.50 : https://github.com/lf-edge/ekuiper/milestone/6
- Working on 2022 road map : https://github.com/lf-edge/ekuiper/projects/18
  - Major release each quarter
  - Welcoming comments

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 **January 18th, 2022 @ 9am PST**

Next meeting **January 25th, 2022 @** 2:30pm Pacific

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
  - ~~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 (12 Jan 2022)

- Kamakura:
  - TAF - All Pasing
    - Functional tests: 545
    - Integration tests: 43
    - Performance tests: 10
  - Swagger publications upgraded for 2.2 Kamakura #3844 - DONE
  - ADR discussions ongoing - #605 Device Profile changes almost wrapped up
  - 7 closed Core WG tickets include make lint/test target"

Core Project Board Status

- 7 New Issues (+0)
- 8 Release Backlog (-4)
- 0 Bug Backlog (+0)
- 1 In Progress/QA (-2)
- 25 Done (+7)
- 2 Kamakura Stretch (+0)
- 14 Icebox (+0)

QA/Test Project Board Status

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

Next meeting Thursday January 13th @ 8am Pacific Time

Device Services WG Update (12 Jan 2022)

In progress

- RFID device service for v2.1 release
- Device Functions ADR
- North-South MessageBus ADR
- Modifying existing Device Profiles

New Device Service proposal

- LoRa / LPWA - presentation now scheduled for Jan 24th

Next meeting: January 24th

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 (01-12-2022)

Pipeline Related

- [In Progress] #371 Go 1.17 released - Release Notes
- [Complete] #370 Spike: multi-arch builds with buildx (spin up less nodes, speed up builds)
- [Backlog] #59 Spike: rewrite git-semver in python
- [Backlog] 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

Other

- [In Progress] Slight inefficiency found in Dockerfile with Go modules in regards to local docker builds. Will need to update all Go based Dockerfiles to fix.

Last DevOps WG Meeting for 2021: Thursday, January 13, 2021 @ 9AM PST

Release Czar (2022-1-12)

No Updates This Week.

Past Activity:

Jakarta - 2.1.0 LTS: Complete

Security WG Update (1/19/22)

Next Meeting: Next week

Status update

- Linters deployed to the other golang repositories
- Remote device service over SSH updated for Jakarta
- Delayed start service ADR still in POC stage;
  haven't yet started production implementation
- Snyk: Alpine base image hasn't had a dot release since November :-(
- Thanks @EBall for taking down old Java DockerHub releases

Security Project Board Status

- 3 New Issues (0)
- 7 Release Backlog (-1)
- 0 In Progress/QA
- 1 In review (-7)
- 14 Done (+8)

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 in Chinese speaking regions

No updates this week.

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 (1/12/22)

Certification

- V2 API support for EdgeX Ready program

Marketing Efforts

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

Topcoder

- 2 submissions available via holding
- https://github.com/edgexfoundry-holding/edgex-message-monitor

EdgeX Smart * Challenge - Kick off Jan 24

Done

Wiki site

Sponsors/funding

Pre-registration social media

Web site with registration (soon)

Social media announcement (soon)

To Be Done or in process
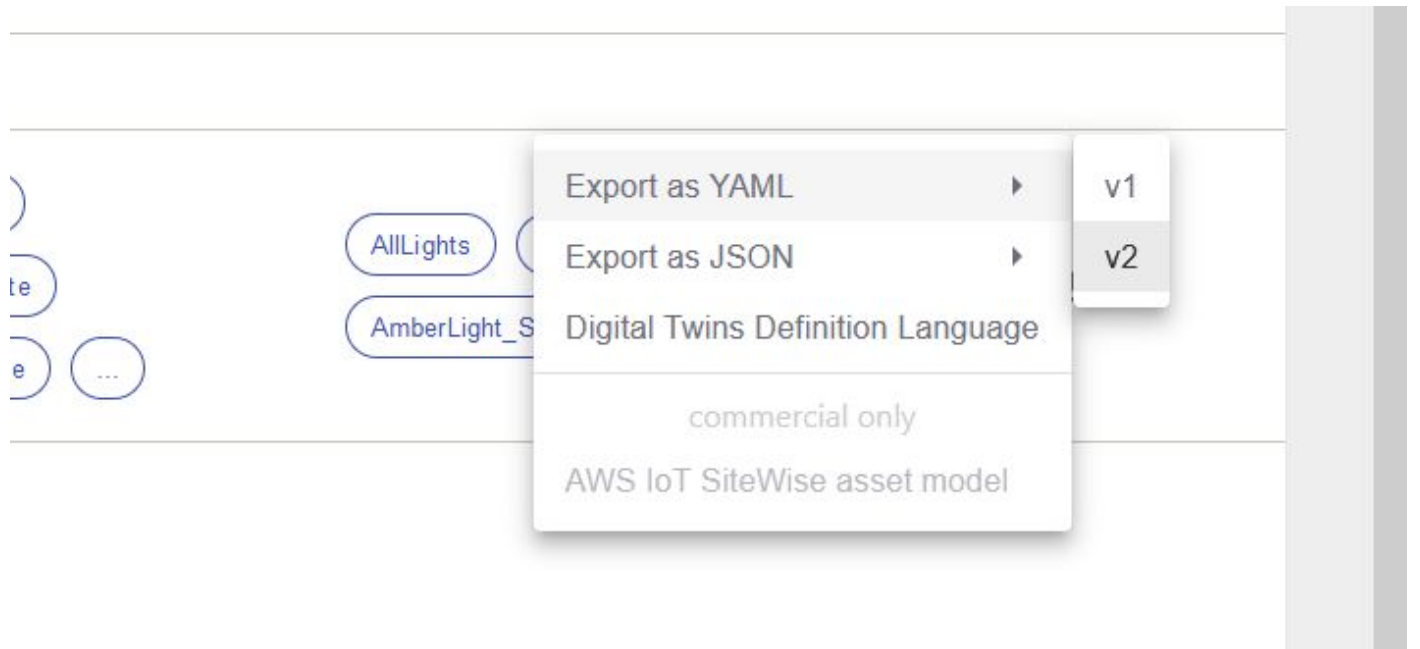
Training material

Judges read-in

ADR review

ADR name and PR number	Status	owner	Work Group
Device profile changes / #605	Looking to wrap up in Core WG Discussed in last meeting Document cleaned of issues (all marked resolved) and looking for final comments	Jim White	DS
Metrics / #268	Updated with resolution to latest comments Look to cover in Core WG if time Looking for final comments	Jim White	Core
ADR on unit of measure / #386	Target Jan 2022 - ready for re-review/Monthly Arch Meeting	Jim White	Core
Device functions / #644	discussed in last DS Working Group; Under review	Iain Anderson	DS
North-south message bus / #656	Under review; some comments provided	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	

Miscellaneous

- Old Java images removed from Docker Hub
  - Removing potential issues with Log4J security issues
- Eaton requirements
  - https://docs.google.com/document/d/1TXFg5tkbDIFa2tj0yfTZcQ4NPNfo-Y8c/edit
- Intel is looking for speakers to front their Edge Software Hub Hackathon
  - "The talks we are looking for are anything to drive excitement among developers about three themes "AI", "Infrastructure", "Realtime". We give our speakers quite some flexibility in what you'd like to speak on. However, if you can link your talk to some of our softwares on Edge Software Hub, such as EII, OpeVINO, or Edge Insights for Fleet, etc, to talk about the synergies you see between EdgeX and Intel's edge softwares, that'll be great.
  - https://page-preview.instapage.com/preview/702116c242a8d4ddcb4ffe6de1a08f4de9e8cf145e97b69905d31dd69c82fdcd?displayMode=0&variation=A&shared=yes&featureMode=0

Miscellaneous

- IOTech's DCT Tool updated to V2
  - https://dct.iotechsys.com/login
  - With conversion capability between v1 and v2!

Thank You