

EDGE X FOUNDRY™



TSC Meeting

December 15, 2021



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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)

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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
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 Challenge Shanghai review and winners info~~ Moved to January to allow Melvin to present
- ADR updates and list of new needs
- Misc
 - Monthly architect's meeting readout



EDGE X FOUNDRY™

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 (12/15/21) - Jakarta [Cross Cutting Issues](#)

In Progress (8 -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 - TBD
 - Go Device SDK - TBD
 - Go Device Services - TBD
 - C Device Services - N/A
- **Metrics ADR - WIP**

Done (2, +1)

- No ZMQ on Windows
- **Secret store tokens for delayed-start services ADR**

Backlog (1)

- Switch to Go 1.17

Icebox (0)

Applications WG Update (12/15/2021)

Completed

- None

WIP

- Migration of LLRP App Service
- Custom Trigger refactoring

eKuiper

- 1.4.0 released (<https://github.com/lf-edge/ekuiper/releases/tag/1.4.0>)
- 1.4.1 to be release on Dec 29 (<https://github.com/lf-edge/ekuiper/milestone/4>)
- Roadmap planning on Friday (<https://github.com/lf-edge/ekuiper/projects/17>)

Next

- Metrics once ADR is approved

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

Reminder: Bi-weekly morning App Service WG meetings are now being used for Eaton's discussions on C++ Data/App service. These discussions will continue on **January 4th, 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
 - 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 (15 Dec 2021)

- Kamakura:
 - TAF - All Pasing
 - Functional tests: 545
 - Integration tests: 43 (up from 37 thanks to [#505](#) QoS config testing)
 - Performance tests: 10
 - In Progress
 - [#479](#) Siggie working on CLI Getting Started Guide
 - [#209](#) Vault memory usage - memory locking discussion

Core Project Board Status

- 8 New Issues (+5)
- 9 Release Backlog (-3)
- 0 Bug Backlog (+0)
- 3 In Progress/QA (+3)
- 9 Done (+1)
- 2 Kamakura Stretch (+0)
- 17 Icebox (+0)

QA/Test Project Board Status

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

Next meeting Thursday December 16th @ 8am Pacific Time

Device Services WG Update (15 Dec 2021)

WIP

- Update PR for OPC/UA - Approved
- Device Functions ADR (0021) - Ready for review

Next meetings: December 20th (provisional), January 10th

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 (12-15-2021)

Pipeline Related

- [Backlog] [#371](#) Go 1.17 released - [Release Notes](#) - On hold until 2022
- [In Progress] [#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

- [Complete] Developer Badge Program is live:
<https://www.lfedge.org/2021/12/07/how-do-you-say-thank-you-to-contributors-edgex-is-trying-to/>

Last DevOps WG Meeting for 2021: Thursday, December 16, 2021 @ 9AM PST

Release Czar (12-15-2021)

Jakarta - 2.1.0 LTS: Complete

[v2.1.0 not reachable from the main branch #226](#)



Security WG Update (12/8/21)



Delayed Services Start ADR 0019

December 13, 2021

“Your vote counts!”

Updates on EdgeX in Chinese speaking regions

- Q4 meetup scheduled on Dec 11th in Shenzhen, the first time in South China region.

EdgeX China community channels:

- Website: <https://cn.edgexfoundry.org/>
- OSChina zone: <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 (12/14/21)

Next meeting Monday Jan 10 at 9am PST

Certification

- EdgeX Ready social media blitz

Marketing Efforts

- Blitz of media releases recently **(PLEASE hype/repost/share these on your social media accounts)**
 - Jakarta Press release
 - Developer Badge Blog and social media
 - EdgeX Challenge early announcement press Release
- Coming over the next couple of days
 - EdgeX 3.0 Blog
 - Jakarta Performance #s Blog
- V2 API video (January)

EdgeX Challenge - Smart *

- Sponsors landed
 - Intel, HP, BSI, IOtech
- Next steps
 - Formalize sponsor contracts
 - Web site update and Registration
 - Prep training materials
 - Organize Judges

Topcoder

- Contest winner to be pushed into holding shortly
- <https://github.com/edgexfoundry-holding/edge-x-message-monitor>

ADR review

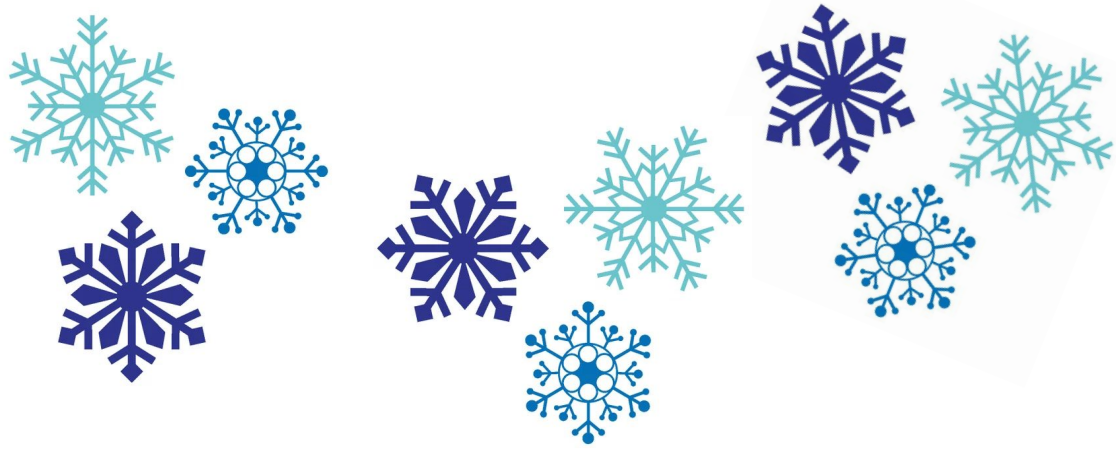
<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
Device profile changes / #605	Target input by EOY - vote in early 2022	Jim White	DS
Metrics / #268	Target input now, with final review in early 2022	Jim White	Core
ADR on unit of measure / #386	Target Jan 2022 - ready for re-review/Monthly Arch Meeting	Jim White	Core
Device functions / #644	New - initial draft (discussed in DS work group)	Iain Anderson	DS
North-south message bus	Needed per planning meeting		
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

- Eaton requirements doc
 - <https://docs.google.com/document/d/1TXFg5tkbDIFa2tj0yfTZcQ4NPNfo-Y8c/edit>
- December schedule
 - No EdgeX meetings between Dec 20 - Dec 31.
 - Last meeting that I am aware of is DS Working Group on Monday
 - Return to normal schedule Jan 3 (Monday)
- Monthly Architect's meeting
 - Use the decision board for all design and ADR decisions going forward
 - <https://github.com/orgs/edgexfoundry/projects/45>
 - Deferred some of Issue #3777 (when to merge) to DevOps
 - replace the enforced branch update on the user-side (and git history) with the same operation done as part of the current CI tests
 - Dynamic Profile ADR - final comments by this week with vote in first week of Jan
 - Metrics ADR - collecting comments now through early Jan - we'll review once more in early Jan

What a year!!

- 2020 and 2021 have been “interesting” years for most of us.
- Yet the project rolled on (even thrived) despite the challenges
- Take a moment to reflect...
 - Two releases in 2021
 - 2nd major release
 - 1st LTS
 - Process improvements a-plenty
 - Massive documentation improvements
 - EdgeX security starting to hit its stride and becoming a project highlight (not something we hide)
 - Chinese Web Site
 - China Hackathon
 - eKuiper integration
 - A lot of new testing
 - DevOps that continues to be the rock and example for any open source project
 - Launch of new programs (EdgeX Ready, Badge Program, etc)
 - Lots of new adopters



THANK YOU!!

each of you are a gift to me and
the EdgeX project

Happy Holidays, Merry
Christmas, Happy New Year and
all the best in 2022





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Thank You