

EDGE X FOUNDRY™

# TSC Meeting

June 1, 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/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	<a href="mailto:iain@iotechsys.com">iain@iotechsys.com</a>	Device Services WG Chair
Intel	Ernesto Ojeda	<a href="mailto:ernesto.ojeda@intel.com">ernesto.ojeda@intel.com</a>	Dev Ops WG Chair
IOTech	Jim White	<a href="mailto:jim@iotechsys.com">jim@iotechsys.com</a>	Outreach WG Chair
Intel	Bryon Nevis	<a href="mailto:bryon.nevis@intel.com">bryon.nevis@intel.com</a>	Security WG Chair
Intel	Lenny Goodell	<a href="mailto:leonard.goodell@intel.com">leonard.goodell@intel.com</a>	Applications & Analytics WG Chair
IOTech	James Butcher	<a href="mailto:james@iotechsys.com">james@iotechsys.com</a>	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

- Jakarta LTS Update Release
- WG Updates
- ADR updates
- EdgeX TSC Elections
  - Proposed TSC changes
- Miscellaneous
  - Tech Talks



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# Work Group Updates

Chairs

# Release Czar (2022-6-1)

## Kamakura (2.2.0):

- Released (2022-5-11)
- C SDK / Device Services
- 

## Jakarta (LTS) Patch (2.1.1):

- Scheduled for 2022-6-8

## Updated Release Checklist:

<https://wiki.edgexfoundry.org/display/FA/Release+Checklist>

# 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 (06/01/22) - Levski

[Cross Cutting Issues](#)

## Icebox (1)

- Lite Builds (no security features) via Build Tags

## Backlog (8)

- System Events (aka CPE) (UC/ADR/Impl)
- Commands via MessageBus (aka N/S MessageBus)
- Additional Metrics
- Secure MQTT MessageBus
- Microservice Auth

## In Progress (2)

- [Securing Consul with Access Token](#)
  - C SDK/Services - **WIP**
- Request new Consul token on Auth failures
  - C SDK/Services - **WIP**
- Explore goweight to see impact of individual libs
  - Mixed results
- Go 1.18 - **TBD**
- NATs MessageBus
  - go-mod-messaging - **Pending PR**

## Done (0)

.

# Applications WG Update (06/01/22) - Levski

## Completed (6)

- [fix\(config\): \(jakarta\) ignore first change notification for custom config #340](#)
- [fix: \(jakarta\) Back port swagger /secret fix #1115](#)
- [fix: \(jakarta\) Make deep copy of MessageBus Optional map to avoid external adds #1113](#)
- [AppVersion and SDKVersion are not properly set #423](#)
- [docs: Publish swagger to 2.3.0 #1112](#)
- [build: Upgrade to latest V3 JSON Logic #1114](#)

## WIP (0)

- None

## Backlog (8)

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

## New (0)

- none

## ICE BOX (5)

- Leftovers not planned for Levski

## Next

- Go 1.18
- Decide on which addition metrics

## eKuiper

- 1.5.0 released on April 2.8
  - <https://github.com/lf-edge/ekuiper/releases/tag/1.5.0>
- Working on 1.5.1 for mid June
  - <https://github.com/lf-edge/ekuiper/issues?q=is%3Aopen+is%3Aissue+milestone%3A1.5.1>
- Working on 1.60 for July
  - <https://github.com/lf-edge/ekuiper/issues?q=is%3Aopen+is%3Aissue+milestone%3A1.6.0>
  - Alternative way to SQL syntax to create rules. More UI friendly for creating drag and drop

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

Next meeting **Jun 14th, 2022 @ 3:30pm Pacific**

# Application Services - Kamakura

## Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB )
- Conversion (XML & JSON)
- PushToCore **\*\* DEPRECATED\*\***
- ~~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
- **ToLineProtocol (transforms Metric DTO)**

## 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)

### Released Services

- App Service Configurable
- App RFID LLRP Inventory

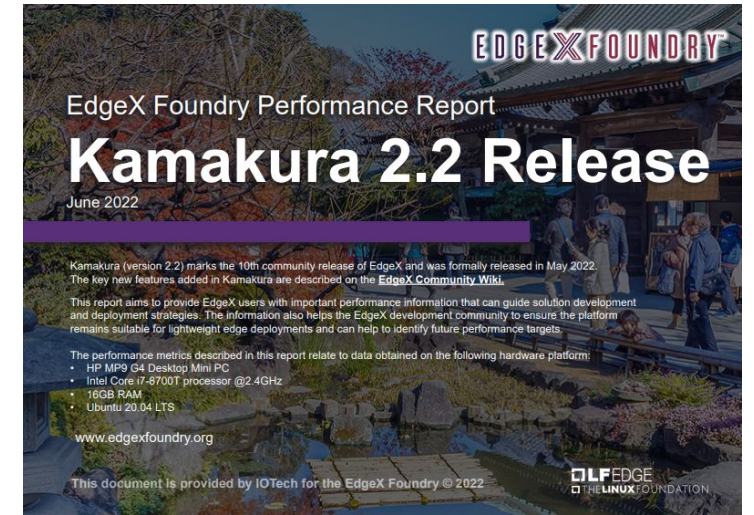
### Examples

- 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

# Core WG Snapshot (1 June 2022)

- Levski:
  - TAF
    - Functional tests: 594 - all passing
    - Integration tests: 47- all passing
    - Performance tests: 10 - all passing
  - WIP
    - Performance Metrics Report
      - Draft for review <https://wiki.edgexfoundry.org/display/FA/Kamakura+Data>
    - Update to Go 1.18
    - Core Metrics - planning which metrics to collect. 9th June meeting
    - Kanban board for N/S message bus implementation. 9th June meeting



## Core Project Board Status

- 8 New Issues
- 0 Release Backlog
- 0 In Progress/QA
- 17 Done
- 18 Icebox

## QA/Test Project Board Status

- 2 New Issues
- 0 Release Backlog
- 1 In Progress/QA
- 0 Done
- 2 Icebox

Next meeting: **Next Week** Thursday 9th June @ 8am Pacific Time

# Device Services WG Update (1 June 2022)

## Project board populated

- 15 issues in backlog + new
- More to come from securing MQTT?
- Various enhancements to individual device services in icebox

*Next meeting: June 6th*

# Device Services - current/coming (as of v2.2)

## 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 (05-25-2022)

## Pipeline Related

- [#390](#) [In Progress] - Fix version mismatch issues for Go based LTS builds
- [#388](#) [Backlog] Optimize edgex-go SPIFFE/Spire docker image builds
- 

## Other

- [#389](#) [Backlog] Help optimize local developer make docker builds
- [#391](#) [Backlog] Add repo badges to README for device-onvif-camera
- [#392](#) [Backlog] Add repo badges to README for device-usb-camera

**Next DevOps WG Meeting: Thursday, May 26, 2022 @ 9AM PST**

# Security WG Update

## Next Meeting: 6/15

- Next two meeting cancelled due to chair schedule conflict
- Will review OpenSSF best practices survey

<https://bestpractices.coreinfrastructure.org/en/projects/1226>

(expected to take several security WG meetings)

### Security Project Board Status

- 3 New Issues
- 8 Release Backlog (n/c)
- 2 In Progress/QA
- 2 In review
- 4 Done

### 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

- Working on renewal contract of Chinese website: July 1st 2022 ~ June 30th 2023.
- Negotiating collaborations with datawale.club on Edge.AI training / certificate in PRC.
  - **Support needed for EdgeX training programs with certificates**
- **EdgeX China plan to validate more ONVIF cameras in local market with the newly released device service (test suite needed)**
- CSP collaborations: Alibaba cloud - EdgeX is adopted by OpenYurt, to connect IoT things/devices on the edge which interworks with the cloud as a K8S worker node.
- Upcoming Events:
  - Working with outreach WG to investigate possible worldwide EdgeX challenge.
  - Q2 meetup scheduled on June 24th in Nanjing, hybrid model of online + in-person.
  - Intel & EdgeX China community are organizing Edge.AI devfest with Microsoft AIOT Lab

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 (5/11/22)

Next meeting Monday June 6th at 9am PST

## Ready/Certification

- Rodney working on Wiki update
- Rodney working on EdgeX Ready for Individuals presentation for TSC consideration

## Social Media

- Blog post on Levski planning, EdgeX Awards & birthday - this week

## Events

- Wait and see mode
- Hackathon decision by July 1

## WebSite Changes (order or priority)

- China website contract signed
- Looking at spend of funding for
  - SEO
  - Security Audit issues
  - Stretch - contact DB
- Update some content (diagrams, et al) - internal

Outreach WG - continue or fold into TSC

- Undecided
- Looking for new leader
- Need decision before elections

# ADR **PROCESS** review

<b><i>ADR name and PR number</i></b>	<b><i>Status</i></b>	<b><i>owner</i></b>	<b><i>Work Group</i></b>
Develop UC/Requirements template	Available for reveiw	Farshid	
Update ADR template and process documents	Available for review	Jim White	
Parent/Child device relationship	Levski release	Eaton	Core
control plane events	Levski release	Lenny	Core
core data cache	Levski release		Core
Record and replay service	Future release		App Services
global configuration	EdgeX 3.0 item (not in scope now)		
URI reference (profiles, config, etc.)	EdgeX 3.0 item (not in scope now; may be sub part of global config)		

# Document work

#685 L [build/run ARM32]

in progress

#673 L [build/run outside of Docker]

DONE

#641 L [EdgeX w/ K8s]

#599 L [build/run on Windows]

in progress

Nice to have

#643 M

#642 L

#598 L

#489 M (with #121, #21)

# Miscellaneous

- EdgeX Elections

- Nominations

- Lenny - App WG
    - Cloud - Core
    - Bryon - Security
    - Iain - DS WG
    - Ernesto - DevOps WG

- At - Large Nominations

- Farshid T \* (to be accepted)

- James Butcher

- Melvin Sun

- Gavin Lu

- Outreach open

- EdgeX role nominations (TSC approved)

- PM - Lenny
  - Release Czar - Bill

# For TSC's consideration

- TSC Chair needs a vice chair - vice chair heir-apparent to take the role in the future
- Outreach becomes a role vs TSC position; opening up to more marketing/non-technical specialists
- Establish two (2) new PRC TSC at-large seats; role to evangelize and get more people/organizations to set forward publicly; feed more requirements; less need to participate in day-to-day technical activities of the project
- Require at-large TSC positions to take up roles as TSC chair or vice-chairs of WGs (help groom new leaders and take more active roles in the project)
  - Have a vice-chair appointed by each WG - for succession and grooming purposes

# Upcoming Tech Talks

## Tech Talks - mid-May through June

- Revising the old tech talks
- ✓ May 31- Getting started (Jim)
- June 7 - Build an AS (Lenny)
- June 14 - Build a DS (Jim)
- June 21 - Build a Device Profile w/ mention of Ready program (James)
- June 28 - Getting started with Snaps (Canonical)

## Registration Links

June 7-28: [https://zoom.us/webinar/register/WN\\_hyrYdafeR5mSM5oLcM75hA](https://zoom.us/webinar/register/WN_hyrYdafeR5mSM5oLcM75hA)



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Thank You