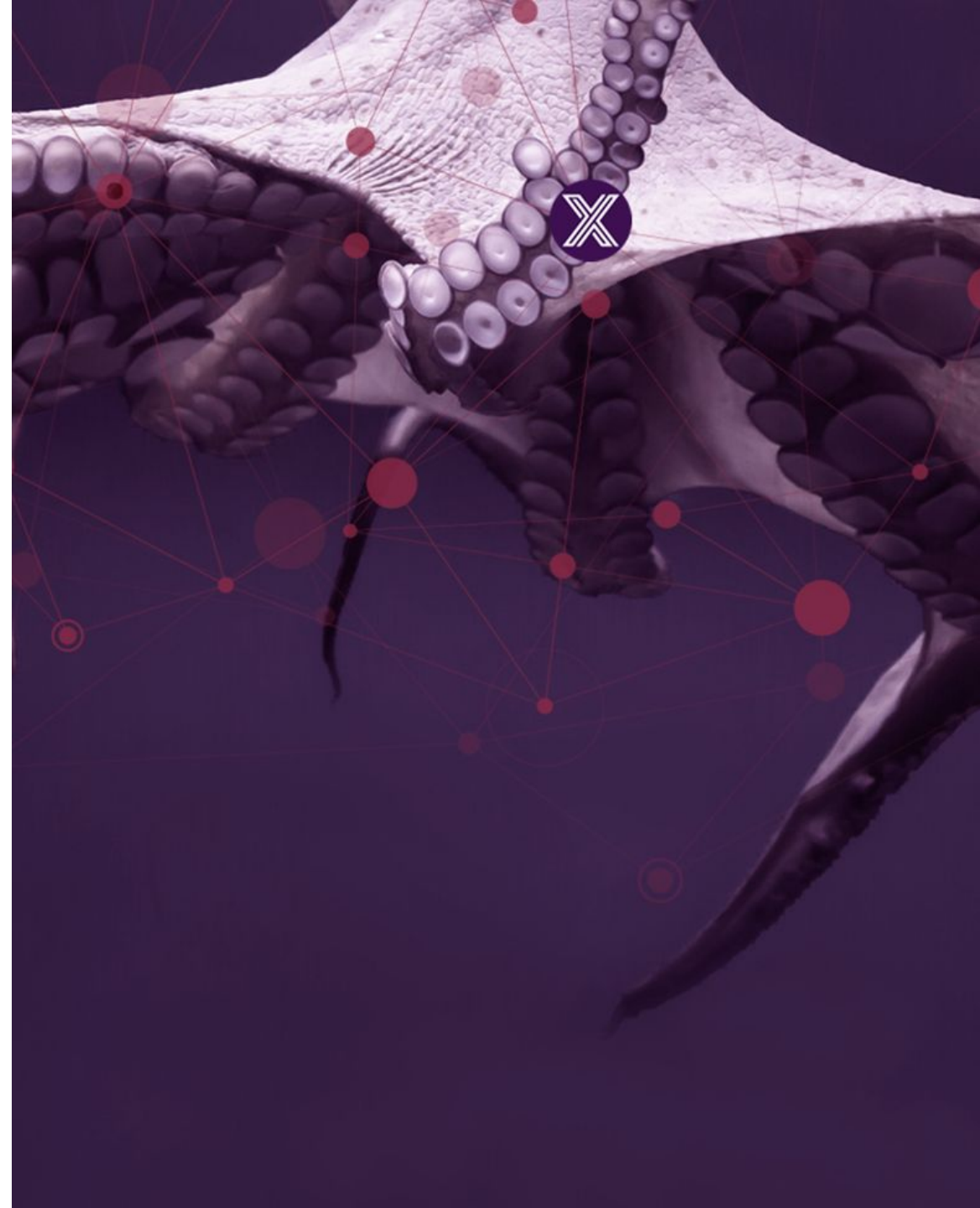


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## TSC Meeting

Oct 4th, 2023

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



# Antitrust Policy Notice

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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



# EdgeX TSC Members

## Working Group Chairs:

- |                          |  |                                   |
|--------------------------|--|-----------------------------------|
| • Cloud Tsai (IOTech)    | <a href="mailto:cloud@iotechsys.com">cloud@iotechsys.com</a>             | Core & Test/QA WG Chair           |
| • Lenny Goodell (Intel)  | <a href="mailto:leonard.goodell@intel.com">leonard.goodell@intel.com</a> | Applications & Analytics WG Chair |
| • Lindsey Cheng (IOTech) | <a href="mailto:lindsey@iotechsys.com">lindsey@iotechsys.com</a>         | Device Services WG Chair          |
| • Ernesto Ojeda (Intel)  | <a href="mailto:ernesto.ojeda@intel.com">ernesto.ojeda@intel.com</a>     | Dev Ops WG Chair                  |

## At Large Members:

- Farshid Tavakolizadeh (Canonical)
- Tom Brennan (Eaton)
- Elizabeth Lee (Intel)
- Melvin Sun (Intel)
- James Butcher (IOTech)
- Darryl Mocek (Oracle)

### 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
- Hashicorp License Model Change
- Future of Snaps with EdgeX
- UCR & ADR Updates
- Doc Updates
- Other Business





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## Work Group Updates

Chairs

# Working Group Chair Updates

- Around the working groups:
  - **Product Manager** - Lenny Goodell
  - **Applications** - Lenny Goodell (or co-chair Elizabeth Lee)
  - **Core** - Cloud Tsai (or co-chair Melody Liu)
  - **Device Services** - Lindsey Cheng (or co-chair Felix Ting)
  - **DevOps** - Ernesto Ojeda
  - **Release Czar** - Bill Mahoney
  - **Outreach and Marketing**
    - **Certification** - Rodney Hess
    - **China Updates** - Melvin Sun
    - **LF Edge TAC** - Jim White



# Product Manager (10/03/23) - Napa

[Cross Cutting Issues](#)

## Icebox (1)

- Lite Builds (no security features) via Build Tags

## Backlog (0)

- 

## In Progress (2)

- **Common Config**
  - C SDK/Services - WIP
- **URIs For Files - C services**
  - C Device SDK device files - TBD

## Done (7)

- Better error handling when Common Config missing
- Move all the common API into go-mod-bootstrap
- Move common Middleware into go-mod-bootstrap
- pkg/errors replacement
- Go 1.21
- Gorilla/MUX replacement
- **URIs For Files - Go services**





# Applications WG Update (10/03/23) - Napa

## Newly Completed (8)

- Add metrics for HTTP and MQTT export failures #1467
- feat: Document new app service export error metrics #1237
- feat: Add new export error metrics to App Service common config #4696
- Provide ReadingClient() from interfaces.ApplicationService #1476
- feat: Document new ReadingClient APIs #1233
- refactor: Rework App Service Configurable documentation #1240
- docs: Fix swagger and Postman for Start Replay #87
- **Record and Replay** (<https://github.com/orgs/edgexfoundry/projects/54>)
  - Done (36)
  - In Progress (0)
  - Backlog (0)

## Newly added (0)

- 

## WIP (1)

- refactor: Rework the AP Record Replay docs into new standard structure #1243

## Done for Napa (38)

### Backlog (1) <https://github.com/orgs/edgexfoundry/projects/50/views/2>

- Add ability to set MQTT Will options for external MQTT server connections #1117

### ICE BOX (6)

- Moved Record and Replay Snap to icebox

### Next

- Continue to enhance/refactor documentation

### eKuiper

- No update this week

**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)
- **EventWrapper - NEW**
- Encryption (AES256)
- 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 (Oct 4 2023)

[Core/QA Project Board](#)

- TAF
  - Functional tests:
    - Non-Security **612** tests - All pass / Security **612** tests - All pass
  - Integration tests
    - Non-Security **132** tests - All pass / Security **135** tests - All pass
  - Performance tests:
    - Non-Security **10** tests - All pass / Security **10** tests - All pass
- QA Progress
  - Done: feat: Add tests for notifications retention [#878](#)
- Core Progress
  - Done: docs updated and will focus on docs refactor in the following weeks



# Device Services WG Update (4 Oct 2023)

## • Go Device Service update

- [device-usb-camera]
  - upgrade some dependencies for flag feature [#289](#) - Done
  - fix: none mode being seen as invalid option to RtspServerMode [#285](#) - Done

## • Device-C-sdk

- Implement loading of common config from config provider [#481](#) - In Progress
- bug fix: device custom protocol contains '&', '<', '>' characters [#465](#) - In Progress
- Add command line/environment flag for commonConfig [#485](#) - In Review

## • Device-Go-sdk

- Implement Device Last Connected metric [#1470](#) - Done
- Consume latest go-mod-bootstrap with RemoveHosts flag [#1510](#) - Done
- [URI4Files] Expand definition of the provision watchers and profiles URI index file [#1483](#) - Done
- fix: Change URIs for provision unit tests to go to edgexfoundry [#1514](#) - Done

## • New CAN device service

- Initial [PR](#) opened by HCL in holding area - Review in Progress



# 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
- 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 (10/3/2023)

## Pipeline Related

- [Complete] Review edgex-docs changes related to mkdocs 1.5 and mike plugin
- [Complete] [#440](#) Fully Automate DockerHub description/overview updates
- [Complete] [#443](#) Go v1.21 edgex-global-pipeline update
- [In Progress] [#438](#) Spike: Evaluate git-cliff, a git-chglog replacement

## Other

- Look into Vault build process for building an forked opensource alternative

Next DevOps WG Meeting: Tuesday, October 10, 2023 @ 9AM PST



# Release Czar (2023-10-04)

## Recent Release Activity:

- device-coap-c v3.0.1 (Aug 28th)
- device-bacnet-c v3.0.1 (Aug 28th)
- device-sdk-c v3.0.2 (Aug 10th)
- device-uart v3.0.0 (Aug 7th)

## Future Releases:

- Napa (~November 2023)

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

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



# Outreach Update (10/3/23)

## Events

- Melvin Sun presented at ONE Summit Regional Day at KubeCon China on September 26.
- Intel Student Hackathon wrapping up/ judging phase this week (China judging already complete)
  - See <https://edgex-hackathon.com/>

## LF Edge TAC

Joe Pearson (IBM/OpenHorizon) and Daniel Lazzaro (Fledge) are chair and vice chair of TAC for another year

## Ready/Certification

- 

Next meeting: Oct 16th @ 10am PDT  
Jim will be out of the office - looking for someone to run the meeting





# EdgeX China Update

- No updates

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>





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Other Topics

# Hashicorp Licensing Model Changes

- Replacement Decision
  - Jim has Deck



# Future of Snaps

Query Poll posted to Discussions (input sought)

<https://github.com/orgs/edgexfoundry/discussions/183>

Current thinking

Discontinue creation of new EdgeX Snaps going forward

Document how to create Snaps in EdgeX Examples

Revisit this if adopter/contributor comes forth



# UCR & ADR Review (as of 9/20/23)

<b>UCR/ADR Name</b>	<b>Status</b>	<b>Owner</b>	<b>Work Group</b>
<a href="#">Microservice auth based on end-to-end-encryption</a>	[In Review] ADR for OpenZiti integration <a href="#">#935</a>	Bryon	Security
<a href="#">Devaultification of EdgeX</a>	[Draft] ADR for EdgeX to go Vault-less (needs a UCR to link to) <a href="#">#1222</a>	Bryon	Security



# Document work (as of 10/3/23)

## Docs that should be done for Napa

- #1230 S [Last connect metric add to config] **new**
- ~~#1218 S [Pull Fuji from version drop down]~~ **completed**
- ~~#1217 M [use of core data and notification retentions]~~ **completed**
- #1197 M [explain insecure secrets]
- #1196 m [add secret API to docs]
- #1161 M [Protocol spec]
- #899/900 - L [why EdgeX security requirements are met]
- #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]

## Documentation refactor / overhaul

- 1st phase complete
- Working on 2nd phase
  - ~~• order of pages and naming~~
  - standardize service pages
  - tutorials
  - API in References
  - Diataxis organizing



# Quick Summary: EdgeX 3.1 High Level Plans

Info transferred to EdgeX wiki release page: <https://wiki.edgexfoundry.org/display/FA/Napa+Release>

Theme / Title	In Scope	Priority	T-Shirt	Notes
URIs for Files - <b>done</b> , except for C Device Service SDK	✓	High	M/L	Well-defined UCR and ADRs already. Owner: Lenny, Testing: Cherry
EdgeX V3 Docs Enhancements - <b>ongoing, in progress</b>	✓	High	M	Elizabeth (list issues) and Jim (perhaps ADR)
Zero Trust / Secure Distributed EdgeX (OpenZiti Integration) - <b>in review</b>	✓ (ADR)	High	S	ADR owner Bryon. Out of scope to implement for 3.1
Bring Your Own Vault - <b>Hashicorp licensing may change this</b> <ul style="list-style-type: none"><li>See <a href="#">Devaultification of EdgeX</a></li></ul>	✓ (ADR)	High	S	ADR owner Jim. Out of scope to implement for 3.1
Common Config - Support for C Devices - <b>done; under review</b>	✓	Med	M	Owner: Felix, support from Iain
Modelling & Relationships – Parent/Child Devices - <b>slipped to 3.2</b>	✓	Med	S	Limited to Metadata. Owner: Eaton
Modelling & Relationships – Virtual Device Resources - <b>slipped to 3.2</b>	✓	Med	S	Limited to Device SDKs and Metadata. Owner: Eaton
Modelling & Relationships – Device Metadata in Provision Watchers - <b>slipped to 3.2</b>	✓	Med	S/M	Limited to Device SDKs and Metadata. Owner: Eaton
Core Data Retention - <b>done and tested</b>	✓	Med	S	Limited to Core Data. Owner: Cloud (Core WG)
NanoMQ (Provide as Experimental Feature) - <b>done available as an option</b>	✓	Low	S	Adds option in compose-builder to obtain performance metrics, ahead of a decision for 3.2
Common Config - Design for addressing the limitation with removing settings from writable / code refactor	STRETCH (Design)	Low	S	Out of scope to implement for 3.1



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Thank You