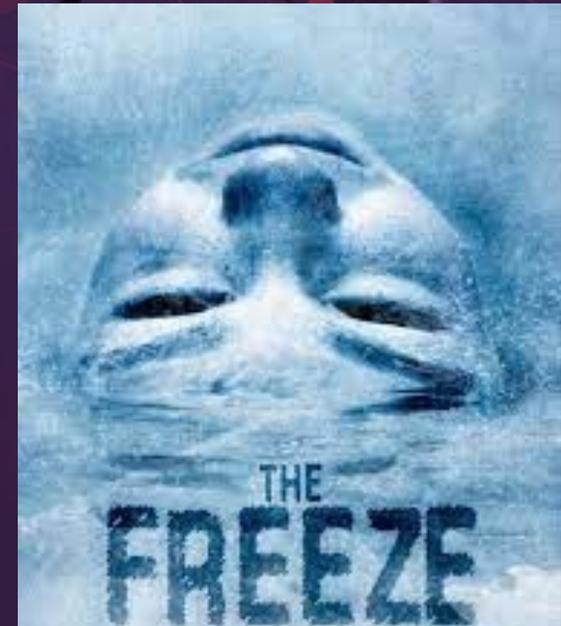
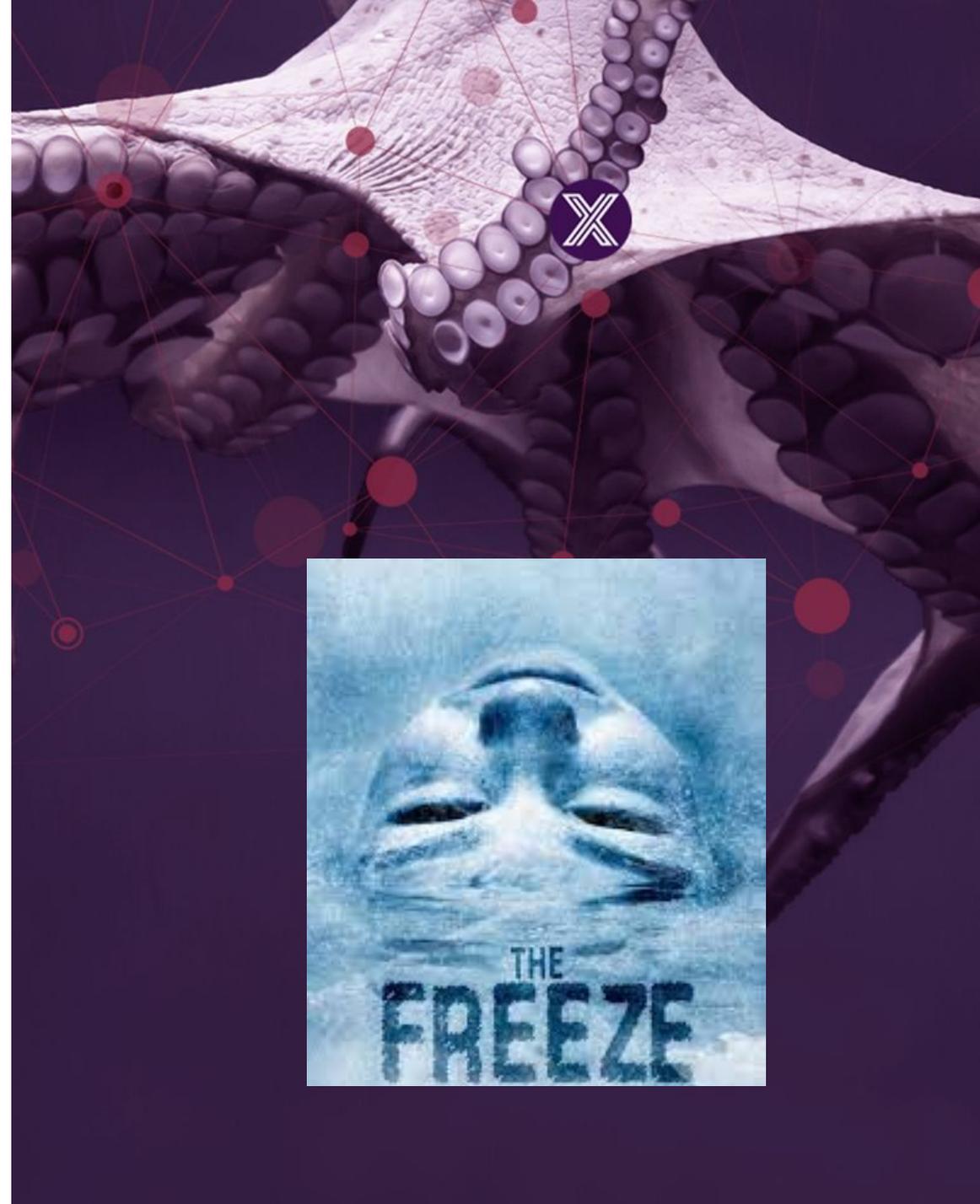


EDGE X FOUNDRY™

TSC Meeting

May 4th, 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)

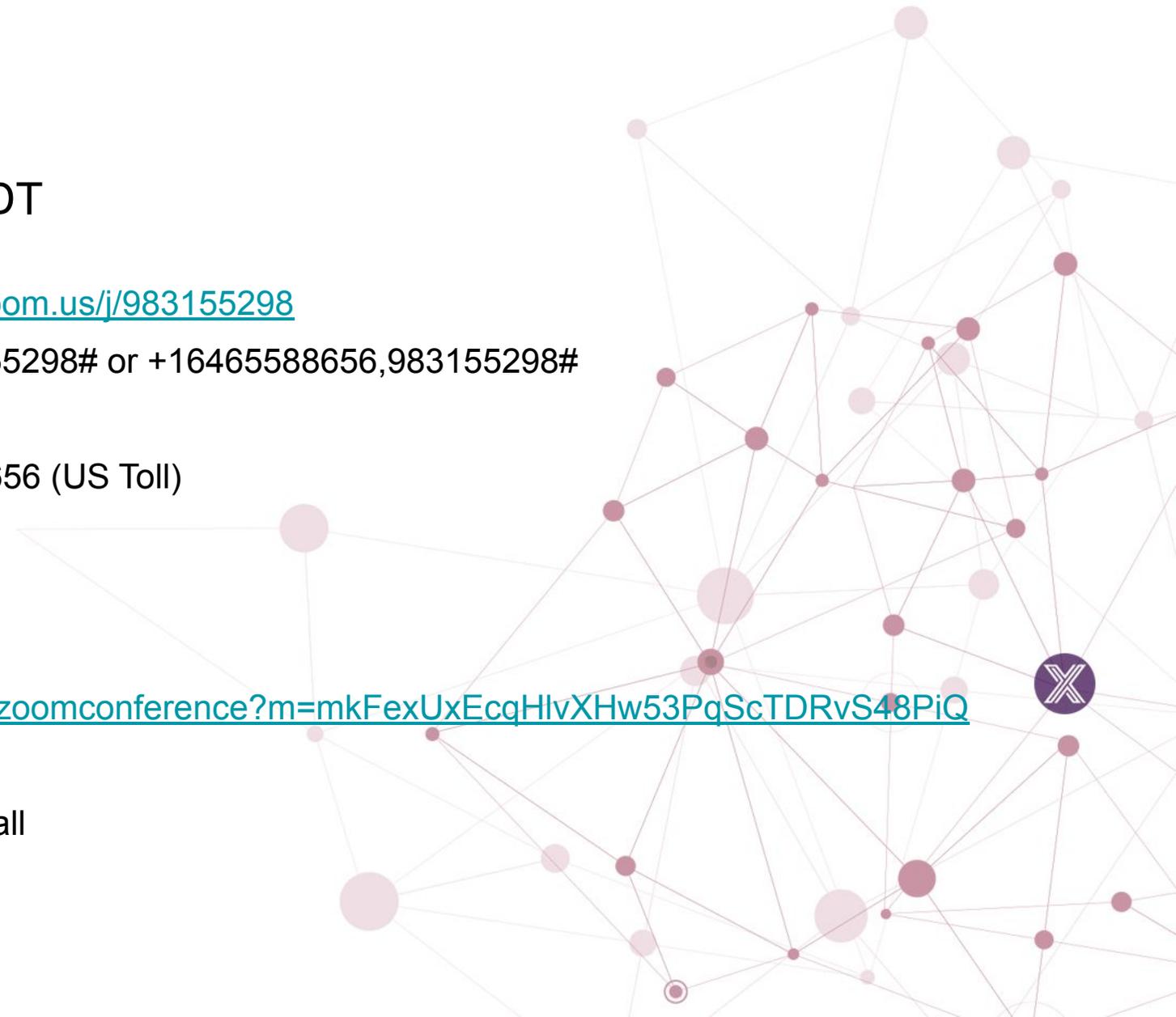
+1 855 880 1246 (US Toll Free)

+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	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
- ADR updates
- Miscellaneous
 - Levski Planning
 - Camera DSs moved



EDGE X FOUNDRY™

Work Group Updates

Chairs

Spring Schedule **approved**

- Per our new [planning schedule policy](#)
- Release on May 11th (Wednesday)

Freeze: Apr 27th, Wednesday
Pre Wire: Apr 20th, Wednesday
Planning: May 16-19, Monday-Thursday

Release Czar (2022-5-4)

Kamakura (2.2.0): In Freeze 🤖

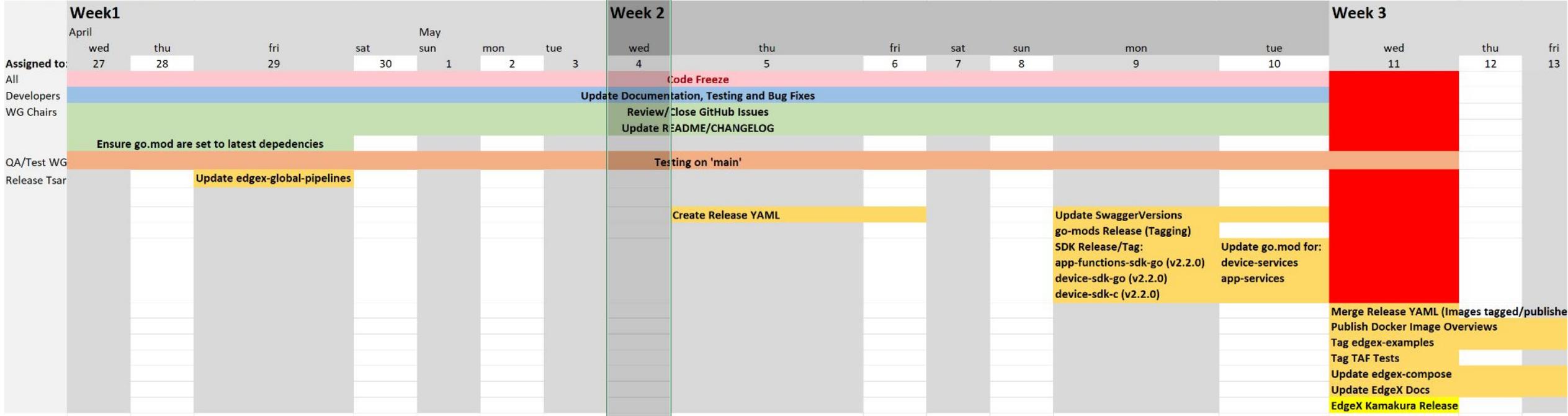
- Update README.MD for released repositories ([Link](#))
- Limit changes to documentation updates, bug fixes

Complete:

Releases of GPIO and LLRP App / Device Services (Jakarta 2.1.0)

Kamakura Release / 2.2.0

Start Date: April 27th, 2022



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 (04/27/22) - Kamakura [Cross Cutting Issues](#)

Icebox (0)

Backlog (1)

- **Generate security credential from Mosquitto broker**

In Progress (5)

- [Securing Consul with Access Token](#)
 - C SDK/Services - **WIP**
- **Request new Consul token on Auth failures**
 - C SDK/Services - **WIP**
- **Service Metrics**
 - go-mod-core-contracts - **DONE**
 - go-mod-bootstrap - **DONE**
 - Core Data - **DONE**
 - APP SDK - **DONE, DONE, WIP**
 - ASC - **DONE, WIP**
 - Go Device SDK - TBD
 - Go Device Services - TBD
- **Security: Implement CGO binary hardening**
 - edgex-go - DONE
 - Device SDK - DONE
 - App SDK - DONE
 - App Services - DONE except **LLRP**
 - Device Services - DONE except **LLRP**

- **Delay Start Services**
 - edgex-go - **DONE**
 - Compose - DONE
 - App Services - **DONE (except LLRP)**
 - Go Device Services - **DONE (except LLRP)**
 - C Device Services - TBD

Done (13)

- Add a "make lint" target
- Implement Generate/Inject passwords into Vault (C SDK/DS)
- CORS for all (secure and non-secure) (C SDK/DS)
- Secure Message Bus connection (C SDK/DS)
- Metrics ADR - Approved
- Use latest Redis (redigo) version (ignore bad v2.0.0 tag)
- Use of Registry when init Clients
- [Secret Provider for All](#) - C Device Services - DONE (COAP)
- Add service name to common response DTOs
- Switch to Go 1.17
- 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

Lenny out this week

Applications WG Update (04/27/22)

Completed (5)

- [App SDK] Enable Delayed Start Services #1089
- [ASC] Enable Delayed Start Services #401
- [SDK] Enable basic Metrics capability #1092
- [SDK] Add Metrics support for Custom Application Services #1084
- feat: Document new Custom Application Service Metrics capability #739
- [SDK] Add Service metrics collected by SDK #1085
- [ASC] Enable Metrics collection
- /api/v2/config doesn't return Custom Config sections #1035
- [SDK] Add transform for Metrics DTO to LineProtocol syntax #1086
-

WIP (1)

- [ASC] Add LineProtocol Metrics export profile #400

Backlog (4)

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

New (0)

ICE BOX (6)

Next

- LLRP Released for Jakarta
- LLRP updates for Kamakura
 - Delay Start, Metrics, etc.

eKuiper

- Working on 1.5 for release end of April
- Kamakura will use 1.4.4
 - 1.5.0 doesn't have anything new for EdgeX users

Leaving out this week

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

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 (4 May 2022)

- Kamakura:
 - TAF
 - Functional tests: 548 - all passing
 - Integration tests: 45 - all passing
 - Performance tests: 10 - all passing
 - Minor bugs fixed on go-mod-core-contracts [#729](#) [#730](#)
 - More TAF tests added for Dynamic Device Profiles (WIP)
 - Tomorrow's meeting: Alex Ullrich will present his thoughts on NATS w.r.t. EdgeX

Core Project Board Status

- 10 New Issues (+0)
- 0 Release Backlog (+0)
- 0 Bug Backlog (+0)
- 1 In Progress/QA (-1)
- 85 Done (+3)
- 22 Icebox (+2)

QA/Test Project Board Status

- 8 New Issues (-3)
- 1 Release Backlog (+0)
- 1 In Progress/QA (+1)
- 13 Done (+3)
- 0 Icebox (+0)

Next meeting: **Tomorrow** Thursday May 5th @ 8am Pacific Time

Device Services WG Update (4 May 2022)

New Services

- GPIO & RFID-LLRP services released at 2.1.0
- Camera services to be moved out of -holding
 - Vote in progress
 - Existing ONVIF DS not to be removed until #49 (snapshot support) is implemented

Timestamps

- LastReported / LastConnected not fully implemented
- To be discussed in Core WG tomorrow

Next meeting: May 9th

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 (05-04-2022)

Pipeline Related

- [Complete] edgex-docs release automation.
- [Complete] git-semver functional testing before cutover.
- [Complete] edgex-compose automation cleanup.

Other

- [Complete] edgex-global-pipelines documentation

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

Security WG Update

Next Meeting: Today, next

- Disposition of remaining issues
 - device-camera-go issue to be dropped once ONVIF camera support moved out of holding
 - Consul remaining hardening: push to next release
 - SPIFFE/SPIRE distributed service example: TODO

Security Project Board Status

- 15 New Issues
- 3 Release Backlog (n/c)
- 0 In Progress/QA
- 1 In review
- 61 Done (+a lot)

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 with outreach WG on possible worldwide EdgeX challenge.
- Chinese website of EdgeX Foundry needs be extended prior to June 30th.
- Negotiating strategic partnership with datawale.club to further evangelize/promote EdgeX in PRC

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 (5/4/22)

Next meeting Monday May 9 at 9am PST

Ready/Certification

- Rodney working on Wiki update
- Fixing wording around device profile use

Kamakura Release Workstream

- Blog post draft for review
- News release draft for review

Events

Return to events in the fall? - WG considering a plan

Tech Talks - mid-May through June

- Revising the old tech talks
- May 24 - Getting started (Jim)
- June 7 - Build an AS (Lenny)
- June 14 - Build a DS (IOTech)
- June 21 - Build a Device Profile w/ mention of Ready program (Jim)
- June 28 - Getting started with Snaps (Canonical)

Hackathon

- Looking at worldwide event - fall 2022
- WG considering a plan
- Some onsite element/ some virtual element
- Possibly expand to LF Edge

ADR review

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
control plane events	Underway (not for this release cycle)	Jim White	Core
core data cache	Underway (not for this release cycle)	Jim White	Core

Document Issues to address this release

#719 S [Slack refs]	#599 L [build/run on Windows]	<u>Document work for Kamakura</u>
#718 S [App Config override bug]	#479 L [CLI v2]	Snaps
#715 S [walkthrough Json]	<u>Nice to have</u>	Metrics
#702 M [supported archs in getting started]	#643 M	
#692 M [ADR0002 clean up]	#642 L	
#685 L [build/run ARM32]	#598 L	
#673 L [build/run outside of Docker]	#489 M (with #121, #21)	
#641 L [EdgeX w/ K8s]	#392 S [better docs on lastconnected and reported]	

Miscellaneous

- Alex Ullrich presenting on NATs @ 5/5 Core Working Group
- NetFoundry presenting on Ziti @ 5/11 Security Working Group
- Camera (ONVIF and USB) Device Services moved from holding
 - Out for TSC vote
 - Need a couple of other votes

Levski planning/scoping

Pre-Wire: was completed on April 20th

See the Wiki for details, recording and results ([deck with possible scope](#))

Topics left to cover (see next slides)

- Snaps
- Miscellaneous

Planning Meeting: May 16-19

- Please register: <https://bit.ly/LevskiPlanning>
- [Planning deck](#) (with scope from the PreWire)

Snap Scope

In Scope

- Upgrade snaps base to core22 (built from Ubuntu 22.04 LTS)
- Guide on headless deployment of EdgeX on Ubuntu Core
- Add support for SPIFFE/SPIRE
- Standalone device-virtual snap
- “Under the hood work”
 - Set env vars via Snap CLI (today we map between env names to snap lowercase names)
 - Research – separate eKuiper into separate snap (eKuiper not actively maintaining their snap)

Miscellaneous Levski Scope

- GUI - automate testing
- Tool/script to create new device or application services
- Examples
 - Cloud export – more explicit for Azure, AWS, Google
 - Update cloud templates
 - RP4
- Docs
 - Any new sections or features?



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Thank You