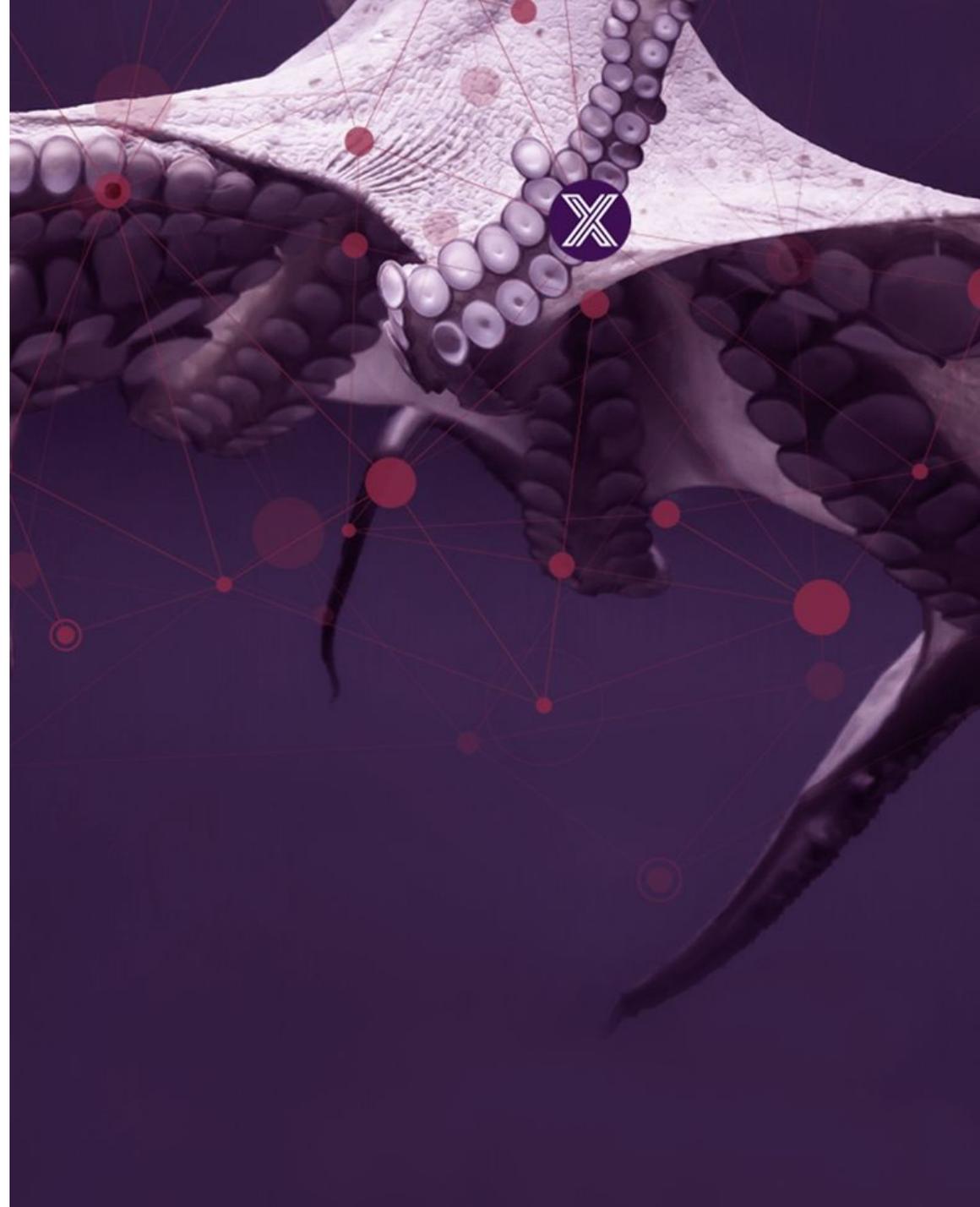


EDGE X FOUNDRY™

# TSC Meeting

June 29, 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)

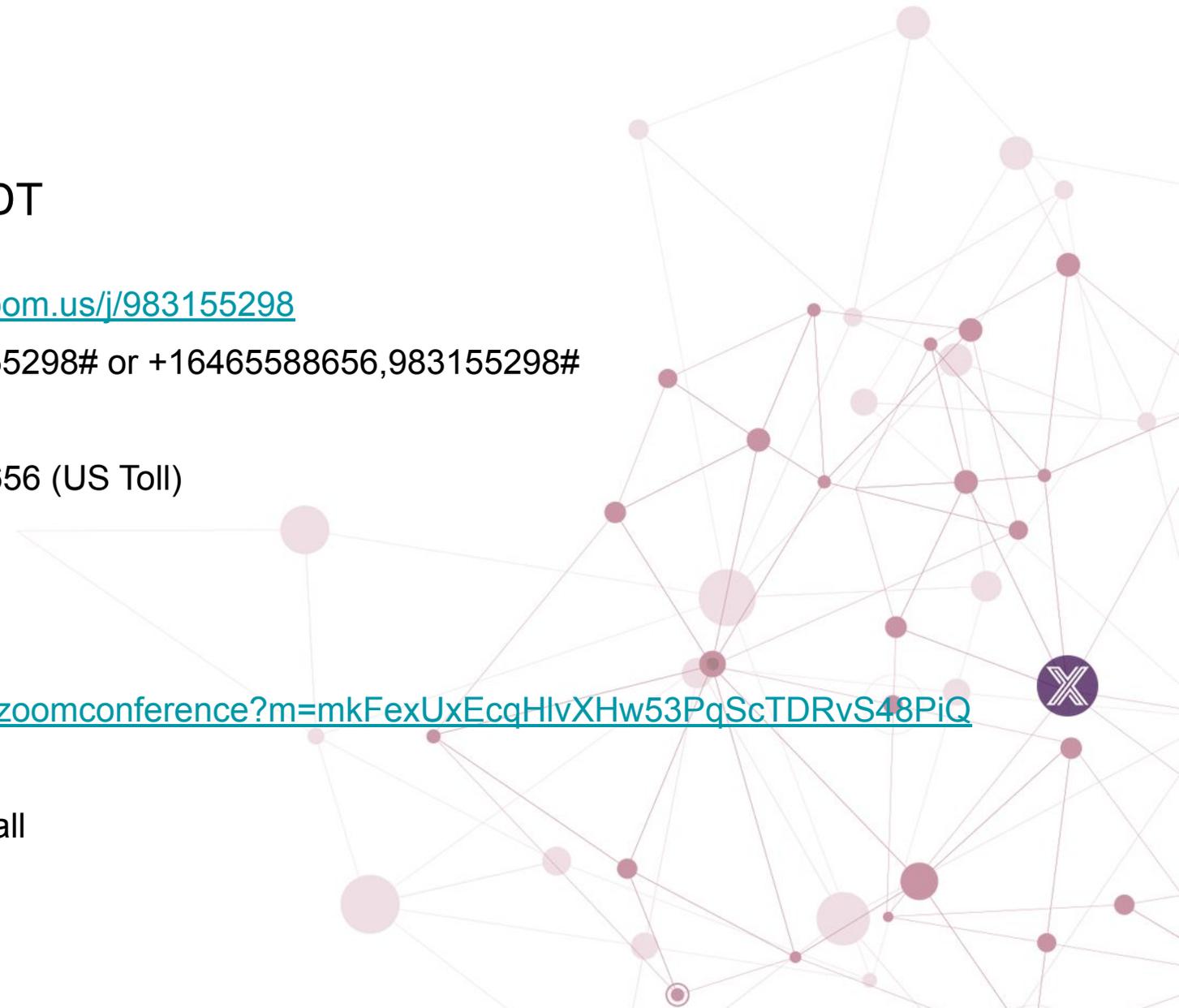
+1 855 880 1246 (US Toll Free)

+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
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	Cloud Tsai	<a href="mailto:cloud@iotechsys.com">cloud@iotechsys.com</a>	Core/Test/QA WG Chair

## At Large Members:

Gavin Lu (VMWare), Farshid Tavakolizadeh (Canonical), Melvin Sun (Intel), James Butcher (IOTech), Tom Brennan (Eaton)

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

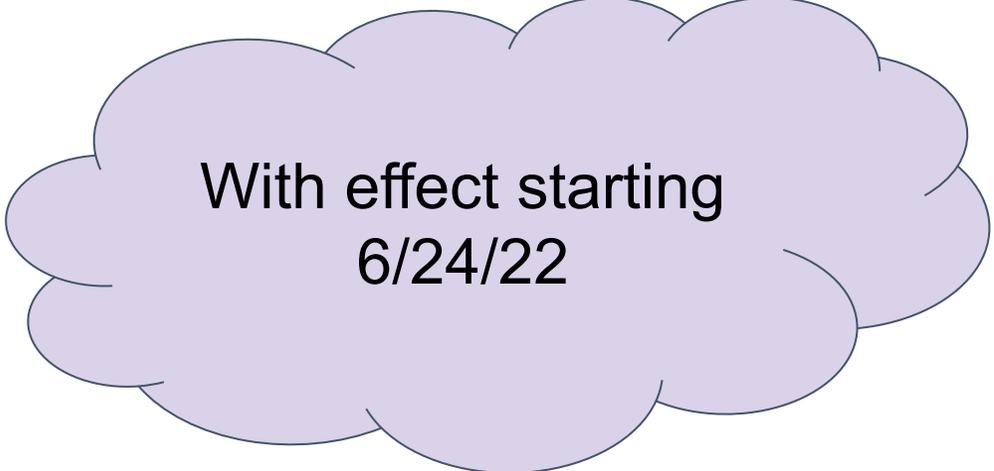
- Welcome new EdgeX TSC
- WG Updates
- ADR updates
- Doc updates
- Miscellaneous
  - Monthly Architects Update
  - Tech Talks

# Congratulations to our new TSC

<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
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	Cloud Tsai*	<a href="mailto:cloud@iotechsys.com">cloud@iotechsys.com</a>	Core/Test/QA WG Chair

Gavin Lu (VMWare), Farshid Tavakolizadeh\* (Canonical), Melvin Sun (Intel), James Butcher (IOTech), Tom Brennan\* (Eaton)\*

\* indicates new member



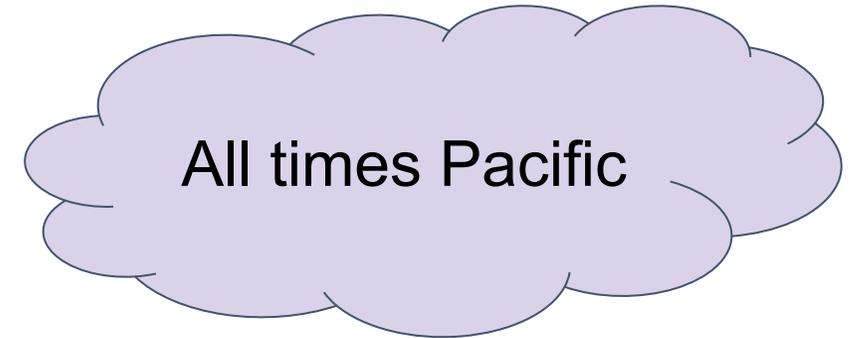
With effect starting  
6/24/22

# Roles for the coming year

- TSC Chair - James Butcher (IOTech)
- Product Manager - Lenny Goodell (Intel)
- Release Czar - Bill Mahoney (Intel)
- EdgeX Ready/Certification program - Rodney Hess (Beechwoods)
- GUI development - Gavin Lu (VMWare)
- Vertical Solutions - Henry Lau (HP)
- Outreach / Marketing - open

# Housekeeping: EdgeX Meetings and Wiki pages

- Monday
  - Device Services WG - 8am
  - Outreach WG - 9am (biweekly)
  - Architects Meeting - 11am (monthly third Monday)
- Tuesday
  - Applications & Analytics WG - 3:30pm (biweekly)
  - Core WG - 5pm
  - UI Project Group - 7pm [10am in China] (biweekly)
- Wednesday
  - TSC Meeting - 8am
  - Security WG - 9am
- Thursday
  - DevOps WG - 9am (biweekly)
- Friday
  - EdgeX China Project - midnight [3pm in China] (monthly first friday)





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# Work Group Updates

Chairs

# Working Group Chair Updates

- Around the horn
  - Product Manager - Lenny Goodell
  - Applications - Lenny Goodell
  - Core - Cloud Tsai
  - Device Services - Iain Anderson
  - DevOps - Ernesto Ojeda
  - Release Czar - Bill Mahoney
  - Security - Bryon Nevis
  - PRC Updates - Melvin Sun and Gavin Lu
  - Outreach and Marketing
    - Certification - Rodney Hess
    - Vertical Solutions (and LF Edge TAC) - Henry Lau

# Product Manager (06/29/22) - Levski

[Cross Cutting Issues](#)

## Icebox (1)

- Lite Builds (no security features) via Build Tags

## Backlog (3)

- Commands via MessageBus (aka N/S MessageBus)
- Secure MQTT MessageBus
- Microservice Auth

## In Progress (6)

- [Securing Consul with Access Token](#)
  - C SDK/Services - **WIP**
- Request new Consul token on Auth failures
  - C SDK/Services - **WIP**
- Go 1.18
  - Smoke Test - **DONE**
  - Verify Tools (Linter & Mockery) - **WIP**
- NATs MessageBus
  - go-mod-messaging - **Pending PR**
- Additional Metrics
  - App Services - **WIP**
  - Device Services - **Defined**
  - Core - **Defined**
  - Security - TBD
- System Events (aka CPE) (UC/ADR/Impl)
  - UCR - **PR Pending**

## Done (2)

- Explore goweight to see impact of individual libs (**nothing actionable**)
- eclipse/paho.mqtt.golang 1.4.1 (License update to v2.0)
  - APP SDK - **DONE**
  - APP Services - **DONE**
  - edgex-go - **DONE**
  - Device SDK Go - **DONE**
  - Device Services - **DONE**

# Applications WG Update (06/29/22) - Levski

## Completed (5)

- [\[SDK\] Additional metrics #1116](#)
  - Invalid Messages Received
  - Bytes exported via HTTP
  - Pipeline Errors
- [\[ASC\] Profiles that have metrics must have PublishHost configuration set #429](#)
- [\[LLRP\] CustomConfig setup bug #86](#)

## New (1)

- [Enhance MessageError to implement the Error interface #1125](#)

## WIP (2)

- [\[SDK\] Additional metrics #1116](#)
  - Bytes exported via MQTT
- [\[Examples\] Camera Management App Service #117](#)

## Backlog (10)

- <https://github.com/orgs/edgexfoundry/projects/50/views/2>

## ICE BOX (5)

- Leftovers not planned for Levski

## Next

- Go 1.18 (waiting on tool verification)

## eKuiper

- Working on 1.6
  - <https://github.com/lf-edge/ekuiper/milestone/10>
    - New API to upload config file to "etc" folder (use from UI)
    - New IN function for rules
    - Don't close rule when error from MessageBus when Redis restarted

**New Project Board:** <https://github.com/orgs/edgexfoundry/projects/50/views/2>

# 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 (29 June 2022)

- Levski:
  - TAF
    - Functional tests: 594 - all passing
    - Integration tests: 47- all passing
    - Performance tests: 10 - all passing
  - WIP
    - WG meeting has been moved to 5 PM PDT each Tuesday
    - Verified Go 1.18 through the TAF smoke tests
      - Waiting for linter and mockery to support 1.18

## Core Project Board Status

- 8 New Issues (-1)
- 1 Release Backlog (+1)
- 1 In Progress/QA (+1)
- 34 Levski Done (+1)
- 17 Icebox (+0)

## QA/Test Project Board Status

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

Next meeting: Tuesday 5th July @ 5 PM Pacific Daylight Time

# Device Services WG Update (29 June 2022)

## Ongoing

- GitHub “Discussions” setup
- CSDK : Secure Consul / Token refresh
- Remaining ONVIF camera issues prioritised with a view to releasing
- UART may come back in scope

Project board : 15 issues new/backlog (-3); 6 in progress/review (+3)

*Next meeting: July 11th*

# 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 (06-29-2022)

## Pipeline Related

- [#400](#) [Hold] Go 1.18 upgrade for Go pipelines.
- [#401](#) [In Progress] Makedocs–support for variables
- [#402](#) [In Progress] htmlproofer checks on each edgex-docs PR

## Other

- [#389](#) [In Progress] Help optimize local developer make docker builds
- [Complete] Re-release edgex-examples to trigger new GitHub Action release automation
  - <https://github.com/edgexfoundry/edgex-examples/releases/tag/v2.2.0>

**Next DevOps WG Meeting: Thursday, July 7, 2022 @ 9AM PST**

# Release Czar (2022-6-29)

## Kamakura (2.2.0):

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

## Jakarta (LTS) Patch (2.1.1):

- Released (2022-6-8)

## Updated Release Checklist:

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

# Security WG Update

Next Meeting: Today. Going camping next week.

- Will continue 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 (n/c)
- 8 Release Backlog (n/c)
- 2 In Progress/QA (n/c)
- 1 In review (-1)
- 6 Done (+2)

## 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

# EdgeX China- EdgeX challenge 2022 (China region)

## EdgeX events last week

- Joint AI/IOT devfest of Intel + Microsoft + EdgeX (2K registered developers)
- EdgeX developer summit - Q2 (5K+ online views)

## Updates on sponsorship of EdgeX challenge 2022

- Strategic Partner level sponsors so far: Intel, Alibaba Cloud

Level	Cost		Benefits			
	RMB	USD	Logo exposure on KV, news reports, blogs	Keynote	Judge	OSS ingredient included in EdgeX Hackathon
Strategic Partner	260K	40K	Y	Y	Y	Y
Diamond	100K	15K	Y	Y	Y	
Gold	70K	10K	Y	Y		
Silver	35K	5K	Y			

## 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 (6/28/22)

## Ready/Certification

- Rodney working on Wiki update
- Rodney working on EdgeX Ready for Individuals presentation for TSC consideration
  - Survey sent via email for inputs

## Social Media

- EdgeX Awards blog post coming post ceremony
- Performance blog post coming this summer

## Events

- Wait and see mode
- Hackathon decision by July 1

## WebSite Changes (order or priority)

- Looking at spend of funding for (\$4500 budget)
  - Security Audit issues
  - SEO updates (shared between English and China sites)
- Update some content (diagrams, et al) - internal

## Outreach WG

- Looking for new leader

# ADR **PROCESS** review

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
Develop UC/Requirements template	Available for review <a href="https://github.com/edgexfoundry/edgex-docs/pull/775">https://github.com/edgexfoundry/edgex-docs/pull/775</a>	Farshid/Jim	
Parent/Child device relationship	Levski release	Eaton	Core
control plane events	under way with UC/R doc <a href="https://github.com/edgexfoundry/edgex-docs/pull/779">https://github.com/edgexfoundry/edgex-docs/pull/779</a>	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

#641 L [EdgeX w/ K8s]

#599 L [build/run on Windows]

done

Nice to have

#643 M

#642 L

#598 L

#489 M (with #121, #21)

# Miscellaneous

- EdgeX Award winner ceremony - July 13th - at the start of the TSC meeting
- Monthly Architect's meeting read-out (see <https://wiki.edgexfoundry.org/display/FA/Monthly+Architects%27+Meeting> )
  - Metrics implementation - issue will identify target metrics for Levski and needed impl's and docs
    - See <https://github.com/edgexfoundry/edgex-docs/issues/781>
  - EdgeX 3.0 - began the triage of what might be in an EdgeX 3.0 release; big new features and what's non-backward compatible
    - Project Board: <https://github.com/orgs/edgexfoundry/projects/48>
    - Long Backlog list: <https://wiki.edgexfoundry.org/display/FA/Backlog>
    - List to be reviewed at the next Monthly Architect's meeting

# Tech Talks (Now Completed)

## 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 (Farshid and David)

All info online here:

<https://wiki.edgexfoundry.org/display/FA/EdgeX+Tech+Talks>





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Thank You