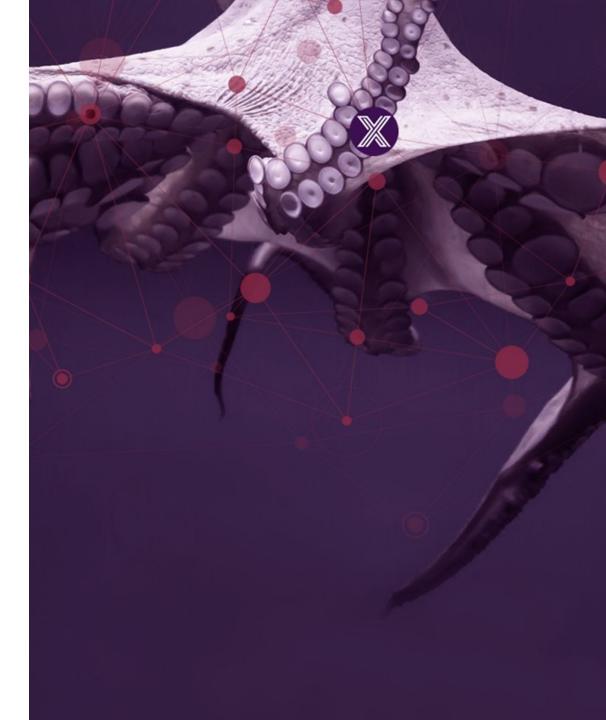
# EDGE FOUNDRY

## **TSC** Meeting

Sep 7, 2022





### **Antitrust Policy Notice**

- Linux Foundation meetings involve participation by industry competitors, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.
- Examples of types of actions that are prohibited at Linux Foundation meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at http://www.linuxfoundation.org/antitrust-policy. If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrove of the firm of Gesmer Updegrove LLP, which provides legal counsel to the Linux Foundation.

### $\mathsf{E} \ \mathsf{D} \ \mathsf{G} \ \mathsf{E} \ \bigotimes \mathsf{F} \ \mathsf{O} \ \mathsf{U} \ \mathsf{N} \ \mathsf{D} \ \mathsf{R} \ \mathsf{Y}^{\scriptscriptstyle \sim}$

## **Meeting Logistics**

Time: Wednesdays 8am PDT – 9am PDT

Join from PC, Mac, Linux, iOS or Android: <u>https://zoom.us/j/983155298</u> 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



## TSC – Members Present Today

### E D G E X F O U N D R Y

<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
Intel	Bryon Nevis	bryon.nevis@intel.com	Security WG Chair
Intel	Lenny Goodell	leonard.goodell@intel.com	Applications & Analytics WG Chair
IOTech	Cloud Tsai	cloud@iotechsys.com	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

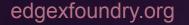
- WG updates
- ADR and UCR updates
- Doc updates
- Miscellaneous



# $E D G E \bigotimes F O U N D R Y^{\mathsf{T}}$

### 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 (09/07/22) - Levski

### **Cross Cutting Issues**

#### Icebox (1)

• Lite Builds (no security features) via Build Tags

### Backlog (2)

- Microservice Auth
- Go 1.19 (https://tip.golang.org/doc/go1.19)

### In Progress (4)

- Commands via MessageBus (aka N/S MessageBus)
  - Message Envelope DONE
  - Core Command Service WIP
  - go-mod-bootstrap DONE
  - Go Device SDK TBD
  - Go Device Services **TBD**
  - C Device SDK TBD
  - C Device Services **TBD**
  - Command Client (core-contracts) TBD
  - App SDK **TBD**
  - APP Services TBD

#### Additional Metrics

- App Services Done
- Device Services Defined

edgexfoundry.org | **W**@edgexfoundry

- Core Defined
- Security Defined

#### Secure MQTT MessageBus

- Security Secret Store Setup WIP
- Compose Builder TBD
- Go Core/Support/App/Device Services config TBD
- eKuiper config -TBD
- C SDK/Services -TBD

#### NATS Make targets and compose

- Compose Builder DONE
- ASC DONE
- edge-go DONE
- App LLRP TBD
- Device Virtual DONE
- Device Services TBD

### Done (7)

- Request new Consul token on Auth failures
- System Events (aka CPE) (UC/ADR/Impl)
- Go 1.18
- NATs MessageBus
- Explore goweight to see impact of individual libs (nothing actionable)
- eclipse/paho.mqtt.golang 1.4.1 (License update to v2.0)
- Securing Consul with Access Token

## Applications WG Update (09/07/22) - Levski

#### **Newly Completed (2)**

- [ASC] NATs MessageBus build option <u>#459</u>
- Record and Replay Use Case Requirements <u>#832</u>
  - PR here: <u>https://github.com/edgexfoundry/edgex-docs/pull/833</u>

@edgexfoundry

#### New (0)

• None

#### WIP (0)

•

#### Backlog (9)

edgexfoundry.org

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

#### ICE BOX (5)

• Leftovers not planned for Levski and old low issues

EDGE 💥 FOUNDRY"

#### Next

• Record and Replay ADR

#### eKuiper

• TBD

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

Next meeting September 20th, 2022 @ 3:30pm Pacific

## **Application Services - Levski**

### **Functions** (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB)
- Conversion (XML & JSON)
- PushToCore \*\* DEPRECATED\*\*
- EventWrapper NEW
- 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) NEW

- 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 •

- **Features**
- Received Topic
- Context Storage
- Service Metrics **NEW**
- Clients
  - Logging, Event 0
  - Command 0
  - Device, DeviceService 0
  - DeviceProfile 0
  - Notification 0
  - Subscription 0
  - Registry 0

### **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 ٠
- Simple CBOR
- Cloud Export

- Cloud Event Transformation •
- Secret Retrieval
- JsonLogic ٠
- Send Command
- Convert & Publish •
- Custom Target Type •
- IBM Watson IoT (ASC Profile) ۲
- Custom Trigger ۲
- Influx DB & Flege Exports ٠
- Camera Management NEW

## Core WG Snapshot (31 August 2022)

- Levski:
  - TAF
    - Functional tests: 595 all passing
    - Integration tests: 55 all passing
    - Performance tests: 10 all passing
  - $\circ$  Core
    - Implemented UoM test
    - Implementing north-south messaging

There was no meeting this week. Next is September 13th @ 5pm Pacific Time

#### **Core Project Board Status**

- 4 New Issues (+2)
- 17 Release Backlog (-1)
- 3 In Progress/QA (+2)
- 63 Levski Done (+3)
- 19 Icebox (+1)

#### **QA/Test Project Board Status**

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

### Next meeting: cancelled next week

## Device Services WG Update (7 September 2022)

- Record/Replay UCR approved
- Project board : 16 issues new/backlog (-14); 5 in progress/review (=)

Next meeting: September 12th



## 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 and USB Cameras in Go
- REST in Go
- Grove in C (v1 only)
- CoAP in C
- LLRP / RFID in Go
- GPIO in Go

Open Source connectors (Future):

@edgexfoundry

UART in Go

edgexfoundry.org

• 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
- WebSockets in Go

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 (09-07-2022)

### **Pipeline Related**

- <u>#407</u> [Complete] Standardize make version between Jenkins and Snap builds
- <u>#409</u> [Review] edgex-ui: add UI unit test to pipeline (ng test)
  - PR <u>https://github.com/edgexfoundry/edgex-ui-go/pull/549</u>
    - Request for reviews please
- <u>#412</u> [Backlog] Update edgeXReleaseDocs pipeline after latest changes

Next DevOps WG Meeting: Thursday, September 8, 2022 @ 9AM PST



### Release Czar (2022-9-7)

### Kamakura (2.2.0):

- Released 2022-5-11
- device-usb-camera released 2022-7-28
- device-onvif-camera released 2022-7-29
- C SDK- 2022-7-29

Levski (2.3.0) - ~November 2022



## Security WG Update

### Next Meeting: Today

• Threat model review

### **Security Project Board Status**

- 5 New Issues (+2) ۲
- 3 Release Backlog (-1) ٠
- 6 In Progress/QA (n/c) ۲
- 0 In review (-2)٠
- 20 Done (+2) ٠

### **Secure Consul Project Board Status**

- 1 Phase 3 To-do (-1) •
- 1 In-progress (+1) •
- 0 In-review (n/c) ٠

## EdgeX China- EdgeX challenge 2022 (China region)

Updates of EdgeX challenge China 2022

- Completed preliminary round on Sep 5th
- 64 proposal received
  - 28 in health, education, consumer industry
  - 36 in energy and heavy industry

	Cos	t		Be	nefits	
Level	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: <u>https://cn.edgexfoundry.org/</u>
- OSChina: https://www.oschina.net/group/edgex-foundry
- CSDN: <u>https://blog.csdn.net/edgexfoundry</u>
- Zhihu: https://www.zhihu.com/people/edgex-foundry
- Bilibili: <u>https://space.bilibili.com/550595847</u>





## Outreach WG (9/6/22)

Ready/Certification

• No updates

### Social Media

• Opportunity for additional Tech Talks

### <u>Events</u>

• Exploring 2023 options

### WebSite Changes (order or priority)

- Looking at spend of funding for (\$4500 budget)
  - SEO updates (shared between English and China sites) - WIP
- Address SE issues of directing to latest
  - working with Intel input
  - Question for the community:
  - 301 redirects old content won't be readily available, as it will always take the users to the newest page. This ok??

Next meeting: Sept 12 @ 11am - email any topics to Jim W prior to the meeting

## ADR & UCR PROCESS review (as of 9/6/22)

ADR name and PR number	Status	owner	Work Group	
Extending Device Data (UCR) - split from parent/child UCR	https://github.com/edgexfoundry/edgex-docs/pul 1/845 recently added (split from 800)	Tom-Eaton	AS/core	
Parent/Child device relationship & Application Services Extending Device Data (UCR)	https://github.com/edgexfoundry/edgex-docs/pul 1/800 under re-review; minor corrections completed	Tom-Eaton	DS	
Provision Watch more Device Properties (UCR)	https://github.com/edgexfoundry/edgex-docs/pul 1/806 under re-review - approvals required DCO issue	Tom-Eaton	DS DS	
Hybrid App-Device Services (UCR)	https://github.com/edgexfoundry/edgex-docs/pu II/809 under re-review	Tom-Eaton		
Record and replay service	https://github.com/edgexfoundry/edgex-docs/pul 1/833 - done	Lenny	App Services	
core data cache	Levski release		Core	
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 (as of 8/23/22)

#641 L [EdgeX w/ K8s]

- PR in under review and needs updating #731 M [V2 migration guide fix event/reading DTO] #732 L [role based access for Mosquitto] #774 Nats #778 S [broken links] WIP - just need old examples tagged #788 M [fix notifications pages] #842 L [outdated DS page]
- #843 M [SE indexing old docs]
- #847 M [secret provider API]

#855 - L [extend Go SDK API docs]

Nice to have

#796, #392 M

#668 M - done

#643 M

#642 L

#598 L

#489 M (with #121, #21)

### Miscellaneous

# $E D G E \bigotimes F O U N D R Y^{\mathsf{T}}$

### Thank You

