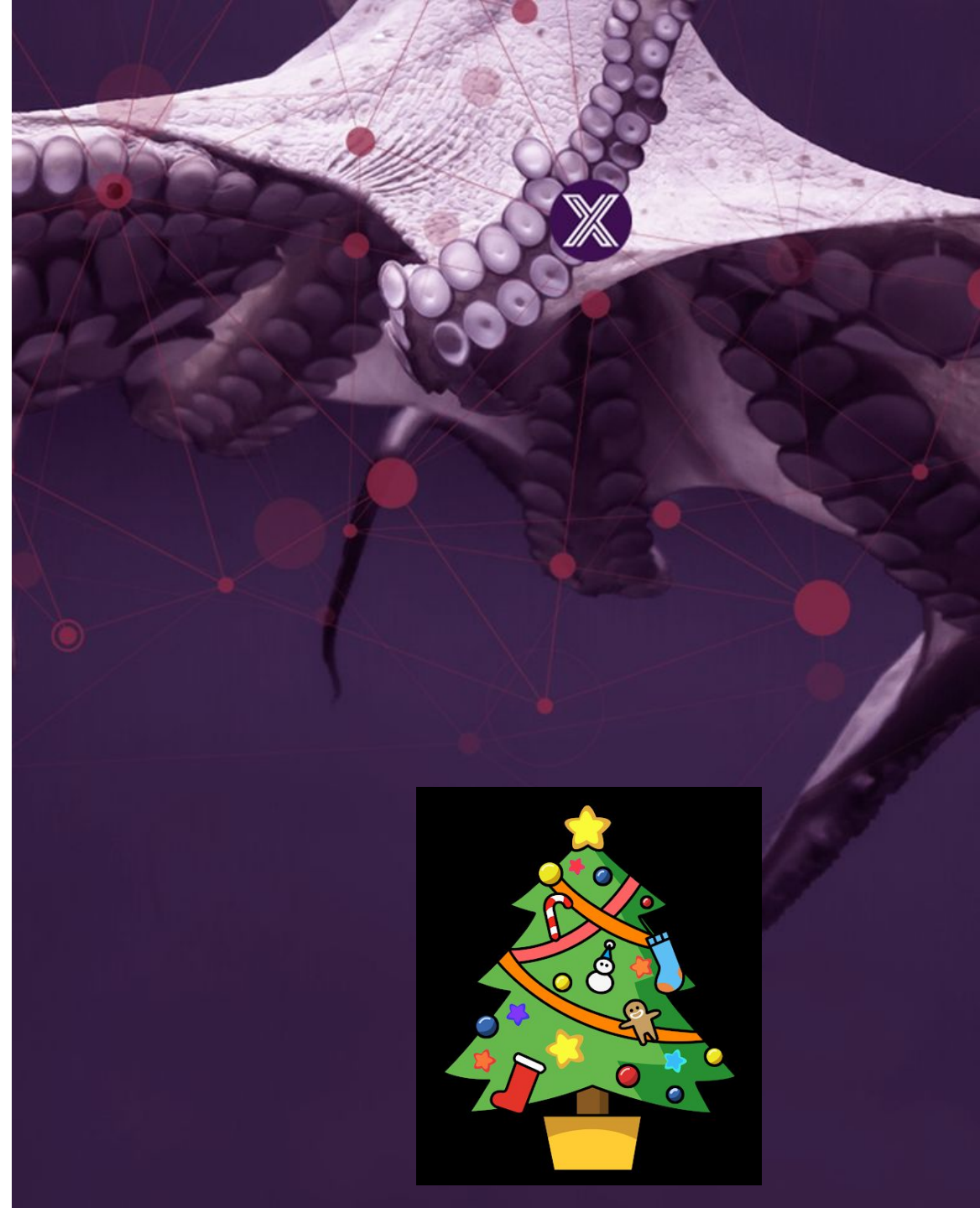


EDGE X FOUNDRY™

TSC Meeting

Dec 2, 2020

edgexfoundry.org |  @edgexfoundry



Antitrust Policy Notice

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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	Keith Steele	keith@iotechsys.com	Outreach WG Chair
Kong	Colin Hutchinson	colin@konghq.com	Security WG Chair
Intel	Mike Johanson	michael.johanson@intel.com	Applications & Analytics WG Chair
IOTech	James Butcher	james@iotechsys.com	Test/QA WG Chair
IOTech	Jim White	jim@iotechsys.com	Core WG Chair

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
- Misc
 - ADR reviews
 - Architect's Meeting Summary
 - No TSC meeting next week
 - etc.
- Upcoming Events (Dev Advocate)



EDGE X FOUNDRY™

Work Group Updates

Chairs

Working Group Chair Updates

- Around the horn
 - Product Manager - Lenny Goodell
 - Release Czar - Bill Mahoney
 - Applications - Mike Johanson
 - Device Services - Iain Anderson
 - Test/QA - James Butcher
 - DevOps - Ernesto Ojeda
 - Security - Colin Hutchinson
 - Outreach - Keith Steele
 - Certification - Rodney Hess
 - Marketing - Camilo Dennis
 - Vertical Solutions (and LF Edge TAC) - Henry Lau
 - Core/Supporting - Jim White

Product Manager (12/02)

Cross Cutting Issues (<https://github.com/orgs/edgexfoundry/projects/35>)

In Progress (7)

- V2 Implementations
 - **Core Data APIs - WIP**
 - Core MetaData APIs - WIP
 - TAF testing V2 APIs - WIP
 - **DTO rework from Ireland planning - Done**
- V2 Consumption
 - **V2 Clients - WIP**
- Conventional Commits for all
 - Device Services - WIP
 - Core Service - Done
 - App Services - Done
- Metrics & CPE (ADR in review)
- **Message Bus from Device Service to App Services (ADR in review)**
- **Secret Provider for All (ADR in review)**
 - **go-mod-bootstrap - WIP**
 - **go-mod-secrets - WIP**
 - **edgex-go - WIP**
- **Remove Mongo code**
 - Developer Scripts - DONE
 - **Security - DONE**
 - Core/Support Services - TBD
 - App Services: - TBD
 - Archive Mongo Repo - TBD

Backlog (1)

- **Drop Logging Service completely**

Done (1)

- **LoggingCleint DIC bug fix - DONE**

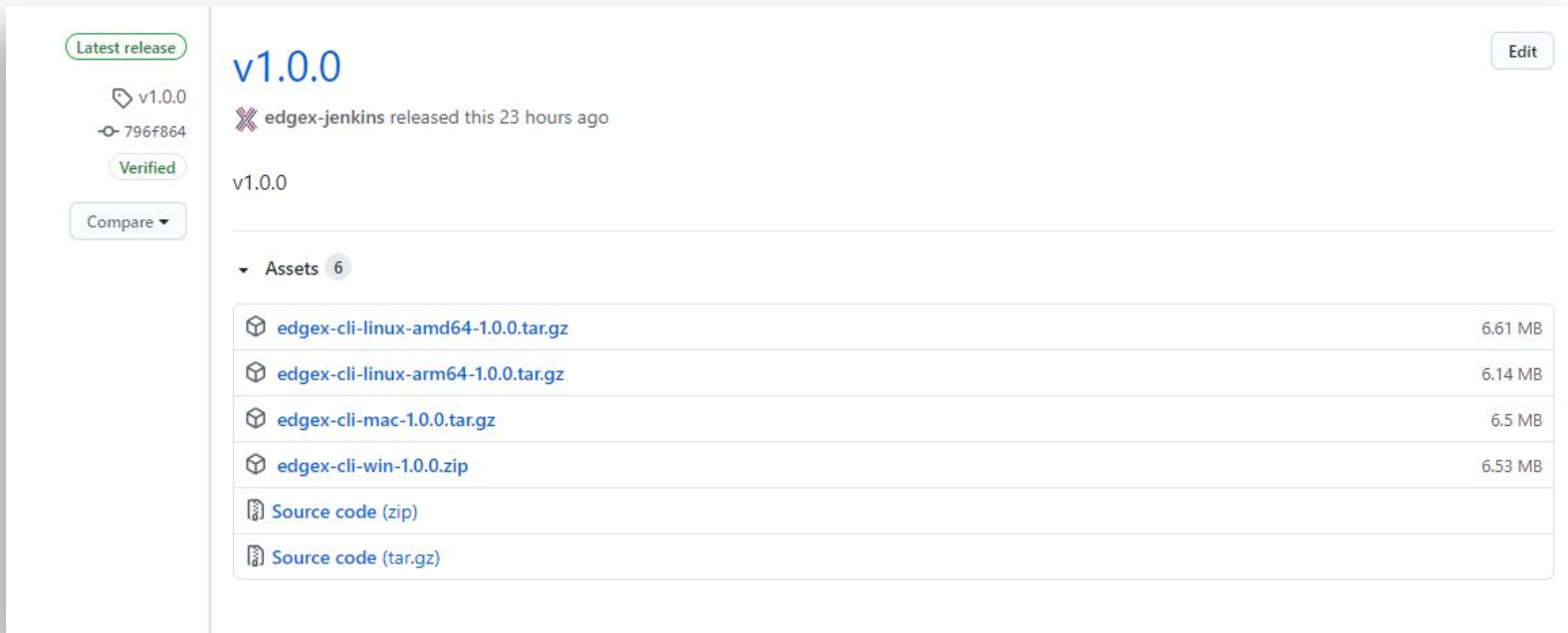
Icebox (5)

- Device Service to App Services via Message Bus Implementation
- EdgeX Metrics Collection & Control Plane Event Handling
- Update config.Clients usage for new naming scheme
- Secure Message Bus connection
- Implement Generate/Inject random passwords into Vault

Release Czar (Dec 2nd, 2020)

Release Activity

- edgex-cli v1.0.0 released as GitHub Release
- <https://github.com/edgexfoundry/edgex-cli/releases>



The screenshot shows the GitHub release page for edgex-cli v1.0.0. The release is marked as the latest and is verified. It was released by edgex-jenkins 23 hours ago. The page lists six assets: four tar.gz files for Linux (amd64 and arm64) and Mac, and one zip file for Windows. Additionally, there are two source code assets: a zip file and a tar.gz file.

Asset Name	Size
edgex-cli-linux-amd64-1.0.0.tar.gz	6.61 MB
edgex-cli-linux-arm64-1.0.0.tar.gz	6.14 MB
edgex-cli-mac-1.0.0.tar.gz	6.5 MB
edgex-cli-win-1.0.0.zip	6.53 MB
Source code (zip)	
Source code (tar.gz)	

Applications WG Update (2-Dec-2020)

Completed:

- App WG Board is all updated

WIP

- ADR for Device Service to App Services via Message Bus (#241) In Review

To Do:

- We'll begin to remove some old code (Tech-Debt)

- Next meeting **Dec 4th, 2020 @ 8:00 AM PST**

Application Services

Functions (built into SDK)

Current/Complete:

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed
- PushToCore
- Device Name Filter
- Value Descriptor Filter
- Batch
- AddTags
- JSONLogic Filtering
- XML Conversion
- JSON Conversion
- MQTT(S) Export
- HTTP(S) POST Export
- HTTP(S) PUT Export

NEW!

NEW!

Features

- Store and Forward
- Web Server
- Configurable App Service
- Vault Integration for Secrets
- MQTT Event triggers

NEW!

Reference/Example App Services (Geneva)

(built on top of SDK)

- Azure IoT Hub
- Amazon IoT Core
- IBM Watson IoT
- Cloud Event Transformation
- Secret Retrieval Example

Device Services WG Update (2-Dec-20)

Done:

- Issue creation for Ireland - <https://wiki.edgexfoundry.org/display/FA/Planned+Scope>

WIP:

- ADRs for Event Filtering, MessageBus transport: in review
- Conventional Commits enforcement
- Configuration structure normalization (C-SDK)

Next meeting: December 7th

Device Services - current/coming (as of 11/4/20)

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 Cameras in Go
- REST in Go (NEW!)
- Grove in C

Open Source connectors (Future):

- Bluetooth Low Energy in C (2021) - contributed
- OPC-UA in C (2021) - under dev
- CoAP (2021) - contributed
- GPIO (2021) - contributed
- UART (2021) - contributed

- GPS

Commercial connectors (Current):

- File Exporter in C
- 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 Pub/Sub in C
- ONVIF in C
- Siemens S7 in C

There are additional commercial MQTT (Go), Modbus (Go), OPC-UA (in C), REST (Go) and BACnet (in C) that have added features over the community editions

Commercial connectors (Future):

- ZeroMQ (Q1 2021)
- RFID (Q1 2021)

QA/Test WG Update (1st December)

- Postman blackbox test
 - Fixed Issues
 - Issue [#472](#), update the image version to use the Hanoi release image and change back after tagging
 - [edgex-go#2911](#), [v1 metadata] core-metadata container exits after updating deviceService adminState
 - Other
 - As per Ireland planning, we are about to stop the running the Postman tests. Plan to turn off this week
- TAF blackbox test - all tests back passing now (Go Mod bootstrapping)
 - Fixed Issues
 - Issue [#228](#), update the image version to use the Hanoi release image on dockerhub.
 - Working issues
 - Modbus scalability test
 - Issue [#76](#) ZeroMQ send might be interrupted by system call causing lost messages
 - Debate on which solution including switching ZeroMQ lib. Needs more investigation

Postman Blackbox Test Cases

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	1309	0	0	0
x86_64 / CentOS	Security	Redis	1339	0	0	0
arm64 / Ubuntu	Non Security	Redis	1309	0	0	0
arm64 / Ubuntu	Security	Redis	1339	0	0	0

TAF Functional Test Cases

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	204	3	0	3
x86_64 / CentOS	Security	Redis	204	3	0	3
arm64 / Ubuntu	Non Security	Redis	204	3	0	3
arm64 / Ubuntu	Security	Redis	204	3	0	3

TAF Integration Test Cases

Integration tests

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	6	0	0	0
x86_64 / CentOS	Security	Redis	6	0	0	0
arm64 / Ubuntu	Non Security	Redis	6	0	0	0
arm64 / Ubuntu	Security	Redis	6	0	0	0

Compatibility tests

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Security	Redis	12	0	0	0
arm64 / Ubuntu	Security	Redis	12	0	0	0

TAF Performance test

Performance test Number Count

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Non Security	Redis	10	0	0	0
arm64 / Ubuntu	Non Security	Redis	10	0	0	0

Jenkins Job: [performance-test](#)

DevOps WG Update (12-02-2020)

Pipeline Enhancements

- [#252](#) [On Hold] Build Snaps natively on Ubuntu
- [#302](#) [Planning] Dockerfile clean up in some services
- [#102](#) Docker image naming
- Misc planning/prioritizing for Ireland

Other

- Follow up with LF on Docker open source project status to avoid rate limiting

Next DevOps WG Meeting **Dec 3rd, 2020 @ 9:00 AM PST**

Security WG Update (Dec 2)

- Next Meeting: Today & Dec 9
- In Design
 - [Service Registry](#)
- Design Review
 - [Secret Provider](#)
 - [Upload Threat Model](#)
 - [EdgeX OCI Bootstrapping](#)
- In Development
 - [EdgeX TLS Usage](#)
 - [Docker Container Guidelines](#)
 - [Secret Creation & Distribution](#)
- Done

Outreach WG Updates (12/2/20)

Certification Team

- Discussion on Terms and Conditions (legal)
- In progress: Documentation, i's and t's

Vertical Solutions Team

- Next presentation: IOTech Tuesday Jan 19th'21 8AM US Pacific

Marketing Team

- Hanoi press release planned for week of Dec 1st
- First two weeks in December - Social media campaign to promote new website and Hanoi release

Core Working Group (12-1-2020)

- V2 API work
- Kubernetes deployment file need to test
- UI team - may be moving to a different UI framework
- CLI to be released soon
- Next call - 12/3/20 @ 10AM US/Central

ADR review

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
OCI Container / #140	re-review	Bryon Nevis	Security
Update ADR 11 (Device Service REST API) / # 247	working	Iain Anderson	DS
Metrics and CPE / #268	refactoring	Jim White	Core
DS sends Events via Msg Bus / # 276	re-review	Lenny Goodell	DS/Core
Secret Provider for All / #281	re-review	Lenny Goodell	Secty/Core
DS Filters / #282	re-review	Jim White	DS
Service Registry / #283	draft	Tony Espy	Core

from Lenny: Redis Streams vs. MQTT as the default/first bus for ADR 276?

Miscellaneous Issues/Topics

- **No TSC meeting next week** (Dec 9th; no core meeting either Dec 10th - Jim out)
- Architect's meeting
 - 3 minor decisions
 - modules will be tagged going forward (with edgex-go release)
 - Docker image names will drop the 'go', 'c', and 'docker' prefix/suffix
 - Docker images will be built with Alpine 3.12/Go 1.15 where applicable
 - Other architect issues prioritized (those coming from Ireland planning)
 - See <https://wiki.edgexfoundry.org/display/FA/Monthly+Architects%27+Meeting>
- Inclusive Language
 - Jim working with WG leads on identification by Jan 15th
- Docker hub limits and open source "licensing" to escape some limit issues
 - LF working
- Formulating China TSC meeting
 - Allow PRC participants/community members to get regular updates & provide project feedback
 - Looking for
 - Translators
 - TSC members to volunteer and report project activity once a month (rotational)



Upcoming Events & Dev Advocate Update

Aaron's updates

Upcoming External Events

- › [Open Source Summit Japan](#): 2-4 December, 2020 - Virtual
- › [IoT Solutions World Congress](#): 11-13 May, 2021 - Barcelona, Spain
- › Embedded World Conference: March 1-7, 2021 Nuremberg but now virtual
 - › Using Visual Inference in Edge Computing, Jim White
- › Discussions around upcoming events occur in the LF Edge Outreach Committee
- › Members may subscribe at: <https://lists.lfedge.org/g/outreach-committee>



LF Edge Webinar Series

Akraino Edge Stack

Held Thursday, April 2 - [Your Path to Edge Computing with Akraino Edge Stack](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTQSIqH7pL8iHrQ

EdgeX Foundry

› Held Thursday, April 23 - [EdgeX Foundry 101: Intro, Roadmap and Use Cases](#)

› On-demand recording available at: https://zoom.us/webinar/register/4515850788014/WN_xCd6YPjEQrCwLiFhBWPkug

Project EVE

› Held Friday, May 29 - [Building the “Android of the IoT Edge”](#)

› On-demand recording available at: https://zoom.us/webinar/register/6415888722675/WN_35oZJ3hrQE69snMaiJUTPg

White Paper

› Held Thursday, July 9 - [Demystifying the Edge with the new LF Edge Taxonomy and Framework](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_icv5h6wFTcuw9O0xvMpgLw

Fledge

› Held Thursday, August 13 - [How Google, OSIssoft, FLIR and Dianomic use Fledge to implement Industrial 4.0](#)

› Recording available at: <https://www.youtube.com/watch?v=6JXNv3AJWog>

State of the Edge

› Held Thursday, September 17 - [State of the Edge: Exploring the Intersection of IoT, AI, 5G and Edge Computing](#)

› On-demand recording available at: https://zoom.us/webinar/register/8115959695936/WN_4rt-MmP1RI6Vkzn3ULpiAA

Home Edge

› Held Thursday, October 15 - [Home Edge: How Your Home Devices Get Deployed in An Edge Computing Services Ecosystem](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_uSlgb-R5Q4etkDhxoSXISQ

› More to follow...





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Thank You