

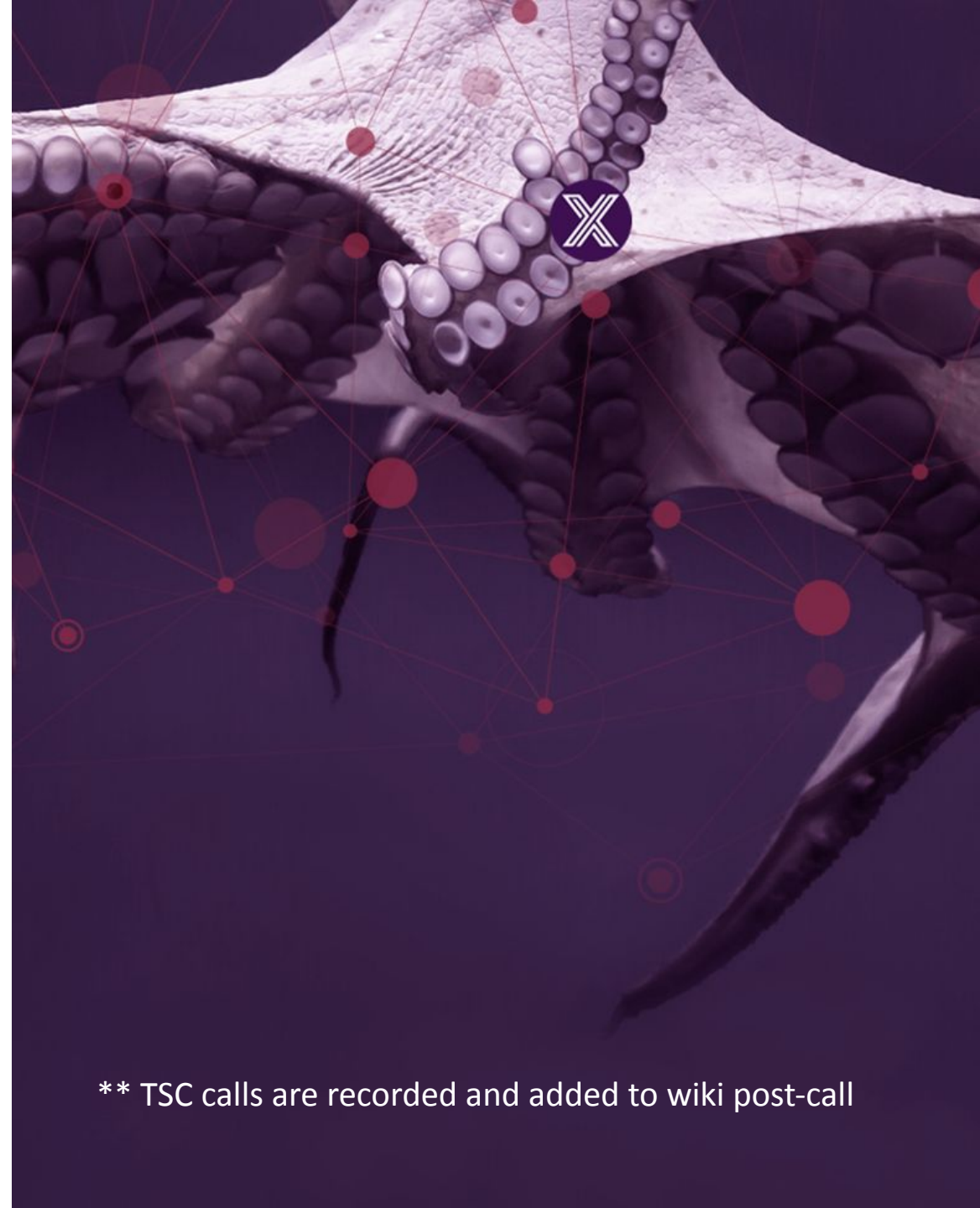
EDGE X FOUNDRY™

Bi-Weekly TSC Meeting

July 24th, 2024

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

** TSC calls are recorded and added to wiki post-call



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EdgeX TSC Members

Voting TSC Members

- Cloud Tsai (IOTech)
- James Butcher (IOTech)
- Melvin Sun (Intel)
- Corey Mutter (Eaton)
- Brad Corrion (IOTech)
- Jieke Choo (Yiqisoft)
- Chirantan Ghosh (Schneider Electric)
- Johannes Kern (Danfoss)

Project Roles

- TSC Chair – James (IOTech)
- Product Manager and Technical WG Chair – Cloud (IOTech)
- Technical WG co-chairs - Melody Liu and Felix Ting (IOTech)
- Release Czar – Cherry Wang (IOTech)
- LF TAC Rep – Brad Corrion (IOTech)
- China Rep – Melvin Sun (Intel)
- EdgeX Evangelist – Jackie Lee (Intel)

Current quorum = 5 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 to the new EdgeX TSC
- Around the table updates
- EdgeX 3.2 planning
- Update on LF discretionary funds for EdgeX



New EdgeX TSC

- Approved by outgoing TSC on Monday. Roles now run for 12 months until 23/07/2024
- Updates to be noted on [EdgeX Wiki Pages](#)

Voting TSC members:

1. Cloud Tsai (IOTech)
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New EdgeX TSC - Some Housekeeping

Encourage use of meeting calendar invites (zoom) and mailing lists:

<https://lists.edgexfoundry.org/calendar>

- Sign up for the meetings relating to your interest

<https://lists.edgexfoundry.org/groups> See the full list, but 3 groups to highlight:

- EdgeX-TSC-Private - for specific communication between the voting TSC members
- EdgeX-TSC - for wider communication relating to TSC matters
- EdgeX-Devel - for communication to the EdgeX development community

Best meeting time? Currently we are Bi-Weekly on a Wednesday 8am Pacific Time





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Around the EdgeX Table

Around the EdgeX Table

- **Product Manager and Technical Working Group** - Cloud, co-chair Melody and Felix
 - **Core & QA Issues**
 - **Device Services**
 - **Application Serviced**
- **OpenBao** - James
- **Release Czar** - Cherry Wang
- **Outreach and Marketing** - James
 - **China Updates** - Melvin Sun
 - **LF Edge TAC** - Brad Corrion



Product Manager - Odessa

Cross Cutting Issues

Icebox (1)

- Lite Builds (no security features) via Build Tags

Backlog (3)

- **URIs For Files**
 - C services - **TBD**
- **OpenBao**
 - Initial alpha testing - **DONE**
 - **GA release done July 18th**
 - Full testing with GA - **TBD**
- **Go 1.22 (Feb'24) and Alpine 3.19**
 - Released!!
<https://tip.golang.org/doc/go1.22>

In Progress (4)

- **Odessa Doc Refactoring**
 - Device Services
 - Device Commands - **DONE**
 - Device Definitions - **DONE**
 - Auto Events - **DONE**
 - BacNet - **TBD**
 - COAP - **TBD**
 - RFID LLRP - **TBD**
 - SNMP - **TBD**
 - Virtual - **TBD**
 - Refactor APIs Section - **TBD**
 - **Refactor Security Section - TBD**
 - Update EdgeX Diagram - **DONE**

- **Compiler flags to Strip Debug Info**
 - edgex-go - **DONE**
 - edgex-ui - **TBD**
 - App SDK and ASC - **DONE**
 - App LLRP & App Record Replay - **TBD**
 - Device SDK and Device Services used by TAF - **DONE**
 - Remaining Device Service - **TBD**
- **Zero Trust (OpenZiti)**
 - go-mod-core-contracts - **DONE**
 - go-mod-bootstrap - **DONE**
 - edgex-go - **DONE**
 - edgex-ui - **DONE**
 - ekuiper - **DONE**
 - edgex-compose - **WIP PR waiting for smoke test**
 - docs - **WIP**
 - edgex-helm - **TBD?**
- **Core Keeper - WIP**
 - go-mod-core-contracts - **DONE**
 - go-mod-registry - **DONE**
 - go-mod-configuration - **DONE**
 - edgex-go - **DONE**
 - edgex-compose and TAF testing- **WIP**
 - docs - **TBD**



Technical Update (July 24 2024)

[Core/QA Project Board](#)

- ❖ TAF - Performance 1 test failed -*edgex.4 Ping Response Time.Ping Response Time.Measure the ping response time [arm64 security mode only]* - will look into this issue further
- ❖ Core/QA Progress
 - Core
 - [Done] feat: allow rules-engine (eKuiper) service to read its token [#4823](#)
 - [🔔 Review Needed] feat(adr):Add an option to use Caddy instead of Nginx [#1360](#) - A new API Gateway suggestion is made by a community member, waiting for review
 - [WIP] [Core Metadata] Add "parent" field to Device objects [#4769](#)
 - [WIP] Create OpenAPI documentation for the new support-cron-scheduler service [#4830](#) API and DTOs ready for review
 - [WIP] [Core Metadata] Add "parent" field to Device objects [#4769](#)
 - [WIP] Add docs for zero trust/OpenZiti [#1351](#)
 - [WIP] Enhance Security Bootstrap to support PostgreSQL [#4863](#)
 - QA
 - [Done] Change registry service to keeper for integration-test [#903](#)
 - [WIP] Add core-keeper service and use on TAF test [#446](#) and [#899](#)
- ❖ Note
 - Planned to develop a new Support Scheduler Service for Crontab
 - Planned to add PostgreSQL as an alternative database for services one by one



Device Services - current/coming (as of v3.1)

Open Source connectors:

- Modbus (TCP + RTU) in Go
- Virtual Device in Go
- SNMP in Go
- MQTT in Go
- BACnet (IP + MSTP) in C
- ONVIF Cameras in Go
- USB Cameras in Go
- REST in Go
- CoAP in C
- LLRP / RFID in Go
- GPIO in Go

Open Source connectors (Future):

- UART in Go
- Siemens S7 in Go

IOTech commercial connectors:

- Modbus (TCP + RTU)
- BACnet (IP + MSTP)
- OPC-UA
- BLE
- Zigbee
- GPS
- CAN (+ J1939 Extensions)
- EtherCat
- EtherNet/IP
- Siemens S7
- PROFINET
- WebSockets
- MQTT
- REST
- ONVIF
- USB Cameras



Applications Update

Newly Completed (0)

Newly added (0)

WIP (0)

Done for Odessa (16)

Backlog (3) <https://github.com/orgs/edgexfoundry/projects/50/views/2>

ICE BOX (0)

Next

- Compiler flags to Strip Debug Info
- Document Commands via MessageBus for App Services

eKuiper

- Latest is 1.12.7
 - <https://github.com/lf-edge/kuiper/releases/tag/1.12.7>
- 1.13.0 releasing this week.
 - <https://github.com/lf-edge/kuiper/milestone/23>
 - zero-trust will land in patch of 1.13

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



Application Services - Napa

Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB)
- Conversion (XML & JSON)
- EventWrapper
- 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)

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~~
- Direct Publish to MessageBus
- Received Topic
- Context Storage
- Service Metrics
- 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
- App Record and Replay

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



OpenBao Project

- OpenBao GA release now made
- GA release binaries available on GitHub: <https://github.com/openbao/openbao/releases/tag/v2.0.0>
- Plan for EdgeX 3.2 to use OpenBao GA
- Still requires documentation and more testing

Reminder:

- James is EdgeX contact for OpenBao and TSC member
 - OpenBao asking for an alternative contact name for EdgeX
- Alex Scheel (GitLab) voted as TSC Chair
- Project meetings are weekly (Thursday @ 8am Pacific Time for 30 mins)
- <https://wiki.lfedge.org/display/OH/Hashicorp+Vault+Replacement+Feature+Design+Candidate>
- Website: <https://openbao.org/>
- Docs: <https://openbao.org/docs/>



Release Czar / DevOps Work

- [V3.1 Napa](#) released November 2023
 - [V3.1.1 patch release](#) for resolving CVEs released June 14th 2024
- V3.2 planned for release December 2024



Outreach and Marketing

General Updates:

- Website updates and Linux LF Edge Event in Austria in pipeline
- Social media regarding the new TSC?

LF Edge / TAC Updates:

- No updates today

China Updates and Evangelism:

- No updates today





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EdgeX 3.2 Plan

3.2 Release Plan - Scheduled Dec 2024

- OpenBao - included to provide an alternative to Vault
- CoreKeeper - included to provide an alternative to Consul
- OpenZiti - integrated to provide zero trust distributed security
- Redis - changing to non OSS license
 - Replace with Valkey?
 - Provide Postgres as a more robust alternative (reliability, stability, redundancy, backups, etc)
- New Support Scheduler Service for Crontab

- We are also evaluating the impact to the LTS supportability and possible need for an early new LTS release
- Due to the above, we will hold an EdgeX Planning Meeting for the revised EdgeX 3.2 release soon





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LF Discretionary Funds

Website Enhancements: Practical Recommendations and Costs

| Front-End / Editable (Implemented by IOtech) | Back-End (Implemented by Capitan) |
|---|--------------------------------------|
| Masthead Update | Search Bar |
| Dynamic actions | Menu |
| Typography | Buttons |
| Colours | Colours |
| Why EdgeX? page | Grey segment |
| Diagrams | Location/ Powered by |
| Get started Page | Latest page |
| Ecosystem page | |
| Community page | |

- IOtech marketing team willing to implement the “Editable” changes (no cost)
- Capitan have quoted \$965 for a 10 hour work block that would cover this. Would be invoiced directly to Linux Foundation
- **TSC approved LF Funds are used for this \$965**



Event - OSS Europe



16-18 SEPTEMBER 2024
VIENNA, AUSTRIA
#OSSUMMIT

LF EDGE DAY

THURSDAY, 19 SEPTEMBER

Time: 9:00 – 12:30

Location: Austria Center Vienna

Registration Cost: \$10



LF Edge Day, a co-located event at Open Source Summit Europe, represents an exciting opportunity for developers, technologists, and community leaders engaged in the edge computing domain. This dedicated day aims to bring together the vibrant LF Edge community for a series of in-depth discussions, collaborative workshops, and insightful sessions focusing on the latest innovations, technologies, and trends in edge computing. By fostering an environment of collaboration and knowledge-sharing, LF Edge Day seeks to enhance the growth and sustainability of open source edge computing, making it an essential rendezvous for anyone looking to shape the future of this rapidly evolving field.

- Benefits of attending:
 - Access relevant audience
 - Brand exposure
 - Speaking opportunity
 - Connect with industry leaders
 - Generate interest and generate downloads
 - Gain feedback from attendees
- Proposal is for James to attend as TSC chair and speak at LF Edge Day
 - Presentation, demo, Q&A, etc. Session recorded for YouTube and published on social media
 - Event will be confirmed shortly
 - LF Funds would be expenses: Flight, Hotel, Event Ticket (\$799), etc. Total circa \$1500-2000
 - TSC approved LF Funds are used for this. Up to \$2000



Discretionary Funds

- As a Stage 3 LF project, EdgeX Foundry has “discretionary funds” available to utilize as we see fit
 - Aim is to help the project grow and be sustainable
 - Up to \$10,000 per year Jan-Dec, no rollover
 - English and Chinese website cost \$3660.17 this year
 - Not planning EdgeX awards this year
 - Open to ideas and suggestions from the TSC for utilizing these funds - marketing, events, etc
 - **Deducting website and OSS expenses: -> Total \$3374.83 remaining for 2024**





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Thank You