

EDGE X FOUNDRY™



TSC Meeting

Jan 6, 2021



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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)

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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

- Dot release(s)
- WG Updates
- Misc
 - Marketing budget/discretionary funds
 - New Vertical Solutions integration project
 - Open Horizon/SDO integration project
 - Inclusive language scoping reminder
 - PRC TSC meeting
- ADR review
- Upcoming Events (Dev Advocate)

Dot Release

There have been a few significant issues fixed on the Hanoi release

- metadata updates of admin/op status
- ZMQ issue
- CLI missing configuration.toml

Device Services about to cut a dot release per DS meeting Monday

Do we agree on the need for (and approve) a dot release?

Should we coordinate the timing (of both DS and 1.3.1 release)?

Are there other items we think we need to get in the dot release?



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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 (1/6)

Cross Cutting Issues

In Progress (8, +/-0)

- V2 Implementations
 - **Core Data APIs - WIP**
 - **Core MetaData APIs - WIP**
 - **TAF testing V2 APIs - WIP**
 - DTO rework from Ireland planning - Done
 - **API Rework from MBUS ADR - Done**
- V2 Consumption
 - **V2 Core Data Clients - WIP**
 - **V2 Core Metadata Clients - WIP**
- Conventional Commits for all
 - **Device Services - WIP**
Core Service - Done
 - App Services - Done
- Metrics & CPE (ADR in review)
- Secret Provider for All
 - DS SDK C - TBD
 - C Device Services - TBD
 - Vault Worker - TBD
 - **DS SDK Go - Pending PRs**
 - **MQTT Device Service - Pending PR**
 - **go-mod-bootstrap - DONE**
 - **edgex-go - DONE**
 - **App SDK - DONE**
 - **ASC - DONE**
 - go-mod-secrets - DONE

- Device Service send Events via MessageBus implementation
 - Device SDK C - WIP
 - C Device Services - TBD
 - Device SDK Go - TBD
 - Go Device Services - TBD
 - Core Data - WIP
 - **App SDK - WIP**
 - **ASC - WIP**
- **Drop Logging Service completely**
 - Device SDK C - TBD
 - Individual DS - TBD
 - **go-mod-bootstrap - DONE**
 - **Developer Scripts Volume - DONE**
 - **Device SDK Go - DONE**
 - Developer Scripts - DONE
 - Core - DONE
 - App Services - DONE
 -
- **Remove Mongo code**
 - Archive Mongo Repo - TBD
 - **Core/Support Services - DONE**
 - Developer Scripts - DONE
 - Security - DONE
 - App Services - DONE

Backlog (0, +/-0)

-

Done (3, +/-0)

- LoggingClient DIC bug fix
- ADR Message Bus from Device Service to App Services
- ADR Secret Provider for All

Icebox (4, +/-0)

- 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 16th, 2020)

Release Activity

- Nov-30 - edgex-cli v1.0.0 released as GitHub Release
 - <https://github.com/edgexfoundry/edgex-cli/releases>

Out of Office - Returning Jan 4th, 2021 - **Have a safe Holiday!**



Applications WG Update (06-Jan-2021)

Completed:

- Updating ASC to remove Exclusive Secret Store configuration
- Updating SDK to use new SecretProvider from go-mod-bootstrap

WIP

- Removal of MarkAsPushed - PR submitted
- Ability to Stop SDK - PR Submitted
- Multiple Subscriptions - PR submitted
- Accept V2 Event DTO from triggers - PR submitted
- Allow Custom Trigger Registration - PR Submitted

- Next meeting **Jan 7th, 2021 @ 3:30 PM 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 (6-Jan-20)

WIP:

- SecretProvider use
- Event Filtering ADR: in review
- Conventional Commits (Go DSs still todo)
- Project Board: 52 issues backlog + 11 new (net -7)

SDK for Go: 1.4.0 release pending

Next meeting: January 11th

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 (5th January)

- TAF tests
 - Fixed issues
 - Issue [ci-management#637](#), remove blackbox-testing jobs.
 - Issue [#233](#), stop Backward Test.
 - Issue [#248](#), tests fail because of the value change for operatingStatus (Enable to Up)
 - Issue [#241](#), use MQTTSecrtSend instead of MQTTSend for app-service-mqtt-export testing.
 - Issue [#250](#), needs to update compose file for app-service.
 - Issue [#252](#), need to update V2 deviceprofile properties type and reading resourceName to fix Jenkins test failures.
 - Issue [taf-pipelines#44](#), stop Backward Test
 - Issue [#254](#), app-service secrets V2 API testcases fail because Request timed out and return 503
 - Working issues
 - Issue [#247](#), use new Secret Config utility for get-token for Kong proxy.
 - Continuation of V2 API tests and implementation
- Other Business
 - Hanoi Performance Report drafted
 - Inclusive Language - Blackbox tests already deprecated
 - Task to check for other terms - whitelist/blacklist etc

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	0	0	0
x86_64 / CentOS	Security	Redis	204	0	0	0
arm64 / Ubuntu	Non Security	Redis	204	0	0	0
arm64 / Ubuntu	Security	Redis	204	0	0	0

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

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 (01-06-2021)

Pipeline Enhancements

- [#302](#) [Complete] Dockerfile clean up in some services
- [#102](#) [In Progress] Docker image naming

Other

- [beta] GitHub Discussions
 - Potential replacement for Slack
 - Example: <https://github.com/vercel/vercel/discussions>

Next DevOps WG Meeting **Jan 14th, 2021 @ 9:00 AM PST**

Security WG Update (Jan 6)

- Next Meeting: Today & Jan 13
- In Design
 - [Service Registry](#)
- Design Review
 - [Upload Threat Model](#)
- In Development: 18 (-5) Backlog / 5 (-3) In Progress / 3 (-2) In Review
 - [Secret Provider](#) *
 - [EdgeX OCI Bootstrapping](#) *
 - [Docker Container Guidelines](#)
 - [Secret Creation & Distribution](#)
- Done 36 (+5)
 - [EdgeX TLS Usage](#) *

Outreach WG Updates (1/6/21)

Certification Team

- EdgeX Ready User Program
 - Discussion on phrasing of the Ready program for its crawl phase
 - In progress: Documentation, i's and t's

Vertical Solutions Team

- Next presentation: IOTech Tuesday Jan 19th'21 8AM US Pacific
- Go to EdgeX website Adopter Series section to register:
<https://www.edgexfoundry.org/ecosystem/adopter-series/>

Marketing Team

- Hanoi press release <https://bit.ly/2JQDDxZ>
- New Hanoi Release section in website <https://www.edgexfoundry.org/software/releases/>
- Hanoi blog <https://bit.ly/3m3fSzQ>
- Ongoing Social Media campaign: Please promote by retweeting, sharing, like....
 - RT https://twitter.com/LF_Edge/status/1337074612908273664
 - LinkedIn <https://www.linkedin.com/feed/update/urn:li:activity:6742845656555225088>

Core Working Group (1-6-2020)

- V2 API work (rough estimate that we are over ½ way to completion)
- Kubernetes deployment file
 - Tested and now in the examples
 - For both Geneva and Hanoi
 - Uses MicroK8s in the README to allow quick use/exploration
 - Does not yet include security elements (next step)
 - Will reconvene a Kubernetes sub project group to look at steps after that
- UI work continues on new features
 - Side project updating the framework to Angular
 - Given amount of work, this may slip into next release
- Next call - 1/7/21 @ 10AM US/Central

ADR review

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
Update ADR 11 (Device Service REST API) / # 247	working	Iain Anderson	DS
Metrics and CPE / #268	refactored/cover in Core WG re-review	Jim White	Core
Secret Provider for All / #281	Approved	Lenny Goodell	Secty/Core
DS Filters / #282	re-review/cover in DS WG	Jim White	DS
Service Registry / #283	draft	Tony Espy	Core
Update release ADR (tagging/CLI) / #301	review	Bill Mahoney	DevOps
Upload threat model / #259 (quasi ADR)	review	Bryon Nevis	Secty

Miscellaneous Issues/Topics

- 2021 Budget approved
 - \$10K discretionary for Web site, UX consulting, China project, etc.
 - Community members are asked to submit any needs (or ideas) to the Outreach WG (send them to Camilo Dennis) by Jan 18th. Team to review and plan expenditures at that meeting
- China EdgeX Day - held just before Christmas
 - Estimated 12,000 attendees or downloads of the video stream
- We will be starting a new project under Vertical Solutions in 2021
 - Integration reference implementation between EdgeX, SDO, Open Horizons
- Inclusive Language
 - WG leads - please try to respond by Jan 15th to my email
- Docker hub limits and open source “licensing” to escape some limit issues
 - LF working
- China TSC meeting
 - Announced last meeting. In the works - we are planning the first meeting just after the Chinese new year (Feb 17th)
 - Seeking a couple of TSC volunteers to present state of your work group and roadmap of your area of concern



Upcoming Events & Dev Advocate Update

Aaron's updates

Upcoming External Events

- › [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
- › FOSDEM 2021- CFP for the [Developer Rooms](#)
- › 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