

EDGE X FOUNDRY™

TSC Meeting

December 1, 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#

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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	Jim White	jim@iotechsys.com	Outreach WG Chair
Intel	Bryon Nevis	bryon.nevis@intel.com	Security WG Chair
Intel	Lenny Goodell	leonard.goodell@intel.com	Applications & Analytics WG Chair
IOTech	James Butcher	james@iotechsys.com	Core/Test/QA WG Chair

Gavin Lu (VMWare), Tony Espy (Canonical), Melvin Sun (Intel)

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

- Jakarta release
 - Any issues - final update
- WG Updates
- ADR updates and list of new needs
- Planning meeting action items (wrap up)
- Misc
 - December schedule
 - Monthly architect's meeting
 - Eaton presenting combo app/device service



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Work Group Updates

Chairs

Release Czar (12-1-2021)

Jakarta Release - **Complete**

Docker Hub Image Overview Updates - In progress

Working Group Chair Updates

- Around the horn
 - Release Czar - Bill Mahoney
 - Product Manager - Lenny Goodell
 - Applications - Lenny Goodell
 - Core - James Butcher
 - Device Services - Iain Anderson
 - DevOps - Ernesto Ojeda
 - Security - Bryon Nevis
 - PRC Updates
 - Outreach - Jim White
 - Certification - Rodney Hess
 - Marketing - Camilo Dennis
 - Vertical Solutions (and LF Edge TAC) - Henry Lau

Product Manager (11/17/21) - Jakarta

[Cross Cutting Issues](#)

In Progress (10 +2)

- [Securing Consul with Access Token](#)
 - C Device SDK - TBD
 - C Device Services - TBD
- **Secure Message Bus connection**
 - C Device SDK - TBD
 - C Device Services - TBD
- [Secret Provider for All](#)
 - DS SDK C - DONE
 - C Device Services - TBD
- **CORS for all (secure and non-secure)**
 - Go services - DONE
 - C SDK - TBD
- **Request new Consul token on Auth failures**
 - Go Services - DONE
 - C SDK/Services - TBD
- **Implement Generate/Inject passwords into Vault**
 - Go Services - DONE
 - C SDK/Services - TBD

- **add a "make lint" target**
 - edgex-go - DONE
 - App Services - DONE
 - go-mods - TBD
 - Go Device SDK - TBD
 - Go Device Services - TBD
 - C Device Services - N/A
- **Metrics ADR - WIP**
- **Secret store tokens for delayed-start services ADR - WIP**
- **No ZMQ on Windows**
 - Go Device Services - TBD/PRs
 - Go Device SDK - DONE
 - edgex-go - DONE
 - App SDK - DONE
 - ASC - DONE
 - go-mod-messaging - DONE

Done (0)

Backlog (1 +1)

- Switch to Go 1.17

Icebox (0)

Applications WG Update (12/1/2021)

Completed

- App SDK and ASC updated for No ZMQ on native Windows
- App Service example updated to Jakarta App SDK

WIP

- Migration of LLRP App Service

eKuiper

- Working on release of 1.4 on Dec 2nd
- <https://github.com/lf-edge/kuiper/milestone/3>
- <https://github.com/lf-edge/kuiper/milestone/3?closed=1>

Next

- Metrics one ADR is approved

Project Board: <https://github.com/orgs/edgexfoundry/projects/23>

Application Services - Ireland

Functions (built into SDK)

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

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)

- Simple Filter
- Simple Filter and MQTT Export
- Simple Filter and HTTP Export
- Simple CBOR
- Azure IoT Hub
- Amazon IoT Core
- Cloud Event Transformation
- Secret Retrieval
- JsonLogic

- Send Command
- Convert & Publish
- Custom Target Type
- IBM Watson IoT (ASC Profile)
- Custom Trigger
- Influx DB Export
- Fledge Export

Core WG Snapshot (01 Dec 2021)

- Jakarta: Performance data:
 - <https://wiki.edgexfoundry.org/display/FA/Jakarta+Data>
- Kamakura:
 - TAF - All Pasing
 - Functional tests: 541
 - Integration tests: 37
 - Performance tests: 10
 - Issues Fixed:
 - [#685](#) HTTP REST Address should support PATCH method in Data Transfer Object
 - [#3833](#), [#122](#) Update to latest go-mod-messaging w/o ZMQ on windows
 - Docs: [#3830](#) [#3828](#)



Core Project Board Status

- 3 New Issues (+0)
- 10 Release Backlog (+0)
- 0 Bug Backlog (+0)
- 0 In Progress/QA (+0)
- 7 Done (+7)
- 2 Kamakura Stretch (+0)
- 17 Icebox (+0)

QA/Test Project Board Status

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

Next meeting Thursday December 2nd @ 8am Pacific Time

Device Services WG Update (1-Dec 2021)

OPC-UA

- Contribution from Schneider Electric
- Upgrade to v2.1 in review
- Will look to bring out of -holding

SPIFFE for C services

- Possible to achieve via C++ support library?
- Potential C port from HP (Apache licensed)?

Device Functions ADR

- Draft PR at <https://github.com/edgexfoundry/edgex-docs/pull/644>

Next meeting: December 6th

Device Services - current/coming (as of v2.1)

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

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 (12-01-2021)

Pipeline Related

- [Complete] Archive 3rd Party compose images in edgex-compose for LTS releases
- [Backlog] [#371](#) Go 1.17 released - [Release Notes](#) - On hold until Kamakura
- [Backlog] [#370](#) Spike: multi-arch builds with buildx (spin up less nodes, speed up builds)
- [Backlog] [#59](#) Spike: rewrite git-semver in python

Other

- [Complete] Jakarta Release
- [Complete] Developer Badge Program
 - Launching soon.

Next DevOps WG Meeting Thursday, December 2, 2021 @ 9AM PST

Security WG Update (12/1/21)

Next Meeting: Today

Today's topics

- Advisory published app-functions-sdk-go/security/advisories/GHSA-6c7m-qwxj-mvhp
- Review Delayed Service Start ADR (0019) and feedback from DS WG

Security Project Board Status

- 0 New Issues
- 14 Release Backlog
- 0 In Progress/QA (-1)
- 1 In review (-3/+1)
- 4 Done

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

Updates on EdgeX in Chinese speaking regions

- No updates this week.

EdgeX China community channels:

- Website: <https://cn.edgexfoundry.org/>
- OSChina zone: <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 (11/30/21)

Certification

- EdgeX Ready social media blitz

Developer Badge Program

- Announced as part of release
- in effect (produced the first couple of badges)

Jakarta and General EdgeX Promotion in the works

- Press release
- Developer Badge Blog
- EdgeX 3.0 Blog
- Jakarta Performance #s Blog

EdgeX Challenge - Smart *

- Wiki page created - Feedback welcome
- Finalizing schedule and starting promotion in December
- Sponsors landed
 - Intel, HP, BSI, IOTech
 - Still looking for a few others

Topcoder

Contest now underway

Next meeting Monday Dec 13th at 9am PST

ADR review

<i>ADR name and PR number</i>	<i>Status</i>	<i>owner</i>	<i>Work Group</i>
Metrics / #268	Target Jan 2022	Jim White	Core
ADR on unit of measure / #386	Target Jan 2022 Comments need addressing	Jim White	Core
ADR for delay start service secret store token / #389	Target EOY Reviewed in DS WG; hybrid C/C++ is path forward	Bryon Nevis	Security, DS
Device profile changes / #605	Target EOY Comments need addressing	Jim White	DS
Device functions / #644	New - initial draft (discussed in DS work group Monday)	Iain Anderson	DS
North-south message bus	Needed per planning meeting		
control plane events	Needed per planning meeting (low priority this release)		
cmake options to optimize dependencies	Needed per planning meeting	Eaton	
Global config	Needed per planning meeting (low priority this release)		
Securing the EdgeX message bus when using MQTT	Needed per planning meeting		
device parent/child relationship	Needed per planning meeting (labels vs other option)	Eaton	

Jakarta Action Items

- CORs enablement needs to be documented with information on how to pick/select secure (Kong) or unsecure CORs enablement
 - **Jim** to create doc issue (Done✓)
- One more update to Bootstrap
 - **Lenny** (Done✓)
- App service AES problem
 - Leave old transform in place to keep backward compatibility
 - Have fix in place that people can opt to use (Done✓)
 - New feature to be merged (**Bryon and Lenny and Alex**) (Done✓)
 - **Bryon** will publish CVE once we have remediation in place (Done✓)
 - Issue for docs created (pending PRs) (Done✓)
- New issue in Provision Watcher (Lenny discovered)
 - Watcher is trying to pull it from cache when it has not been added there (Done✓)
- Docs
 - Need binary data sending/consuming example (**Jim** to create issue) (Done✓)
 - **Jim/Lenny** to clean up Jakarta docs project board; determine what is in scope (Done✓)
 - URLs in repository READMEs and TOML files point to different versions (**Jim** to search and create issues or fix) (Done✓)
 - Add and improve device service docs (**Iain** to lead discussion about what is needed in next DS WG meeting) (Done✓)
 - Getting started guide – possibly replace HiveMQ with EMQ Xbroker (**Jim** to explore; create issues as necessary) **Kamakura**
 - Take care of to-do in GUI with Snaps (<https://docs.edgexfoundry.org/2.1/getting-started/tools/Ch-GUI/#snaps>) (**Tony & Canonical** to work) (Done✓)

General Action Items

- Update Calendar times to standard time (Done✓)
- Wiki document on tracking project decisions - **Jim** Action (Done✓)
- Add release and planning meeting timing to Wiki - **Jim** Action (Done✓)
- Research alternatives to big 3rd party enterprise components (Kong, Vault, Consul) Ongoing - Kamakura
 - Tyk, Consul API Gateway, NginX, ...
- Check poor 3rd party dependencies for any updates/better support (Done✓)
 - **Jim** action
- What is required to trigger performance tests from edgex-taf? (Done✓)
 - Is this already being done?
 - **James** action
- Have conversation with eKuiper team (Done✓)
 - Steer eKuiper to offer a separate credentials file (versus their general configuration file)
 - **Lenny** action
- **Jim** to update Wiki Backlog and Github issues with status of decisions per pre-wire and planning meeting (Done✓)

Miscellaneous

- Eaton to present on combined app/device service idea at next week's app service meeting
 - Dec 7 @ 9am PST
- December schedule
 - December 22 TSC?
 - Propose we hold no meetings week of Dec 27-Dec 31
 - Return to normal schedule Jan 3 (Monday)
- Monthly Architect's meeting - Dec 20th
 - Few minutes on new decision board
 - Priority then given to pressing ADRs
 - Delayed start / security service
 - Device profile changes
 - Metrics collection
 - UoM



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Thank You