TSC Meeting

Nov 15, 2023

Napa Release Day?

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Meeting Logistics

Time: Wednesdays 8am PDT – 9am PDT (Alternate Weeks)

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/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ

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

EdgeX TSC Members

Working Group Chairs:

- Cloud Tsai (IOTech) cloud@iotechsys.com Core & Test/QA WG Chair
- Lenny Goodell (Intel) leonard.goodell@intel.com Applications & Analytics WG Chair
- Lindsey Cheng (IOTech) lindsey@iotechsys.com Device Services WG Chair
- Ernesto Ojeda (Intel) ernesto.ojeda@intel.com Dev Ops WG Chair

At Large Members:

- Farshid Tavakolizadeh (Canonical)
- Tom Brennan (Eaton)
- Elizabeth Lee (Intel)
- Melvin Sun (Intel)
- James Butcher (IOTech)
- Darryl Mocek (Oracle)

Current quorum = 6 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

- Working Group Updates

- Go ahead and release EdgeX 3.1 ?

- Agree LTS commitments for EdgeX 3.1

Work Group Updates

Chairs

Reminder: Napa Dates

- Freeze date: Wed Oct 25th ✅

- Release date: Wed Nov 15th

- Odessa 3.2 Prewire: Mon Nov 6th ✅

- Odessa 3.2 Planning: Mon Dec 4th - Wed Dec 7th

  - Mon 4 Dec: 7am-10am PST   Kickoff and Main Architecture Discussions

  - Tues 5 Dec: 9am-12pm PST   Architecture Discussions and Odessa Scoping

  - Wed 6 Dec: 7am-10am PST   Complete Odessa Scoping, Business and Marketing Topics, Lessons Learnt

EdgeX Wiki pages:
- Odessa Prewire
- Odessa Planning

Working Group Chair Updates

- Around the working groups:

    - **Product Manager** - Lenny Goodell
    - **Applications** - Lenny Goodell (or co-chair Elizabeth Lee)
    - **Core** - Cloud Tsai (or co-chair Melody Liu)
    - **Device Services** - Lindsey Cheng (or co-chair Felix Ting)
    - **DevOps** - Ernesto Ojeda
    - **Release Czar** - Bill Mahoney
    - **Outreach** and Marketing
        - **Certification** - Rodney Hess
        - **China Updates** - Melvin Sun
        - **LF Edge TAC** - Jim White

Product Manager (11/14/23) - Napa

[Cross Cutting Issues](#)

Icebox (3)
- Lite Builds (no security features) via Build Tags
- Docs Refactoring of Remaining Device Services - Odessa
- URIs For Files - C services - Odessa

Backlog (0)
-

In Progress (1)
- **Docs Refactoring - Napa**
  - Main layout - **DONE**
  - Core Data - **DONE**
  - Core Metadata - **DONE**
  - Core Command - **DONE**
  - Support Notifications -**DONE**
  - Support Scheduler - **DONE**
  - App Services general & SDK - **DONE**
  - App Service Configurable **- DONE**
  - App Record & Replay **- DONE**
  - App LLRP Inventory **- DONE**
  - Device Services general & SDK - **DONE**
  - Device REST - **DONE**
  - Device MQTT - **DONE**
  - Device UART - **DONE**
  - Device GPIO - **DONE**
  - Device Modbus - **WIP**

Done (8)
- Better error handling when Common Config missing
- Move all the common API into go-mod-bootstrap
- Move common Middleware into go-mod-bootstrap
- pkg/errors replacement
- Go 1.21
- Gorilla/MUX replacement
- URIs For Files - Go services
- Common Config - C SDK

Applications WG Update (11/14/23) - Napa

Newly Completed (13)

- Multiple 3.1 changelogs updates (SDK, ASC, LLRP and RR)
- A few updates to released versions of Go Mod/SDK
- Move LLRP Docs from README to Docs 3.1 structure.
- 3 Docker PRs for Alpine CVE
- build: Update to use released App SDK #238

Newly added (1)

- [App LLRP] Replace use of Gorilla/Mux with Echo#251
  - Planned for Odessa

WIP (0)

Done for Napa (60)

Backlog (0) https://github.com/orgs/edgexfoundry/projects/50/views/2

ICE BOX (11)

Next

- Odessa Planning
- Continue to enhance/refactor documentation
  - Add how to guides - identify what's needed/implement

eKuiper

- No update in App Service
- Working on wrapping up 1.12 for release later this month
  - https://github.com/lf-edge/ekuiper/milestone/22
  - Alpha 4 was released
    - https://github.com/lf-edge/ekuiper/releases/tag/1.12.0-alpha.4
  - 1.11.4 Released
    - https://github.com/lf-edge/ekuiper/releases/tag/1.11.4
    - This is the version Napa will release with

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

Core WG Update (Nov 15 2023)

- TAF
  - Functional tests:
    - Non-Security **612** tests - All pass / Security **612** tests - All pass
  - Integration tests
    - Non-Security **132** tests - All pass / Security **135** tests - All pass
  - Performance tests:
    - Non-Security **10** tests - All pass / Security **10** tests - All pass
- Core Progress
  - 🔔**Release date: Nov 15**🔔
  - 🔔**Date of cancellation**🔔
    - Nov 21 and 28
    - Dec 5, 19 and 26

Next meeting: Tuesday Dec 12 2023 @ 4 PM Pacific Time

Device Services WG Update (15 November 2023)

- **Updated BACnet and Coap Device Service to use the latest C SDK**
  - https://github.com/edgexfoundry/device-bacnet-c/pull/90
  - https://github.com/edgexfoundry/device-coap-c/pull/60

- **New CAN device service**
  - Ready to move to edgexfoundry github organization

- **New S7 device service**
  - Repo in the holding area - Review in progress

- **Hierarchical device proposal from Darryl (Oracle)**
  - UCR opened for review:
    - Attribute protocol info in device. #1287
    - Device functions. #1288

Next meeting: Monday, Dec 11 2023 @ 4 PM Pacific Time

Device Services - current/coming (as of v3.0)

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 and USB Cameras in Go
- REST in Go
- 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
- 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), and BACnet (in C) that have added features over the community editions

DevOps WG Update (10/25/2023)

Pipeline Related

- [In Progress] [#438](#) Implement git-cliff, a git-chglog replacement
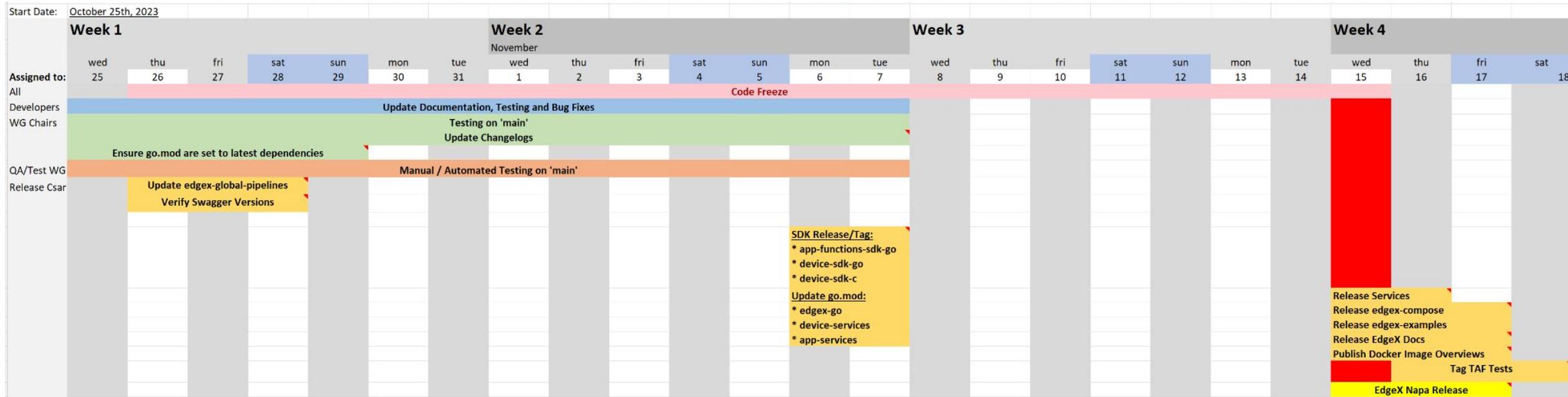- [In Progress] [#376](#) Automate release branch creation

Other

- N/A

Next DevOps WG Meeting: Tuesday, November 14, 2023 @ 9AM PST

Release Czar (2023-11-15)

Napa (3.1)
- Code Freeze - 2023-10-25
- Release Date - 2023-11-15

- Release Readiness Check

EdgeX Release Process: https://wiki.edgexfoundry.org/display/FA/Release+Checklist

Outreach Update (11/14/23)

Surveys sent out via social media and email forums.

Please use your social media to repost and get the message out.

- Adopter survey in English: https://www.research.net/r/TXPPXGN
- Adopter survey in Chinese: https://www.research.net/r/TXF2LG6

Next meeting in December.

EdgeX China Update

- EdgeX Worldwide university hackathon is complete with the overall winners announced
  - Announcement and blog coming
  - Winner is a group named BitSpace (next slide)
  - Intel has sponsored Jiangxing Intelligence to work out first release of open-source code
    https://github.com/MrMichael/device-matter-go


Winners List

| Ranking	Team's name	Prize in China local region	Use Case	WW prize winner	Roadshow Playback (https://www.bilibili.com/video/BV1JN411B7dk)
#1	BITSpace	1st place, 2k$ as prize	Finger Skeletal Rehabilitation Exercise	Winner - 5k$	51'40" – 64'25"
#2	Eatable Dust	2nd place, 1k$ as prize	People-detection based Air-conditioner Control		07'50" – 26'00"
#3	SCU-edgex	3rd place, 3kRMB as prize	EdgeX based Smart workplace management		64'30" – 78'36"
#4	EmoHome	3rd place, 3kRMB as prize	CV based residential community management		26'10" – 41'10"
#5	42	Merit, 1kRMB as prize	EdgeX+Matter to control smart home devices		41'15" – 51'28"

EdgeX Hackathon Winner

#1 BITSpace
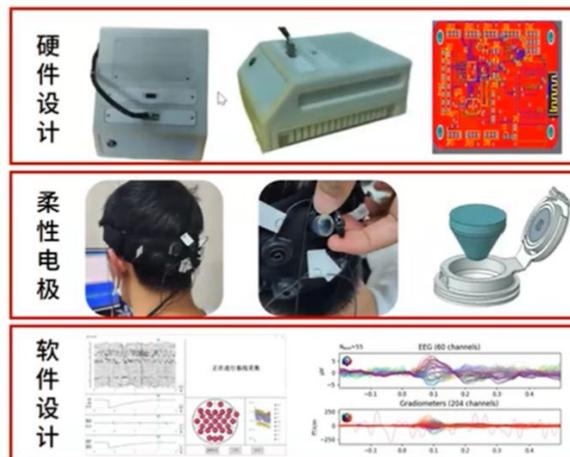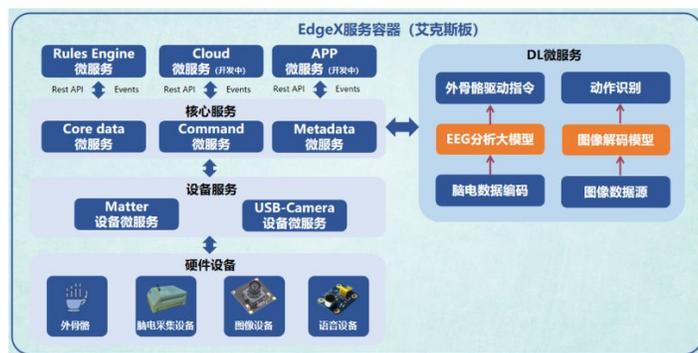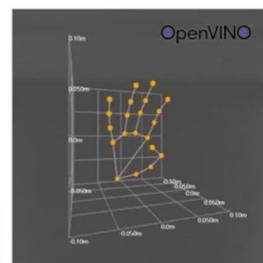
Use Case:
 Finger Skeletal Rehabilitation Exercise

1/ Brain-Computer interface to send command data from brain.
2/ EdgeX platform to send command to terminals for Finger Skeletal Rehabilitation Exercise.
3/ Visual feedback to Brain.

Other Topics

Release Napa and agree LTS Terms

- Release EdgeX 3.1 now?
- Release page here
  https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=88212172
  - James to add changelogs from each repo. Are these done?

- LTS draft page here for discussion and TSC approval:

https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=115539995

Prep for Odessa Planning Meeting

- Reminder Odessa 3.2 Planning Meeting is [Mon Dec 4th - Wed Dec 7th](#)
- Output and actions from Prewire meeting here: [Odessa Prewire](#)
- If possible, please familiarize yourself with:
  - Device modelling and relationships
  - Microservice authentication ADR

Thank You