TSC Meeting

April 15, 2020

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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/zoomconference?m=mkFexUxEcqHlvXHw53PqScTDRvS48PiQ

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

TSC – Members Present Today

EDGE X FOUNDRY™

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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

- Geneva Release & Release Czar Readout - **1 week to freeze**
  - What's in/out
- WG Updates
- Hanoi Planning - overview deck
  - Agenda details
- Upcoming Events (Dev Advocate)

Geneva Release & Release Czar readout
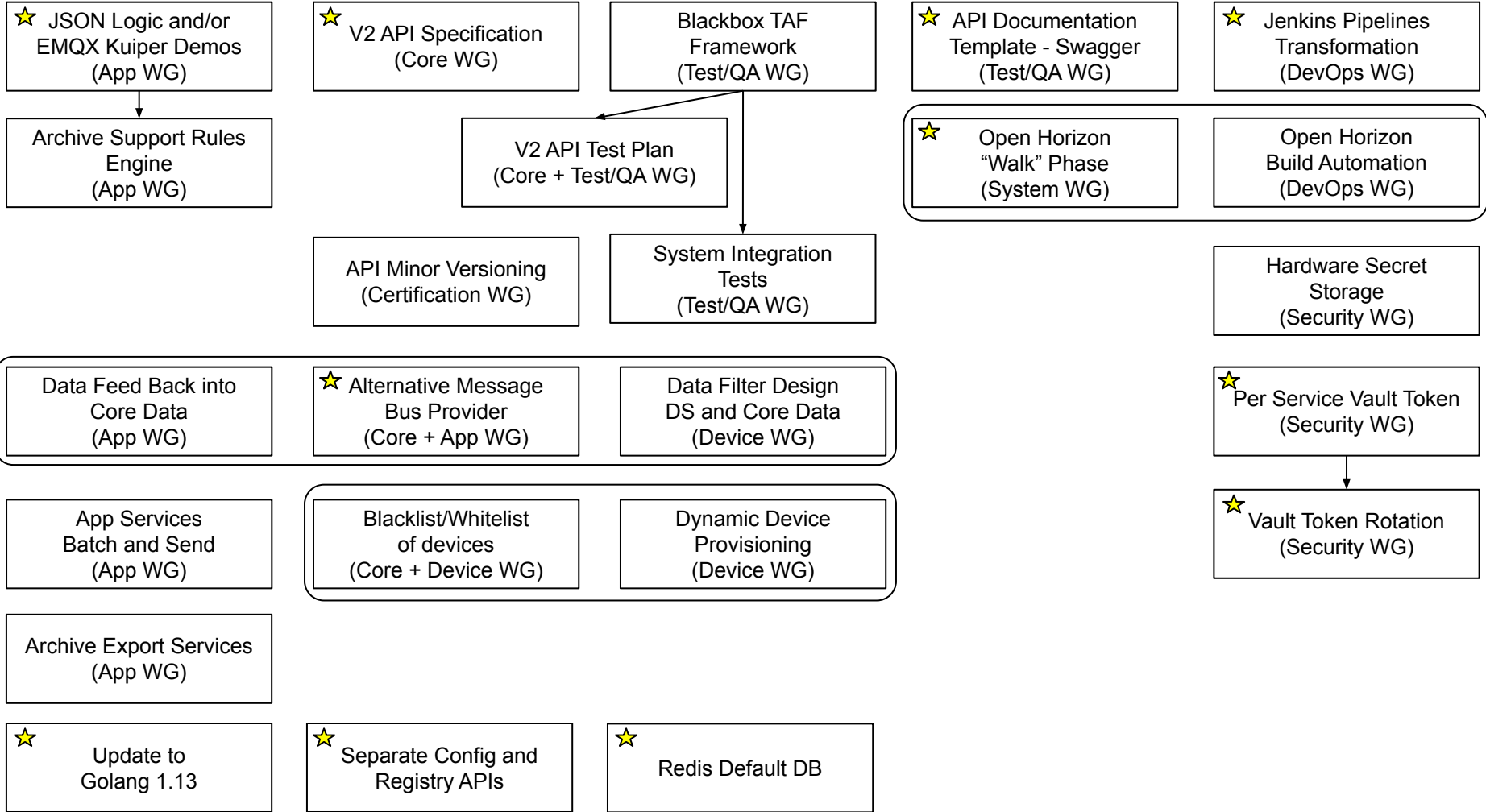
Geneva Freeze and Release dates

TSC approved

- Freeze: 12pm GMT, April 22 (Wed, week before planning meeting)
- Release: 12pm GMT, May 13 (Wed two weeks after planning meeting)

See Geneva release notes for details (on Slack)

REMINDER: We will NOT be branching off master for the Geneva release.

EdgeX Geneva Release Overview

☆ JSON Logic and/or EMQX Kuiper Demos (App WG)

☆ V2 API Specification (Core WG)

Blackbox TAF Framework (Test/QA WG)

☆ API Documentation Template - Swagger (Test/QA WG)

☆ Jenkins Pipelines Transformation (DevOps WG)

Archive Support Rules Engine (App WG)

V2 API Test Plan (Core + Test/QA WG)

☆ Open Horizon "Walk" Phase (System WG)

Open Horizon Build Automation (DevOps WG)

API Minor Versioning (Certification WG)

System Integration Tests (Test/QA WG)

Hardware Secret Storage (Security WG)

Data Feed Back into Core Data (App WG)

☆ Alternative Message Bus Provider (Core + App WG)

Data Filter Design DS and Core Data (Device WG)

☆ Per Service Vault Token (Security WG)

App Services Batch and Send (App WG)

Blacklist/Whitelist of devices (Core + Device WG)

Dynamic Device Provisioning (Device WG)

☆ Vault Token Rotation (Security WG)

Archive Export Services (App WG)

☆ Update to Golang 1.13

☆ Separate Config and Registry APIs

☆ Redis Default DB

Release Artifact Status

- Docker images are staging to Nexus we are good to go here.
- We have some broken snap jobs for the following repos:
  - device-grove-c
  - device-mqtt-go
  - device-modbus-go
  - edgex-ui-go

Current list of "to-be-completed" (does not include work under review)

- Geneva docker compose files
- Documentation updates
- Support for array of types
- Secure Redis deployment
- JSONLogic still needs to be integrated into app service configurable.
- Batch and Send function still needs to be integrated into service configurable.
- MQTT for message communications still needs to be integrated into service configurable.
- MQTT Export use of secrets from vault
- Integrate go-mod-bootstrap
- Bluetooth LE Device Service (in C) - *may slip to post-Geneva*
- DS SDK Config Seed removal & service self-seeding (ADR 0005)
- CLI updates & move out of holding
- Move Jenkins build from JJB to Jenkins Pipelines (codenamed Kraken project)
- Some level of integration testing/backward compatibility testing
- Performance testing to address key performance measures - *think this might have been pushed back*
- Renew threat modeling - stretch
- Ensuring the services running are those expected and authorized (w/ DevOps assistance) - deferred to Hanoi

Work Group Updates

Chairs

Working Group Chair Updates

- Around the horn
  - Core/Supporting - Trevor Conn
  - Applications - Mike Johanson
  - Device Services - Iain Anderson
  - Test/QA - Robin Chatterjee
  - DevOps - James Gregg
  - Security - Malini Bhandaru and Tingyu Zeng
  - System Management - Michael Estrin
    - Open Horizon - Joe Pearson
  - Certification - Rodney Hess
  - Vertical Solutions - Camilo Dennis and Henry Lau
  - Updates from Release Czar - Lisa
  - Updates from Dev Advocate - Aaron

Core Working Group (15-Apr-2020)

- FYI -- CBOR Library Changing
  - edgex-go PR 2490
  - New library is here → github.com/fxamacker/cbor/v2
- End of week delivery expectation
  - RedisStreams integration in go-mod-messaging
  - edgex-go PR 2446 -- returning CBOR response from core-command
  - edgex-go PR 2491 -- removal og code obsoleted by go-mod-bootstrap
- Core WG call @ 10AM US/Central tomorrow
  - Call for agenda items

Applications WG Update

Complete:
- App Functions SDK updated to support App Service Configurable
- MQTT secret support
- 2nd SecurityStore client for service specific secrets
- Validated E2E test of Kuiper replacement of old Rule Engine in EdgeX compose file.
- Fixed SecretStore initialization bug causing BB Test to fail

Work In Progress:
- Integrating go-mod-bootstrap into the SDK .
- Updating App Service Configurable with MQTT message bus support, JSONLogic and BatchAndSend
- Documentation update for edgex-docs

Next up:
- Example of JSONLogic in app-service-examples

- Kuiper Meeting Tomorrow @ 3:30 PM PDT
- App Working Group Meeting held on Fridays @ 9AM PDT
  - Next meeting Friday, Apr 17th

Application Services

Functions (built into SDK)

Current/Complete:

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

Features

- Store and Forward
- Web Server
- Configurable App Service
- **NEW!** Vault Integration for Secrets
- **NEW!** MQTT Event triggers (via go-mod-messaging)

Reference/Example App Services (Fuji)

(built on top of SDK)

- Azure IoT Hub **AVAILABLE**

- Amazon IoT Core **AVAILABLE**

- IBM Watson IoT
- Cloud Event Transformation **NEW!**
- Secret Retrieval Example

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Device Services WG Update (15-April-20)

In review:

- Dynamic discovery (Go)

In progress:

- Startup registry/configuration changes (ADR0005) (C)

To do:

- Array datatypes (Go)
- 7 smaller issues

Device Services - current/coming

Open Source connectors (Current):
- Modbus (TCP/RTU)
- Virtual Device
- Grove C - ARM only
- SNMP
- MQTT
- BACnet (IP & MSTP)
- ONVIF Cameras
- REST

Open Source connectors (Future):
- OPC-UA (post-Geneva)
- GPS
- Bluetooth (Geneva)
- BLE in Go for Thingy 52 (Ian Johnson)

Commercial connectors (Current):
- GPS
- MEMS
- Zigbee
- Bluetooth
- EtherCat
- PROFINET

Commercial connectors (Future):
- CAN SocketCAN, CANopen
- EtherNet/IP
- Siemens s5/s7

Test/QA WG Update (15-04-2020)

- Blackbox Test
  - Issue opened for failed testcases
    - Issue [#429](), security service tests fail on Jenkins
    - Issue [#427](), Redundant port in Core-data event testcase
    - Issue [app-fuctions-sdk-go#315](), SecretStore clients should only be created if configured
    - Issue [edgex-go#2494](), [Security] device-virtual: 502 Bad Gateway
  - PR [ci-managment#598](), to use compose container to run test on blackbox-testing is waiting for merge
- New Blackbox Test
  - Add trigger time to Jenkinsfile, the functional-test runs every day automatically.
  - PR [ci-build-images#129](), to reduce the size of compose image is waiting for review
  - Preparing the script to trigger core service compatibility test
  - Made Modbus simulator and waiting for setting up pipeline to build image
  - Integration/functional test scenarios ([Introduce slide]())
    - PR edgex-taf [#56](), [#60]() to add robot files are ready for review
    - PR edgex-taf [#68](), to implement test case "Export events/readings to HTTP Server" is waiting for review

Testcases Number Count (Master Branch)

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	Mongo	1414	31	30	0
		Redis	1414	31	35	0
x86_64 / CentOS	Security	Mongo	1434	103	39	78
		Redis	1434	N/A	N/A	N/A
arm64 / Ubuntu	Non Security	Mongo	1414	32	30	0
		Redis	1414	34	36	0
arm64 / Ubuntu	Security	Mongo	1434	103	43	78
		Redis	1434	N/A	N/A	N/A

DevOps WG Update (04-15-2020)

Geneva

- Jenkins Transformation to Pipelines
  - Work continues on the transformation to Jenkins Pipelines
    - Multiple stories related to release automation for Geneva - WIP
      - Add edgex-global-pipeline version information in the pipeline log - DONE
      - Implement Snap stages for x86 and ARM (Issue #155)- DONE
      - Integrate edgeXSnap function into edgeXBuildGoApp and edgeXBuildCApp (Issue #125)- WIP
      - Identified a bug in the way we're linting the groovy code for edgex global pipelines - WIP
      - Reviewed LF roadmap 2020-beyond
        - self service committers
        - self service repo creation
        - K8s support for CI Validation Only
        - support for CI/CD for projects that want their own SaaS based build automation (Azure DevOps)
        - continued support of solutions already implemented (Clair, TIG stack, SonarCloud, Snyk integrations)
      - Still have multiple stories to get the snap release functionality into the release automation - *RISK*
      - Resolved issue with missing GPG key on Jenkins service account - Thank you Eric Ball / Linux Foundation
      - LFTools / Sigul latest version that supports Python 3.x - *RISK*
        - Need input from LF on alternative signing tool / No update ww16

Next DevOps WG Meeting 04/16/2020 @9:00AM PST

System Management WG Update (Apr 15, 2020)

- Outstanding Geneva Deliverables
  - CLI. Requested changes still in flight.
  - Removal of obsolete code still outstanding (edgex-go/issues/1811)
- April 10th meeting
  - CLI. Being used? Valuable? Move from holding requires feedback.
  - EdgeX-specific metrics. Will be taken up in Hanoi planning.
  - Hanoi
    - Discussed Kubernetes support (orchestration config; not 12 factor)
    - Technical debt (edgex-go/issues/1662)
- Next meeting: Friday, April 17th @ 10AM CST

Open Horizon Integration Update

- OH officially LF Edge Stage One, thanks to all of your assistance!
- Walk Phase progress:
  - Adding SMA service - **in progress**
    - Cannot bind service to `docker.sock`
    - OH has ticket to modify node policies to allow
    - Investigating SMA calling OH APIs directly as alternative
  - Showing Device Random data - **done**
    - All feedback and comments on docs welcomed
- apt install bug workaround completed. Permanent solution depends on migrating to LF Edge infrastructure.

Security WG Update (04-15-2020)

- Ongoing work for Geneva release (170 items done, 9 items in progress/review, 2 items backlog)
- SIR team update - No major issues found
- Security WG meeting this week focusing on item review for Geneva release

Certification WG Update (4-13-20)

- Validating device profiles topic waiting for next week's Device Services WG meeting

- Next meeting is Monday, April 20th, 9 a.m. PDT

Vertical Solutions WG Update (<mark>Apr 15, 2020</mark>)

- April 14 meeting cancelled
  - Not able to line up speakers

- China webinars: https://wiki.edgexfoundry.org/display/FA/China+Events
  - Apr 4: EdgeX hackathon station setup, by Intel

Marketing update <mark>4/1</mark>

- Created sub-team to drive Website project with El Roboto (3rd party)
  - Folder with key documents milestones and information at the Marketing WG wiki https://wiki.edgexfoundry.org/display/FA/Marketing+WG

- Topcoder challenge. 85+ registrations as of 3/31
  - Launched on 3/21https://www.topcoder.com/challenges/3011
  - Banner placed in EdgeX Foundry website
  - Submissions start 4/4

Miscellaneous (Jim)

- Reminder to TSC members to vote for EdgeX awards

Hanoi Planning Conference

Hanoi Planning Conference Tasks

- Hanoi Registration Website
  - https://events.linuxfoundation.org/edgex-foundry-hanoi-release-planning-conference-spring/
  - Email sent to all of you that have registered - please re-register for this virtual event!
  - Thank you Dell and Intel for sponsoring!!!!!
- Detailed agenda now available on Wiki
  - Architecture topics
  - Business topics
  - Hanoi Scoping per WG

Upcoming External Events

› Open Source Summit North America: 22-24 June, 2020 - Austin, TX
  › CFP Closed. Schedule announced April 16.
› IIOT World: 30 June, 2020 - Virtual
  › Jim White: "Using Open Source Technology to Manage IoT/Edge Solutions."
› Open Source Summit Japan: 15-16 September, 2020 - Tokyo, Japan
  › CFP Open: https://events.linuxfoundation.org/open-source-summit-japan/program/cfp/
› FutureNet: 22-23 September, 2020 - London
  › Mike Woster: "Achieving a common architecture: the holy grail or fantasy?"
› **Open Networking & Edge Summit North America: 28-29 September, 2020 - Los Angeles, CA**
  › **ONES Unconference Track**
› Open Source Summit Europe: 26-28 October, 2020 - Dublin, Ireland
  › CFP Open: https://events.linuxfoundation.org/open-source-summit-europe/program/cfp/
› IoT Solutions World Congress: 27-29 October, 2020 - Barcelona, Spain
  › CFP Open: https://www.iotsworldcongress.com/get-involved/become-a-speaker/
  › Call for Testbeds Open: https://www.iotsworldcongress.com/activities/testbeds/
› Open Networking & Edge Summit Europe: TBD Q4, 2020 - Antwerp, Belgium
  › CFP Open: https://events.linuxfoundation.org/open-networking-edge-summit-europe/program/cfp/
› 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

› EdgeX Foundry
  › [EdgeX Foundry 101: Intro, Roadmap and Use Cases](#)
  › April 23 @ 9am PT
  › Register for the Webinar at:
    https://zoom.us/webinar/register/4515850788014/WN_xCd6YPjEQrCwLiFhBWPKug

› Akraino Edge Stack
  › [Your Path to Edge Computing with Akraino Edge Stack](#)
  › Held Thursday, April 2
  › On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTQSIqH7pL8iHrQ
› More to follow...

Thank You