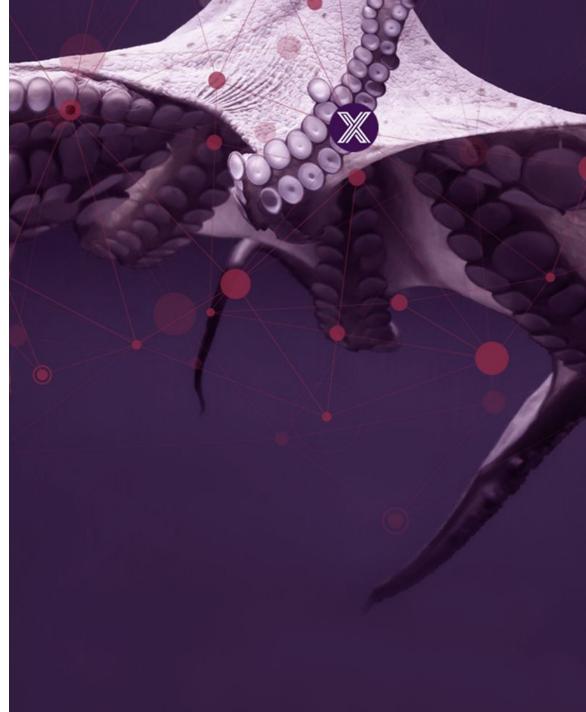# EDGEXFOUNDRY™

TSC Meeting

January 22, 2020

LF Antitrust Policy Notice

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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

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Company	Name	Email
Intel	Brad Corrion	bradley.w.corrion@intel.com
IOTech	Iain Anderson	iain@iotechsys.com
Intel	James Gregg	james.r.gregg@intel.com
IBM	Joe Pearson	joe.pearson@us.ibm.com
IOTech	Keith Steele (TSC Chair)	keith@iotechsys.com
VMware	Malini Bhandaru	mbhandaru@vmware.com
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IOTech	Robin Chattergee	robin@iotechsys.com
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Canonical	Tony Espy	espy@canonical.com
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Dell	Michael Estrin	m.estrin@dell.com

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

- Weekly arch decisions/actions summary
- WG Updates
- Vertical Solutions WG Chair
- Dev Advocate update
- Upcoming Events

Weekly Architecture/Action Summary

Per Phoenix F2F

Architecture Decisions / Discussions Summary

Device Services WG

- design for array types concluded - implementation underway
- design for auto provisioning/dynamic device discovery on going

Core

- V2 API discussion has been concluded (for the most part)
- Geneva will be 1.12
- Hanoi hopefully will be v2.0
- See my TSC email for full summary of decisions on this and TAF

Application WG

- App service persistence discussion - on going. Do we offer separate service or how do we handle separate services with equal access to app service DB?
- Secret abstraction for Vault

Security

- Getting and putting secrets and non-secrets into config
- Funneling security vulnerabilities to SIR team
- Mongo starts without protections

Architecture Decisions / Discussions Summary

Test/QA WG

DevOps

System Management

Certification WG

- Discussion on h defining backward compatibility

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
  - Certification - Rodney Hess
  - Vertical Solutions - Brad Corrion
  - Updates from Release Czar - Lisa
  - Updates from Dev Advocate - Michael

Core Working Group (22-Jan-20)

- V2 API Spec Update
  - As discussed during last week's Core WG
    - OpenAPI spec docs are now in edgex-go/api/openapi/v2
    - ADR is now in edgex-docs/design/adr/core
  - A couple outstanding follow-up items per review comments
    - https://github.com/edgexfoundry/edgex-go/pull/2309
- Geneva items
  - Ongoing work to POC side-by-side V1/V2 implementation
- Core WG tomorrow @ 10AM Central/US
  - Michael Estrin to provide conceptual overview of approach toward V1/V2 API implementation
  - Because of the amount of material to cover, the meeting will start promptly.

Applications WG Update (22 Jan 2019)

- **REMINDER:** EMQ X Kuiper Demo Jan 23 3PM PST/4PM AZ

- Batch and Send PR#271 First Rev available for review
  - docs to follow

- Working on how to have app services share vault token for db credentials but have unique vault tokens per services for user/developer secrets (i.e. Cloud Provider Credentials)
- Lenny working on ADR for how to abstract getting "secrets" whether running in secure mode or not
  - Implementation will likely be after Geneva

- App Working Group Meeting held on Fridays @ 9AM PST
  - Next meeting Friday, Jan 24th

Application Services

Functions (built into SDK)

Current/Complete:

Fuji

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed
- PushToCore   EXPERIMENTAL

Edinburgh

- Device Name Filter
- Value Descriptor Filter
- XML Conversion
- JSON Conversion
- MQTT(S) Export
- HTTP(S) POST Export

Features

- Store and Forward
- Web Server
- Configurable AppService

Reference/Example App Services (Fuji)
(built on top of SDK)

- Azure IoT Hub   AVAILABLE
- Amazon IoT Core   WIP

Device Services WG Update (22-January-20)

- New SDK API to be introduced alongside the existing version
- Missing device service commandline options to be implemented

Device Services - current/coming

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

Open Source connectors (Future):
- OPC-UA (Feb 2020)
- GPS
- Bluetooth (Feb 2020)
- REST (Jan 2020)
- 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 (22-01-2020)

- Blackbox Test
  - Issue opened for failed testcases
    - Issue [#372](#) on blackbox-testing for SMA operation "restart" failure, the issue is still investigating
    - Issue [#2237](#) on edgex-go will fix core-command test failure
  - Reviewing PR
    - Draft PR [#371](#), sending tests through kong. It's waiting for more verification on sandbox
    - Draft PR [#374](#), run blackbox test on both database, mongo and redis
  - Fixed PR
    - PR [#382](#), fixed broken security blackbox tests.
- New Blackbox Test
  - PR [#14](#) on edgex-taf for how to run edgex-taf document, needing to update for new folder structure
  - PR [#16](#) on edgex-taf for adding edgex-cli testcases, reviewed and added comments, waiting for response
  - Opened draft PR [#28](#) on edgex-taf for changing file structure ([edgex-taf-file-structure-v2](#))
- Swagger
  - The following work will be resumed once the swagger file location is confirmed. [edgex-go#2309](#) is checking in the V2 swagger files
  - Opened draft PR [#3](#) on edgex-api-docs repository under review
  - Opened draft PR [#531](#) on ci-management repository under review

DevOps WG Update (1-22-2020)

Geneva

- Jenkins Transformation to Pipelines
  - Work continues on the transformation to Jenkins Pipelines
    - Issue #547 - Lisa pulled in the user story to look at the additional environment variable needed to support APIv2 tests
      - Moved the UI pipeline story back into the backlog
    - Completed a lot of cleanup of legacy JJB templates
    - Emilio updated CI build automation for edgex-global-pipelines to execute unit tests using new global pipelines unit test build image
    - Support case opened up with Snyk regarding recent message about *"approaching your limit of private tests this billing period"*
      - There should be no private tests and testing frequency modified to Once a Week rather than Daily.

CommunityBridge - Advanced Snyk Reporting
- EdgeX Foundry added to the CommunityBridge Vulnerability Reporting
  - Issues identified after the project was added but is now no longer visible.
    - Ticket still open with Heather Willson / CommunityBridge team
      - *"we are consolidating services and redeploying to a different region. Sorry for the extended delay."*

System Management WG Update (01-15-2020)

- No meeting last week
- Next meeting: January 31st @ 10AM CST
  - System Management service
    - Kanban review
    - APIv2 stretch goal for Geneva?

Security WG Update (01-22-2020)

- Ongoing work for token provider server
- Version upgrade for KONG, Postgres etc
- Security Incidents Response (SIR) team weekly meeting setup
- Next security WG meeting in one hour & will be focusing on Snyk, SIR

Certification WG Update (1-20-20)

- Continued discussion on handling deployments consisting of mixed minor releases found within the same major API release

- Next meeting Monday, February 3rd, 9 a.m. PST
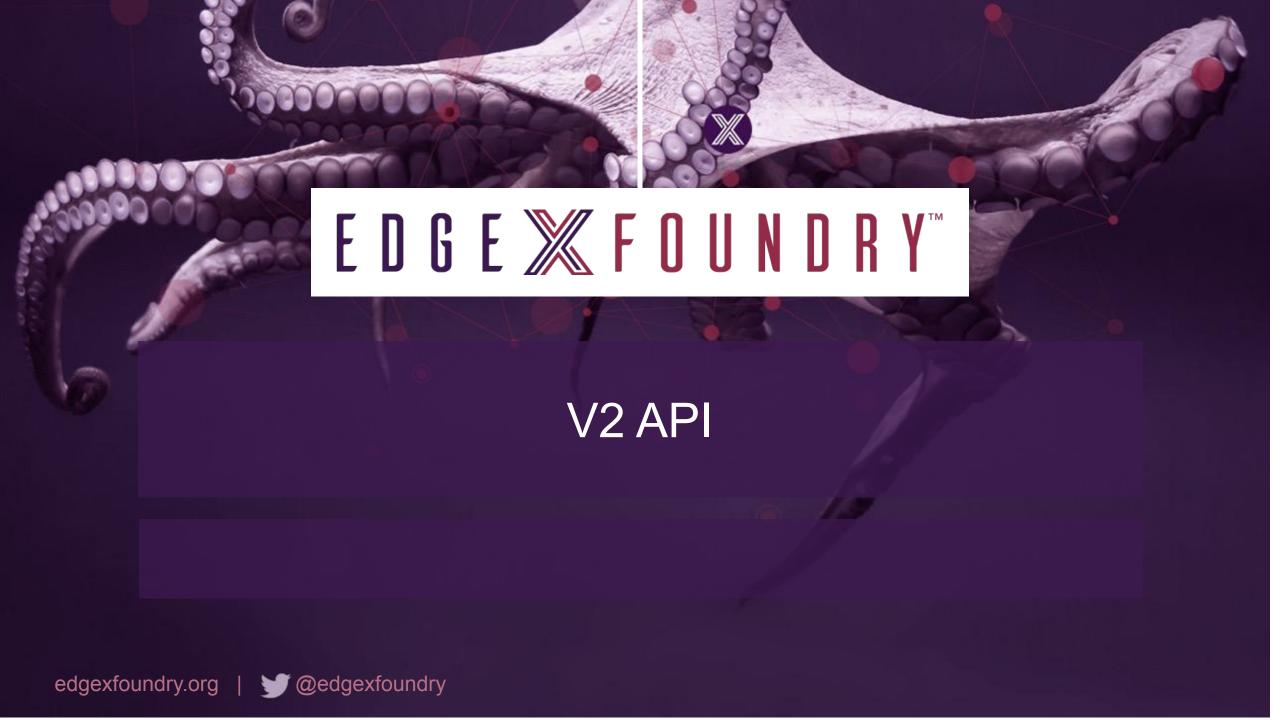
Vertical Solutions WG Update (1/22)

- China EdgeX Hackathon Apr 2-3 in Shanghai
  - Melvin (Intel) and Gavin (VMware) leading logistics
  - Looking for members to Sponsor and/or contribute
  - Verticals: Industrial and Commerce (Retail, Banking Hospitality, Education)
- NRF Loss Prevention Demos showcasing EdgeX
  - NRF Jan 12-14: Biggest global retail tradeshow (40k attendees)
  - Intel Booth: Flooid (POS SW), Edgify (CV model/SW), Shekel (Scale), Intel (RFID), IOTech (Analytics) and HP/Intel HW (gateway)
  - HP Booth: Flooid (POS SW), Edgify (CV model/SW), Shekel (Scale), IOTech (Analytics) and HP/Intel HW (gateway)
  - Story of ease of sensor integration and data fusion with a modular approach for applications/devices

Release Czar - 01/22/20

- Geneva is now slotted to be v1.2.0
  - API work in Core estimated to take more than one release

Miscellaneous (Jim)

- Next Architect's meeting Jan 27th.
- Yocto project/community overture
- Face-to-Face meeting in Ireland
  - Registration now up. Please register early so that we can get an early indication of #'s
  - http://www.cvent.com/d/nhqhc8/4W
- Developer Advocate update
  - Candidate going through interview process with other projects
- Vertical Solutions WG Chair
  - Nominations now Open
  - Camillo Dennis from Intel nominated for WG Chair to replace Brad C.
- Japan EdgeX meetup: 2/6 @ 7pm Tokyo time
  - https://www.meetup.com/ja-JP/EdgeX-Foundry-Tokyo/events/267901288/

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V2 API

Current Decisions

As of Core and Test/QA WG meetings last week

- TAF will be used as overarching API/blackbox testing platform. Tests for V2 APIs (only) will be created by TEST/QA team
- Postman tests remain for V1 APIs
- Dev teams are welcome to (encouraged?) to provide language dependent service level tests in their code base as they see fit (example Go Tests) but this is optional at this point
- We proceed with V2 API implementation - reasons listed in email
- We start implementing V2 API with Geneva - as beta in core services (beta = use at your discretion but are not required or fully supported)
- Important new features of Geneva (ex: automatic provisioning) still use V1 APIs
- SDKs and other services would still generally call on V1 APIs (still rely on V1 clients)

Pending Decisions

- What Geneva pinned tasks are now pushed to Hanoi
  - Value descriptor removal?
  - generic error handling?
  - export service archive?
  - app service feed back to core data?
  - moving a device from DS to DS?
  - sys management APIs async
  - Design of HTTPS in EdgeX
- Who completes the work? Do we have enough resources to complete the work?
  - Can the work be completed in 2 releases or will it take even more?
- Would we retire V1 APIs immediately after V2 APIs come out or support some overlap
- Is Geneva now 1.2?
- Is everything in Geneva backward compatible? What about the removal of export services?
- Is Geneva at 1.2 LTS worthy?
- After V2 API is out, can the next release be fix only release to provide some stability (Czar request)?

Upcoming Events

Hanoi TSC

Arrangements for the spring TSC meetings has been finalized

- WG Chair/Architects Pre-Wire meeting will be March 31st (Tue)
  - Dell EMC office , Research Triangle Park, 62 T.W Alexander Dr., Durham, NC 27709, Room: Aspen Cedar, first floor, Capacity: 50
- Hanoi TSC F2F will be April 27-30
  - Dell IOT Lab, Limerick Ireland
  - April 27 - Architect's day (invite only)
  - April 28-29 - General planning sessions with business topics to lead off
  - April 30 - Training day (additional hackathon or other planning meetings as necessary)

Upcoming External Events

› Embedded World: 25-27 February - Nuremberg, Germany
  › Jim White: **Extending EdgeX Foundry– How to Build an IoT Solution from an open source, platform independent framework**
› Industry of Things World: Mar 12-13 - San Diego CA
› IoT Tech: Mar 17-18 - London, UK
› KubeCon EU 2020: 31 March - 2 April, 2020 - Amsterdam
  › CFP closed 22 November
› IoT World: Apr 6-9 - San Jose, CA
› Hannover Messe: April 20-24 - Hannover GE
› Open Networking & Edge Summit North America: 20-21 April, 2020 - Los Angeles, CA
  › CFP Status: open til Feb 3
› Open Source Summit North America: 22-24 June, 2020 - Austin, TX
  › CFP Status: open til Feb 16

Upcoming External Events

› IIOT World Day: Jun 30-Jul 1
  › Call for papers until March
› Open Source Summit Japan: 15-16 September, 2020 - Tokyo, Japan
  › CFP Status: Details Available Late 2019
› Open Networking & Edge Summit Europe: 30 September - 1 October, 2020 - Antwerp, Belgium
  › CFP Status: Open til Jun 7, 2020
› Open Source Summit Europe: 26-28 October, 2020 - Dublin, Ireland
  › CFP Status: Details Available Late 2019
› IOT SWC: 27-29 Oct, 2020 - Barcelona, Spain
› Discussions around upcoming events occur in the LF Edge Outreach Committee
› Members may subscribe at: https://lists.lfedge.org/g/outreach-committee

Thank You