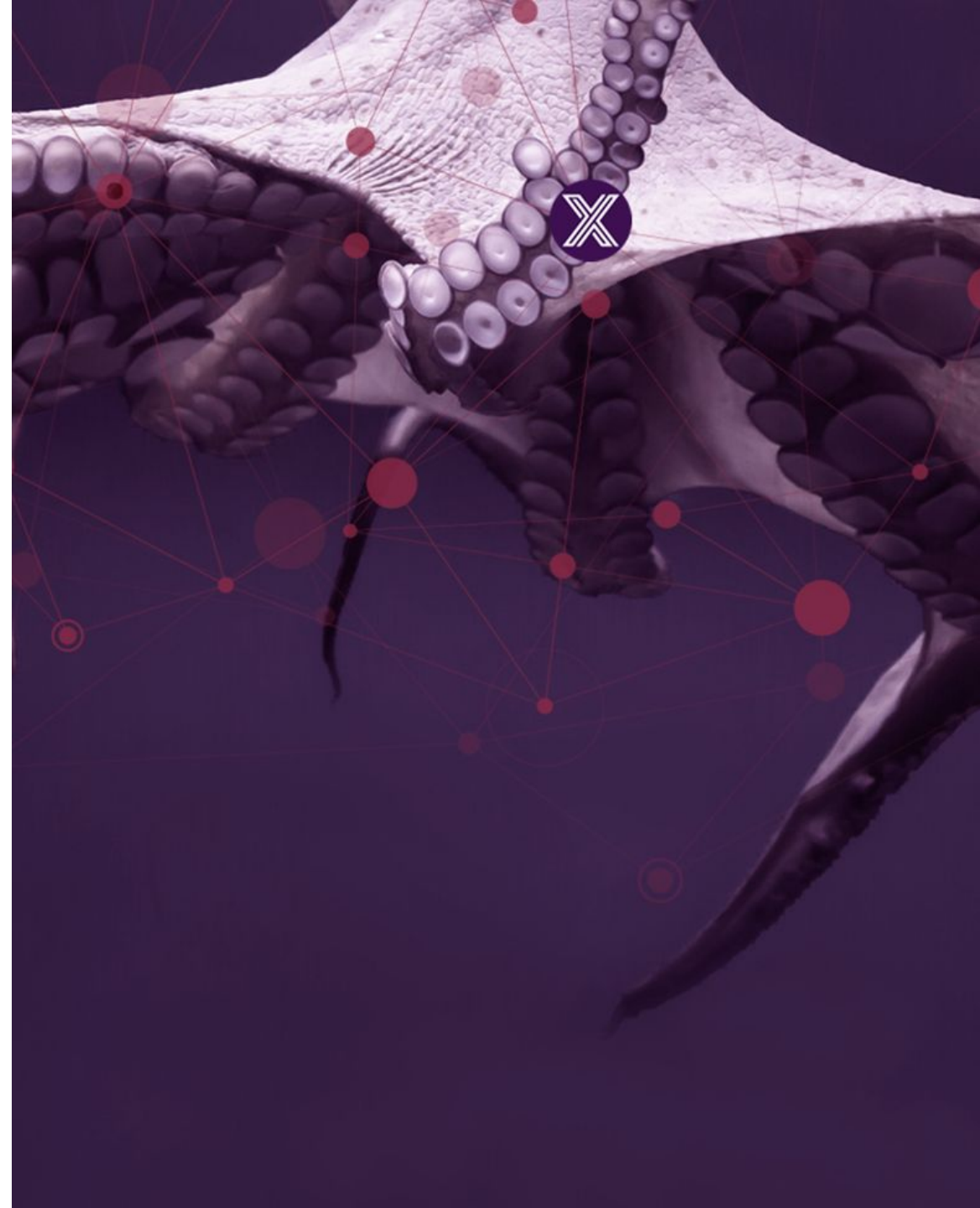


EDGE X FOUNDRY™

TSC Meeting

March 11, 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/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> |
|----------------|--------------------------|--|
| 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 |
| Beechwoods | Rodney Hess | rodney@beechwoods.com |
| RSA | Tingyu Zeng | tingyu.zeng@rsa.com |
| Canonical | Tony Espy | espy@canonical.com |
| Dell | Trevor Conn | Trevor.Conn@dell.com |
| 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

- Upcoming ½ day architect's virtual meeting
- Release Czar Readout
- WG Updates
- EdgeX Awards
- Upcoming Events (Dev Advocate)



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Virtual Architect's Meeting

March 16, 10am-1pm EDT (2-5pm UK time)

- Per last TSC call -> F2F in Ireland has been cancelled
- Decisions about what to do in its place is still being worked out
- Decision was to try to experiment with extended architect's meeting on 16th to see if a virtual planning sessions could be held
- Architect's meeting has been scheduled for March 16th at 10am EDT
 - All WG chairs encouraged to attend
 - Decision on what to do about Hanoi planning meeting to follow on this experiment
- Proposed agenda on next slide

Proposed Agenda

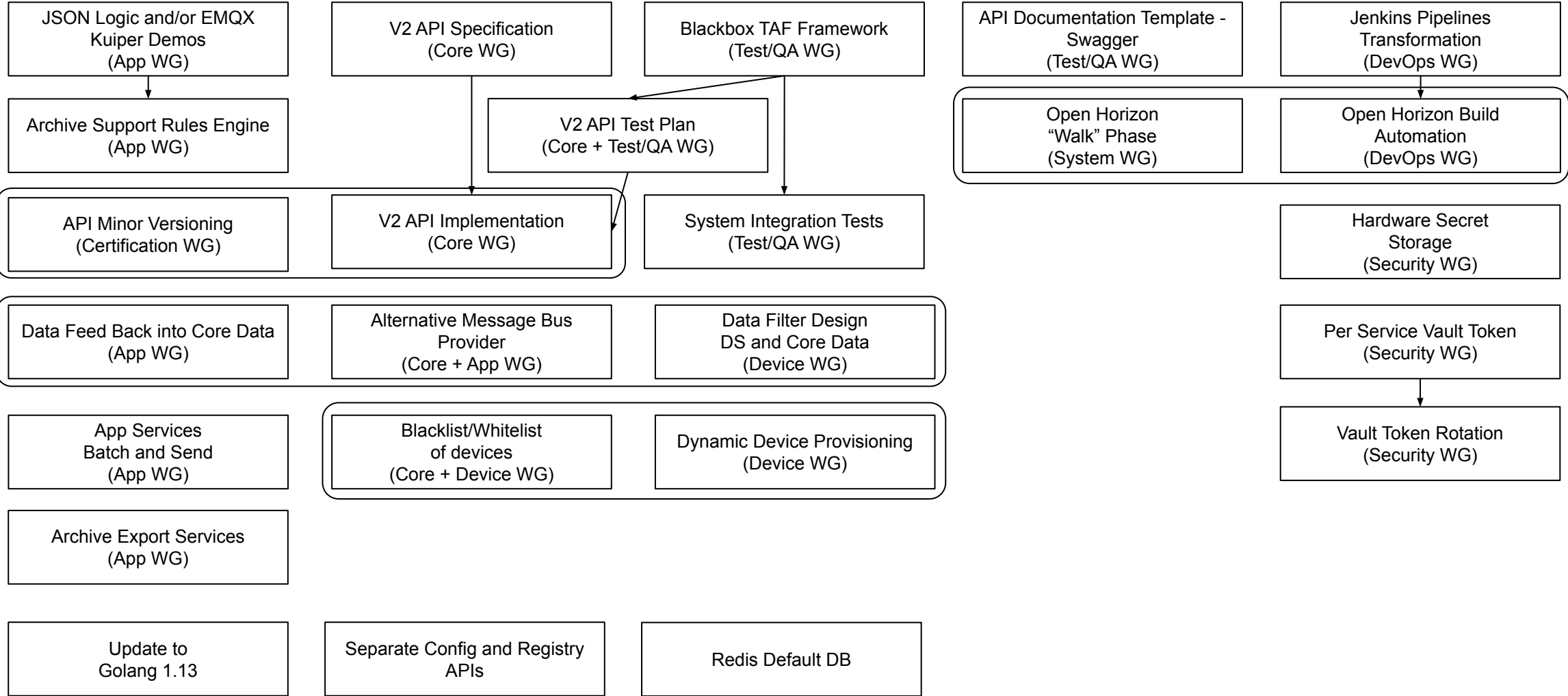
- V2 API redo – continuation of ongoing conversation led by Trevor Conn
 - Review of current decisions (see <https://wiki.edgexfoundry.org/display/FA/Monthly+Architects%27+Meeting?preview=/37912817/43581510/API%20V2%20Follow-up%20Meeting%20Notes.pdf>)
 - Device Service / App Functions committing to their own OpenAPI docs using the principles from the V2 ADR
 - Depth of "common implementation" across sub domain applications. Does this end at the bootstrapping or are there additional layers to align? How do we know when it's enough?
 - For Core/Support services, do we split V1 and V2 persistence?
 - Start to think about which use cases we think would benefit from the addition of pub/sub
 - Do we consider Support services optional? Should we approach Core-Data as Support-Data for V2?
- Additional open architect topics (time permitting) - led by Jim
 - Revisiting holding and when work needs to enter holding (and what it takes to get out)
 - Acceptance of DS and testing needs - how to bring a new device service from holding to the EdgeX repos (presented by DS WG – Iain, Tony)
 - Bound checking issue (presented by Tony)
 - Apache 2 licensing requirements (per Tony E message and Brett P (LF) and Ducan (IOTech) responses. Whether it was necessary and wise to move code from EdgeX org to holding only to go back to EdgeX org again (vs just make a new repo directly in EdgeX) - initially covered in Jan 15, 2020 TSC
 - Address policy on patch/minor release based on discovery of CVE or other security issue (high/critical) - would we force dot release of all services, just affected ones, ??? For Consul and Mongo, we just minor rev'ed those services and containers. What if issue was in one of the go services? Would we have to minor release all (example go from 1.2.0 to 1.2.1) on all services even if only one was affected?
- Last 20-30 minutes of the session, reflect on good/bad/ugly of the meeting. Does this format fit for Hanoi planning? If so, how/when should we hold Hanoi sessions.



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Release Tsar Readout

EdgeX Geneva Release Overview



Geneva Release Update

- Update to Go 1.13
 - All repositories have been updated to Go 1.13



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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 (11-Mar-20)

- Ongoing efforts from last week
 - Provision Watcher (Brandon Forster)
 - Redis Streams (Anthony / Andre)
 - Feature delivery target for RedisConf (May 12-14)
 - V1 Swagger Audit for Completeness
- DataType Properties on Event Readings
 - Added to go-mod-core-contracts, consumed in edgex-go
 - Ready for integration w/device-sdk-go and app-functions-sdk
- Core WG tomorrow @ 10AM US/Central
 - Agenda includes
 - Updates on items from last week's meeting
 - Issue #2403 (Tracking Error Handling Improvement Suggestions)
 - Any items to discuss? Send them to me.

Applications WG Update

In Progress:

- Anthony working on integrating MQTT from go-mod-messaging
- Latest go-mod-core-contracts integrated
- JSONLogic PR#292 - WIP - Draft

Rules Engine Update:

- Integrated message bus & core contracts
- Documentation update in progress
- For simplicity -- 1st Rev will assume data reaching the rules engine will be filtered by App Functions SDK/Configurable.
 - Example: A rule is in EMQ X kuiper for temperature, the App SDK will make sure only temperature sensors are being fed to *that* rule and not data from some other sensors.
- App Working Group Meeting held on Fridays @ 9AM PST
 - Next meeting Friday, Mar 3rd

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
- Amazon IoT Core

AVAILABLE

WIP

Device Services WG Update (11-March-20)

- Dynamic discovery
 - Implemented in C, nearing completion in Go
- Startup registry/configuration changes
- Endian-ness bugfix (with backward compatibility)

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 (Geneva?)
- GPS
- Bluetooth (March 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 (10-03-2020)

- Blackbox Test
 - Issue opened for failed testcases
 - Issue [#401](#), Mongo-based security blackbox tests are failing due to missing redis, this issue blocked all security tests.
 - Issue [edgex-go#2421](#), for failed tests on core-command.
 - Issue [ci-management#591](#), using incorrect test vm when running arm64 jenkins job
 - Issue [developer-script#233](#), support-scheduler start failed when using mongo db
 - Fixed issue
 - Issue [#398](#), to fix MongoDB support-logging retrieving token from vault failed.
 - Issue [developer-script#228](#), to fix using mongo db on docker-compose file, but some service still tried to connect to redis.
- New Blackbox Test
 - Fixed issue
 - [#17](#), to add negative/positive test case for creating reading when MetaDataCheck set to true
 - Open draft PR [edgex-taf-pipeline#1](#), adding Jenkinsfile to trigger functional testing from edgex-taf.
 - Issue [ci-build-image#109](#) fixed, for creating arm64 compose image.
 - Preparing integration/functional test scenarios
- Swagger
 - Issue [#579](#) fixed on ci-management, to publish v1 APIs to SwaggerHub
 - The v1 APIs published to SwaggerHub by Jenkins Job.

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 | x | Blocked | Blocked |
| | | Redis | 1414 | 8 | 2 | 6 |
| x86_64 / CentOS | Security | Mongo | 1434 | x | Blocked | Blocked |
| | | Redis | 1434 | x | 2 | Blocked |
| arm64 / Ubuntu | Security | Mongo | 1434 | x | Blocked | Blocked |
| | | Redis | 1434 | x | 2 | Blocked |
| arm64 / Ubuntu | Non Security | Mongo | 1414 | x | Blocked | Blocked |
| | | Redis | 1414 | 9 | 2 | 7 |

DevOps WG Update (03-11-2020)

Geneva

- Jenkins Transformation to Pipelines
 - Work continues on the transformation to Jenkins Pipelines
 - “release-kraken” full automation of the release - WIP
 - Linter for edgex-global-pipelines - WIP
 - Update to Jenkins Pipeline documentation - WIP
 - PR under review
 - git-semver bug fix - WIP
 - Automation for the GitHub Issue labels - WIP
 - Seeing job failures related to cron job - ssh credentials error to GitHub
 - Needs further investigation and possible help from LF Release Engineering
 - Update Iftools for ci-build images
 - Defect identified Iftools:latest which supports python3 includes sigul which doesn't
 - LF Release Engineering plans to issue a PR back to the sigul project and hopes that they will accept it
 - Seeking alternatives for github tag signing
 - Snap Global Library developed with plans to implement after review
 - Stretch Goal - Implement code coverage via codecov.io for edgex-global-pipelines
 - Explore completed with decision made to not continue with implementation for Geneva
 - Will revisit for possible Hanoi scope

System Management WG Update (Mar 11, 2020)

- EdgeX-specific system-wide metrics follow up
 - <https://github.com/edgexfoundry/edgex-docs/pull/104> - request review
- Next meeting: Friday, March 13th @ 10AM CST
 - Dell presentation on metrics -- Prometheus gathering and Graphana visualization

Open Horizon Update

- In progress:
 - Adding multi-arch support to POC
 - Makefile refactoring
 - Automate dependency version update detection logic
- Presented to TAC earlier today
- Thanks to EdgeX Foundry for endorsing!



Security WG Update (03-11-2020)

- Ongoing work for Geneva release (140 items done, 2 items in progress, 9 items backlog)
- SIR team update
- Threat modeling for Geneva in progress
- Next security WG meeting in one hour, covering issue of App service working with proxy

Certification WG Update (3-9-20)

- Activity has been quiet as we wait on progress on the v2 API effort
- Next meeting is Monday, March 23rd, 9 a.m. PDT to allow for an extended monthly architects meeting

Vertical Solutions WG Update (Mar 11, 2020)

- Next meeting: March 17, 2020, 10:00am PDT

As a follow on to previous WG presentation on real time sensor fusion Mike Johanson, EdgeX application services WG chair, will be going over the Point of Sale (POS) message flow walk through and the documentation to get started.

Gain insight into:

- EdgeX Foundry and how data flows through it
- Microservices architecture
- Application and device services documentation

Marketing update 3/11

- Received and heard proposals for EdgeX website update
- Topcoder challenge. Looking for:
 - Volunteer judges
 - Sponsors
 - help to promote

Challenge preview: <https://www.topcoder.com/challenges/30117605>

Registration open 3/14 and challenge submissions starting 3/26

Miscellaneous (Jim)

- ADR process has been update (in edgex-docs). PR needs review/approval
- EdgeX Awards
 - Nominations being accepted
 - See <https://wiki.edgexfoundry.org/display/FA/EdgeX+Awards> for details
- Calendar issues
 - Make sure you are subscribed to <https://lists.edgexfoundry.org/calendar>



Upcoming Events & Dev Advocate Update

Aaron's updates

Upcoming External Events

- › [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](#): June ?? - Hannover GE
- › Open Networking & Edge Summit North America: 20-21 April, 2020 - Los Angeles, CA
- › Open Source Summit North America: 22-24 June, 2020 - Austin, TX



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 2020
- › 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 2020
- › [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>





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Thank You