

EDGE X FOUNDRY™

# TSC Meeting

September 18, 2019



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# Meeting Logistics

Time: Wednesdays 7am PDT – 8am 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	<a href="mailto:bradley.w.corrion@intel.com">bradley.w.corrion@intel.com</a>
IOTech	Iain Anderson	<a href="mailto:iain@iotechsys.com">iain@iotechsys.com</a>
Intel	James Gregg	<a href="mailto:james.r.gregg@intel.com">james.r.gregg@intel.com</a>
Dell	Jim White (TSC Vice Chair)	<a href="mailto:james.white2@dell.com">james.white2@dell.com</a>
IBM	Joe Pearson	<a href="mailto:joe.pearson@us.ibm.com">joe.pearson@us.ibm.com</a>
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Canonical	Tony Espy	<a href="mailto:espy@canonical.com">espy@canonical.com</a>
Dell	Trevor Conn	<a href="mailto:Trevor.Conn@dell.com">Trevor.Conn@dell.com</a>

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

- WG Updates
- Fuji work status & freeze/release date discussion
- Geneva Planning
- Upcoming Events
- AOB



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

# Core Working Group (18-Sept-19)

- Security/core service integration
  - Continuing integration with Vault via go-mod-secrets
    - <https://github.com/edgexfoundry/docker-edgex-mongo/issues/34>
    - Mock secrets for now, will need security-secretstore-setup work completed for full integration
  - Global Configuration for security enablement complete (PR 1756)
    - Follow-up issue related to global configuration.toml support based on last week's Core WG
- Assistance in other areas
  - Anthony B. helping with Security integration (go-mod-secrets)
  - Brandon F. implementing store-n-forward persistence (app-functions-sdk)
- Core WG Topic for Tomorrow
  - Refactoring Core Service initialization to remove duplicate logic
    - On the agenda again for this week, final round of comments



# Applications WG Update (18-September-19)

- **In Progress**

- Store & Forward - In Full Swing (4 Open PRs)
  - Redis Implementation
  - Mock implementation for testing
  - Configuration for Store and Forward
  - Functions for Store in Forward

# Application Services

## Functions (built into SDK)

Current/Complete:

### Fuji

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed

NEW!

### Edinburgh

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

Coming Soon:

- Store and Forward
- Vault integration for secrets

## Reference App Services (Fuji)

(built on top of SDK)

- Azure IoT Hub (Fuji) AVAILABLE
- Amazon IoT Core (Fuji) WIP
- Configurable AS (Fuji) AVAILABLE

# Device Services WG Update (18-September-19)

- SDKs
  - 2 open Fuji issues for C SDK
  - 12 for Go (4 PRs in process)
- Services
  - BACnet : documentation review ongoing
  - Bluetooth : working on allowing nonprivileged container deployment
  - OPCUA : uploaded to -holding

# Device Services - current/coming

## Open Source connectors (Current):

- Modbus (TCP/RTU)
- Virtual Device
- Random
- Grove C - ARM only
- SNMP
- MQTT

## Open Source connectors (Future):

- BACnet (IP & MSTP) (Sept)
- OPC UA (Sept)
- GPS (Sept)
- Bluetooth (Sept)
- ONVIF Cameras (Oct)

## Commercial connectors (Current):

- MQTT
- Modbus (TCP/RTU)
- BACnet (IP & MSTP)
- OPC UA
- GPS
- MEMS

## Commercial connectors (Future):

- CAN SocketCAN, CANopen (Sept)
- EtherNet/IP (Sept)
- EtherCat (Sept)
- PROFINET (Sept)
- Siemens s5/s7 (Sept)

# Test/QA WG Update (18-09-19)

- Blackbox Test
  - PR [#271](#) for new tests of APP Function SDK is reviewed and waiting for updating
- New Blackbox Test
  - PR [#8](#) on [edgex-taf](#) and [#5](#) on [edgex-taf-common](#) are under review
- RAML -> Swagger conversion
  - Waiting for swaggerhub account
  - PR [#357](#) for Device-SDK API document is updated and under review
- Certification Support
  - Developing test script for device service
  - Designing the general test profile

# DevOps WG Update (09-18-19)

## Fuji Scope

### Static Code Analysis Tools

- Snyk Integration with Jenkins **WIP**
  - Jira Service Desk ticket submitted to LF to work on configuration of the GitHub repo (edgex-go)
  - Configure notifications to repo owner and Security WG (SIR team members)

### New Jenkins jobs for Fuji

- The following repos have new build automation slotted for Fuji but are currently still in holding - **BLOCKED**
  - device-bacnet-c, device-bluetooth-c, device-gps, regression-test
    - What are the plans for including tests - code coverage?
  - new edgex-taf docker image submitted (PR #75) in support TAF framework depends on code that's currently in holding.
    - Request for Changes to avoid rework
  - AWS IOT Core access coordinated for Alex Courouble /VMWare related to request from Application WG supporting AWS data export user story - **WIP**

## Geneva scope

- Major CI transformation is the focus - Jenkins Pipelines
  - Added Ocean Blue Jenkins Plugin which aides in the visualization of the Jenkins Pipelines
  - Jenkins Freestyle to Jenkins Pipelines

Next Meeting 9/19/19 @7:00 PST

# System Management WG Update (9-18-19)

- Open Horizon Project
- CLI effort
- Fuji Release Items
  - Metrics collection
  - Set configuration

# Security WG Update (09-18-19)

Project of merging security-secretstore-setup into EdgeX:

- a) Issue-1673 pilot project for secretstore-setup merged
- b) Issue-1675 uploading cert will be in PR soon
- c) Issue-1676 in progress
- d) Issue-1718 in progress
- e) Issue-1710 in progress
- f) PR #1747 to improve pki-init under review



# Certification WG Update (9-16-19)

- Progress on the Swagger implementation for Device Services SDK and on the Robot Framework-based QA tests
  - Some of the tests are now runnable with more coming this week!
- Next meeting this Monday, September 23th, 10 a.m. EDT

# Vertical Solutions WG Update (9-10-19)

- Next meeting, today at 4PM:
- When: Wednesday, 11 September 2019, 4:00pm to 5:00pm, (GMT-07:00) America/Los Angeles
- Where: <https://zoom.us/j/975881686>
- Tentative Agenda:
  - Hackathon tech prep discussion
  - Review some change requests coming from Intel projects

# Hackathon Update

- Held at TechNexus in Chicago on Oct7/8<sup>th</sup> (Mon/Tue).
- Event landing page launched:  
<https://www.lfedge.org/event/edgex-foundry-hackathon/>
- Slack channel is #edgexgames
- Estimating a total of 100 participants, ~20 teams of 5
- Sponsors providing software or hardware should also expect to provide people and supporting materials both pre-event and during the event
- Team has been reviewing terms and conditions. Target to have registration site go live end of this week. Agency selected for audience recruiting
- Team also working on sponsors list. Current sponsors are: Dell, HP, Intel, RILA, IOTech
- Intel HP and Dell contributing PCs and GWs for hackathon teams

# Release Update 9-18-19

Lisa

- Fuji Status:
  - 100 total Github Issues labeled for Fuji
  - 73 complete



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Fuji work items

# Fuji Deliverables at risk or not going to be delivered

## At Risk

- Security area: Secret Store, dependency check wrapper apps
  - this is a dependency for other services
- Self-cert process for device services (Dec 2019, many dependencies)
- All the CI/CD for all the new device services
- Static code analysis

## Not Gonna Happen

- go-mod-registry refactor
- System Management start/stop/restart (architecture issue and non-backward compatible - pushed to Geneva)



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# Fuji Freeze and Release Dates

# Proposed Freeze and Release dates

- Security WG working to determine function-complete date (FCD)
  - Many services (core, application services, etc.) are dependent on these services
  - Critical that this release contain substantial security services (including dependency checks)
- Dev teams want 4 weeks after FCD to integrate security services (particularly vault) and test (checking also for dependency issues)
- Other events to consider in the timeline
  - IoT SWC (Oct 29-31)
  - OSS Lyon (Oct 28-30)
  - EdgeX Phoenix F2F (Nov 4-8)
  - US Thanksgiving holiday week (Nov 27-Dec 1)



# Freeze/Release Date Discussion

OCTOBER 2019						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

Printable Calendars From [123Calendars.Com](http://123Calendars.Com)

NOVEMBER 2019						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Printable Calendars From [123Calendars.Com](http://123Calendars.Com)

December 2019						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14



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Geneva F2F

# Registration now open

## EdgeX TSC Face-to-Face meeting (semi-annual)

- Capacity of 90. Currently with ~45. **(HALF FULL!!)**
- If you want to attend Architect's day, send Jim White, Dennis Camilo or a WG chair an email or slack message
  - Architect's day is invite only - any contributor is automatically invited but we request RSVP
  - WG Chairs - will soon be organizing topics for consideration with you.
- Planning for the Geneva release (and lessons learned on Fuji)
- Nov 4-7th
  - Nov 4th - Architects' topics must be a contributor (have at least one Git contribution) or have invitation of WG chair
  - Located @ Galvanize Phoenix at 515 E Grant St, Phoenix, AZ
  - Hotel and other logistical info available on the [Wiki](#)
- Register now at <http://www.cvent.com/d/b6qcr0>

# Architect's Day RSVPs

- Open to all EdgeX contributors or by invitation of TSC member; but **does require RSVP**
- **Assuming all WG chairs, TSC members unless I hear otherwise**
- Other RSVPs (4)
  - Lisa (Intel)
  - Lenny (Intel)
  - Eno (Intel)
  - Diana (VMWare)

# Architect Topics (so far collected with no priority assigned)

- How to make EdgeX more usable/easier to deploy
- Support for additional protocols (bus, pub/sub, WebSockets, etc.)
- Better DB flexibility and punt of MongoDB
- Store and forward - what's next
- More data type support - at least maps/arrays
- Dynamic Device Provisioning
- Event querying support
- Integration testing - how to
- Handling data created by application services (re-entry to core data)
  - Need for core data?
- Load management in DS
- How to support a v2
  - code repos
  - CI/CD
- Configuration.toml structural changes
- HA support
- Docs in Markdown vs RST?
- SDK consistency
- convert Jenkins JJB to Pipelines
- Nexus cleanup

# Geneva (or Hanoi) scoping

WG leads starting to collect their ideas in Wiki pages (labelled with Geneva).  
[Great idea Trevor and Iain!!]

- <https://wiki.edgexfoundry.org/display/FA/Geneva+Planning+Items>
- <https://wiki.edgexfoundry.org/display/FA/Geneva+Planning+for+Applications>
- <https://wiki.edgexfoundry.org/display/FA/Geneva+Planning>
- <https://wiki.edgexfoundry.org/display/FA/Geneva+Planning+for+System+Management>

# F2F Training Suggestions

Intro to EdgeX for users (volunteer to take M. Hall's place?)

How to build device services with the SDK(s)

How to build application services with the SDK

Introducing the new security services (setup and use)



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# Marketing Committee Meeting



# Marketing Committee Meeting

## EdgeX Marketing Committee

- Hackathon
- EdgeX Budget priorities and requirements 2020
- Maintenance and Update of EdgeX Website

Meeting date: Thursday September 12th 3pm UK time, 7am US Pacific Time

**Where:**

<https://zoom.us/j/722119691>

**Organizer:**

Camilo Dennis [camilo.a.dennis@intel.com](mailto:camilo.a.dennis@intel.com)

**Details:**

EdgeX Foundry is inviting you to a scheduled Zoom meeting.

Topic: EdgeX Marketing Committee - Sub team check in

Time: September 12, 2019 7:00 AM Pacific



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## Upcoming Events

# Upcoming External Events

Full list of LF events available at:  
<https://events.linuxfoundation.org/>

Additional LF Edge events available at:  
<https://www.lfedge.org/events/>

- [Open Networking Summit EU](#): 23-25 September, 2019 - Antwerp, Belgium
  - LF Edge Members receive a 20% discount on registration. Email [info@lfedge.org](mailto:info@lfedge.org) for code.
  - Jason Shepherd talk accepted
- [Open Source Summit EU / ELC](#): 28-30 October, 2019 - Lyon, France
  - October 31: LF Edge Mini-Summit - Half-day, single-track event on the topic of IoT and Edge Computing
  - **Microservices at the Edge - Best Practices: Diana and Malini**
  - **From API to CLI. Designing and building a CLI for EdgeX: Alex and Nikolay S**
  - **Securely Store IOT Data with IPFS and Distributed Ledger - Trevor Conn**
- IoT SWC: 29-31 October, 2019 - Barcelona, Spain
  - LF Edge/EdgeX booth
- [Embedded World](#): 25-27 February - Nuremberg, Germany
  - Call for papers closed, booth opportunities
- [Industry of Things World](#): Mar 12-13 - San Diego CA
- [IoT Tech](#): Mar 17-18 - London, UK
- [IoT World](#): Apr 6-9 - San Jose, CA

# Upcoming CFP Due Dates

>



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AOB / Reminders

# AOB/Cadence

- Meeting Cadence Reminder
  - Currently held weekly at 7am PDT on Wednesday's
  - Calls without TSC quorum will still be used to review issues
  
- **Next Meeting: June 26, 2019**

# Marketing

- **CTA:** If your company will be presenting EdgeX at an upcoming event/webinar/other, please email [pr@lfedge.org](mailto:pr@lfedge.org) so that we can help promote

# EdgeX in Market

- Page showcases momentum in the project, including solutions already available
- <https://www.edgexfoundry.org/edgex-in-market/>
- Email [info@edgexfoundry.org](mailto:info@edgexfoundry.org) if you have any additions



# Project Contributions Welcome!

- Our objective is to make EdgeX use & deployment pervasive!
- EdgeX success is 100% dependent on the vibrancy of a proactive community
- Getting Involved
  - Project membership growing - want to join contact Mike Woster at LF ([mwoster@linuxfoundation.org](mailto:mwoster@linuxfoundation.org))
  - First Priority is the MVP - potential contributors please contact [keith@iotechsys.com](mailto:keith@iotechsys.com) (people, equipment, technology)
  - If interested in adding new projects please contact the relevant working group chair

# Project Resources

Quick links to most commonly used Community Resources

- Code: <https://github.com/edgexfoundry>
- Documentation: <https://wiki.edgexfoundry.org/>
- Discussion: <https://slack.edgexfoundry.org/>
- Mail Lists: <https://lists.edgexfoundry.org/mailman/listinfo>
- Twitter: <https://twitter.com/EdgeXFoundry>
- LinkedIn: <https://www.linkedin.com/company/22298339/>
- YouTube: <https://www.youtube.com/c/EdgeXFoundry>

# EdgeX - Where to learn more

- EdgeX Foundry Wiki

<https://wiki.edgexfoundry.org/display/FA/EdgeX+Foundry+Project+Wiki>

- EdgeX Foundry Slack

<https://slack.edgexfoundry.org/>

- [Weekly EXF Technical Spin up calls](#)

30 minute deep-dive topics followed by 30 minute open Q&A

Call recordings are available on the [Wiki](#)

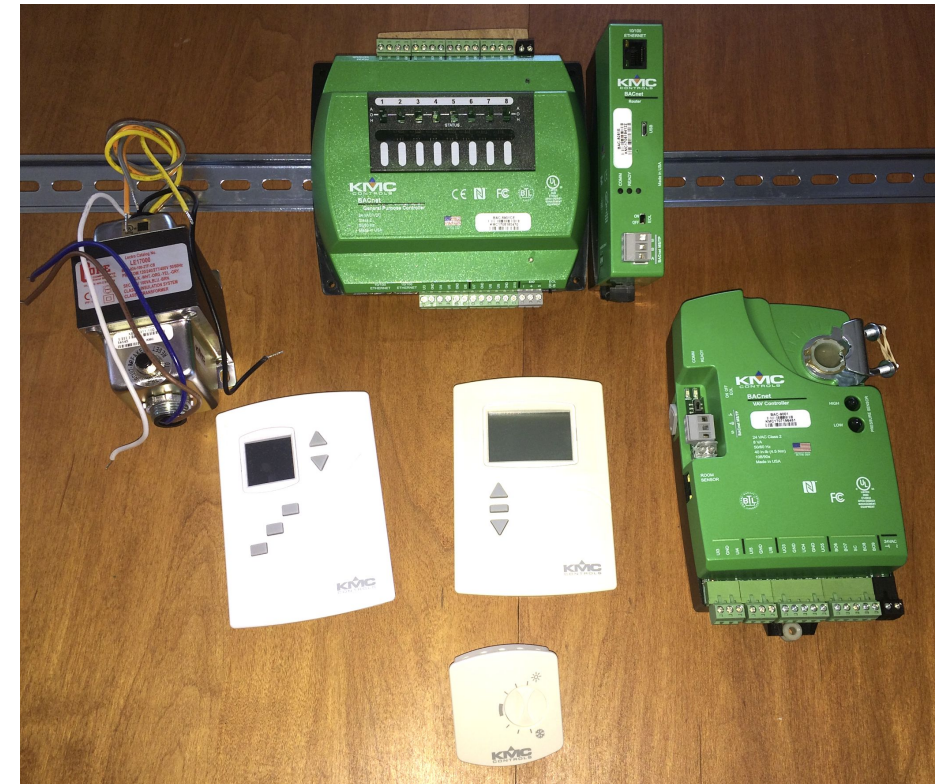
# What is the Device Exchange?

- A great way to put your products in the hands of other members so they can help build a better EdgeX!

- <https://wiki.edgexfoundry.org/display/FA/Device+Exchange>

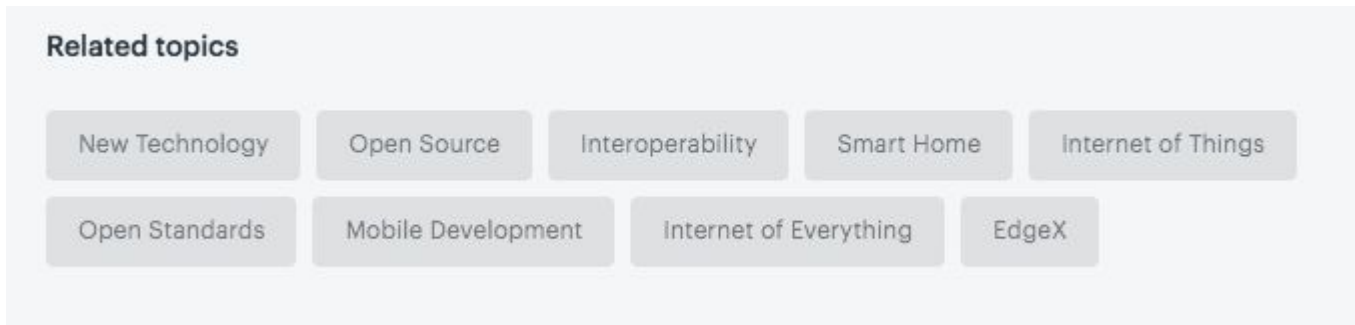


Special thanks to [Dave Bohlman](#) and [KMC Controls](#) for making this awesome kit and how-to guide available to members!!



# Meetups

- Help us grow awareness!
- Present, and Tag, EdgeX in your local IoT Meetups
- <https://www.meetup.com/topics/edgex/>
- Email [info@edgexfoundry.org](mailto:info@edgexfoundry.org) for assistance



## EdgeX ▾

Find out what's happening in EdgeX Meetup groups around the world and start meeting up with the ones near you.

Related topics:



# Meetups: Reimbursement Program

- <https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=7602724>
- Wiki page built for the community to leverage
- Encourage community to begin introducing EdgeX in your local Meetup groups
- EdgeX Foundry will fund/sponsor the talk in which EdgeX is scheduled to be presented
  - Up to \$250 for F&B, once per Meetup group, per quarter
- Let us help drive traffic to your event! Email [pr@lfedge.org](mailto:pr@lfedge.org) once Meetup has been scheduled
- Post-event, please consider doing a blog about the event

# Hackathons: How can you help?

- <https://wiki.edgexfoundry.org/display/FA/Hackathons>
- Provide any local volunteers onsite to help with technical work, potentially help judge, etc. (see list below of known hackathons coming up and locations)
- Sponsor breakfast/lunch/dinner for the participants (usually things like donuts/coffee, pizza lunch or cater sandwiches)
- Sponsor \$ rewards (incentives) for teams that successfully implement projects (these could even be projects that particular sponsors want to see accomplished - we just need them scoped appropriately so as to be something that can be accomplished in a 2 day period)
- Help provide or resource hackathon winner prizes
- Sponsor or provide any swag (t-shirts, mugs, etc.)
- Provide marketing assistance



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Thank You