EDGE**X**FOUNDRY™

TSC Meeting

May 13, 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

Company	Name	Email
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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
  - Outstanding PRs
  - Release Notes
- Geneva documentation
  - Estimates on completion
- WG Updates
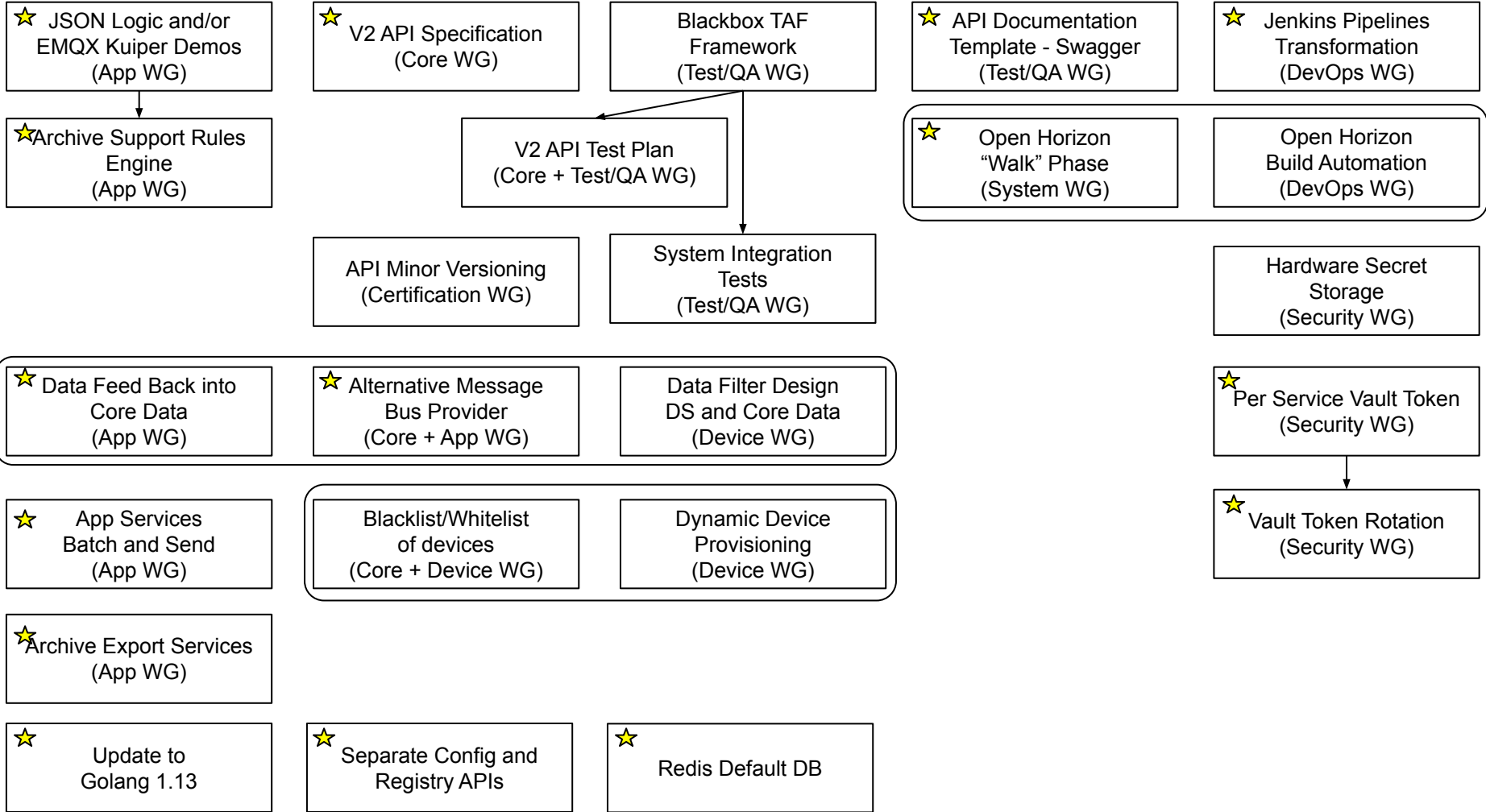- EdgeX Org 2.0 update
- Upcoming Events (Dev Advocate)

Geneva Release & Release Czar readout

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
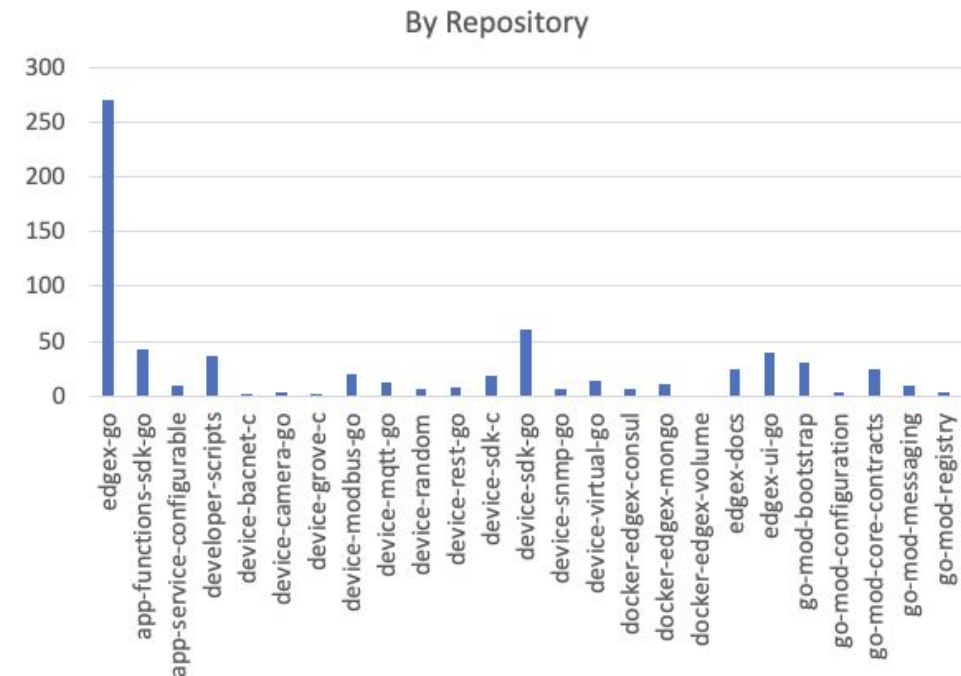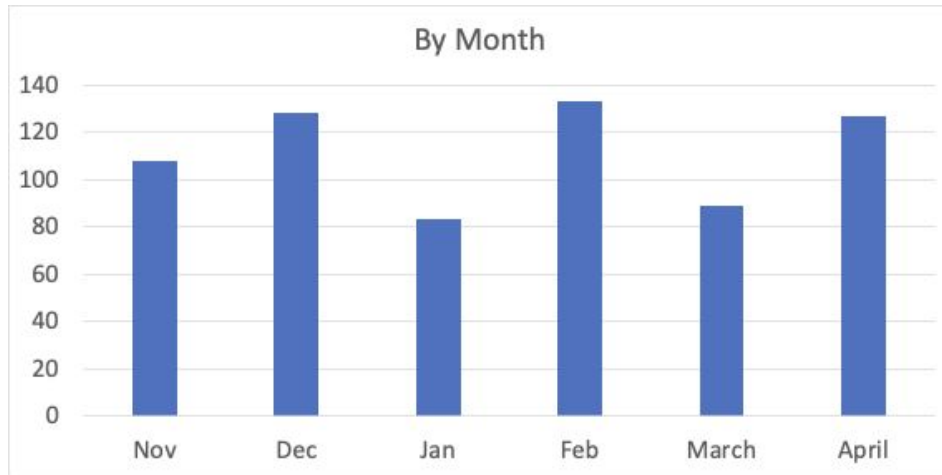
Release Overview

Release Artifact Status

- Docker Images are staged in Nexus for release
- Snap channels are created for Geneva

Closed Issues - 668 Overall

Geneva Release Items

Outstanding PR's for Geneva

- Snaps – has bulk of changes; 1 PR to update Kong : #2534 pending review/merge (DONE)
- #2501 - Andre's PR
- Rules Engine remote logging disabled
- #2552 - bug removing a scheduler interval when it is being used (known bug on notes)

Issues/bugs

- Blackbox test failures (#2543 - security; #2553 - core) (FIXED)

Release notes additions

Redis memory suggestions???

Notes:
https://wiki.edgexfoundry.org/display/FA/Geneva?preview=/4449922 2/46760042/Geneva%20Release%20Notes-v7.pdf

Geneva Documentation

How long to leave Geneva 1.2 docs open for edits?

WG recommendations and estimates

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 (13-May-2020)

- FIXED: Issues related to binary reading payloads
  - edgex-go #2527 (enormous response sizes due to Redis persisted binaries)
  - go-mod-core-contracts #240 (reading validation was not allowing empty binary payload)
- Documentation PR #125 (configuration)

  - https://github.com/edgexfoundry/edgex-docs/pull/125

  - I have addressed 30+ PR comments from Lenny. Needs review/merge.
- Core WG call @ 10AM US/Central tomorrow
  - Call for agenda items. Agenda items so far include
    - Kanban review
  - Anthony Bonafide will run tomorrow's meeting. Please send agenda items to him via Slack.

Applications WG Update (13-May-2020)

Completed:
- Allow overwrite of profile/servicekey name to allow for duplicated
- Documentation moved to EdgeX-Docs and removed from App Func SDK Repo
- App Functions SDK tagged as v1.1.0 along with App Service Configurable at v1.1.0 (Woohoo!)
- EdgeX Snap using ASC v1.1.0 (Thanks Tony!)

Manual Testing:
- Completed:
  - HTTP export Store and Forward in secure mode for DB access. Verified DB access as expected
  - HTTP export with secrets running in secure mode. Verified AuthToken placed in header as expected
  - MQTT export with secrets running in secure mode with username/password mode
  - MQTT export with secrets running in secure mode with certs

Work In Progress:
- Documentation update for edgex-docs

- App Working Group Meeting held on Fridays @ 9AM PDT
  - Next meeting May 15th, 2020

Application Services

Functions (built into SDK)
Current/Complete:

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed
- PushToCore
- 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 (Geneva)
(built on top of SDK)

- Azure IoT Hub — **AVAILABLE**
- Amazon IoT Core — **AVAILABLE**
- IBM Watson IoT
- Cloud Event Transformation
- Secret Retrieval Example — **NEW!**

Device Services WG Update (13-May-20)

Geneva

- SDKs released
- Go Device services ready: release in progress
- device-grove-c and device-bacnet-c to follow

Hanoi

- GitHub project and issues created for Hanoi scope

Next WG meeting Monday 18th

Device Services - current/coming (as of 5/7/20)

Open Source connectors (Current):

- Modbus (TCP/RTU) in Go
- Virtual Device in Go
- SNMP in Go
- MQTT in Go
- BACnet (IP & MSTP) in Go
- ONVIF Cameras in Go
- REST in Go (NEW!)

Open Source connectors (Future):
- Bluetooth in C (summer 2020)
- BACnet (IP & MSTP) in C (summer 2020)
- OPC-UA in C (summer 2020)
- Grove C (summer 2020)

Commercial connectors (Current):

- File Exporter in C
- BLE in C
- Zigbee in C
- GPS in C
- CAN in C
- MEMS in C
- EtherCat in C
- Profinet in C

There are additional commercial MQTT (Go), Modbus (Go), OPC-UA (in C) and BACnet (in C) that have added features over the community editions

Commercial connectors (Future):

- EtherNet/IP in C (summer 2020)
- CanOpen in C (summer 2020)
- OPC-UA Pub/Sub in C (summer 2020)
- ONVIF in C (summer 2020)

Test/QA WG Update (13-05-2020)

- Blackbox Test
  - Fixed issues
    - Issue edgex-go#2543, [Mongo][Security] support-notification: 502 bad gateway
    - Issue edgex-go#2553, Post event with binary value returns "reading has no value"
    - Issue #449, to remove support-logging startup and test scripts.
- TAF
  - PR ci-build-images#129, to reduce the size of compose image is waiting for merging.
  - Integration/functional test scenarios (Introduce slide)
    - PR edgex-taf #56 to add robot files are ready for review
  - Fixed issues
    - PR edgex-taf#93, to remove support-logging startup.
    - Issue edgex-taf#91, to update app service configurable.

- Summary - all major issues resolved and scoreboards pretty much clean - only "response time" failures which can happen intermittently due to server loading

Postman Blackbox Test Cases

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	1312	0	0	0
		Redis	1312	0	0	0
x86_64 / CentOS	**Security**	Mongo	1342	0	1	0
		Redis	1342	0	2	0
arm64 / Ubuntu	**Non Security**	Mongo	1312	0	2	0
		Redis	1312	0	7	0
arm64 / Ubuntu	**Security**	Mongo	1342	0	23	0
		Redis	1342	0	20	0

TAF Functional Blackbox Test Cases

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	52	0	0	0
		Redis	52	0	0	0
x86_64 / CentOS	**Security**	Mongo	52	0	0	0
		Redis	52	0	0	0
arm64 / Ubuntu	**Non Security**	Mongo	52	0	0	0
		Redis	52	0	0	0
arm64 / Ubuntu	**Security**	Mongo	52	0	0	0
		Redis	52	0	0	0

TAF Integration Test Cases

Integration tests

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	4	0	0	0
		Redis	4	0	0	0
x86_64 / CentOS	**Security**	Mongo	4	0	0	0
		Redis	4	0	0	0
arm64 / Ubuntu	**Non Security**	Mongo	4	0	0	0
		Redis	4	0	0	0
arm64 / Ubuntu	**Security**	Mongo	4	0	0	0
		Redis	4	0	0	0

Compatibility tests

x86_64 / CentOS	**Non Security**	Mongo	12	0	0	0
		Redis	12	0	0	0

DevOps WG Update (05-13-2020)

Hanoi

- **Performance Optimizations**
  - Build Optimizations for edgex-go
    - Explore completed and demo'd by Ernesto Ojeda with observable performance improvements in the build time

- **DevSecOps**
  - Community Bridge Feature Requests
    - Changes coming to the UI - removing export functionality of LICENSE data
  - Updated Snyk CLI to address incorrect version of Go on Snyk portal
  - Completed SDL milestones to allow for contribution of **ghmetrics** (automation of the paper study - Issue #1947)
  - Identified that Linux Foundation offers new tool - Nexus IQ (requires go.sum for all dependencies)

- **Other**
  - LFTools / Sigul latest version that supports Python 3.x
    - Need input from LF on alternative signing tool
  - GitHub Issue Labels
    - Refactored code and enhancements to include Milestones
    - Optimized to address API throttling issue

Next DevOps WG Meeting 05/14/2020 @9:00AM PST

System Management WG Update (May 13, 2020)

- No meeting this past week (May 8th)
- Next meeting: Friday, May 15th @ 10AM CST
  - No agenda items -- please contact me if you have a topic to discuss (m.estrin@dell.com or @michaelestrin on Slack)

Open Horizon Integration Update (4/22/20)

- Nothing new since previous week
- Meetings will resume May 11th

Security WG Update (05-06-2020)

- Geneva release -- security blackbox failures fixed: Thanks to Bryon, Lenny, and Colin
- SIR team update - No major issues found
- Security WG meeting
  - Discuss (Tony): Bring-Your-Own(BYO) kong cert" into Geneva backlog
  - Update ARM/Parsec meeting: attendees Paul, Marc, Nebu (ARM), Bryon, Tingyu, Malini.
  - Essentially support IKM. Vault worker to contact IKM server for master encryption key. Paul to evaluate requirements and come back with estimate/feasibility. No Go client at this time, instead a custom solution.
- Seeking nominations for Security WG Chair

Certification WG Update (5-11-20)

- Gathering requirements for device profile validation
- Investigating a template for launching an EdgeX instance in a cloud
- Reviewing [PR-139](#) in EdgeX-docs

- Next meeting is Monday, May 18th, 9 a.m. PDT

Vertical Solutions WG Update (May 13, 2020)

- Last meeting: May 12, 2020, 10am PST
  - Conexxus - Convenience stores technology standards, use cases, and opportunities for EdgeX

- Next meeting: May 26, 2020, 10am PST
  - RFRain - RFID reader manufacturer

Marketing update (5/6/20)

- Continue 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 closed
  - https://www.topcoder.com/challenges/3011
  - 130 participants and a total of 28 submision
- Starting asset creation and planning for Geneva Release
  - PR
  -

Miscellaneous (Jim)

- EdgeX 2.0 Org proposal
  - Doc on the Wiki and on Slack (on TSC channel)
  - Additional comments?
  - Ready for a vote?

Trevor Product Manager

Camilo Outreach organization

Trevor's Product Manager proposal

- Has knowledge of the overall architecture of the EdgeX platform and how the components interact
- Has basic knowledge of how software is implemented, perhaps previous experience as a dev, in order to follow technical concepts
- Participates in release planning F2F, helping to refine future scope and identifying interlocks early
- Works with each working group lead to define a broad release roadmap that will give visibility to sequence of major deliverables leading up to release
  - In this way we can easily see if a group is lagging behind the pace needed to complete deliverables for release
- Has knowledge of EdgeX Kanban board and how issues are associated via labels. Also knowledge of release milestones in Github. The PM should be willing to help new WG leads ramp up on mgmt. practices.
- Suggest PM conduct a Kanban review with each WG lead no less frequently than bi-weekly to ensure issues are being tracked appropriately.
- PM should attend the various working group meetings as needed to ensure delivery remains on track.
  - This is particularly key when feature interlocks are being designed and when nearing completion
- PM should report out to the TSC on an as-needed basis w/r/t feature completion status, blockers, dependencies
- Optionally, PM has some visibility and relationship with community members engaged in real-world use cases or product/support as a voice to help qualify whether a technical feature makes business sense.

Upcoming Events & Dev Advocate Update

Aaron's updates

Next F2F/conferences/events

- Intel announces they are prohibited from any F2F meeting until end of year.
- Please keep us informed of your company's travel policy changes
- Decision on China or other F2F meeting for fall still pending but looking less likely
  - (i.e. don't make travel plans yet)

Upcoming External Events

› RedisConf2020: 12 May - 13 May, 2020 - Virtual
  › EdgeX Foundry project will be featured at the RedisConf2020 Takaway event
› Open Source Summit North America: 29 June - 2 July, 2020 - Virtual
› IIOT World: 30 June - 1 July, 2020 - Virtual
  › Arpit Joshipura: "Uniting the Edge for Tomorrow's Demands."
  › 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/
› 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
  › 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

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Upcoming Project Events

› [EdgeX Foundry Tokyo Virtual Meetup](#): 12 May, 2020 - Virtual

› Projects can add their events to this list by sending the Wiki page listing the information to info@lfedge.org

Thank You