

EDGE X FOUNDRY™

TSC Meeting

July 8, 2020

edgexfoundry.org |  [@edgexfoundry](https://twitter.com/edgexfoundry)



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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>	<u>Position</u>
IOTech	Iain Anderson	iain@iotechsys.com	Device Services WG Chair
Intel	Ernesto Ojeda	ernesto.ojeda@intel.com	Dev Ops WG Chair
IOTech	Keith Steele	keith@iotechsys.com	Outreach WG Chair
Kong	Colin Hutchinson	colin@konghq.com	Security WG Chair
Intel	Mike Johanson	michael.johanson@intel.com	Applications & Analytics WG Chair
IOTech	James Butcher	james@iotechsys.com	Test/QA WG Chair
IOTech	Jim White	jim@iotechsys.com	Core WG Chair

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

- LF analytics dashboard (Shubhra & Aaron - LF)
- WG Updates
- Upcoming EdgeX User presentations
 - Thundersoft July 14
 - Jaingxing Intelligence July 28
- June Stats
- Upcoming Events (Dev Advocate)



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TSC Chair

Keith Steele/Aaron Williams

New TSC Chair

It is our pleasure to announce that we have a new TSC Chair

Jim White- Core WG/IOTech



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LF Analytics Dashboard

Insights

Shubhra - LF CTO

Aaron - LF Edge Dev Advocate



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Work Group Updates

Chairs

Working Group Chair Updates

- Around the horn
 - Product Manager - Lenny Goodell
 - Release Czar - Lisa Ranjbar
 - Applications - Mike Johanson
 - Device Services - Iain Anderson
 - Test/QA - James Butcher
 - DevOps - Ernesto Ojeda
 - Security - Colin Hutchinson
 - Outreach - Keith Steele
 - Certification - Rodney Hess
 - Marketing - Camilo Dennis
 - Vertical Solutions (and LF Edge TAC) - Henry Lau
 - Core/Supporting - Jim White

Product Manager (7/8/20)

Cross Cutting Issues (<https://github.com/orgs/edgexfoundry/projects/35>)

In Progress (8)

- V2 Implementations
- Remove Support Rules Engine
 - Waiting on Refactored Compose files PR to merge
- Remove Client Monitoring
 - “Only” need to update the individual Device Services
- Drop Logging Service completely
 - C SDK complete and Refactored Compose files PR are just the start.
- Generate/Inject random passwords into Vault
 - ADR PR needs reviewing (<https://github.com/edgexfoundry/edgex-docs/issues/132>)
- Refactored Compose files
 - Very close, now have generated single file variations committed for ease of use.
- Remove Mongo code
 - App SDK, Security and Refactored Compose files PRs
- Allow device services to be distributed to alternate hosts
 - ADR PR in review, holding repo created. (<https://github.com/edgexfoundry/edgex-docs/issues/134>)

Backlog (2)

- Message Bus from Device Service to App Services
- Multiple arch docker images support

Done (0)

Icebox (4)

Release Czar (7/08/20)

- ADR 0010 - Release Artifacts
 - <https://github.com/edgexfoundry/edgex-docs/pull/165>
 - Outlines the current release artifacts and which of them are tied to a code release
 - Tied to Code Release:
 - Docker Images, Docker Compose Files, Snaps, Github Tags, Testing Framework
 - Not tied to Code Release:
 - EdgeX Docs Github Page, Swaggerhub Docs

I'm moving on from Intel and my last day is July 17th.

It has been a pleasure working with you all in the EdgeX community.



Applications WG Update (8-July-2020)

Complete:

Client Monitoring Removed from SDK

Dependabot added to Github SDK Repo

Attribution and LICENSE added to App Service Configurable image

WIP:

Remove Mongo from App Functions SDK

V2 API Prep

- App Working Group Meeting held on Fridays @ 9AM PDT
 - Next meeting July 10th, 2020

Application Services

Functions (built into SDK)

Current/Complete:

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

NEW!

NEW!

Features

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

NEW!

NEW!

Reference/Example App Services (Geneva)

(built on top of SDK)

- Azure IoT Hub
- Amazon IoT Core
- IBM Watson IoT
- Cloud Event Transformation
- Secret Retrieval Example

AVAILABLE

AVAILABLE

NEW!

Device Services WG Update (17-Jun-20)

- Device Service Releases
 - Grove 1.2.0
 - Virtual 1.2.2
- WG GitHub project set up

Next WG meeting July 13

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 (07-07-2020)

- Postman blackbox tests - all passing
 - Working issues
 - Issue [#452](#), update to use new multi-file compose file. (change requested)
 - Fixed issues
 - Issue [#462](#), remove the workaround in the tests that expected a delay in the first core-command call. Now back to expecting less than 800ms (from 45 seconds)
- TAF blackbox tests - all passing
 - Working issues
 - Issue [#122](#), to update to use new multi-file compose file. (change requested)
 - Issue [#130](#), to modify API path to go through Kong when security is enabled
- New Business
 - Working on performance summary collection for Geneva (v1.2.1).
https://docs.google.com/spreadsheets/d/131AVzDQk0Bq8Y3_NePScoP2PPVzwxYBe2fuztG3jetA/edit#gid=0
 - IOtech will produce an EdgeX branded Geneva performance document containing the above metrics

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	Redis	1308	0	0	0
x86_64 / CentOS	Security	Redis	1338	0	0	0
arm64 / Ubuntu	Non Security	Redis	1308	0	0	0
arm64 / Ubuntu	Security	Redis	1338	0	0	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	Redis	52	0	0	0
x86_64 / CentOS	Security	Redis	52	0	0	0
arm64 / Ubuntu	Non Security	Redis	52	0	0	0
arm64 / Ubuntu	Security	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	Redis	6	0	0	0
x86_64 / CentOS	Security	Redis	6	0	0	0
arm64 / Ubuntu	Non Security	Redis	6	0	0	0
arm64 / Ubuntu	Security	Redis	6	0	0	0

Compatibility tests

OS		DB	Total TCs No.	Failed TCs No. of Past Week	Failed TCs No. of This Week	Fixed TCs No.
x86_64 / CentOS	Security	Redis	12	0	0	0
arm64 / Ubuntu	Security	Redis	12	0	0	0

DevOps WG Update (07-08-2020)

Hanoi

- **WIP**

- Build Optimizations for edgex-go
 - git-semver support – Clean up old tags and remove any subsequent stale –dev tags at the end of the release
- edgex-global-pipelines new features:
 - SwaggerHub global library - Code complete, merged
 - Parallelized docker build global library – Code complete, merged
 - Blue/Green deployment of DevOps services – Unit/Functional testing in progress.
- edgex-go new Jenkins pipeline: New code under development
- Audit DockerHub Images – Will present findings in a future WG meeting

- **DevSecOps**

- Vetting of OSS dependencies
 - PDR on hold <https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=46760301>
 - Jim White has done a paper study on existing 30+ dependencies. Will discuss in next DevOps WG meeting 7/9/2020

- **Other**

- James working with LF to add PR Template as part of the repo creation process, using app-functions-sdk-go's as base template
- Code Signing - lftools /sigul replacement
- LFTools / Sigul latest version that supports Python 3.x
 - LF is now considering an alternative signing tool - clarified that this is a future roadmap item - uncommitted
 - LF encountered some of the challenges within their fork trying to refactor sigul to support the latest Python 3.x - **WIP**

Next DevOps WG Meeting 07/09/2020 @9:00AM PST

Security WG Update (06-17-2020)

- Hanoi release working items in progress/review
 - ADR's still pending
- SIR update
 - No major issues found
- Security WG meeting
 - No major updates
- Next Meeting: July 15
- [Kong Conference](https://konghq.com/events/destination-automation/) - Destination Automation
(<https://konghq.com/events/destination-automation/>)

Outreach WG Updates (7/8/20)

Certification Team

- Discussion of Endorsement Program components

Vertical Solutions Team

- 7/14: ThunderSoft - Pengcheng Zou, CTO
- 7/28: Jiangxing Intelligence - Prof Jiangchuan Liu, CEO

Marketing Team

Certification WG Update (6-15-20)

- Determining documentation requirements for the cloud templates
- Discussion on marketing needs for the Endorsement program
- Next meeting is Monday, June 29th, 9 a.m. PDT

Vertical Solutions WG Update (June 17, 2020)

- Next meeting: 6/30, Tues, 10:00am CDT
 - Accenture AIP+ adoption of EdgeX
- Recent meetings: Use cases, and opportunities for EdgeX community
 - 5/12 [Conexus](#): Convenience stores technology standards and use cases
 - 5/26 [Appcard](#): Customer Engagement solutions ISV, use cases for grocery stores and QSRs
 - 6/9 [RF Rain](#): RFID ODM, use cases across various verticals
- Last 2 meetings with 30+ attendees

Marketing update (6/10/20)

- 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>
- Geneva landing page created (Thank you Andy!)
- Topcoder Challenge
 - Working to secure SME(s) for second topcoder challenge
- Pulse with meeting participants. Start, Stop, Continue for Marketing meeting.

Core Working Group (8-Jul-2020)

- UI Group (under Gavin) nears completion on addition of app services to UI
 - Team has also been working on revisit of EdgeX with K8s (Helm Charts & Compose).
- PR 236 - V2 API DTOs - MERGED!!!
 - Events controller/handler PR coming soon
 - Also working on Metadata DTOs
- Created timestamp issue (#2602)
 - fixed but no intention of dot release for this
- Next call - 7/9/20 @ 10AM US/Central tomorrow
 - V2 API next steps
 - Next steps CLI
 - Requirements for UI
 - Kubernetes next steps

Miscellaneous Issues/Topics

- Release Czar - Lisa R. - leaving Intel
 - We wish her well and with the eternal thanks of the community
 - Connect with me about interest in Czar role
 - Working with Ernesto (DevOps) to triage and manage immediate needs/tasks
- Rework of docs continue
- Thundersoft working on RaspPi dev kit and support
- “Paper study” of dynamically versioned 3rd party packages
 - Stay tuned for upcoming 3rd party vetting process (likely next week)



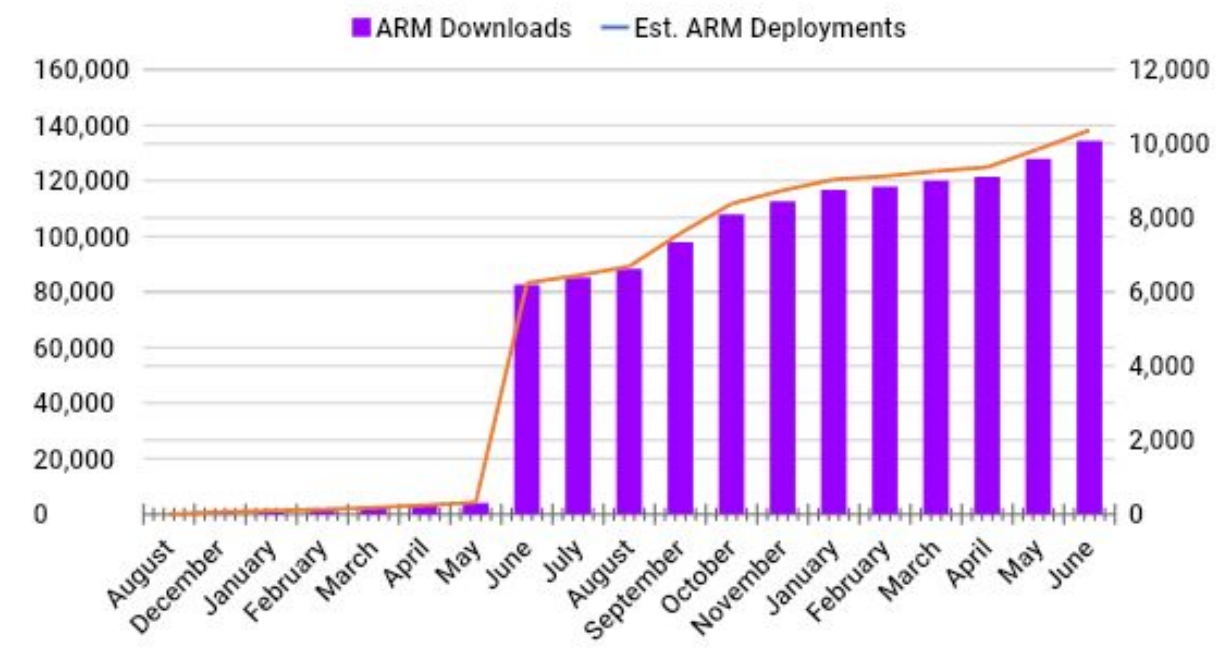
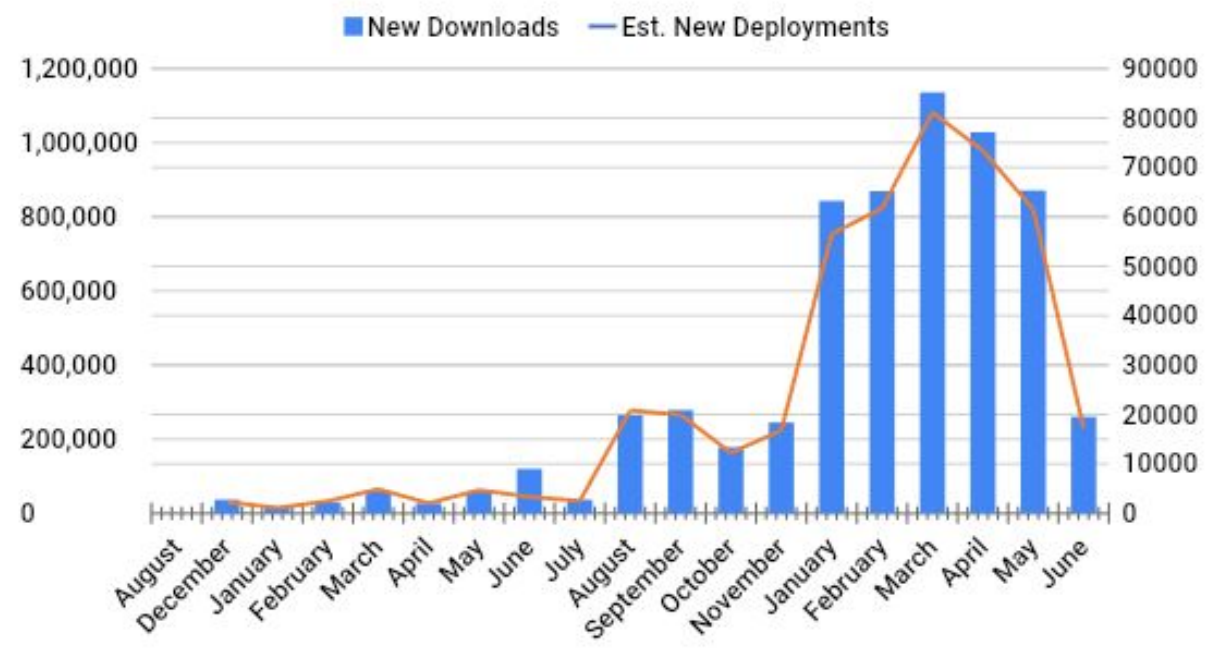
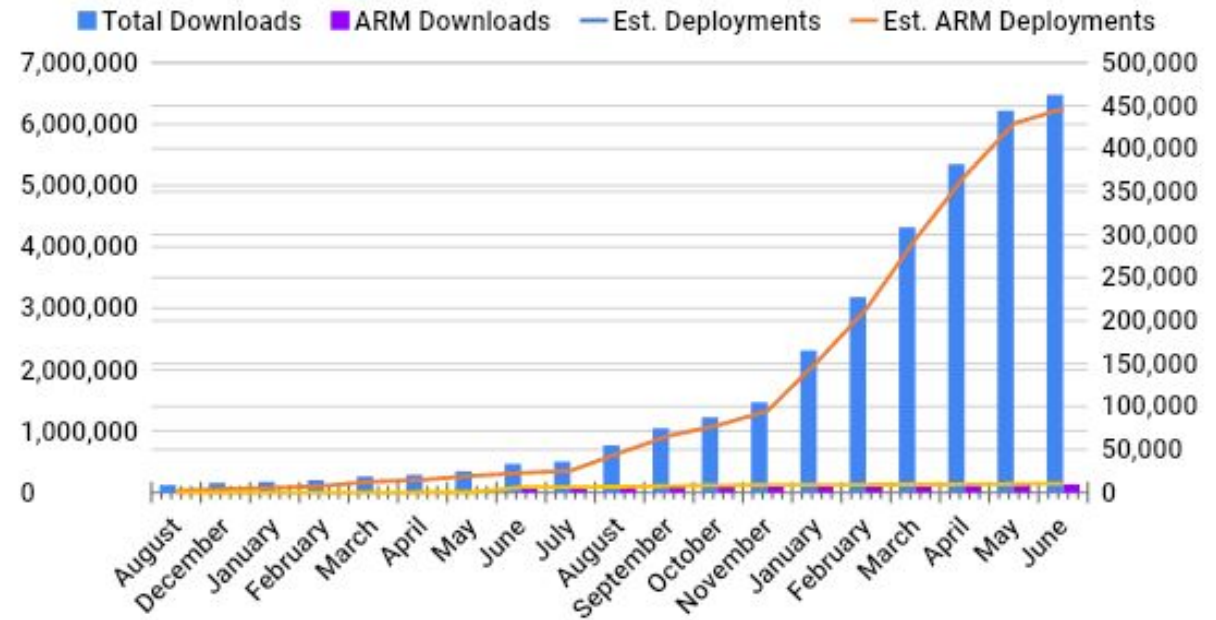
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Additional Topics

June stats

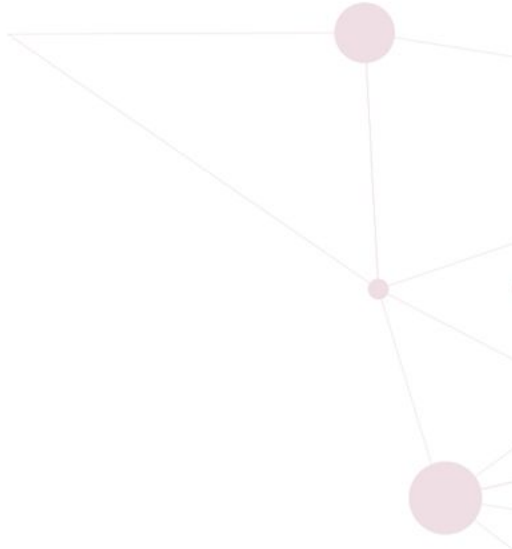
Docker Downloads

- Total Downloads: 6.4 million
 - Only a 250K increase
- Estimated Deployments: 446K
- Estimated New Downloads: 260K
- Estimated New Deployments: 17K
- Flattening out of the curve
 - Only a 4% rise in downloads in June
 - ARM downloads with two months of 5% increase in downloads



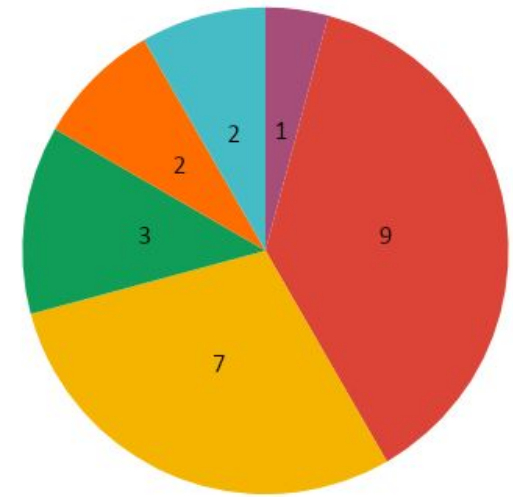
Contributions/Authors (June 2020)

- 28 active repositories in June
- 25 Contributors in June
 - Only 1 Dell contributor
- 4 new authors
- 137 commits in June
 - About average
- 12047 LoC added in June
 - Well below average



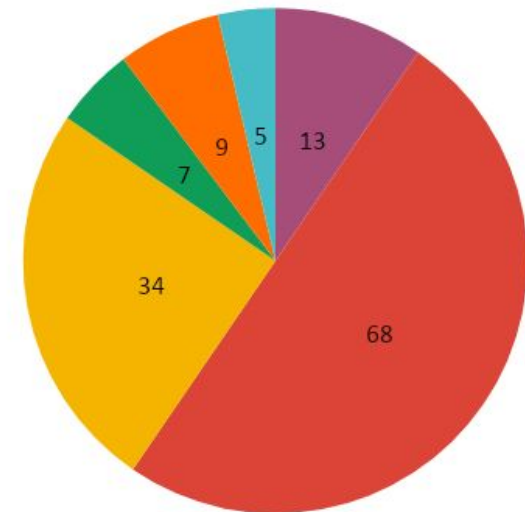
Authors by Company

Dell Intel IoTech VMWare Canonical Unknown

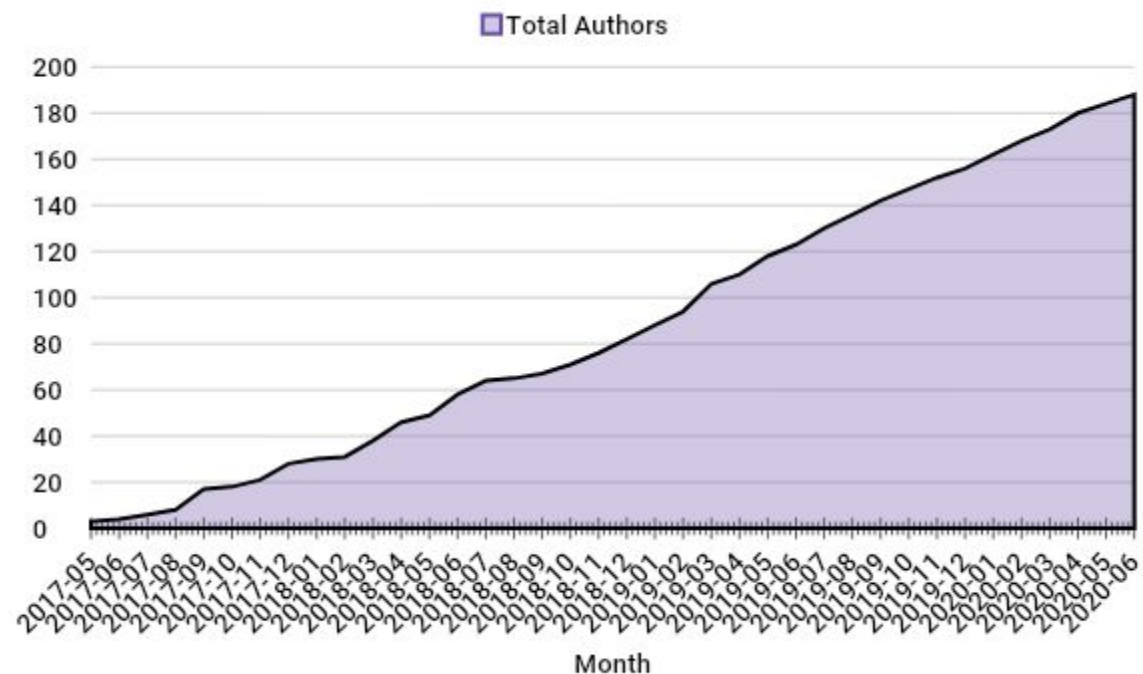
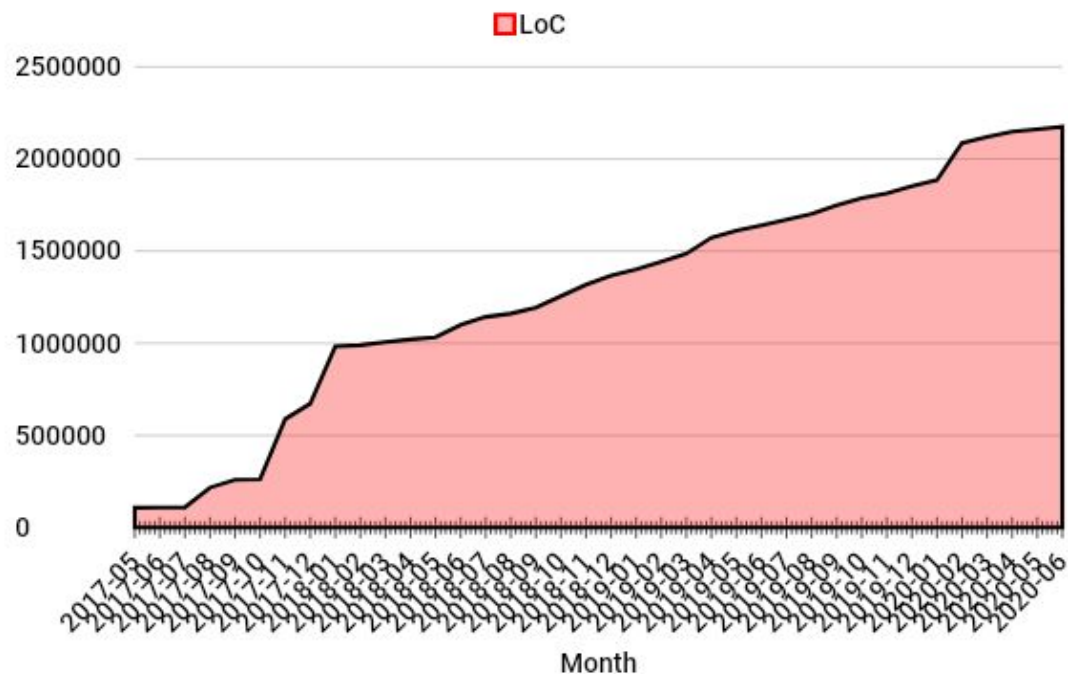
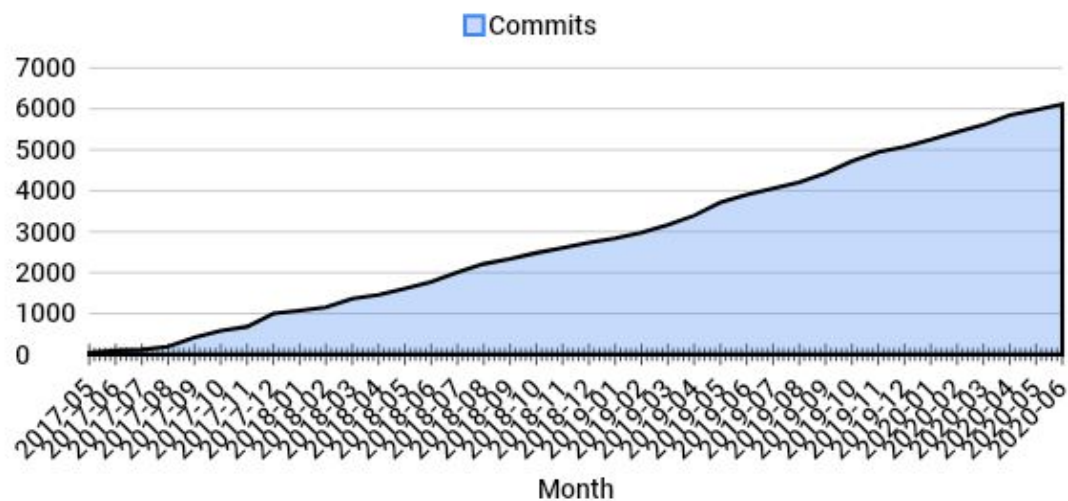


Commits by Company

Dell Intel IoTech VMWare Canonical Unknown



Code Stats





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Upcoming Events & Dev Advocate Update

Aaron's updates

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/>

(Webinar) Demystifying the Edge with the new LF Edge Taxonomy and Framework

> <https://bit.ly/LFWhitePaper>

>

This is a conversation between Vikram Siwach- MobileX, Jason Shepherd, Zededa, and Matt Trifiro- State of the Edge and Vapor IO talking about the white paper

1. Key concepts of edge computing within the context of the LF Edge taxonomy
2. Use cases in telecom, industrial, enterprise and consumer markets
3. An overview of how LF Edge projects work together
4. How to get involved in LF Edge or any of the edge projects

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/>

- › **“On the Edge with LF Edge” Webinars**
 - › Project EVE Webinar (May 29 at 9 am PDT):
 - › Register for the webinar!
https://zoom.us/webinar/register/8815888722994/WN_35oZJ3hrQE69snMaiJUTPg
- › [Open Source Summit North America](#): 29 June - 2 July, 2020 - Virtual
 - › 90 minute session(s) - July 2 at 12-1:30pm CST
- › [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/>

Upcoming External Events

- › [Open Networking & Edge Summit North America](#): 28-29 September, 2020 - Los Angeles, CA
 - › [ONES Unconference Track](#)- **Virtual**
- › [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](#): **MOVED** 11-13 May, 2021 - Barcelona, Spain
 - › Call for Testbeds Open: <https://www.iotsworldcongress.com/activities/testbeds/>
- › [Open Networking & Edge Summit Europe](#): TBD Q4, 2020 - Antwerp, Belgium- **Cancelled**
 - › 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>

Upcoming Project Events

- › none

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



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Thank You