

EDGE X FOUNDRY™

TSC Meeting

Nov 25, 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)

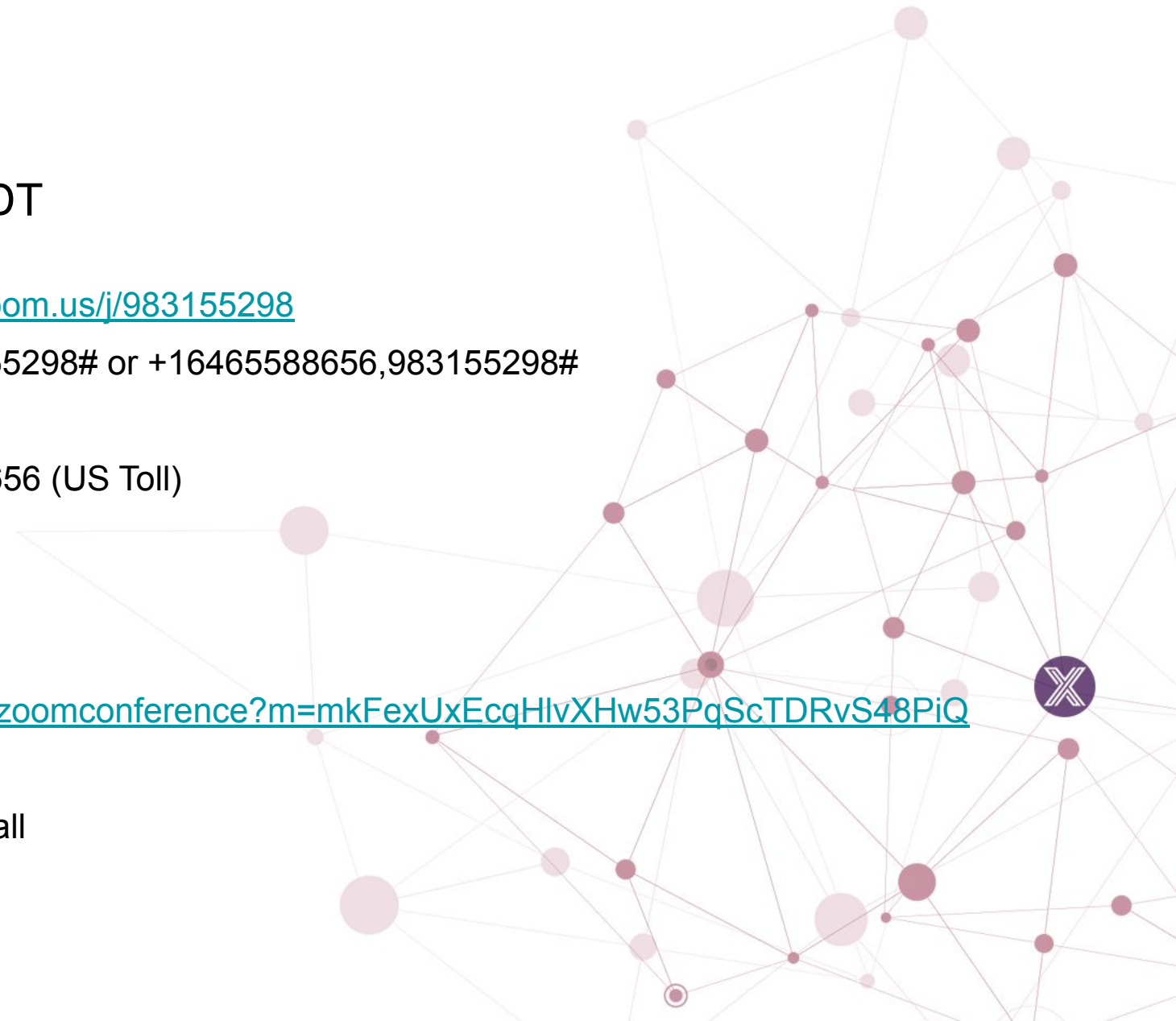
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Meeting ID: 983 155 298

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

- Hanoi Wrap up
- WG Updates
- ADR reviews
- Inclusive language
- Zoom meeting changes
- Tracking Ireland
- Upcoming Events (Dev Advocate)



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Work Group Updates

Chairs

Hanoi

 - 7th successful release in as many release cycles

Well Done EVERYONE! And thank you.

- All services, UI and SDKs are out.
- CLI will be out shortly
- Documentation updates (minimal ?) to be done
- EdgeX Ready program before end of year ()

Any known issues??

Working Group Chair Updates

- Around the horn
 - Product Manager - Lenny Goodell
 - Release Czar - Bill Mahoney
 - 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 (11/17)

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

In Progress (5, +1)

- V2 Implementations
 - Core Data APIs - WIP
 - Core MetaData APIs - WIP
 - TAF testing V2 APIs - WIP
- V2 Consumption
 - **V2 Clients - WIP**
- Conventional Commits for all
 - Device Services - WIP
 - Core Service - Done
 - App Services - Done
- ADR for Metrics & CPE - WIP
- ADR for Message Bus from Device Service to App Services - WIP
- **ADR for Secret Provider for All - WIP**

Backlog (0, -1)

Done (11, +/-0)

- Refactored Compose files
- Remove Support Rules Engine (just from compose files)
- Remove Client Monitoring
- Dockerfiles incorrectly uses ENTRYPOINT
- Configurable address for ListenAndServe
- Startup Configuration/Env does nothing
- EdgeX Go services move to Go 1.15
- Design metadata about the “gateway” or host platform (Tags)
- Allow device services to be distributed to alternate hosts
 - SSH & Overlay network
- Dependabot for All
- ADR for Generate/Inject random passwords into Vault

Icebox (10, +1)

- V2 API Consumption
- **Device Service to App Services via Message Bus Implementation**
- Explore possible collapse of core command and metadata
- EdgeX Metrics Collection & Control Plane Event Handling
- Drop Logging Service completely (Revert WIP)
- Remove Mongo code (Revert WIP)
- Update config.Clients usage for new naming scheme
- Secure Message Bus connection
- Secret Provider abstraction for all
- Implement Generate/Inject random passwords into Vault

Release Czar (Nov 25th, 2020)

Hanoi Release -

- Completed - no known issues
- Release went smoothly
- Some last minute Snyk warnings had to be approved

Other

- EdgeX-CLI - Finishing up, releasing early next week

Applications WG Update (18-Nov-2020)

Completed:

- Fixed issue with content-type in (#567)

WIP

- ADR for Device Service to App Services via Message Bus (#241) In Review

We will be breaking down tasks and populating the project board for the release

- Next meeting **Nov 20th, 2020 @ 8:00 AM PST**

Application Services

Functions (built into SDK)

Current/Complete:

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

NEW!

NEW!

Features

- Store and Forward
- Web Server
- Configurable App Service
- Vault Integration for Secrets
- MQTT Event triggers

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

Device Services WG Update (25-Nov-20)

WIP:

- Issue creation for Ireland scope
- ADRs for Event Filtering, MessageBus transport: in review
- Conventional Commits enforcement

Next meeting: December 7th

Device Services - current/coming (as of 11/4/20)

Open Source connectors (Current):

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

Open Source connectors (Future):

- Bluetooth Low Energy in C (2021) - contributed
- OPC-UA in C (2021) - under dev
- CoAP (2021) - contributed
- GPIO (2021) - contributed
- UART (2021) - contributed

- GPS

Commercial connectors (Current):

- File Exporter in C
- BLE in C
- Zigbee in C
- GPS in C
- CAN in C
- CANOpen in C
- MEMS in C
- EtherCat in C
- EtherNet/IP in C
- Profinet in C
- OPC-UA Pub/Sub in C
- ONVIF in C
- Siemens S7 in C

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

Commercial connectors (Future):

- ZeroMQ (Q1 2021)
- RFID (Q1 2021)

QA/Test WG Update (25th November)

- Postman blackbox test - **all tests failing!**
- TAF blackbox test - **all tests failing!**
 - Working issues
 - Issue [#137](#), Modbus scalability test
 - Solution for reliable test uncovered issue with locking devices. Workaround in Hanoi release notes
 - Issue [#76](#) ZeroMQ send might be interrupted by system call
 - Debate on which solution including switching ZeroMQ lib
 - Fixed issues
 - Issue [#128](#) Go Mod bootstrapping issue causing all failures **but all go services need to update to new version**
- Other Business
 - Hanoi performance numbers on wiki here: <https://wiki.edgexfoundry.org/display/FA/Hanoi+Data> with report to follow

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	1309	0	0	0
x86_64 / CentOS	Security	Redis	1339	0	0	0
arm64 / Ubuntu	Non Security	Redis	1309	0	0	0
arm64 / Ubuntu	Security	Redis	1339	0	0	0

TAF Functional 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	204	3	0	3
x86_64 / CentOS	Security	Redis	204	3	0	3
arm64 / Ubuntu	Non Security	Redis	204	3	0	3
arm64 / Ubuntu	Security	Redis	204	3	0	3

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

TAF Performance test

Performance test Number Count

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	10	0	0	0
arm64 / Ubuntu	Non Security	Redis	10	0	0	0

Jenkins Job: [performance-test](#)

DevOps WG Update (11-25-2020)

Pipeline Enhancements

- [#252](#) [In Progress] Build Snaps natively on Ubuntu
- Internally planning for Ireland

Other

- DockerHub rate limiting update. Current limits can be found here: <https://www.docker.com/increase-rate-limits>
 - Pairing with LF to implement a transparent docker registry proxy. [IT-20979](#)

Next DevOps WG Meeting **Dec 3rd, 2020 @ 9:00 AM PST**

Security WG Update (Nov 25)

- Next Meeting: Dec 9

Outreach WG Updates (11/24/20)

Certification Team

- EdgeX Ready: New name for the endorsement program
 - Will be our user validated conformance program
- In progress: Documentation, i's and t's

Vertical Solutions Team

- Next presentation: IOTech Tuesday Jan 19th'21 8AM US Pacific

Marketing Team

- Hanoi press release planned for week of Dec 1st
- First two weeks in December - Social media campaign to promote new website and Hanoi release

Core Working Group (11-24-2020)

- V2 API work continues
- Kubernetes deployment file need to test
- UI team working data visualization
- Next call - 12/3/20 @ 10AM US/Central

ADR review

ADR name and PR number	Status	owner	Work Group
OCI Container / #140	review	Bryon Nevis	Security
Update ADR 11 (Device Service REST API) / # 247	rechecking	Iain Anderson	DS
Metrics and CPE / #268	refactoring	Jim White	Core
DS sends Events via Msg Bus / # 276	review	Lenny Goodell	DS/Core
Secret Provider for All / #281	review	Lenny Goodell	Secty/Core
DS Filters / #282	review	Jim White	DS
add Service Registry	draft	Tony Espy	Core
TLS use	approved	Bryon Nevis	Secty

Miscellaneous Issues/Topics

- Zoom meeting changes
 - Host has to admit now
- Reminder - Architect's Meeting on Nov 30th (Monday) at 10am PST
 - See wiki for topics list (or email or slack)
- Inclusive Language
 - Master/Slave -> main/secondary
 - blacklist/whitelist -> allowlist/blocklist
 - Potential impacts
 - Collecting all the spots where a change is needed
 - Review the list and schedule for change in TSC

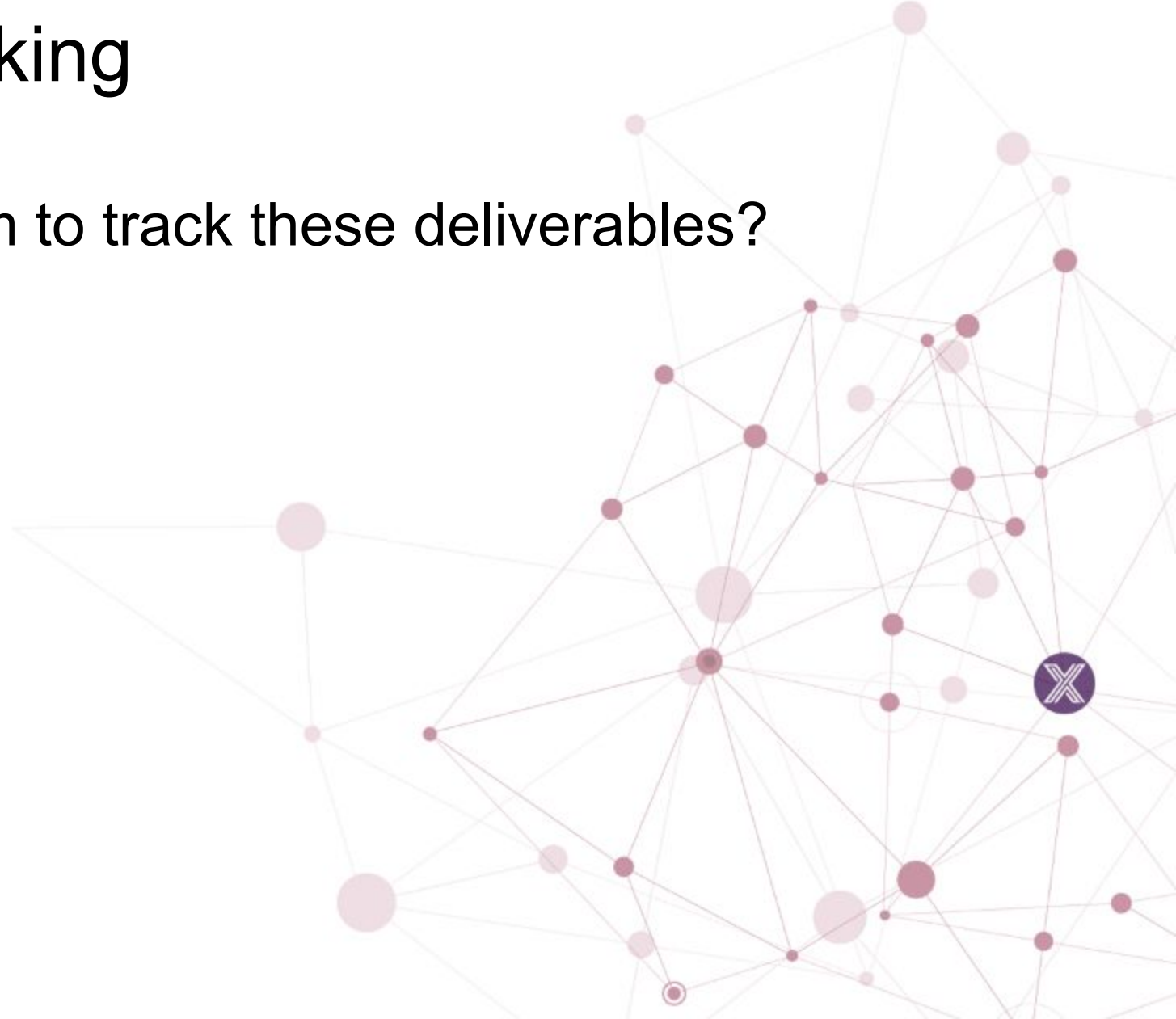
Ireland task/scope tracking

Can we develop a mechanism to track these deliverables?

Github issues?

WG updates?

Action item owners





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Upcoming Events & Dev Advocate Update

Aaron's updates

Upcoming External Events

- › [KubeCon/CloudNativeCon North America](#): 17-20 November, 2020 - Virtual
- › [Open Source Summit Japan](#): 2-4 December, 2020 - Virtual
- › [IoT Solutions World Congress](#): 11-13 May, 2021 - Barcelona, Spain
- › Embedded World Conference: March 1-7, 2021 Nuremberg but now virtual
 - › Using Visual Inference in Edge Computing, Jim White
- › Discussions around upcoming events occur in the LF Edge Outreach Committee
- › Members may subscribe at: <https://lists.lfedge.org/g/outreach-committee>



LF Edge Webinar Series

Akraino Edge Stack

Held Thursday, April 2 - [Your Path to Edge Computing with Akraino Edge Stack](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_Zjdo4-5fTQSIqH7pL8iHrQ

EdgeX Foundry

› Held Thursday, April 23 - [EdgeX Foundry 101: Intro, Roadmap and Use Cases](#)

› On-demand recording available at: https://zoom.us/webinar/register/4515850788014/WN_xCd6YPjEQrCwLiFhBWPkug

Project EVE

› Held Friday, May 29 - [Building the “Android of the IoT Edge”](#)

› On-demand recording available at: https://zoom.us/webinar/register/6415888722675/WN_35oZJ3hrQE69snMaiJUTPg

White Paper

› Held Thursday, July 9 - [Demystifying the Edge with the new LF Edge Taxonomy and Framework](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_icv5h6wFTcuw9O0xvMpgLw

Fledge

› Held Thursday, August 13 - [How Google, OSIssoft, FLIR and Dianomic use Fledge to implement Industrial 4.0](#)

› Recording available at: <https://www.youtube.com/watch?v=6JXNv3AJWog>

State of the Edge

› Held Thursday, September 17 - [State of the Edge: Exploring the Intersection of IoT, AI, 5G and Edge Computing](#)

› On-demand recording available at: https://zoom.us/webinar/register/8115959695936/WN_4rt-MmP1RI6Vkzn3ULpiAA

Home Edge

› Held Thursday, October 15 - [Home Edge: How Your Home Devices Get Deployed in An Edge Computing Services Ecosystem](#)

› On-demand recording available at: https://zoom.us/webinar/register/WN_uSlgb-R5Q4etkDhxoSXISQ

› More to follow...





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Thank You