EDGEXFOUNDRY™

TSC Meeting

March 3, 2021

In like a lion, out like a lamb!

March

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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:

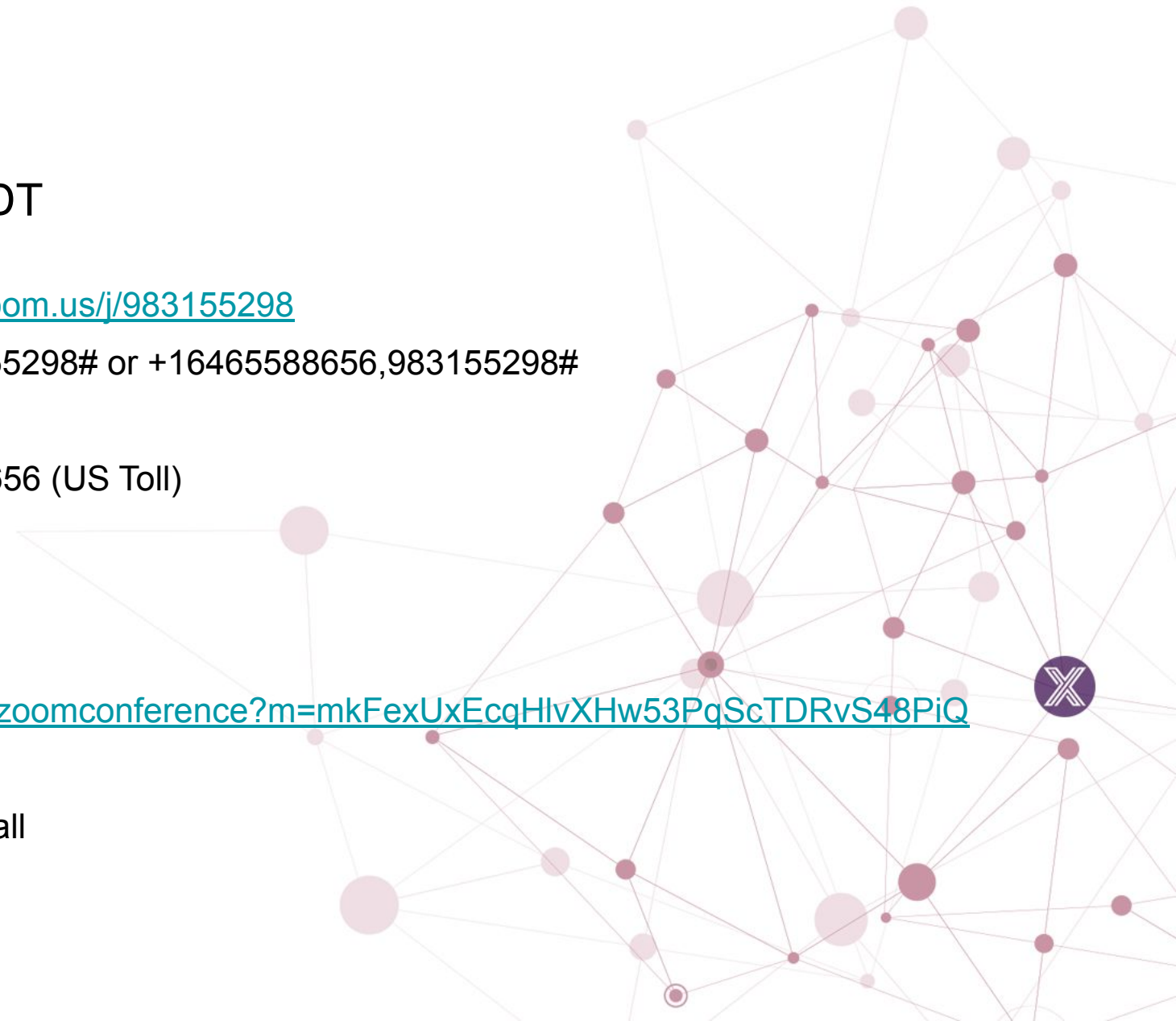Dial: +1 408 638 0968 (US Toll) or +1 646 558 8656 (US Toll)

+1 855 880 1246 (US Toll Free)

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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	Position
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

- WG Updates
- ADR review
- Calendar shifts & Daylight savings times
- Digital Twin Liaison
- Ireland plan
- China TSC Meeting Readout
- Upcoming Events (Dev Advocate)

Work Group Updates

Chairs

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 (3/3)

Cross Cutting Issues

In Progress (6, +/- 0)

- V2 Implementations
  - **Core Data APIs - CBOR WIP**
  - **Support Notifications APIs - WIP**
  - **Support Scheduler APIs - WIP**
  - **TAF testing V2 APIs - WIP**
  - C Device SDK - DONE
  - Core Command APIs - DONE
  - Core MetaData APIs - Done
  - Go Device SDK - Done

- V2 Consumption
  - **Core Data Clients - CBOR WIP**
  - **Support Notification Clients - TBD**
  - **Support Scheduler Clients - TBD**
  - **C Device SDK/Services - WIP**
  - App SDK V2 Clients - **TBD**
  - **Device Services (C & Go) - WIP**
    - **Device Virtual - WIP**
    - **Device ModBus - WIP**
  - Core Metadata Clients - DONE
  - Core Command Clients - DONE
  - Go Device SDK V2 Clients - DONE
  - App SDK V2 Event DTO - DONE

- **Device Service send Events via MessageBus implementation**
  - Device SDK C - **WIP**
  - C Device Services - **TBD**
  - Device SDK Go - **TBD**
  - Go Device Services - **TBD**
  - Core Data Subscribe - **TBD**
  - **Core Data Publish topic - DONE**
  - App SDK multi-subscriptions - DONE
  - ASC multi-subscriptions - DONE

- **Secret Provider for All**
  - **Secret Store Setup - WIP**
  - Camera Device Service - **TBD**
  - DS SDK C - TBD (**stretch**)
  - C Device Services - TBD (**stretch**)
  - MQTT Device Service - DONE
  - DS SDK Go - DONE
  - go-mod-bootstrap - DONE
  - edgex-go - DONE
  - App Srvs - DONE
  - go-mod-secrets - DONE

- **Registry Usage ADR (In review)**
- Metrics ADR (In review)

Backlog (2, +/-0)

- Use service keys constants for Clients config
- Implement Generate/Inject passwords into Vault

Done (9, +/-0)

- LoggingClient DIC bug fix
- ADR Message Bus from Device Service to App Services
- ADR Secret Provider for All
- Remove Mongo code
- Conventional Commits for all
- Change go-mod-x & Go SDKs to be V2 Go Modules
- Consume dependent V2 Go Modules
- ZMQ fix for Hanoi dot release
- Drop Logging Service completely

Icebox (2, +/-0)

- EdgeX Metrics Collection & Control Plane Event Handling
- Secure Message Bus connection

Release Czar (Mar 3, 2021)

Misc

- ADR0010 - Release Artifact Update - Docker Descriptions/Overviews Automation - <mark>Done</mark>

Release Activity

- Feb 8 - Hanoi Dot Release
    - ```
      app-service-configurable      v1.3.1
      edgex-cli                     v1.0.1
      edgex-go                      v1.3.1
      ```

- Feb 8 - Device Services Release
    - ```
      device-grove-c                v1.3.1
      ```

Applications WG Update (3-Mar-2021)

Completed:

- Removal of deprecated environment variables
- MqttBroker Configuration renamed to External MQTT
- Renamed "Binding" to "Trigger" for configuration
    - Removed deprecated MessageBus trigger type, replaced by edgex-messagebus
    - Renamed MessageBus to EdgexMessageBus
    - Move EdgexMessageBus and ExternalMqtt under Trigger configuration
- Refactored HTTP Export to allow for separate header names and secret names
- ASC: Profiles updated to adjust to above changes
- ASC: README fix for Snap configuration of security-secret-store

WIP:
Refactoring Pipeline configuration for ASC

Next meeting **Mar 4th, 2021** @ 3:30 PM PST (4:30 AZ)

Application Services

Functions (built into SDK)

Current/Complete:

- AES Encryption
- GZIP Compression
- ZLIB Compression
- MarkAsPushed
- PushToCore
- Device Name Filter
- Value Descriptor Filter
- Batch
- AddTags   NEW!
- JSONLogic Filtering
- XML Conversion
- JSON Conversion
- MQTT(S) Export
- HTTP(S) POST Export
- HTTP(S) PUT Export   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 (24-Feb-21)

Done:

- v2 API consumption (SDKs)

WIP:

- CoAP, GPIO services - in review
- RFID/LLRP service - review starting
- Project status: 39 issues backlog + 5 new (net -1)

Next meeting: March 8th

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

Commercial connectors (Future):

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

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

QA/Test WG Update (2nd March)

- TAF tests - All Passing!
  - Fixed Issues
    - [#15](#) update app-service SUBSCRIBE HOST vars in TAF compose file
    - [taf-pipelines#56](#), change the USE_RELEASE value from nightly-build to pre-release
    - [#702](#), HTTP trigger returning 500 Internal Server Error
    - [#316](#), remove created field in the trigger response content of app-service when the created value is empty.
  - Working Issues
    - [#108](#)/[#109](#), [V2] create Support Notifications test cases - Positive & Negative
    - [#319](#), [V2] Update all event data and testcases to add `SourceName`
    - [#315](#), start all services before running test script
    - [#304](#), Correct TAF instructions for easier developer usage
- Other Business
  - Switching QA/Test meeting to biweekly until closer to Ireland release. Calendar invites updated

Next Meeting Tuesday 16th March, 8am PST

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	287	1	0	1
x86_64 / CentOS	Security	Redis	287	1	0	1
arm64 / Ubuntu	Non Security	Redis	287	1	0	1
arm64 / Ubuntu	Security	Redis	287	1	0	1

Jenkins Job: functional-test

TAF Integration 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	6	2	0	2
x86_64 / CentOS	Security	Redis	6	2	0	2
arm64 / Ubuntu	Non Security	Redis	6	2	0	2
arm64 / Ubuntu	Security	Redis	6	2	0	2

Jenkins Job: integration-test

TAF Performance 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	10	1	0	1
arm64 / Ubuntu	Non Security	Redis	10	2	2	2

Jenkins Job: performance-test

DevOps WG Update (03-03-2021)

Pipeline Enhancements
- [#102](#) [Hold] Docker image renaming. On hold until 30 days before Ireland release
- [#312](#) [Complete] Add email notifications on build failures

Other
- [#51](#) [In Progress] Spike: Semantic versioning git-semver replacement
- [#319](#) [In Progress] Developer enablement: Update documentation for pre-built pipelines

* Cancelled This Weeks DevOps WG Meeting March 4, 2021 @ 9:00 AM PST *

Security WG Update (Mar 3)

- Next Meeting: Today & March 3
- Design Review
  - [Service Registry](#)
  - [Upload Threat Model](#)
- In Backlog: 16 (1)
- In Development: 4 (+1) In Progress / 2 (0) In Review
  - [Secret Provider](#)
  - [EdgeX OCI Bootstrapping](#)
  - [Docker Container Guidelines](#)
  - [Secret Creation & Distribution](#)
- Done 63 (+3)
  - [EdgeX TLS Usage](#)

Outreach WG Updates (3/3/21)

Certification Team

- Awaiting LF Edge Board approval (voting in-process)

Vertical Solutions Team

- Open Retail Reference Architecture sub-project:
  https://wiki.edgexfoundry.org/display/FA/Open+Retail+Reference+Architecture

Marketing Team

- Website in Chinese

Core Working Group (3-3-2020)

- V2 API
  - Core done (minus CBOR - done this week)
  - Support services (notifications/scheduler) ongoing
- status
  - 23 in backlog (-3)
  - 14 in bug backlog (-1)
  - 1 in progress (+1)
  - 112 done (+6)
- Next call - 3/4/21 @ 10AM US/Central

ADR review (in order of priority)

ADR name and PR number	Status	owner	Work Group
Service Registry / #283 (HOT)	review (target next week)	Tony Espy	Core
Upload threat model / #259 (quasi ADR)	review	Bryon Nevis	Secty
Metrics / #268	refactored/cover in Core WG re-review	Jim White	Core
DS Filters / #282	nearing final	Jim White	DS

* - indicates some work this week

Miscellaneous Issues/Topics

- Daylight Savings Time starts in the US March 14th
  - Calendars will be updated after next week's meeting
  - For those outside of the US or for places with no time changes - be aware of the time changes (update your calendars as the notices come through)
- TSC PRC - Feb 25th, 5pm PST
  - Readout
- Digital Twin Consortium liaison
  - memo of agreement

Target Timeline

Target release: June 30th

Freeze date: June 21st (adjust as needed as we get closer)

Virtual Planning Meeting (Jakarta): June 21-24

Some device services released in July

Jakarta: ~ early November

- Bug fixes only
- Any other feature would be subject to TSC approval and feature flag
- LTS release

Timeline destroyers: concerns/Items to track closely

- Security - phase 1 (and possibly 2) of securing Consul; working on impl plan
- Core - system management service
- Application Services - some non-backward compatible refactors may not get in
- Device Services - Camera/SNMP/and lesser used device services may be released post June 30th
- Secrets provider for all for C SDK
- Cross cutting concerns and testing it all together

Upcoming Events & Dev Advocate Update

Aaron's updates

Upcoming External Events

› The Linux Foundation Spring Member Meeting: 9 March, 2021 - Virtual
› Open Networking & Edge Executive Forum: 10-12 March, 2021 - Virtual
› Open Source Summit Europe: 28 Sept - 1 Oct, 2021 - Dublin, Ireland
› IoT Solutions World Congress: 5-7 October, 2021 - Barcelona, Spain
› Open Networking & Edge Summit North America: 11-12 October, 2021 - Los Angeles, CA

› Discussions around upcoming events occur in the LF Edge Outreach Committee
› Members may subscribe at: https://lists.lfedge.org/g/outreach-committee
› IoTHub- Meetup group

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, OSIsoft, 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-MmP1Rl6Vkzn3ULpiAA
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…

Thank You

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