

EDGE X FOUNDRY™

# TSC Meeting

September 29, 2021



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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>

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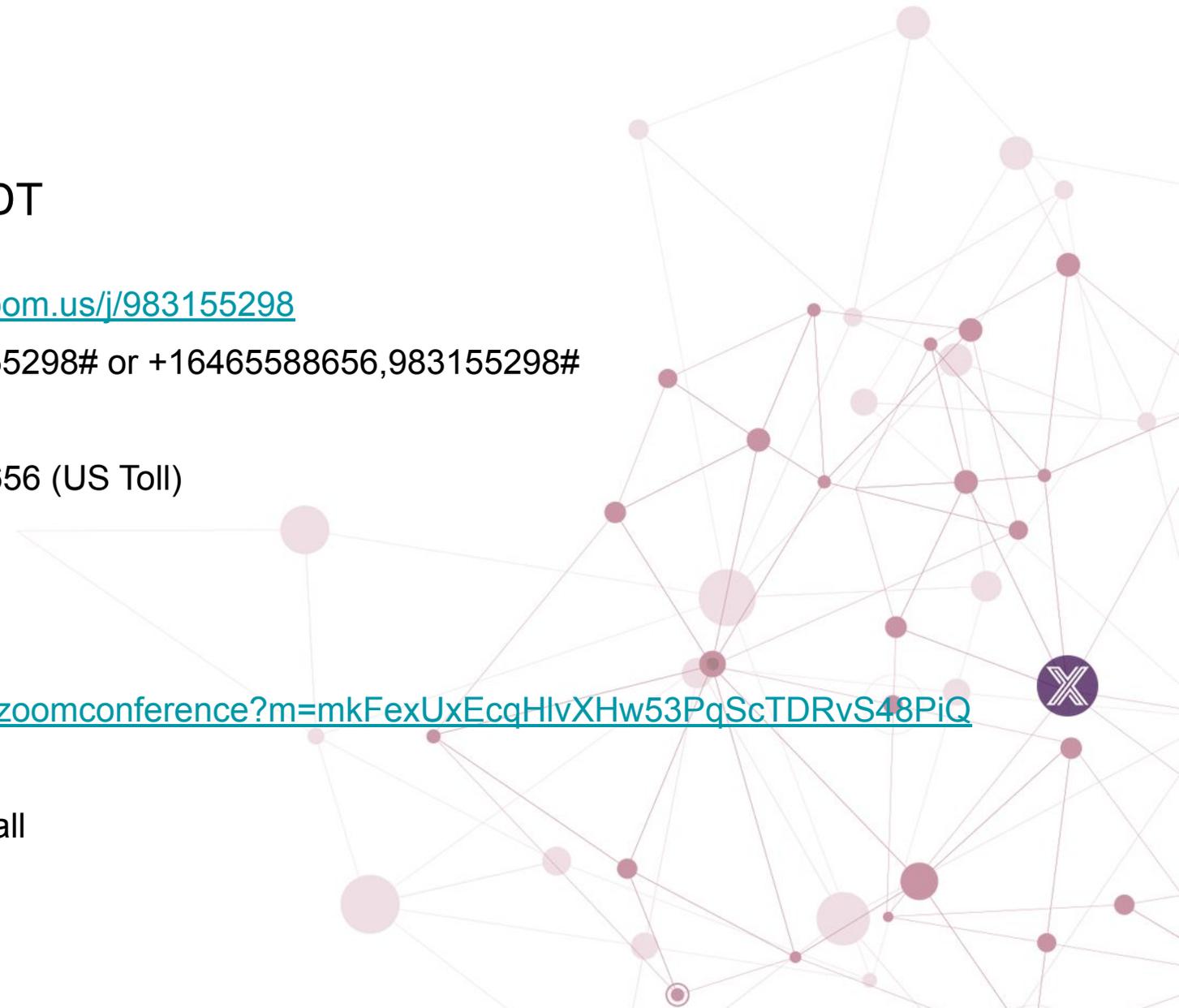
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Meeting ID: 983 155 298

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	<a href="mailto:iain@iotechsys.com">iain@iotechsys.com</a>	Device Services WG Chair
Intel	Ernesto Ojeda	<a href="mailto:ernesto.ojeda@intel.com">ernesto.ojeda@intel.com</a>	Dev Ops WG Chair
IOTech	Jim White	<a href="mailto:jim@iotechsys.com">jim@iotechsys.com</a>	Outreach WG Chair
Intel	Bryon Nevis	<a href="mailto:bryon.nevis@intel.com">bryon.nevis@intel.com</a>	Security WG Chair
Intel	Lenny Goodell	<a href="mailto:leonard.goodell@intel.com">leonard.goodell@intel.com</a>	Applications & Analytics WG Chair
IOTech	James Butcher	<a href="mailto:james@iotechsys.com">james@iotechsys.com</a>	Core/Test/QA WG Chair

Gavin Lu (VMWare), Tony Espy (Canonical), Melvin Sun (Intel)

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
- Jakarta docs
- Security JWT lib
- LTS testing needs



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# Work Group Updates

Chairs

# Working Group Chair Updates

- Around the horn
  - Release Czar - Bill Mahoney
  - Product Manager - Lenny Goodell
  - Applications - Lenny Goodell
  - Core - James Butcher
  - Device Services - Iain Anderson
  - DevOps - Ernesto Ojeda
  - Security - Bryon Nevis
  - PRC Updates
  - Outreach - Jim White
    - Certification - Rodney Hess
    - Marketing - Camilo Dennis
    - Vertical Solutions (and LF Edge TAC) - Henry Lau

# Release Czar (09-29-2021)

## Release Dates

- Freeze date: Oct 27th
- Release date: Nov 17th
- Kamakura planning (virtual): Nov 1-4th
- Current Release Activity:
- device-camera 2.0.1 - Pending Approval

# Product Manager (9/29) - Jakarta

## Cross Cutting Issues

### In Progress (9 +1)

- Securing Consul with Access Token
  - C Device SDK - TBD
  - C Device Services - TBD
- **Secure Message Bus connection**
  - C Device SDK - TBD
  - C Device Services - TBD
- Secret Provider for All
  - DS SDK C - **DONE**
  - C Device Services - TBD
- **Commit go.sum & remote tidy script**
  - App Services - **DONE**
  - edgex-go - TBD
  - go-mods - TBD
  - Device Services - TBD
- **add a "make lint" target**
  - edgex-go - **DONE**
  - Others - TBD
- **Metrics ADR - WIP**
- **Upgrade Base Images to alpine3.14**
  - App Services - **DONE**
  - Core/Support - **DONE**
  - Go Device Services - **DONE**
  - C Device Services - **All but 2 Done**
- **New PR template**
  - Device Services - TBD
  - All other Repos - **DONE**
- **Use generic interface in the Event Tagging value**
  - go-mod-core-contracts - **PR**
  - Others - TBD
- **Implement Generate/Inject passwords into Vault**
  - go-mod-bootstrap - **DONE**
  - all services/sdks - TBD (DependaBot)
  - C SDK/Service - TBD

### Done (1)

- Quotes in TOML files inconsistent

### Backlog (2)

- Support complex object types in Reading
- **Request new Consul token on Auth failures**

### Icebox (0)

# Applications WG Update (09/29/2021)

## Completed

- Tweaks to custom triggers for multiple pipelines
- New PR Templates

## WIP

- Enhance Batch to have option to unmarshal list of object when using Events
  - Currently JOSON is BASE64 encoded

## eKuiper

- No update

## Next

- Handle Tags with generic type for AddTags function

**Project Board:** <https://github.com/orgs/edgexfoundry/projects/23>

# Application Services - Ireland

## Functions (built into SDK)

- Add Tags
- Batch
- Compression (GZIP & ZLIB )
- Conversion (XML & JSON)
- PushToCore
- ~~MarkAsPushed~~
- Encryption (AES)
- Export
  - MQTT
  - HTTP POST & PUT
- Filtering
  - By Profile Name
  - By Device Name
  - By Source Name
  - By Resource Name
- JSONLogic
- Set Response Data

## Features

- Store and Forward
- Batch and Send
- Web Server
- Configurable App Service
- Vault Integration for Secrets
- MQTT Event triggers
- Filter by Topics
- Custom Triggers
- Publish Topics and URL Placeholders
- Structure Custom Configuration
- Background Publishing
- Received Topic
- Context Storage
- Clients
  - Logging, Event
  - Command
  - Device, DeviceService
  - DeviceProfile
  - Notification
  - Subscription
  - Registry

## Reference/Example App Services

(built on top of SDK)

- Simple Filter
- Simple Filter and MQTT Export
- Simple Filter and HTTP Export
- Simple CBOR
- Azure IoT Hub
- Amazon IoT Core
- Cloud Event Transformation
- Secret Retrieval
- JsonLogic

- Send Command
- Convert & Publish
- Custom Target Type
- IBM Watson IoT (ASC Profile)
- Custom Trigger
- Influx DB Export
- Fledge Export

# Core WG Snapshot (29 Sep 2021)

- Ireland / 2.0.1
  - 0 remaining docs issues on board - thanks all!
- Jakarta:
  - TAF: 542 Functional, 36 Integration, 10 Performance
  - Last week we reviewed/prioritized the remaining “Release Backlog” / TODO list
    - 6 medium priority, 6 low priority
  - Recent work includes container restart config & testing; toml and unused variables cleanup

## Core Project Board Status

- 2 New Issues (-1)
- 12 Release Backlog (-5)
- 0 Bug Backlog (+0)
- 2 In Progress/QA (+1)
- 738 Done (+690) **Really ~55**
- 4 Jakarta Stretch (+0)
- 9 Icebox (+0)

## QA/Test Project Board Status

- 0 New Issues (+0)
- 5 Release Backlog (+2)
- 5 In Progress/QA (+5)
- 149 Done (+138) **Really ~12**
- 9 Icebox (+8)

Next meeting Thursday September 30, 2021 @ 8am Pacific Time

# Device Services WG Update (29-Sep-21)

- Patch release for camera DS pending validation
- Update (v2) for GPIO DS in review
- UART DS (new) also ready for review
- Object type for Readings prototyped in Go and C
- Issues (New / Backlog) : 32 (+2)

*Next meeting: October 4th*

# Device Services - current/coming (as of v2.0)

## 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
- Grove in C
- CoAP in C
- GPIO in Go

## Open Source connectors (Future):

- LLRP / RFID in Go
- UART in Go

## Commercial connectors (Current):

- 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 in C
- OPC-UA Pub/Sub in C
- Siemens S7 in C
- File reader in C

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

# DevOps WG Update (09-29-2021)

## Pipeline Related

- [In Progress] LTS artifact rebuild planning.
  - Potential pipeline/release changes required to accommodate rebuilding of artifacts.

## Other

- [Hold] Spike Developer Badge Program
- [Hold] Master --> Main branch rename.
  - [Hold] /edgexfoundry All done except edgex-docs

**Next DevOps WG Meeting Thursday, September 30, 2021 @ 9AM PDT**

# Security WG Update (9/29/21)

## Next Meeting: Today

- Enabled linters unused, deadcode, ineffassign, gosimple, varcheck
- Remaining linters to enable: staticcheck, errcheck, gosec
- Replace github.com/dgrijalva/jwt-go with github.com/golang-jwt/jwt/v4
- Today's topics
  - [ADR for creation of secret store tokens for delayed-start services](#)
  - Discuss GUI team's response to security for GUI
  - More data on being able to switch in- and out- of insecure Consul mode
  - Review work left for final stretch for Jakarta

### Security Project Board Status

- 2 New Issues (+1)
- 3 Release Backlog (-1)
- 4 In Progress/QA (+3)
- 4 In review (+1)
- ERR Done (err)

### Secure Consul Project Board Status

- 2 Phase 1 To-do (0)
- 1 Phase 2 To-do (0)
- 7 Phase 3 To-do (+3)

# Updates on EdgeX in Chinese speaking regions

## EdgeX challenge 2021

- 26 teams joined the final competition & real-time judgement on Sep 25-26th, in SH/BJ/SZ simultaneously. Offline judgement on Sep 27-30th; social media voting on Sep 23-30th.
- Proposals & roadshow recording available here:

<https://drive.google.com/drive/folders/1z5SQLXAYqGB4Lx9pVayHfvFGkTbrTy2k?usp=sharing>

- Winner list to be pre-announced on Oct 12th.

# Outreach WG (9/28/21)

## Certification

- Working on EdgeX Ready social media blitz to re-emphasize the program
- EdgeX Certified - preparing report for Jakarta planning

## Vertical Solutions

- Looking for next Adopter Series presenter(s)

## Developer Badge Program

- Draft Wiki page created
- Emails/badges crafted
- Working on badge certification integration

## EdgeX Challenge - Smart \*

- Draft Wiki page created
- Looking for sponsors (or help to recruit sponsors)

## Misc

- TopCoder - held meeting for next steps
- Blog/Vlog for Sept
  - Performance Results and EdgeX Ready
  - Getting started with EdgeX 2.0 APIs

# ADR review (in order of priority)

<b><i>ADR name and PR number</i></b>	<b><i>Status</i></b>	<b><i>owner</i></b>	<b><i>Work Group</i></b>
Metrics / #268	Reviewed & updating	Jim White	Core
ADR on dynamic service list / #377	Reviewed & arch's looking at related / updating	Jim White	Core
ADR on unit of measure / #386	Needs review	Jim White	Core
ADR on V2 CLI/Client / #525	Needs review	Siggi Skulason	Core
ADR for delay start service secret store token	Needs review / Secty WG next meeting	Bryon Nevis	Security

\* - indicates some work this week

# Miscellaneous

- Update of JWT library needs TSC approval
  - <https://github.com/edgexfoundry/edgex-go/pull/3729>
  - Paper study included in the comments
- Ireland documentation completed
  - Jakarta docs open
  - docs.edgexfoundry.org shows Jakarata in drop down
  - docs master branch to be changed to main branch
- Additional LTS testing
  - Test any configuration not already handled by new TAF tests (manually if needed)
  - Test reboot of the system. Make sure EdgeX can come back up
  - Test device services (with real hardware where possible)
  - Test different combinations/permutations of app functions in app services
  - Test on Windows
  - Test running with multiple services of same type (device service and app services)





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Thank You