Certification Working Group

Key Working Group Facts

Working Group Creation Date: January 24, 2019

Working Group Chair: Rodney Hess (Beechwoods Software)

Mailing List

- Certification Working Group mail alias: EdgeX-TSC-Certification@lists.edgexfoundry.org
- To subscribe or unsubscribe via the World Wide Web, visit: https://lists.edgexfoundry.org/g/EdgeX-TSC-Certification

Discussion Forum

- For support and discussions about topics related to the Applications Working group, reach out on the #certification channel in Slack.

Meeting Time

- Certification Working Group meetings are open to the public, and are held weekly
- Certification Working Group meetings are held on every other Monday at 9 a.m. PDT (find your local time here)
- To subscribe to the meeting invitation, please visit Community Meetings & Calendar
- Next meeting is Monday, February 22nd, 2021 at 9 a.m. PDT

Dial-In Info:

EdgeX Working Group 1 is inviting you to a scheduled Zoom meeting.

Topic: EdgeX: Certification WG Meeting
Time: Sep 28, 2020 09:00 AM Pacific Time (US and Canada)
Every week on Mon, until Sep 6, 2021, 50 occurrence(s)

Please download and import the following iCalendar (.ics) files to your calendar system.
Weekly: https://zoom.us/meeting/u5Ulf-qrqDkrWLE3jhX9lC9CunLdZYFpxw/ics?icsToken=98tyKu-ppjMpGdKXsVyCZ6ovW53_b9_qkEZij_BXlCe8DwMKQRb4GuZ4C5RvCM-B

Join Zoom Meeting
https://zoom.us/j/618833621?pwd=S2lvNHhxNno5R1ZWTVc3VUUvLytyQT09

Meeting ID: 618 833 621
Passcode: 788890
One tap mobile
+13462487799,,618833621# US (Houston)
+16699006833,,618833621# US (San Jose)

Dial by your location
+1 346 248 7799 US (Houston)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 312 626 6799 US (Chicago)
+1 646 558 8656 US (New York)
+1 301 715 8592 US (Germantown)
877 369 0926 US Toll-free
855 880 1246 US Toll-free
+1 438 809 7799 Canada
+1 587 328 1099 Canada
+1 647 374 4685 Canada
+1 647 558 0588 Canada
+1 778 907 2071 Canada
+1 204 272 7920 Canada
855 703 8985 Canada Toll-free
Meeting ID: 618 833 621
Find your local number: https://zoom.us/u/acs6Ws6z6a

Meeting Minutes

- June 14, 2021: Meeting Recording
- May 17, 2021: Meeting Recording
- May 4, 2021: Meeting Recording
- Apr 19, 2021: Meeting Recording
- Apr 5, 2021: Meeting Recording
- Mar 22, 2021: Meeting Recording
- Feb 22, 2021: Meeting Recording
- Feb 8, 2021: Meeting Recording
- Jan 25, 2021: Meeting Recording
- Jan 11, 2021: Meeting Recording
- Dec 14, 2020: Meeting Recording
- Nov 30, 2020: Meeting Recording
- Nov 16, 2020: Meeting Recording
- Nov 2, 2020: Meeting Recording
- Oct 19, 2020: Meeting Recording
- Oct 5, 2020: Meeting Recording
    - Device Profile Tool Incorporation into Endorsement Program
- Sep 28, 2020: Meeting Recording
- Sep 14, 2020: Meeting Recording
- Sep 8, 2020: Meeting with Jiangxing Intelligence on Device Market - Meeting Recording Passcode: kcp1X^@6
    - Device Service Contributions and Market slide deck
- Aug 31, 2020: Meeting Recording
- Aug 17, 2020: Meeting Recording
- Aug 3, 2020: Meeting Recording
- July 20, 2020: Meeting Recording
- July 6, 2020: Meeting Recording
- June 15, 2020: Meeting Recording
- June 8, 2020: Meeting Recording (Password: 1c?Qu+08)
- June 1, 2020: Meeting Recording (Password: 1U+F0c7*)
- May 18, 2020: Meeting Recording (Password: 7Q$^RCb=)
- May 11, 2020: Meeting Recording (Password: 2G$U%H&1)
- April 20, 2020: Meeting Recording (Password: 4Y=59&a4)
- April 13, 2020: Meeting Recording (Access Password: B7+&$$a+)
- April 6, 2020: Meeting Recording
- March 23, 2020: Meeting Recording
- March 2, 2020: Meeting Recording
- February 10, 2020: Meeting Recording
- February 3, 2020: Meeting Recording
- January 20, 2020: Meeting Recording
- January 13, 2020: Meeting Recording
- January 6, 2020: Meeting Recording
- December 16, 2019: Meeting Recording
- December 9, 2019: Agenda; Meeting Recording
- December 2, 2019: Agenda; Minutes; Meeting Recording
- November 25, 2019: Agenda; Meeting Recording
- November 18, 2019: Agenda; Minutes; Meeting Recording
- October 21, 2019: Meeting Recording
- October 14, 2019: Meeting Recording
- September 20, 2019: No meeting due to numerous scheduling conflicts
- September 23, 2019: Meeting Recording
- September 16, 2019: Meeting Recording
- September 9, 2019: Meeting Recording
- September 3, 2019: Meeting Recording
- August 27, 2019: Meeting Recording
- August 19, 2019: Meeting Recording
- August 12, 2019: Meeting Recording
- August 5, 2019: Meeting Recording
- July 22, 2019: Meeting Recording
- July 15, 2019: Meeting Recording
- July 8, 2019: Meeting Recording
- June 24, 2019: Meeting Recording
- June 17, 2019: Agenda; Meeting Recording
- June 10, 2019: Meeting Recording
- June 3, 2019: Agenda; Meeting Recording
- May 20, 2019: Agenda; Minutes; Meeting Recording
- May 13, 2019: Agenda; Meeting Recording
- May 6, 2019 Cancelled
- April 30, 2019: Presentation at TSC F2F meeting Seoul Discussion notes
- April 22, 2019: Agenda; Minutes; Meeting Recording
- April 15, 2019: Agenda; Meeting Recording
- April 8, 2019: Agenda; Minutes; Meeting Recording
- April 1, 2019: Agenda; Minutes; Meeting Recording
- March 25, 2019: Agenda; DeviceServiceCertProcess.pdf; Meeting Recording
- March 18, 2019: Agenda; Minutes; Meeting Recording
- March 11, 2019: Agenda; Minutes; Meeting Recording
- March 4, 2019: Agenda; Minutes; Meeting Recording

- February 25, 2019: Agenda; Minutes; Meeting Recording
- February 18, 2019: Agenda; Minutes; Meeting Recording
- February 11, 2019: Agenda; Minutes; Meeting Recording
- February 4, 2019: First Meeting - Agenda; Minutes; Meeting Recording
- January 16, 2019: Proposal to TSC - Proposal for EdgeX Certification WG

****Draft****

EdgeX Ready

With the Hanoi release, EdgeX Foundry announces the availability of EdgeX Ready.

What It Is

The EdgeX Ready program is about demonstrating the ability to work with EdgeX. The designation helps other community participants and solution vendors identify vendors who have gone through a self-assessment process to demonstrate that they are able to integrate one of their offerings with solutions using EdgeX. Those vendors who have joined the program are highlighted on the EdgeX Foundry website with an EdgeX Ready badge next to their logo.

The initial, "crawl," phase of the "self-assessment process" is to simply validate a device profile. Users attest that they have authored a device profile and moved device-specific data through an EdgeX instance that they had set up themselves thereby demonstrating some familiarity with EdgeX and, more specifically, of device services and their associated device profiles. Upon submission and approval of their device profiles and sample data, the users' logos will be badged on the EdgeX Foundry website.

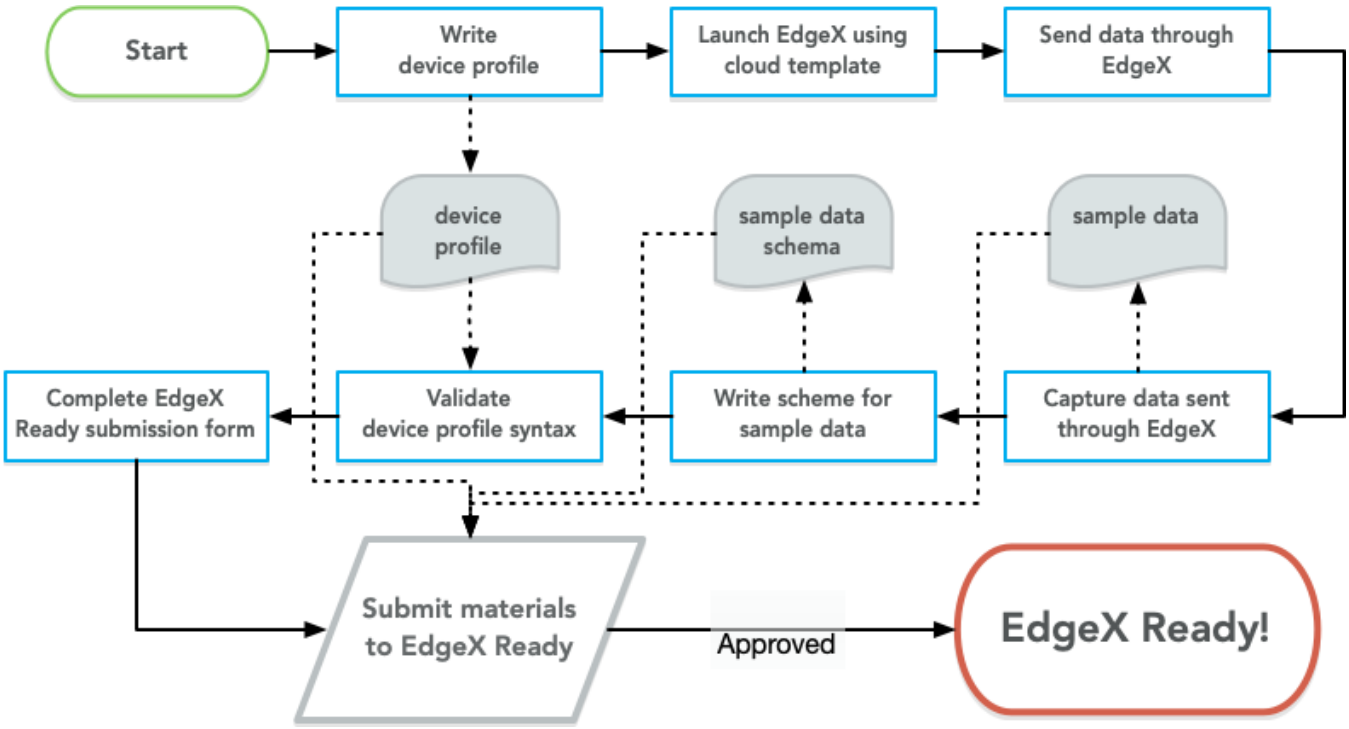
We are initially launching with MQTT- and REST-based device profiles. This is just the beginning. With community interest, we will expand the program to support additional device services.

Self-Assessment Process

We ask the vendors to do the following:

1. Instantiate an instance of the reference implementation of EdgeX with their device profile
2. Using a device that is described by their device profile, generate sample data, and send it to the appropriate device service
3. Confirm that the data arrives in Core Data
4. Validate their device profile using one of the tools provided by the Certification WG
5. Submit their validated device profile and sample data to the EdgeX Ready program

This workflow diagram below may help with understanding the process:



Device Profile Validators

[TBD]

Required Public Materials

The following materials are required to included in the EdgeX Ready Program submission:

- Participation Form – PDF (.pdf), Word document (.docx), possibly Open Document Format (ODF) Text Document (.odt)
- Device Profile – YAML (.yaml)
- Associated sample data – JSON (.json)
- Sample data schema – JSON (.json)
- (Optional) UUID of the device profile, if validated using IOTech's DCT website, in the form of 123e4567-e89b-12d3-a456-426614174000

Contributions

We at the EdgeX Foundry are very much interested in providing the EdgeX community with multiple options for validating device profiles for the EdgeX Ready Program. If you have your own EdgeX validator and would like to contribute the implementation as open-source or share the service with the EdgeX community and the EdgeX Ready program specifically, we are interested in hearing from you! Please reach out to us on Slack at #edgex-ready, email us at edgex-ready@edgexfoundry.org, or contact the Certification Team WG Chair directly at rodney@beechwoods.com and we can discuss next steps.

Availability

EdgeX Ready will be announced before the end of 2021.

Task List

Participation Form

- [ ] . Final sign-off; need URL to the EdgeX Ready Program Terms & Conditions which can readily be done last minute once we have a home for it

Terms & Conditions

- [ ] . Final sign-off; need URL to the Verification Guide which can readily be done at the last minute

Verification Tool Service Provider Agreement

- [ ] IN REVIEW Final sign-off

Website for Required Public Materials Submission

- [ ] IN PROGRESS HTML Form Controls

Verification Guide

- [ ] IN PROGRESS

Out of Date

What It Is

The EdgeX Ready Program seeks to aid in the creation of device profiles and in the collaboration of their use while easing the EdgeX domain knowledge prerequisites. To that end, the following areas of work have been identified:

- Device profile specifications
- How-to guides
- Tools for providing assurance that a given device profile will work with the reference EdgeX implementation
- A community site for sharing device profiles and their associated sample data that enables quick adoption by the end user
- Templates for bring up an instance of the EdgeX reference implementation whether locally or in the cloud
    - A How-to guide with a focus on the device profile creation and data supply side of the collaboration
    - A How-to guide with a focus on the data consumption and usage of given device profile
- EdgeX Foundry based badging that device profile authors can use in their marketing and promotional efforts that reflects the foundry's endorsement of these device profiles

How It Works

- Submit a device profile for verification.
- We will tell you whether or not it is a valid device profile.
    - If it fails, we will tell what is wrong with or what is missing from your device profile.
- Upon passing, we ask if you would like to submit this device profile to the EdgeX Endorsement Program. You fill out a form. The form, the device profile, and related sample data and associated schema are submitted to the EdgeX Foundry for processing.
- Sample data - with profile run this through EdgeX instance (using the cloud templates and cloud provider to test or it could be local)
    - This is about integration with EdgeX - profile is part, sample data, sample Event/readings values (JSON)
- The form and the device profile are reviewed by a team within EdgeX Foundry.
    - profile with sample data and schema definition
    - Team does quick look and adds it to the Endorsement page (cursory look to just make sure everything is there and looks legitimate)
- A sticker/badge is sent to you that you may use for marketing and promotional purposes of that device profile.

Program Components

- Device Profile Validation Tool PR-2 (make issues)
- How-to guides
    - How-to guides on working with the cloud templates
    - How-to guides on working with a local instance of EdgeX
    - How-to guides on working with a device profile and it's sample data
- Templates for instantiating EdgeX in the cloud
    - AWS
    - Azure
- Site hosting the Device Profile Validation Tool PR-3
- Specifications on the form of the sample data to be provided by device profile authors including details about the data's schema
    - Basically, what do we need to know here to work with the provided sample data
    - Sample data is in the form of Postman scripts which would work for device-REST
        - Intel-sourced example of Postman scripts: https://github.com/intel-iot-devkit/rtsf-at-checkout-reference-design/blob/master/loss-detection-app/postman-collections/POS%20and%20Scale%20(No%20Suspect%20items).postman_collection.json
    - Sample data for device-MQTT does not support timing information
        - MQTT.fx like tools are options for replicating a Postman-scripting experience
        - Investigation task to see if there are other tool options available
    - Walk-phase could be a device simulator that can work with sample data that includes timing information
        - Intel-sourced simulator as an example: https://intel-iot-devkit.github.io/rtsf-at-checkout-reference-design/rtsf_at_checkout_events/event_simulation/#event-simulator
- Two ways of accessing the data within EdgeX
    - Export it out via app services configurable
        - Thought here is that the data-consumer's app is external to EdgeX
    - Custom app service to consume the data from Core Data and make decisions on that data (analytics, consolidation, edge processing)
        - Thought here is that the data-consumer is
            - Integrating their app into EdgeX
            - Taking advantage on on-premise resources for data processing prior to sending it to their external app
        - RTFS is an example to possibly follow
    - Address it via a How-to guide. No need to provide more than that to enable
- Means by which successful verification of a device profile results in a unique token, which, in turn, is used on the submission form, and whose authenticity can be verified by the Submission Review Process PR-4
- Submission Portal PR-5
- Submission Review Process PR-6
    - Email List
    - Membership PR-13
    - Approval Criteria PR-11
    - How to respond back to the submitter?
    - Updating Community Website PR-12
- Submission Form PR-7
- Community Site Hosting Device Profiles PR-8
- Business/Marketing site promoting and explaining the EdgeX Endorsement Program PR-9
- Legalize PR-10

Documents

- Certification Program Plan of Record (May 8, 2019)

Charter

Certification Working Group charter approved by TSC.

- Define and document what elements of EdgeX can be certified
- Define and document the process of EdgeX certification; namely what steps parties wishing to certify an element must go through and the success criteria in each step in order to achieve certification
- Build and manage any evaluation tools or automation associated to the certification process
- In consult with the EdgeX marketing work group, communicate and promote EdgeX certification
- On behalf of the EdgeX TSC, officially certify elements and bestow the privileges of that certification (example: authorized the use of the EdgeX Certified label)
- On behalf of the EdgeX TSC, manage the certification process including requests, renewals, revocation, and maintaining a list of certified elements