

## Geneva Release

Last updated: 1/16/2020

Release Version: 1.2

Tentative Delivery: May 15, 2020

Tentative Freeze: April 24, 2020

Current List of features (some previous features planned with the PHX F2F removed where applicable)

### Major themes

- Improved Security
- Interoperability testing
- User guidance on platform needs
  - More performance statistics
  - # of devices/per recommendations
- Dynamic device provisioning/on-boarding
- Alternate messaging support (to OMQ)
- Archive of Export Services
- DevOps Jenkins Pipelines
- The first steps toward a revamped V2 API that includes cleaner (and fewer) endpoints and a simplified request/response model

### General

- Move to Go 1.13
- Redis as default DB
  - Implement with username/password protection.
- OMQ Alternate between core and app services
  - Should help with Windows dev (long standing backlog)
- Separate the configuration and registry APIs
- Establish a document template for API information
  - Used to better define the Swagger documents
- Use of Dependency Injection in Go services found in edgex-go

### Core/Supporting Services

- Combine/reduce UIs
- Blacklist/whitelist of devices (w/ DS WG)
  - As part of auto provisioning
- Alternate message bus provider (w/ App WG)
  - Allowing data from Core Data to be pushed to multiple channels / topics and how to deal with marking an event/reading as pushed in that circumstances
- *Implementation of the V2 APIs across core services (beta/use at your own risk)*

## Application Services and App Functions SDK

- Export Service archive/deprecation
- Application services should provide for batch and send modes
- Rules Engine Replacement (w/ Core WG)
  - JSON Logic and/or EMQX Kuiper implementation
- Create a design and implement a means for application services to feed data back into core data
- Support Cloud Event import (device service) and export (if not supporting Cloud Events model throughout) – *stretch goal*

## Device Services and Device Service SDKs

- Automatic/dynamic device provisioning capability
- Array of data types (w/ Core WG)
- Data filter design between DS and Core Data
  - Provide a design about how to implement this before implementing.
  - If possible, can the filter functions be shared across App Services and D.S. (w/ App WG)

## System Management

- Start/stop/restart all done by the executor to include stop/restart of SMA
- CLI improvements (TBD)
  - Move CLI out of holding
- Open Horizon “Walk phase” (TBD)

## Security

- Create a hardware secret storage design
  - HW secure storage abstraction layer
  - How to protect the Vault Master Key
- Create and use a per service Vault token in the security services
- Service token revocation and rotation
- Ensuring the services running are those expected and authorized (w/ DevOps assistance)
- Blackbox tests of APIs through the API gateway
- Design work
  - How to implement HTTPS in EdgeX (that is, how to protect all service endpoints with HTTPS)
  - How to implement role-based security across our all EdgeX services.

## Test/QA

- Device Service testing – complete testing for current set of EdgeX Device Service (w/ DS WG)
- New blackbox tests to support V2 API changes on new Robot-based Test Automation Framework
- Documentation – move all API definitions to Swagger (w/ all WG assistance)
- Documentation – move from RST to Markdown
  - Explore documentation versioning – stretch goal
- System integration / interoperability tests - Device Service read data -> Core Data -> Rules Engine or Application/Export Service -> Command

- Implement enough performance testing in order to be able to answer key performance measures – extend existing Robot perf test summary suite developed during Fuji
- Add unit tests/testing for global libraries. (w/ DevOps help) – stretch goal

### DevOps

- Move to Jenkins Pipeline
  - Requires the use of Github.org Plugin for Jenkins
- Apply Synk scan to other services and images (w/ all WG input)
  - Synk can't do ARM images
- Sharpen our use of SonarCloud and provide developer education around it – stretch goal

### Certification

- Nothing at this time; planning toward certification and self-assessment when LTS hits.

### Vertical Solutions WG

- China Project Team in place
- Industrial Project Team – stretch goal