Roadmap 2022/2023

Status: Ratified

A spreadsheet outlining items from Roadmap 2020/2021 and potential items for this roadmap is available here.

A Video recording of the meeting to discuss this is available here.

Document Purpose

The purpose of this document is to collect various ideas for inclusion in the Fledge roadmap; these ideas can then be presented to the TSC for discussion and prioritization into a roadmap for Fledge for 2022/2023. Community input is requested to extend the set of items for possible inclusion.

Once this document has been reviewed and discussed at the TSC meeting, each potential item will be given an ID, and the voting members of the TSC will be asked to give priority to the item for inclusion. This will determine what items become part of the roadmap for the coming year and which are excluded. It does not guarantee inclusion within Fledge within that year, as this depends on resource availability. It is also recognized that specific user requests may interrupt the roadmap progress and introduce new additions or modifications to Fledge that are not part of the roadmap.

Scope

A reminder of the scope of Fledge is included here to help bound and direct the ideas proposed for inclusion in the roadmap.

- The major purpose of Fledge is an Industrial IoT platform, enhancements should be targeted to use within an industrial setting.
- Fledge is not intended to replace control systems. The real-time, safety-critical control is outside of the scope of Fledge.
- Fledge should be a hands-free appliance that may be run in unattended environments.
- The intended location of operations is within edge devices, it is not precluded that Fledge instances may be run in more powerful hardware.
 However, enhancements should not require hardware more powerful than an average specification edge gateway.

Development Goals

The roadmap items are broken down into several groups; Core Enhancements, Documentation, the various plugins, Promotion, and LF Edge Project Integrations

Core Enhancements

Platform Support

- · Remove CentOS 7 support due to security concerns
- Add support for the latest CentOS versions

High Availability Improvements

We will work to document hard requirements for advanced HA cases.

This year we will concentrate on the low-hanging fruit. Dianomic has working methodologies for achieving limited high availability. These methodologies will be documented and shared.

IBM has lightweight, edge-ready Kuperneties-style models working in the Open Horizon. These efforts will also be shared.

Documentation

Persisting data from Plugins

Need detail on this

API Guides

There are Web API methods that still require documentation

User Guides

Updated and expanded user guides will be developed to include:

- Security of data and data flows
- · Configuration of complex processing pipelines
- · Notifications and interactions between services

- · Configuring high availability Fledge clusters
- Configuring multiple north services
- ML Filters if these plugins are donated to the project
- · Use case guides and options design patterns

Plugins

North Plugins

- AWS Kinesis Publisher To be donated by Raesemann
- IBM Maximo Monitor from IBM

South Plugins

- Ethernet/IP Dianomic has this available and will donate to the project
- AWS Kinesis Subscriber Will be developed and donated by Raesemann
- Bacnet This is needed but not currently under development

Filter Plugins

• Machine Learning Plugins - Google may be interested in donating

Notification Plugins

- · Kafka would be nice
- · Kinesis would be nice

Promotion

Fledge is a mature product with many users. With the release of version 2.0., it is time to concentrate on getting the word out and sharing experiences.

- Connect with LF Edge marketing and learn what resources are available
- White Papers
- Live Webinars
- Create a LinkedIn Page
- Twitte
- Make Google Quick Lab Available, if possible, and promote through these channels

LF Edge Project Integrations

EdgeX

This integration was started some time ago and needs to be addressed. There is probably some bitrot.

EVerest(LFE)

This project is using Fledge in reference implementations

Open Horizon

This project has a service which pulls the Docker file from the Fledge repo, building, and running it. They need to show it connecting to the Fledge control plane.

Security Working Group

Explore working with them