

# Fledge Home



# FLEDGE

## Overview

Edge computing is a challenging distributed computing problem. The fragmentation and distribution of industrial data, networking, processing, security and storage makes managing it complicated. Simplifying industrial IoT application and system development with a ubiquitous open source stack, standards, and community is our mission.

Fledge is an open source framework and community for the Industrial Edge. Architected for rapid integration of any IIoT device, sensor or machine all using a common set of application, management and security REST APIs with existing industrial "brown field" systems and clouds.

Fledge edge services include: Collect Data from any/all sensors, aggregate/combine/organize data, edge based alerting/anomaly detection/machine learning (TensorflowLite, OpenVino), transform/filter data in flight, buffer data, analyze/visualize edge data, and deliver data to multiple local/cloud destinations.

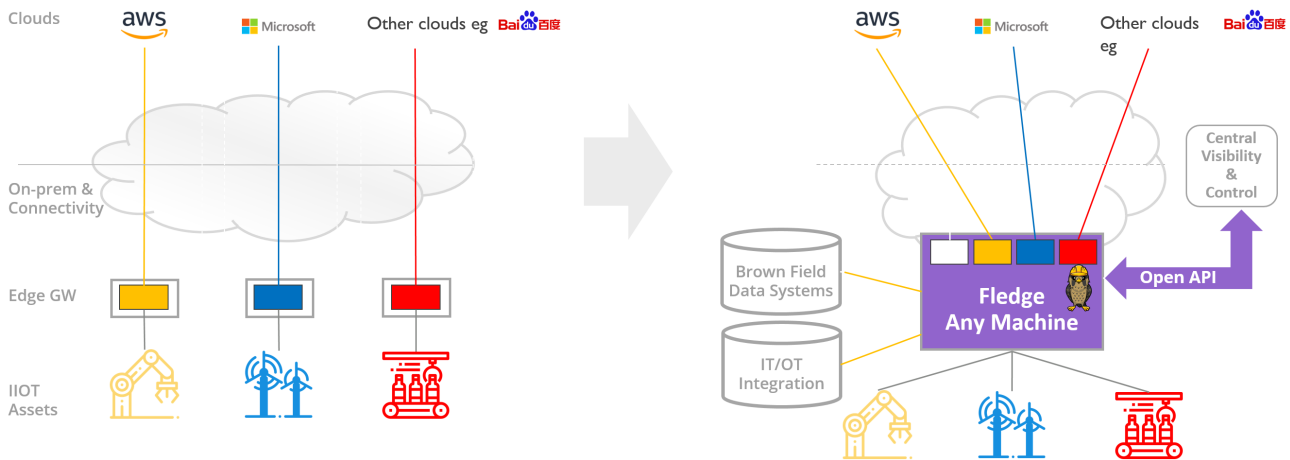
## Cloud Silos – Open Source Fledge is the Answer

### IIoT Today

Vertical data silos & platform lock-in  
Data/edge sovereignty & control issues  
Hardware-defined & unmanaged edge

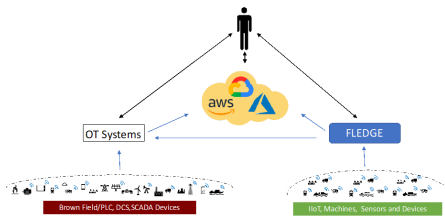
### IIoT with Fledge

Open IoT data architecture, no lock-in  
Data & edge belong to the factory, plant, mine  
Software-defined & ubiquitous edge



Fledge developers and operators no longer face complexity and fragmentation issues when building their IIoT applications as they gather and process more sensor data to automate and transform business. Fledge's modern pluggable architecture eliminates the data silos often found in plants, factories and mines. By using a consistent set of RESTful APIs to develop, manage and secure IIoT applications, Fledge creates a unified solution.

# Industrial Operators



## Critical Operations Plant Wide

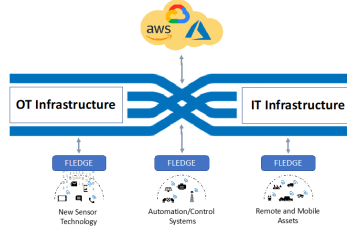
- Condition-Based maintenance
- Predictive maintenance
- Situation awareness
- Increased safety
- OEE, TPM

### How

- Connect all machines, sensors
- Put all data in plant wide context
- Eliminate fragmentation and complexity
- Use FLEDGE's common APIs to manage, secure and operate as a system

- [Quick Start Guide](#)
- [Architecture](#)
- [Community](#)
- [Use Cases](#)
- [Cross-LF Edge Collaboration](#)

# Industrial SIs



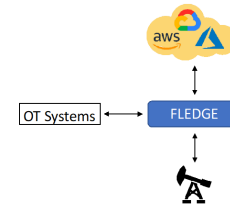
## Lead Industrial 4.0 Transformations

- Accelerate deployments
- More/tighter Integrations
- Own and re-use your value-add code
- Develop ML/AI expertise
- Increase value delivered/hour

### How

- Connect all machines, sensors to old and new OT/IT Systems
- Put all data in plant wide context
- Build services around latest ML/AI tools
- Use FLEDGE's common APIs to manage, secure and operate as a system

# Equipment Vendors



## Smarter, More Autonomous Machines

- Machines that learn
- Machines that maintain themselves
- Machines that integrate
- New business models/higher margins
- Machines that compete

### How

- Use latest ML/AI tools
- Use modern architectures
- Avoid proprietary APIs and cloud lock-in
- Save development time and money
- Use FLEDGE's common APIs to manage, secure and operate as a system

## Recent space activity



[Mark Riddoch](#)

[Community](#) updated Nov 27, 2020 • [view change](#)

[Technical Steering Committee \(TSC\)](#) updated Nov 27, 2020 • [view change](#)



[Brett Preston](#)

[Technical Steering Committee \(TSC\)](#) updated Nov 25, 2020 • [view change](#)



[Mark Riddoch](#)

[TSC Email Votes](#) updated Nov 06, 2020 • [view change](#)

[Roadmap 2020/2021](#) updated Sep 16, 2020 • [view change](#)

## Links

- [Join LF Edge](#)