



aicas. Embedded. Connected.

Simplifying the Vehicle to Cloud (V2C) Journey..

Damiano Senese | Software Engineer | 13.12.2021

AGENDA

1

Introduction

2

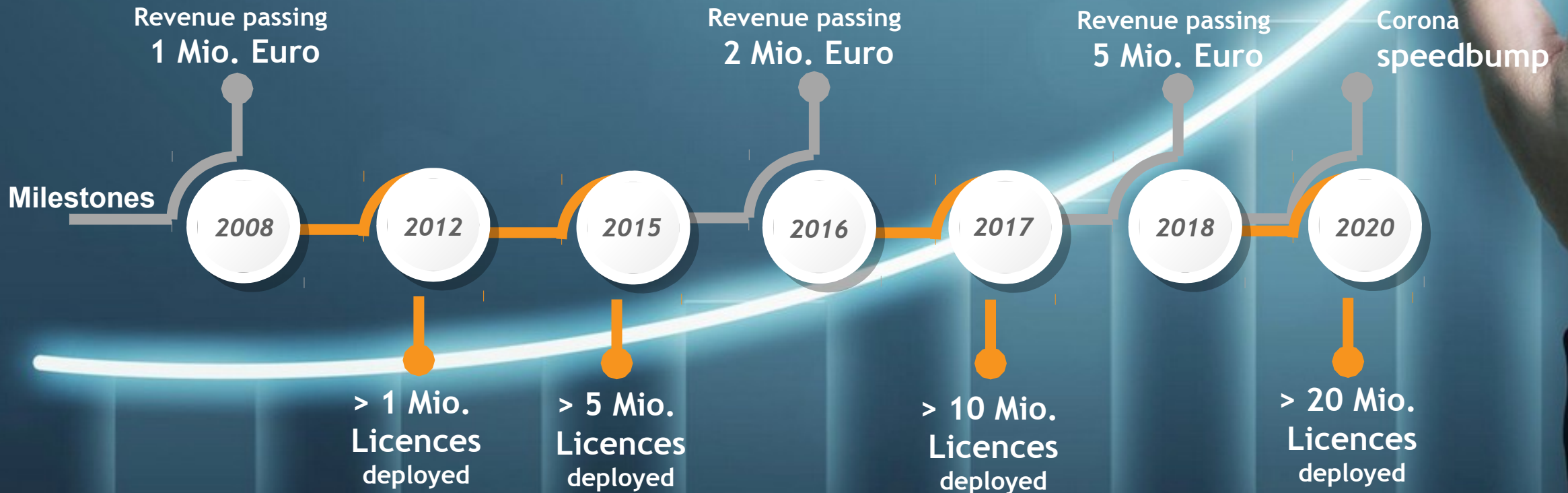
aicas EDGE Suite

3

Live demo



aicas' Growth Story.



Platformization

1

Unification of In-Vehicle Software Platforms

CPUs

- ARM, RISC-V, X86
- ESP32s, ST Micron, etc.

(RT)OS

- Linux (AGL, Yocto, etc.)
- QNX, VxWorks, Android
- PikeOS, FreeRTOS

Works with other runtimes

- Docker
- POCO
- Hypervisor
- OpenJDK, etc.

OTA

2

From Micro Updates to Full Updates for MCUs and ECUs

- Secure, industry standard
- Automatic success / failure detection
- Covering
 - IVI (Infotainment)
 - Headunits
 - Telematics
 - Domain Controller
 - ECUs
 - MCUs

V2C / V2V / V2X

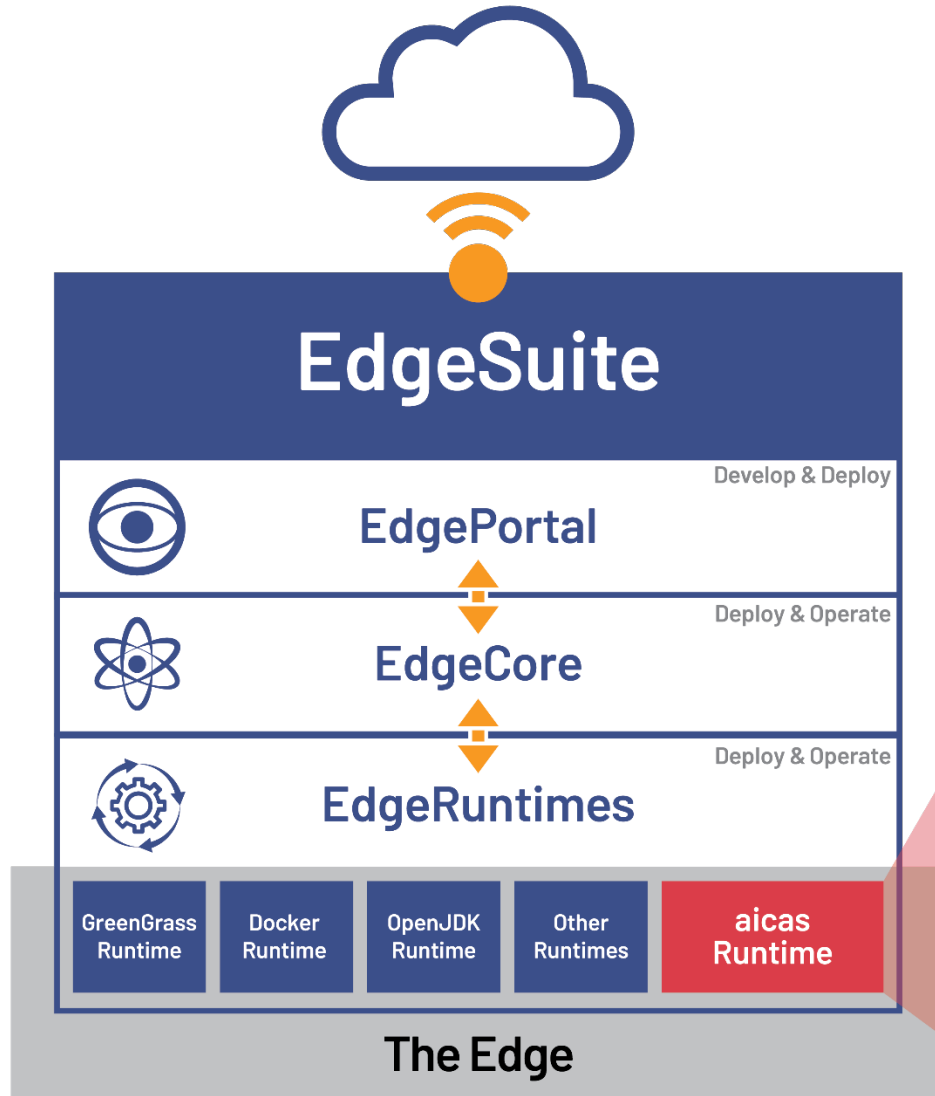
3

Data and Software Lifecycle Management

- Full lifecycle
- V2C reference architecture for Automotive Grade Linux (AGL)
- Low Latency V2X
- CI/CD, DevOps for data and logic
- Multi cloud support (incl. cloud migration on vehicles)
- Security
- Data pipeline management from SW developers to business analysts & data managers

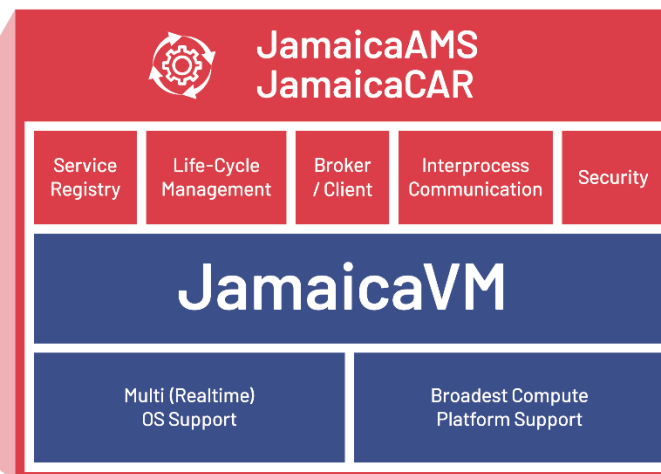
aicas EdgeSuite

easily create, deploy, and operate cloud to edge solutions



aicas EdgeSuite reduces complexity.

- It enables to manage a single device or even large fleets of devices via one system.
- It reduces risks due to the variety of supported heterogeneous environments, platforms, standards, protocols, and operating systems.
- It offers flexibility by supporting different runtimes.



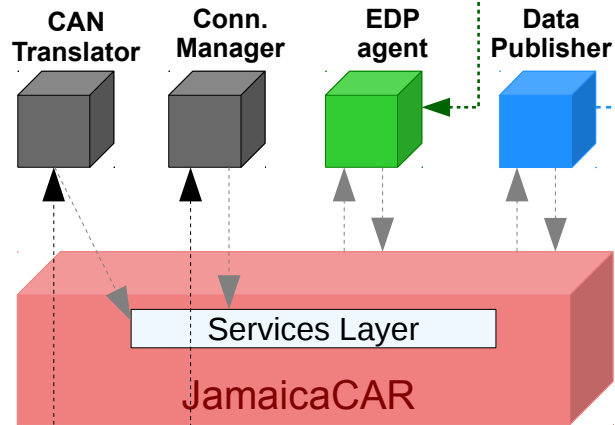
EdgeSuite on AGL

TCU Reference Design



edge device: raspi 4

aicas runtime

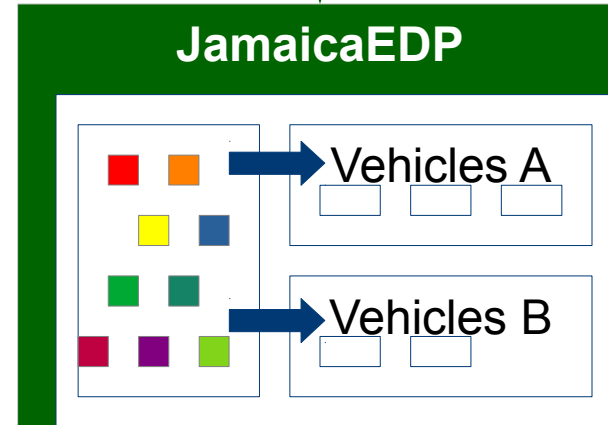


OS: AGL 12.0.0 (lamprey)

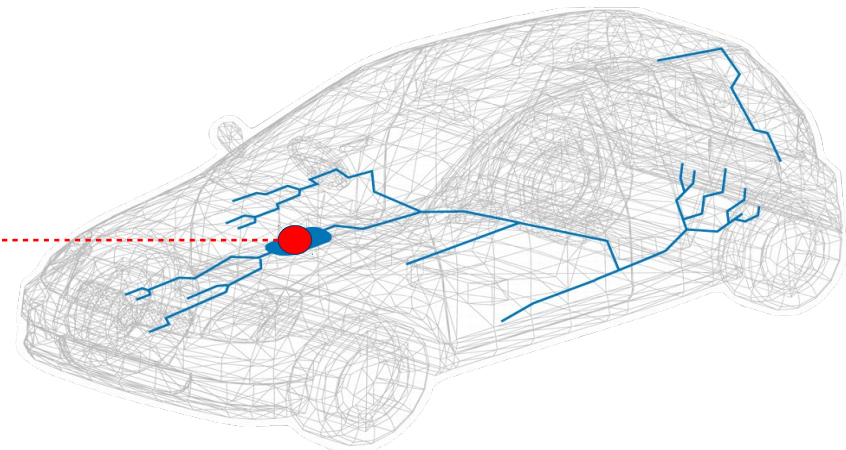
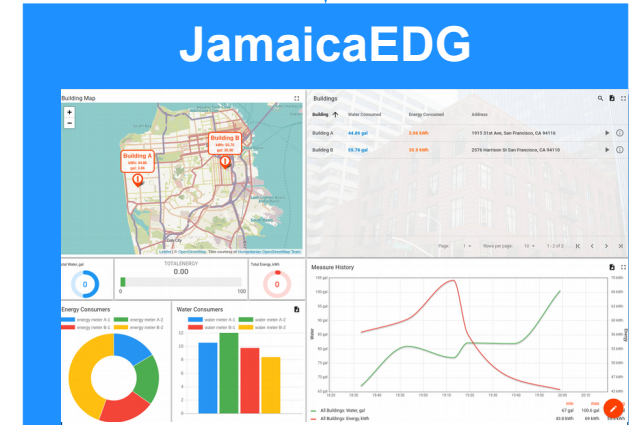
MQTT

MQTT

JamaicaEDP



JamaicaEDG



Live Demo





Next steps?

aicas. Embedded. Connected.



Get in touch with us to learn
more about our products!

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Thank you
for your
Attention