Introduction to Cassia OPC UA Server Solution

Making Bluetooth IoT Easy. Scalable. Secure.

What is OPC-UA (Unified Architecture)
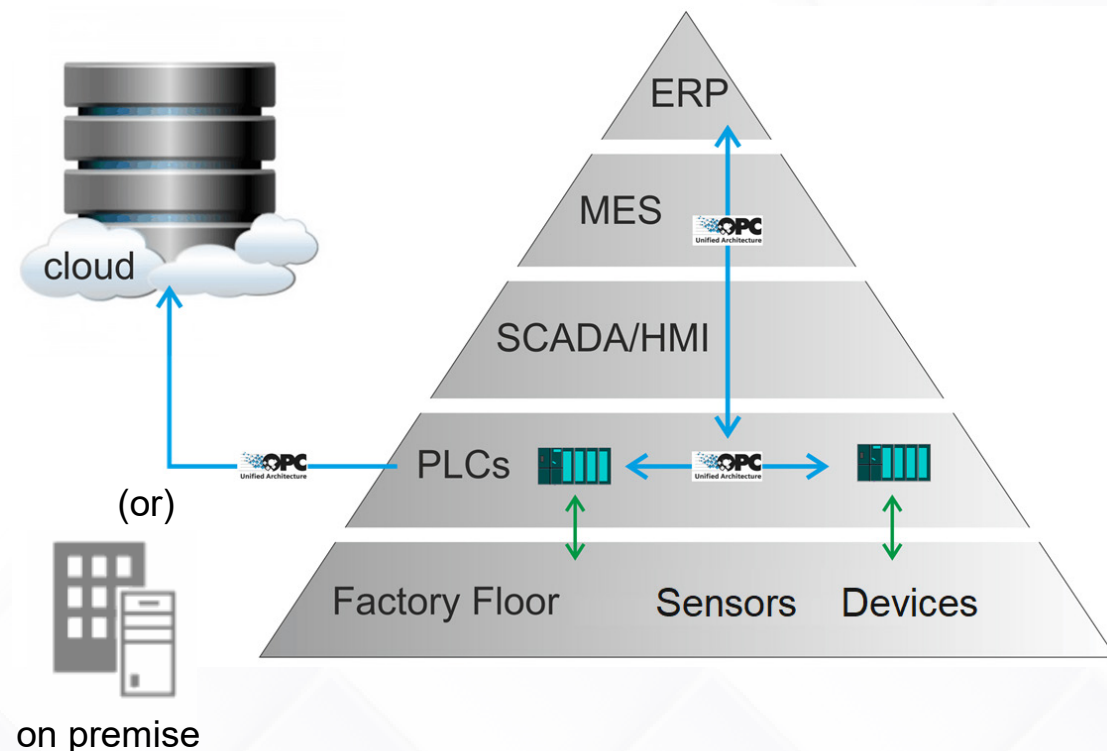
OPC-UA – enables **secure**, **reliable** and **platform independent** interoperability

Enables transportation of data from **process control** devices to enterprise **information systems**
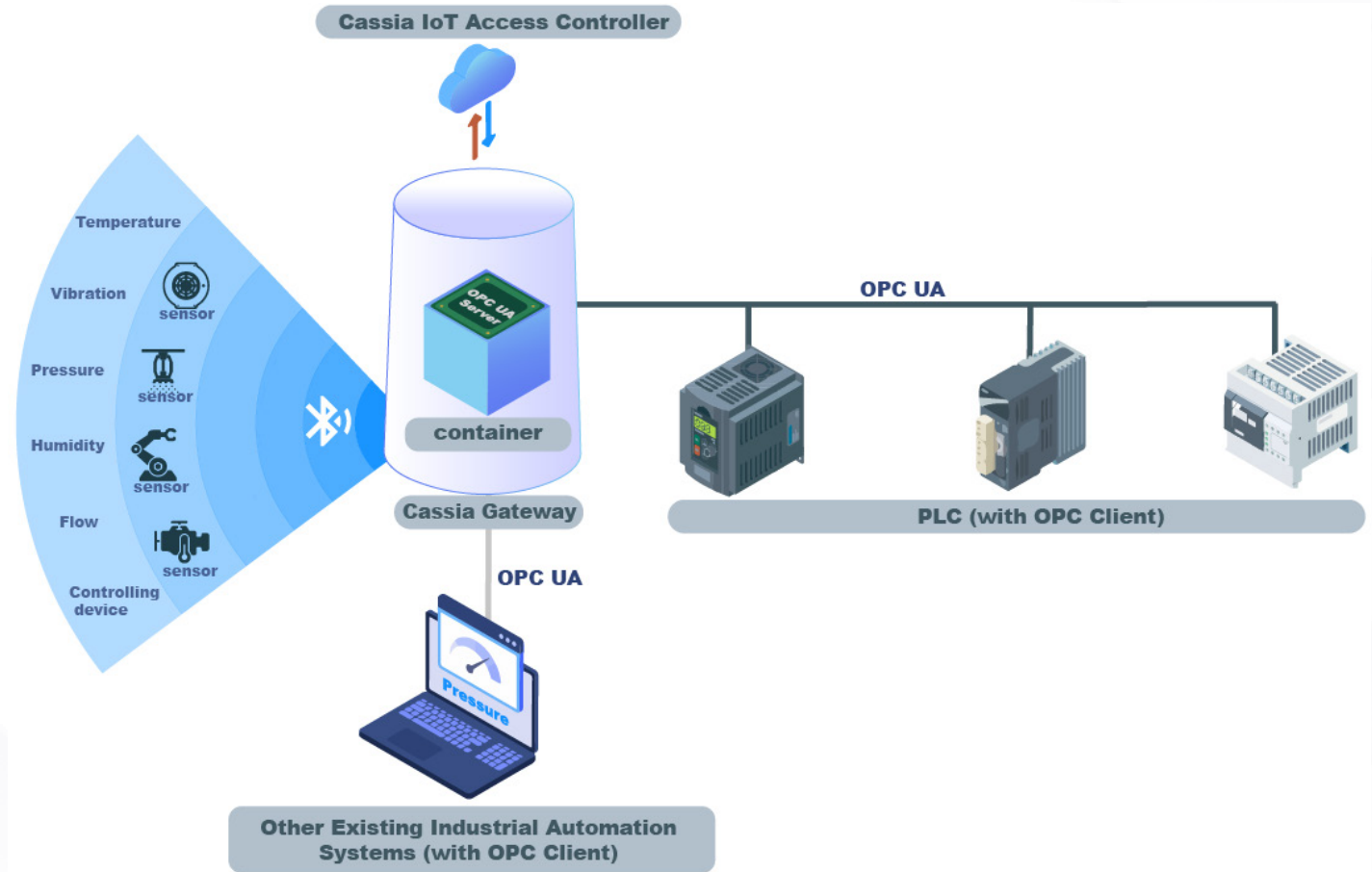
Supports **local & cloud server** deployments

OPC Foundation: https://opcfoundation.org

cloud

(or)

on premise

ERP

MES

SCADA/HMI

PLCs

Factory Floor   Sensors   Devices

Why OPC UA Server Support for Bluetooth Gateways?

Advantages for IIoT applications:

- Enabling BLE sensors to **communicate directly** with PLCs that support OPC UA protocols

- Enables the **integration** with other existing industrial automation systems

- Provides **easy deployment**, **secure** data exchange and can accommodate legacy systems allowing for greater **scalability**
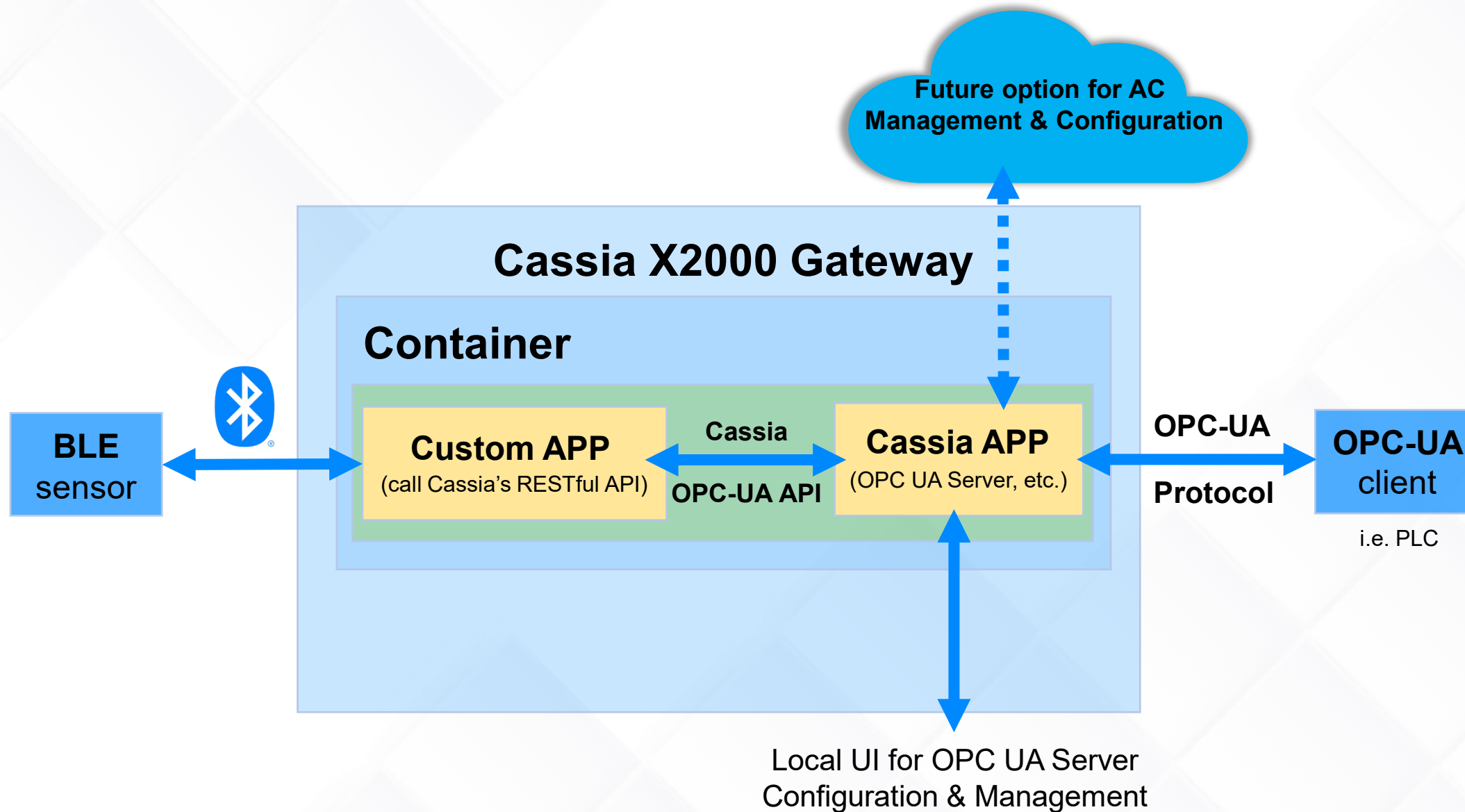
OPC Foundation: OPC UA is recognized as "the most important interoperability technology in today's industrial landscape"

Introducing Cassia's **OPC-UA Server Solution**

Design Architecture

Custom Gateway Agent App

Cassia can customize a customer's APP depending on their unique requirements:

- Connect customer's BLE sensor by calling Cassia's RESTful API
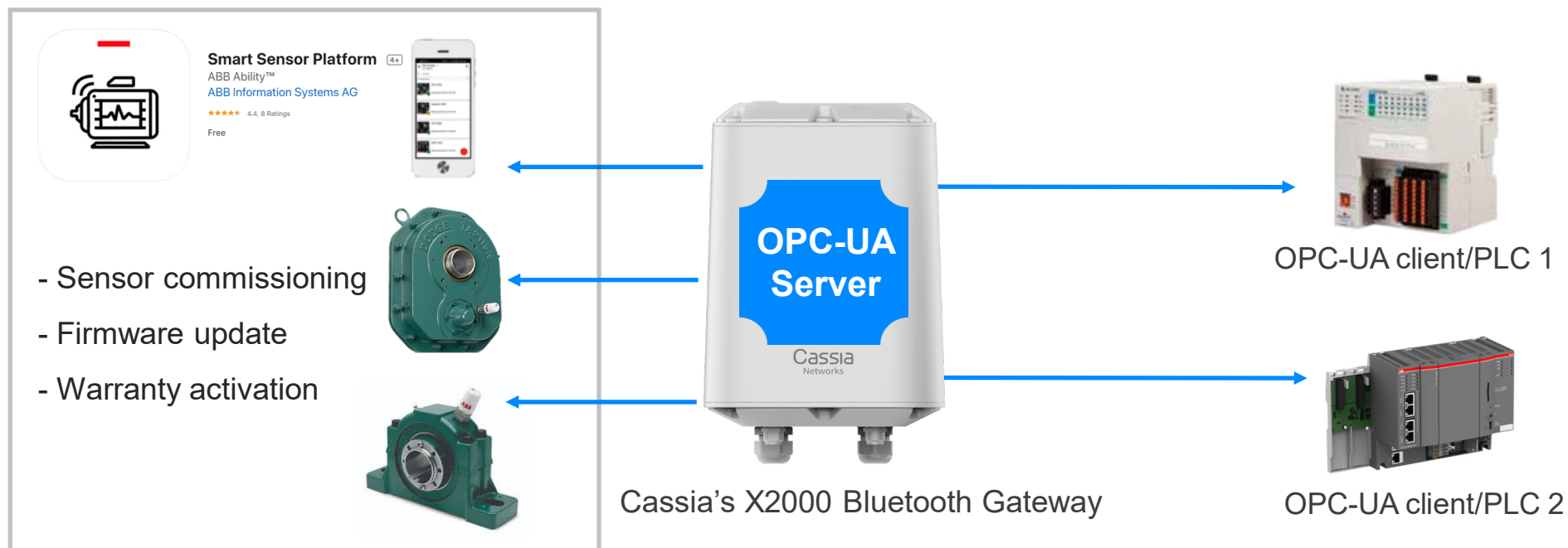- Saves the BLE sensor data in the OPC UA server through Cassia's OPC-UA API

For future device integrations, this can be achieved with one of the following development options:

Option 1: Customer can write their own custom gateway agent APP

Option 2: Cassia will write the custom APP as a professional service project

Use Case: OPC UA Server Collaboration with ABB

Smart Sensor Platform [4+]
ABB Ability™
ABB Information Systems AG
★★★★★ 4.4, 8 Ratings
Free

- Sensor commissioning
- Firmware update
- Warranty activation

OPC-UA Server

Cassia's X2000 Bluetooth Gateway

OPC-UA client/PLC 1

OPC-UA client/PLC 2

COLLABORATION

Enabling ABB BLE sensor communication with PLC controllers. Paving the way for integration with traditional industrial automation control systems.
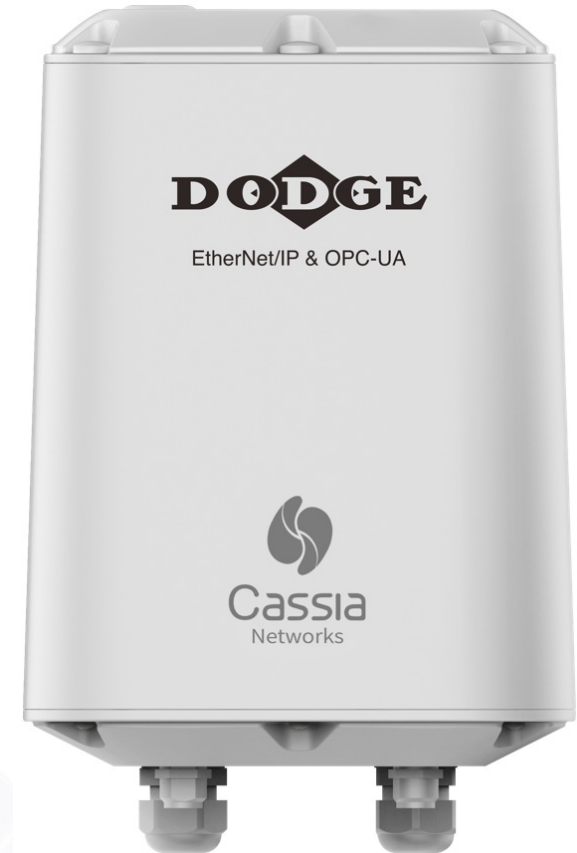
Use Case: OPC-UA Server Collaboration with ABB

Phase 1:

- Customers that use Bluetooth IoT solutions for motor & bearing condition monitoring applications

Phase 2:

- More general IIoT customers that want to connect BLE sensors to existing industrial automation systems that support OPC UA protocols

Co-branded gateway with ABB US bear group (DODGE)

Update: RBC Bearings acquires ABB's DODGE mechanical power transmission division

Summary

Cassia Networks supports the OPC UA server on Cassia's Bluetooth Gateways to enable end-users to integrate BLE sensors with many traditional IIoT automation systems (i.e. PLC)

Benefits for Customers

- Enables Smart Manufacturing applications

- Minimizes the complexity of communication between devices and sensors allowing for greater efficiency

- Reduces operational expenses

Imagine The Possibilities!

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