



MULTI VENDOR CONDITION MONITORING & CALIBRATION CERTIFICATES

via

Open Industry 4.0 Alliance +
Asset Administration Shell

CONCEPT STUDY

DESCRIPTION

We present a multi vendor IIoT use case in the food and beverages and condition monitoring domains.

By continuously tracking temperature, conductivity and volume, a Clean-In-Place process and an on-demand sensor recalibration are enabled, ensuring product quality while minimizing downtime and maintenance cost.

Vertically, an integration of a multi vendor mix of field devices is enabled by the use of industry standards like IO-Link and HART. Horizontally, an AAS infrastructure allows for open exchange of device identification, health and calibration data between multiple cloud services.

BENEFITS

Business value

- Ensure product quality
- Minimize downtime and maintenance cost
- Improve process transparency
- Multi vendor certificate management

Open ecosystem

- Technical and semantic interoperability
- Commitment to established industry standards
- No vendor lock-in

Low barrier of entry

- Reduce complexity and integration effort
- Enable cloud or edge-based analytics
- Ideal for green field and brown field solutions



Endress+Hauser 
People for Process Automation

 software^{AG}



MULTI VENDOR CONDITION MONITORING

via Open Industry 4.0 Alliance + Asset Administration Shell

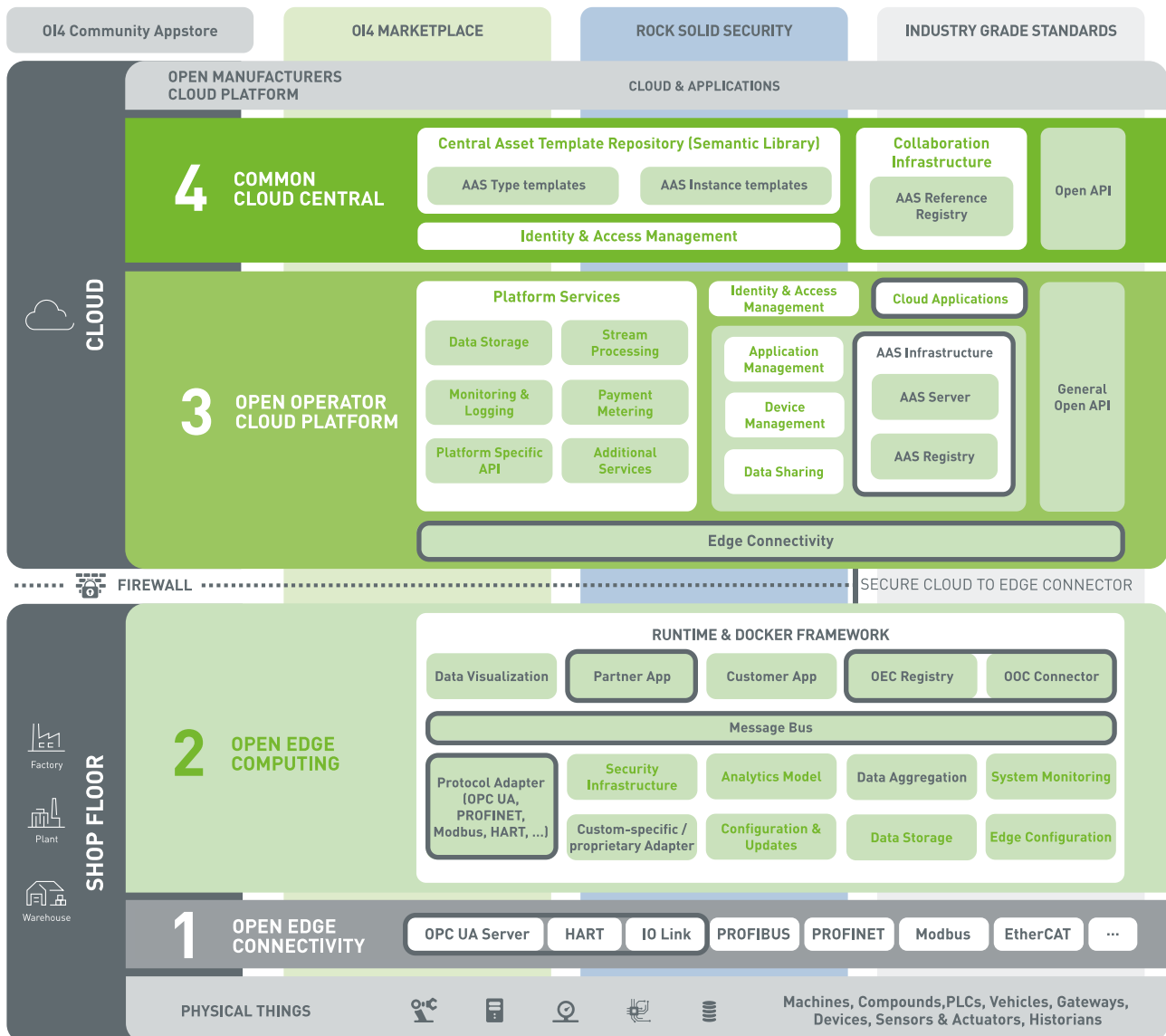
Hardware components

- ifm moneo appliance OI4 prototype
- ifm AL1352 IO-Link master with IoT interface
- ifm TCC501 temperature transmitter
- ifm LDL200 inductive conductivity sensor
- Endress+Hauser Proline Promass F 300 Coriolis flowmeter

Cloud services

- Endress+Hauser Netilion
- Software AG Cumulocity
- OI4 AAS Repository Reference Implementation

ACTIVE PARTS OF THE OI4 REFERENCE ARCHITECTURE





PURPOSE OF THE OPEN INDUSTRY 4.0 ALLIANCE

By joining our alliance, manufacturers and providers of Industry 4.0 solutions and services worldwide can collectively help their customers to successfully transition to the industrial internet of things. Thanks to new synergies, Open Industry 4.0 Alliance members master Industry 4.0 – and enable operators to take business to the next level.

openindustry4.com

EXPERIENCE OUR VISION

In our Marketplace Directory you and your customers can take the opportunity to discover our vision of common innovative standards today.

Members submit products, services and more to our easy-to-search directory, have them checked for compliance to our standards, to offer them to a broader audience. This way, we connect the industry with the latest solutions – keeping security and interoperability in mind always.

EXHIBIT PARTICIPANTS



Endress+Hauser Flowtec AG
Christoph Merian-Ring 4
4153 Reinach Basel-Landschaft
Switzerland
Tel. +41 61 715 61 11
Fax. +41 61 715 66 99
E-Mail: info.ch.sc@endress.com
Internet: ch.endress.com



Software AG
Uhlandstraße 12
64297 Darmstadt
Phone: +49-6151-92-0
Fax: +49-6151-92-1191
E-mail: webinfo@softwareag.com
Internet: www.softwareag.com



ifm electronic gmbh
Friedrichstraße 1
45128 Essen, Germany
Tel. +49 / 201 / 24 22-0
Fax +49 / 201 / 24 22-1200
E-mail: info@ifm.com
Internet: ifm.com