



ii4.0 SERVICES

REMOTE MONITORING SERVICES

ii40_Connect

Equipment Monitoring and Servitization Platform



ii40Services - RMS in a glimpse

We support OEMs and equipment users to manage the operation and maintenance of their fleet of machines as part of a **Digitalization and Servitization** strategy to remain competitive and profitable

...

Our platform **ii40 Connect™** is a complete solution that includes hardware, software and data analysis to monitor remotely the operation and health condition of industrial equipment with highest levels of cybersecurity

...

We apply our experience and the latest Industry 4.0 technologies to connect machines and equipment with their managers, and enable the supervision of manufacturing lines and the delivery of advanced services around the equipment both for OEMs and users.

ii40Services - RMS ... your technology partner in Industry 4.0 for Digitalization & Servitization



Digitalization of Operations ...

In face of continuously increasing demand for *flexibility*, *availability* and *profitability*, the

Digitalization

of manufacturing equipment by leveraging Industry 4.0 technologies offers great potential:

- ✓ Continuous Optimization of Operations
 - ✓ Sensorisation
 - ✓ Remote Monitoring
- ✓ Remote & Complete Maintenance
- ✓ Interconnection with Environment

Potential improvement

15-20%

in efficiency

Accenture, 2014

Breakdown costs

250,000€

/ hour

Aberdeen Report, 2016

Digitalizatio & Data to unlock untapped performance from manufacturing equipment



... from Monitoring to Servitization

Strategic refocus by OEMs from
Product towards Service

- ✓ Additional Revenue streams
 - ✓ Competitiveness
- ✓ Long term relationship building with customer
 - ✓ New business models

OEMs and Suppliers need accurate real time information
of **machine health and machine performance**



Industrial IoT Platforms for monitoring



Industrial IoT Monitoring Platform as the enabling technology for Servitization



ii40_Connect™ Platform

Industrial Equipment Monitoring & Servitization Solution

ii40_Connect is a complete solution for the digitalization of industrial equipment that includes **hardware, software and data analysis**.

It connects the machine data with supervisors and managers providing them with **accurate and on-time information** on the machine condition and performance, allowing them to make **data driven** decisions and carry out proactive actions on the equipment.

Monitoring

- Process Supervision
- Anomaly identification & Notification
- Remote Diagnostics
- KPI Tracking

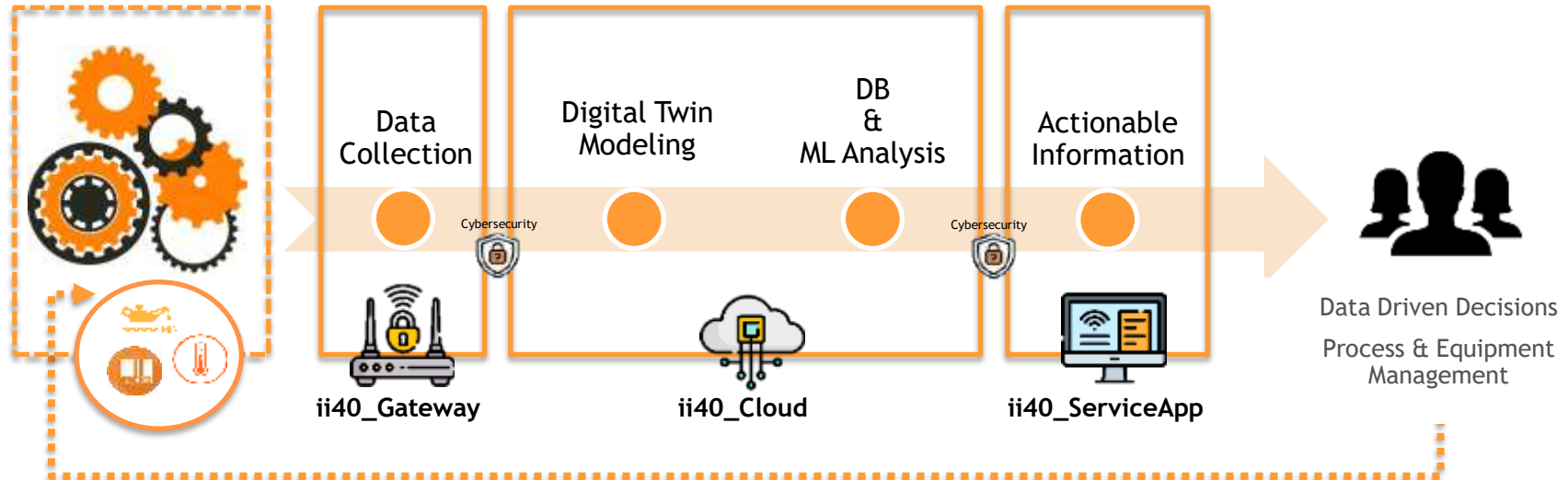
Servitization

- Remote Assistance
- Spare Parts & Upgrades
- Maintenance Contracts & Warranty Extension
- Predictive Maintenance
- Performance based Contracts



ii40_Connect™ Platform

ii40_Connect: Industrial Equipment Monitoring & Servitization Platform



Process Supervision ... Anomaly Detection & Notification ... Operation & Maintenance Reports
Remote Diagnostics & Assistance... Predictive Maintenance ... Smart Maintenance Contracts





Benefits ii40_Connect

for OEMs

- ✓ Plataform for the deployment of Servitization strategies
- ✓ New Revenue Streams
- ✓ Fleet Supervision
- ✓ Remote Diagnostics & Assistance
- ✓ Customer Service Cost Reduction
- ✓ Customer Service Improvement
- ✓ Information on Use & Failure Modes, for new designs
- ✓ Diferentiation & Customer Relationship



Benefits ii40_Connect

for Equipment Users

- ✓ Improvement in availability, efficiency and profitability in machine utilization
- ✓ Enhanced knowledge of Manufacturing Processes
- ✓ Improvement of Quality levels
- ✓ Tracking of Machine Health
- ✓ Maintenance Cost Reduction
- ✓ Energy Efficiency improvements



Data Collection & Analysis: Gateway & Cloud..

System Attributes

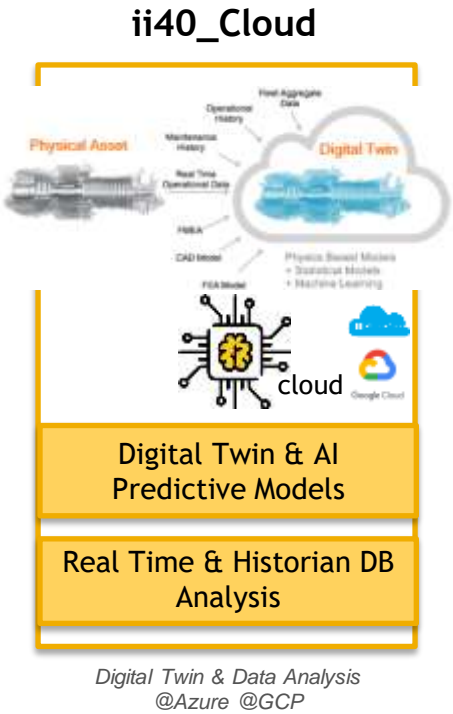
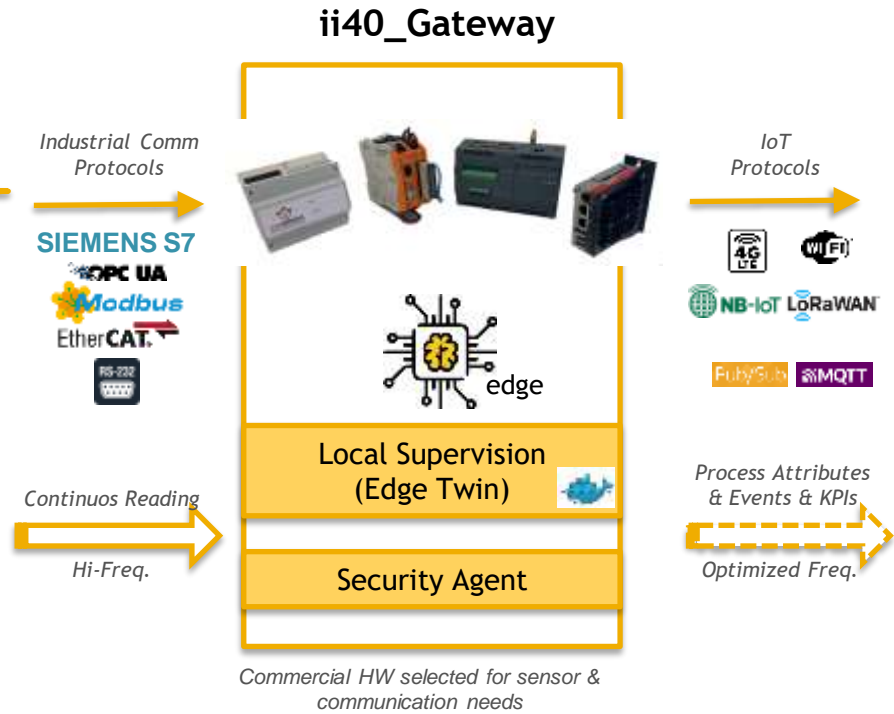
- Line voltage, current, power, temperature, pressure, speed, consumption, levels,...
- Component Operation
- Vibrations/Ultrasound readings
- Motor consumption
- Environment conditions
- GPS

**Automation Data
CNC/PLC/...**

SIEMENS BECKHOFF OMRON

Sensor Data

Analog: 0-10V, 4-20mA
 Bus: ModBus, CAN, IO-link
 Wireless: Bluetooth, LORA



Digital Twin to visualize real time condition & provide insights into future behaviour

... actionable information: ii40_ServiceApp

Access channels

- 1 Web App - Dashboard
- 2 Alerts and Notifications
- 3 Operation Reports
- 4 Ticketing System
- 5 API



[Access ii40_Connect](#)

Capabilities

- ✓ Real Time Process Supervision
- ✓ Remote Diagnostics & Assistance
- ✓ Alarm & Event Analysis & Management
- ✓ ML Data Analysis to extract Insights and Recommendations:
 - Machine Health
 - OEE Optimization
- ✓ Predictive Maintenance:
 - Rotating Equipment Vibration
 - Hydraulic Units
 - Thermal Treatment Processes
- ✓ Quality Control

Actionable information, on time, anywhere and to the right person



Dashboard ii40_Connect

ii40_Connect 14/02/2021 14:48:01

Fleet View for RMS ii40Connect

Summary Statistics:

- Total Devices: 7
- Online Devices: 5
- Offline Devices: 2
- Devices with Alarms: 3
- Emergencies: 0

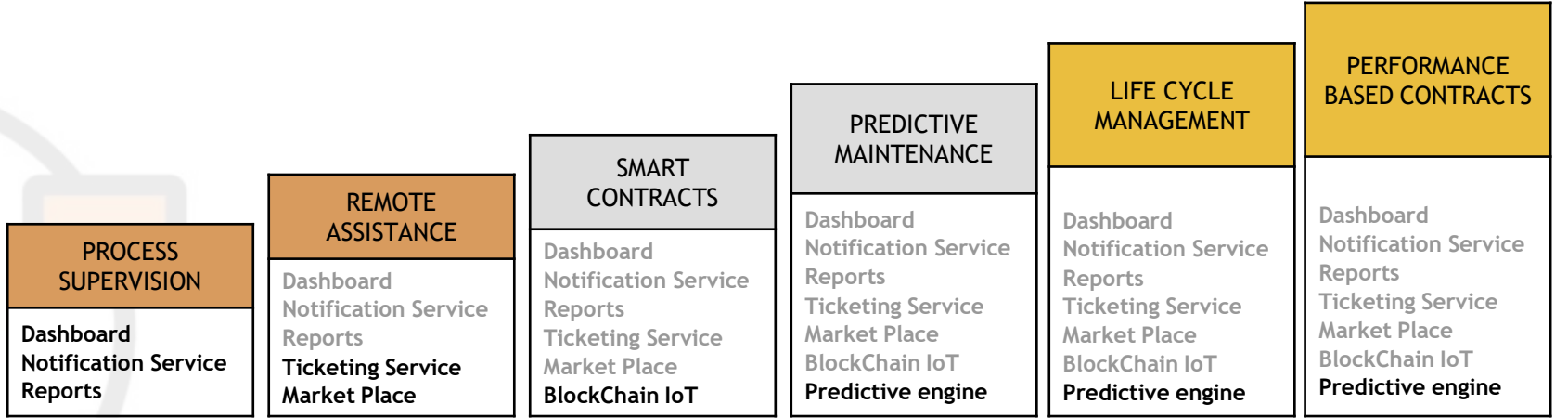
Equipment Details:

Device Name	Status	Machine Running (%)	Alarms
pump001_mil (Pump)	Online	100%	0
pump002_mil (Pump)	Online	100%	0
pump003_mil (Pump)	Online	100%	0
sheeter001_mil (Sheeter)	Offline	100%	1
rms002_mil (MUS)	Online	100%	2
rms004_mil (MUS)	Offline	100%	0
7k-1872KKM-ZC (Zone Centro)	Online	100%	1

© 2021 - REMOTE MONITORING SERVICES, S.L.



Servitization Roadmap with ii40_Connect



Nivel de servitización



- Supervision Contracts
- Recommendations
- Online Troubleshooting
- Warranty period review

- Spare part sale
- Sale of Assistance / maintenance services
- Machine Upgrades

- Maintenance Contract
- Warranty Period extension

- Smart Maintenance Contracts

- Asset Performance Management
- Predictive Maintenance

- Contracts with SLA commitment
- Pay-per-Use





Servitization Opportunities for OEMs



- 1 Process Supervision & Manufacturing consultancy
- 2 Remote Diagnostics and Assistance
- 3 Spare Part Sale
- 4 Promotion of equipment upgrades / overhauls
- 5 Smart Maintenance Contracts
- 6 Warranty Period Extension
- 7 Predictive Maintenance Programs
- 8 Performance based contracts





ibon@ii40services.com

[+34 667 415 990](tel:+34667415990)

  ii40services



donostiasustapena
fomentosansebastián

