



IOT MANAGEMENT PLATFORM WITH ARTIFICIAL INTELLIGENCE

Unleash the power of Industry 4.0

SCENARIOS

MAKE YOUR MACHINERY

Powua enables Original Equipment Manufacturers (OEMs) to connect physical machines and infrastructure to the digital world. Manufacturers can collect data from any source, from any connected device, and from company databases in order to analyze it and obtain useful information to optimize their assets and enhance their offer, launching new business models..







BUILD YOUR SMART FACTORY

Powua is the solution that allows you to implement the smart factory, enabling the measurement and monitoring of critical infrastructures, and to apply AI to big data coming from devices, machines, or plants, in order to optimize production processes and prevent risks, accidents, and alarms. Users can view digital representations ("digital twins") of machinery or plants to analyze process performance, even remotely.

CONNECT -

Powua offers mobility providers the ability to connect, control, monitor, and optimize their vehicle fleet quickly and easily from a single interface, regardless of the type of control unit and vehicle. Furthermore, Powua allows the analysis of vehicle status, maintenance management, and traceability through the geolocalisation of the vehicle on a geographical map.





INTRODUCTION

Driven by Industry 4.0, industrial operations are increasingly autonomous. Factories host numerous sensors that provide real-time data on the status of production and machinery to optimize operations. Intelligent sensors are also increasingly used to monitor roads, cities, strategic infrastructure, transportation and intelligent vehicles.

The Powua IoT Orchestration platform is the only solution that offers scalable monitoring and predictive analytics, adapting to any IoT scenario.

Powua allows you to acquire real-time data from heterogeneous devices, integrates data from PLCs (Programmable Logic Controllers) and intelligent sensors, and can be connected to external data sources such as SCADA, ERP, and CMMS. Additional non-intrusive sensors can be introduced to expand data collection. Data is extracted securely using the most common protocols in industry and transportation, or the protocol used in your facility.

BENEFITS

PREDICTIVE MAINTENANCE

Guarantee the correct functioning of technological assets, optimizing the management of maintenance, is a crucial task for a company. Without an adequate predictive maintenance strategy, commercial vehicles and industrial machinery can experience unexpected downtime, marking the decline of a company. IoT sensors can be connected to machines for measuring temperature, vibration, pressure and other elements, and can detect and relay malfunctions before they lead to more serious situations.





MANAGEMENT OF STRATEGIC SYSTEMS



IoT technology allows companies to supervise their production processes to identify existing problems and any areas that could be improved. Data collected by IoT devices can be used to schedule assembly lines and synchronize workflows.

Furthermore, the data lets you introduce automated security measures and a proactive maintenance strategy.





LOGISTICS TRACKING

Warehouses and retail spaces are getting smarter thanks to sensors. Electronic tracking devices, such as RFID chips, can be placed on products and connected remotely to get real-time visibility into location and quantities. The GPS integrated can even allow an organization to pinpoint the location of an item during the shipping, as well as optimizing internal picking/unloading times of storage warehouses.

MODERNIZATION 4.0



IoT sensors and the versatility of the platform allow fewer interfaces to be connected advanced ones present on dated machinery, or adding sensors to systems that do not have them equipped, thus modernizing existing factories.





FUNCTIONALITIES



ABSTRACTION AND INDEPEN-DENCE FROM THE IOT SYSTEM

Independence from sensors and the specific communication protocol. Powua complies with the main communication protocols adopted for IoT, intelligent sensors, industrial machines, and transport. Extensive custom implementation support.



WEB TOOLS FOR DATA VISUALIZATION

Operational dashboards and reports, advanced analytics functions with AI algorithms integrated into a single solution, to prevent problems and optimize costs.



SCALABILITY AND ADAPTABILITY

High adaptability of the metering and monitoring modules that allow scalability and customization. The discovery component, Powua Edge Gateway, is Java-based and can be installed on any platform that supports this technology.



DYNAMIC RULES AND WORKFLOW

Powua integrates a workflow engine based on real-time measurements and events to implement processes and manage interventions more efficiently.



ACCESSIBILITY AND AVAILABILITY

PaaS and On-Premise cloud models are fully supported: the entire system is made up of modules available as a service or installed On-Premise also on a virtualized environment to guarantee the maximum level of flexibility in terms of management and distribution.



INTERFACE PROGRAMMING

Complete and intuitive APIs for effective integration with existing systems or to create extensions.





MODULES















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Time T 2021-07-01-23 2021-07-02-23 2021-07-03-23 -0005-07-03-24

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Elimination of unplanned downtime caused by faults: this leads to an increase in production capacity and a reduction in maintenance costs...

Extension of the effective life of the machines, with the consequent increase of ROI.

 Immediately prediction of failure patterns and identification of the cause of problems before they disrupt the production system (very costly events).





SOME CLIENTS



FERRERO





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+1 (647) 2436884 www.powua.com (in) (f) (♥) (►) (©)



Avantune is a digital company that develops self-service, IoT and AI enabled business solutions. With Genialcloud, we help customers orchestrate people and processes; with Powua, we help customers orchestrate IoT and IT resources. Our headquarter is in Toronto, with offices in Canada, United States and Italy.

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