Alleantia
ALL <THINGS> JOINED

USE CASE: Independent Software Vendor - Sistem Integrator

Antos S.r.l.

ANTOS business tools

Antos S.r.l.: Software House
Location: Castelfidardo (AN)
Web: www.antos.it
Sector: management software, mes and data management
Size: 20 employees
Markets: Industry, Technological Plants, Construction, Commerce

The Project

Antos is a **software house** from Marche, which has distinguished itself over time for the **creation of very specific vertical management software** for companies that make technological systems and manufacturing companies (mechanics, molding, etc.).

In the **MES** market, **industry 4.0**. is an inevitable trend.

The machines are able to provide a lot of data and the companies become interested in the acquisition and integration in the company systems because they understand its strategic value, but the realization can be complex, slow and expensive.

The Advantages of IIoT

*"We develop **softwares for the analysis of the data** coming from production and Alleantia creates an edge type software that allows to collect data from the field. For us it was the complementary solution we had been looking for a long time, able to configure itself in a totally "Plug & Play" way."*

Danilo Pasqualini– Marketing Manager and Product Owner, Antos

Antos with its **MES product Bravo Manufacturing** has made production control accessible to all companies and, thanks to the integration with **Alleantia's Industrial IoT software**, has made it fully integrated with the machines that are used in the various production lines, providing to the end user a complete and always updated view of all the information necessary for optimizing company's performances.

Having the data correctly entered and constantly updated makes it possible for the company management to **monitor the progress of production in real time**, to have more reliable data for a correct planning, and the possibility of intervening promptly and in a targeted manner to address the various problems.

The integrated solution makes it possible to automatically acquire a lot of information, improving availability time and data analysis, avoiding all the gaps and inaccuracies of

manual entry, and allowing a **direct access to machine data** (for example to see stop & go, faults improvisations etc), creating much more detailed, precise and customizable management and control scenarios. An optimization that aims not only at production, but also at the **management and maintenance of machinery**.

An ISV's need for Industry 4.0: the search for complementarity

Antos develops and realizes **software for the analysis of the data** coming from the production while **Alleantia** realizes an **edge Industrial IoT software** that allows to collect the data from the field and to complete the offer of the managerial Mes. The substantial difference between the Alleantia solution and all the others on the market is that the Alleantia 's one doesn't provide any specific development for the ISV company to make it suitable for the type of implementation required.

Alleantia, on the other hand, provides the ideal solution thanks to a **configured Plug & Play software**, so once you have verified that the **Alleantia "Library of Things"** includes the driver of the machine that you want to interconnect, you proceed with the download and installation of the Alleantia device. Once connected with the selected driver, you can immediately start seeing all the data in real time.

Alleantia and Antos

Today there are about 30 customers with whom Antos has successfully used the **Alleantia solution for the interconnection of machines**, starting from smaller companies to more complex projects with over 20 machines of various types and different interconnected manufacturers. The sectors in which the interconnected customers work are different.

Why rely on an ISV and open up to the IoT world?

The reasons are **efficiency recovery and cost savings**. In the constant search for improvement in the industry, this is now increasingly connected with the optimization of all processes. An optimized process produces an increase in performance and automatically increases the revenue margin.

Industry 4.0 introduces us into the research of this kind of improvement through data, and the best data are those that can be collected directly from the machines, those that IoT technologies allow to collect. **Through the Alleantia technology**, for example, it is possible to **know in real time the status of the machines**, when the machines work or are still and why. The possibility of knowing and relating the variables that derive directly from the machines allows us to **understand the causes linked to inefficiencies and improve them**.

"The IoT Alleantia solution allowed us to interconnect our customer's MES management systems without any development commitment on our part."*

Danilo Pasqualini– Marketing Manager and Product Owner, Antos

Alleantia: a fast and reliable solution, which doesn't need to be programmed

Besides being a Plug & Play technology, **Alleantia** is also **a reliable technology**.

Also thanks to the contribution of our partners, such as **Advantech** for the hardware part, in which over 100 gateways have been used so far, it has been possible to implement the **Antos Industry 4.0 project** with the interconnection of their BRAVO Mes corporate software with each of the required machines, even those that have never been connected, in the 30 projects that we have successfully brought together in "**Plug & Play**" mode.

Antos and Alleantia Industry 4.0: The reference hardware partner Advantech 31100 Gateway

Advantech, a reference brand in the industrial PC and in embedded computing, offers complete solutions that include hardware integration, software, customized design and a worldwide logistic assistance. The key to success is **the creation of an ecosystem of partners** and an industrial IoT value chain through co-creation, or collaboration and integration between its own WISE-PaaS platform and experts in the reference markets, for the implementation of **Solution Ready Packages** (SRP).

They are co-created solutions, integrated hardware and software, which develop the connection with all the IoT layers for the **collection**, the **management** and the **optimized analysis of data and the integration of cloud services**. Together with Alleantia Antos co-created the SRP Edge Intelligence and Protocol Conversion, first in Europe among the more than 30 recently approved co-creation projects, confirming the focus on the I4.0 manufacturing market. The SRP enables **Industry 4.0 "Plug & Play" solutions** through protocol interoperability between machines and multi-vendor devices, making immediate implementation of 4.0 remote supervision and operation management systems for production plants, devices, machines and sensors.

UTX-3117 – Technical specifications

Intel® Atom® E3900/Celeron® N3350/Pentium® N4200 series fanless IoT gatewayNew
All Images

Intel® Apollo Lake E3900 series & N series Processor
Palm-size form factor: 128 (L) x 152 (W) x 37 mm(H)
Supports 2 x COM port, 1 x HDMI, 1 x Display Port, 2 x USB3.0, TPM and DCIN 12~24V
Built-in 1x M.2 expansion slot (i.e.: Wi-Fi module), 1 x Half size Mini PCIe expansion slot (i.e.: Zigbee, module or mSATA) and 1 x Full size Mini PCIe expansion slot (i.e.: 3G/LTE module) with 5Antennas

Supports 1x 2.5" HDD or SSD storage
Wide operating temperature -20 ~ 60 °C support (With E3900 Series SoC)
Complete certification for Safety and RF (upon request)
Support OS: Windows 10, Linux OS
IoT SW integration: WISE-PaaS IoT software platform, AWS Greengrass, Microsoft IoT Edge

Markets in which Alleantia has created interconnection systems with the Antos partner

- Metal processing
- Haptic processing
- Precision mechanical machining
- Mechanical processing with laser
- Production of PVC and fiberglass panels
- Production of precision molds / injection molds
- Plastic materials printing
- Leather processing
- Production of laboratory furniture and technical equipment
- Production of cosmetic and trichological products
- Production of double-sided adhesive tapes

Results

Committed to the **implementation of Industry 4.0**, the **ANTOS** software house from the Marche region has managed to integrate its management software to evolve, rationalize, **control and manage the entire production process**. It has combined an advanced MES system with innovative mentalities and enthusiastic collaborators involved in the growth process. Antos has also been able to effectively exploit **Alleantia technology** to set up **automatic data collection, without errors and updated in real time**.