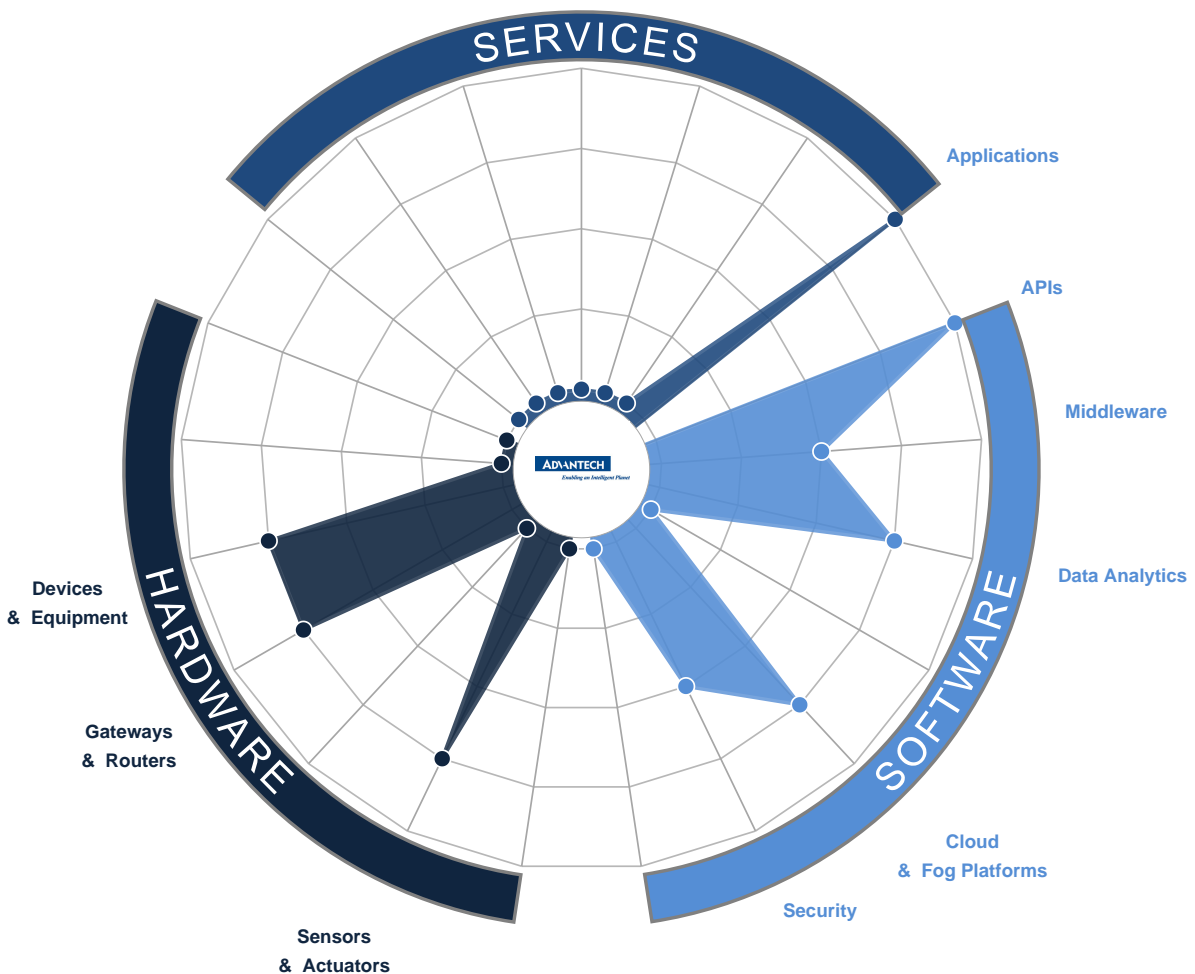




IoT Applications and Upgrades in Textile Plant



Overview

Applicable Industries



Consumer Goods

Applicable Functions



Information Technology



Maintenance



Production - Manufacturing

Challenge

At any given time, the textile company's manufacturing facility has up to 2,000 textile carts in use. These carts are pushed from room to room, carrying materials or semi-finished products. Previously, a paper with a hand-written description was attached to each cart. This traditional method of processing made product tracking extremely difficult. Additionally, making sure that every cart of materials or semi-finished products went to its correct processing work station was also a problem. Therefore, the company desired an intelligent solution for tracking assets at their factories. They also wanted a solution that would help them collect process data so they could improve their manufacturing efficiency.

Customer

Textile Plant



Solution

Under Advantech's WISE-PaaS Alliance program, the textile company deployed a cart tracking system at their facility. RFID tags were attached to each cart, and an RFID reader antenna was attached to every machine or piece of equipment. Now when a cart approaches, the RFID reader gets the ID of this cart from its tag, and transmits the data to an ARK-1123 data gateway. Using its WISE-PaaS/RMM remote data and device monitoring and management software, the gateway ensures data transmission and device security. WISE-PaaS also provided RESTful APIs for easy integration with MES to enable electronic production records. And Microsoft Azure provides for IoT big data computing and analytics. Most importantly, WISE-PaaS offers easy access across programming platforms and can be integrated with existing management solutions to improve products/services and business intelligence.

Solution Type IOT

Solution Maturity Mature (technology has been on the market for > 5 years)

Operational Impact

-
-  Impact #1 Building of production track records concerning materials, components, and manufacturing processes
-
-  Impact #2 Cost-efficient solution that combines RFID technology to implement electronic management and real-time asset tracking
-

Technology

Software



Microsoft Azure

Microsoft Azure

Microsoft Azure enables the world's applications to become intelligent using the next-generation infrastructure, data and developer services.



WISE-PaaS

Advantech

The flexible and expandable architecture of the WISE-PaaS platform allows for seamless integration between a diversity of cloud solutions and equipment by applying 150+ RESTful APIs, web services, and ...

Partner



Microsoft

Microsoft develops, manufactures, licenses, supports and sells computer software, consumer electronics and personal computers and services. Its best known software products are the Microsoft Windows I ...

WISE-PaaS Enables IoT Applications and Upgrades in Textile Plant

2016/04/14

IoT-Enabled Asset Tracking Facilitates Business Intelligence

To streamline efficient production flow, a textile company in Taiwan established an IT taskforce responsible for implementing IoT applications. The company then joined the Advantech WISE-PaaS Alliance to gain access to the top technological support. They utilized WISE-PaaS to deploy IoT applications in their efforts to achieve an "Industry 4.0" manufacturing environment and more intelligent business practices.

Challenge

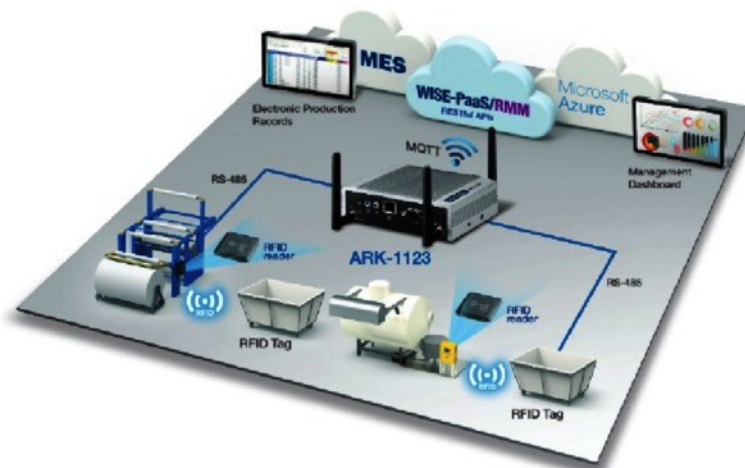
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Advantage

The functions of the cart tracking system in this textile plant are twofold – one is the building of production track records concerning materials, components, and manufacturing processes; the other is the cart tracking system. The system is a typical IoT application; it is a cost-efficient solution that combines RFID technology to implement electronic management and real-time asset tracking. The WISE-PaaS provides RESTful APIs with integrated RFID data and cart management on a user-friendly dashboard, ensuring effortless and intuitive asset tracking. These integrated tools allow users to manage production records easily and effectively. It significantly improved the company's production line efficiency, helping them to achieve their "Industry 4.0" manufacturing environment and boost competitiveness.



WISE-PaaS and Alliance Program

Advantech WISE-PaaS provides Partner Alliance program to further cultivate IoT business potential. Within the Alliance, academia-in-dustry innovation cooperation can also better help existing solutions. Advantech offers to alliance members: an IoT development starter kit, SDK/Protocols, Microsoft Azure service, professional consulting and technical training services, business match making, co-marketing programs and more, to shape the win-win strategy needed to succeed in the IoT market.



IoT ONE Featured Case Study



Accelerating the Industrial Internet of Things

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