

WISE-DeviceOn for Azure

WrxFlo and Advantech Improve SumUp's Process Efficiency

The growing use of Big Data, Artificial Intelligence (AI), and the Internet of Things (IoT) in smart systems and applications is creating smart computing infrastructure opportunities. Indeed, the fourth industrial revolution has ushered in an era of smart manufacturing. Smart manufacturing uses emerging technologies to collect and analyze data. This data helps augment efficiency and empower AIoT applications.

Challenge

With over 2,600 employees and 3 million customers, SumUp is Europe's leading supplier of mobile point of sale (mPOS) payment terminals. As SumUp operates in a very competitive market with low margins, they need to optimize their manufacturing process efficiency.

SumUp manages the manufacture of its own products, but contracts its production to facilities in China. This geographic distance limits their German team's ability to monitor production conditions and addresses issues in real-time. They were able to receive reports the morning after a production run was completed; but wanted live data, to improve efficiency and yield.

WISE-Device on Azure Cloud Advantages

When enterprises transfer their IoT application to the cloud, they digitally transform OT, IT, and CT. This enables device/data management, provides uninterrupted services, and dynamically accommodates growing numbers of devices. WISE-DeviceOn Device Management on Azure Cloud provides a cloud-native approach to managing IoT device lifecycles, thus maximizing total operational performance and lowering costs.

- **Realize IoT Application Deployment**
Quickly onboard, monitor, and manage IoT devices
- **Minimize TCO of Managed Devices**
Perform bulk management and maintenance with ease
- **Improve Operational Efficiency**
Real-time monitoring and batch control empower daily management
- **High Availability and Scalability**
Linear scalability up to million devices
- **Regulatory Compliance**
Complies with 140+ country/regional regulations to strengthen security



Project Solution

SumUp sought Advantechs help in improving how it gathers and analyses data from its production lines. Advantech turned to one of its partners, WrxFlo, for help.

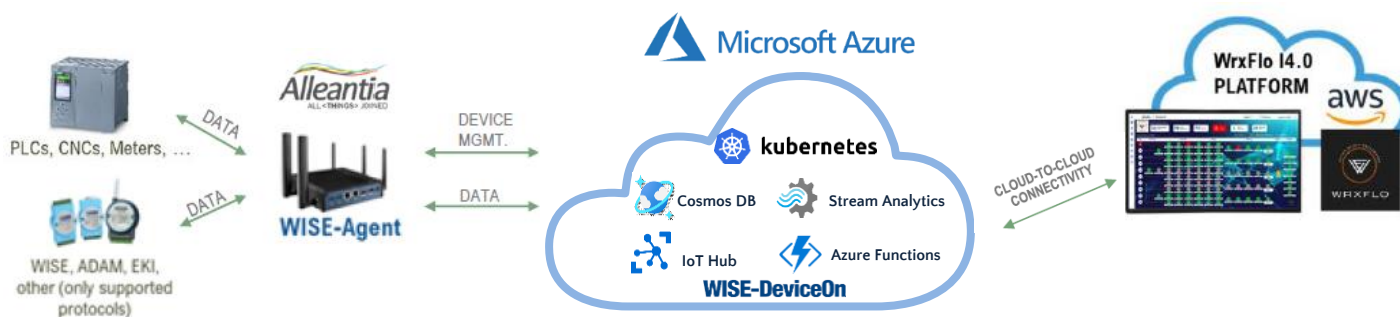
The WrxFlo platform captures real-time manufacturing data and stores it on-premises or in the cloud. WrxFlo’s easy-to-use dashboard enables operators to define their KPIs and survey data to identify issues.

WrxFlo put together a solution for SumUp that uses Advantech hardware and software technology. It connects to the programmable logic controller (PLC) that runs the production line and equipment. This solution also connects to radio-frequency identification (RFID) readers, scanners, and tablets used by operators to capture information. The Advantech solution processes data from the production line and delivers it to the WrxFlo platform for analysis.

About WRXFLO

WrxFlo, based in Ireland, was founded by an experienced team that runs several factories around the globe. WrxFlo helps its customers address process problems and improve operational efficiency using automated data collection, analysis, and management.

For more information, visit <http://www.wrxflo.com/>



System Architecture

This system uses Advantech industrial-grade UTX IoT gateways and ARK series fanless PCs. It is highly-adaptable and easily upgraded. Should a user need to add sensors or more computing power, they can simply use Advantech diverse selection of solutions. Additionally, the SumUp system features excellent remote device management capabilities via Advantech’s WISE-DeviceOn.

Project Results

“The SumUp team in Germany can now accurately see what’s happening on the production line in real-time. They can monitor cycle time, test results, and all the metrics that are important to them,” said Crowe. “The contract manufacturer is seeing the same information at the same time. Therefore, both teams can drive improvement together – it has completely shifted the dynamic from frustration over a lack of data, to having everything they need at their fingertips.”

The project was successfully piloted at a factory in China, where direct real-time process visibility enables the manufacturer to fix problems immediately — minimizing delays and wastage. As such, SumUp is now planning to implement it at two more manufacturing sites.

When used in typical customer applications, WrxFlo software yields improvements in line capacity of up to 30%, quality of up to 20%, and ‘first time pass’ test rates of 40%.

“We’d previously had problems with IoT hardware from other suppliers and realized we needed a solution that just worked – that’s what Advantech gives us,” said Crowe. “Advantech has reliable hardware and software that simply works. They’re a flexible company and very pro-active. Collaborating with them allows us to focus on delivering value to our customers.”

“Providing a solution that spans customer orders and customer delivery is a key selling point,” said Crowe. “Our partnership with Advantech really helped! They provided expertise in the hardware and software stacks as well as technical skills. We provided the data analytics and correct operational background.”

About Advantech WISE-DeviceOn

Advantech's IoT software solution, WISE-DeviceOn, is aimed at IoT device remote monitoring and management. This IoT Platform Architecture includes IoT device, system, and cloud layers. Advantech strives to integrate partner solutions and enable seamless, secure IoT solutions from the edge-to-the cloud by providing pre-integrated, pre-validated hardware and software building blocks.

For more information, visit:

<https://select.advantech.com/deviceon/>

Advantech Certified Devices

Advantech's WISE-DeviceOn comes preloaded with over 600 Advantech certified board and system models that deliver device data and software management. WISE-DeviceOn facilitates diverse IoT management by offering free license support to certified devices.

For certified device information, visit:

<https://www.advantech.com/solutions/embedded-modules-and-design-in-services>