How is SAP covering the demand for IIoT - Part 2

Our previous article introduced the IIoT together with its demands, customer challenges, and industry solutions for the manufacturing companies that struggle to keep up. We've mentioned that a Cloud-based solution proved to be very helpful for companies in the manufacturing industry, where the major challenge was to connect the machines and other devices to gain valuable predictive insights. SAP's response to this demand was launching SAP Digital Manufacturing Cloud, which covers a broad spectrum of needs and offers highly-available solutions.

The second part of the article covers the topic of challenges in the manufacturing industry and showcases another solution brought by SAP: SAP S/4HANA. Let's dig deeper into the topic.

Challenges of the IIoT

The demand for IIoT capabilities and applicability is directly linked to some challenges met by manufacturing companies. We've already mentioned the security factor in the previous article. Now we bring into the spotlight the topic of interoperability. This concern occurs when different protocols used by the devices and machines need to communicate, but they are built on a different architecture basis.

Manufacturing companies struggle with few more aspects when it comes to IIoT, aside from security and interoperability:

- **Delivering value to the customer**

It is crucial for companies that choose to improve certain aspects of their technology through IoT to offer the same services and value to their customers, as the satisfaction may suffer a drop-down while implementing IIoT solutions.

- **Analytics Challenges**

The actual Return of Investment (ROI) of any IoT solution implemented into a company is obtained through the insights the solution gathers. The process of collecting data happens with the help of a highly-performant platform, which also enables enough space for data analysis, processing, and cleansing procedures.

- **Data Storage**

For manufacturing companies, it's a necessity to secure and assure data storage before they adopt IIoT solutions, as it represents an essential resource for future business decisions.

For many companies that chose to integrate complex business systems relying on IIoT, the results led to complex tasks, which meant higher costs, creating a gap between data synchronization and decision-making factors.

SAP S/4HANA for Manufacturing

As always, SAP wraps its intelligent technologies to offer a solution to the challenges mentioned above. SAP S/4HANA is a tool that embodies planning, manufacturing production, and service. The main objective of this solution is to coordinate IIoT devices to respond automatically to fluctuation signals, providing predictive insights for product service. It also enables companies using it to understand the cost implications and improve the manufacturing processes by engaging with every step of the production, from planning to delivering to the shop floor and data analysis.

What makes SAP S/4HANA an ally for the companies using it is the transparency and high capabilities offered in one solution to all the industry demands, which help enterprises be ready for the latest market requirements and customer demands with a single-source solution. The key aspects that describe this solution are optimal production efficiency and profitable distribution of the products.

Here are the leading manufacturing capabilities offered by SAP S/4HANA:

- Manufacturing Planning and Available to Promise
- Manufacturing Orchestration and Execution
- Inventory and Basic Warehouse Management
- Quality Management

Apart from the mentioned benefits linked to interoperability provided by one single solution, there are more crucial aspects covered by the solution:

- **Material Requirements Planning (MRP) time** is drastically reduced, thereby reducing inventory costs and creating a transparent working approach;
- **Faster decision making processes and manufacturing processes**, thanks to the immediate insights on planning and prediction, together with extensive data analysis;
- **Live inventory management** and **material flow management** which leads to responsiveness to inconsistencies and product variety;
- **Intuitive platform** designed with SAP Fiori, which offers intuitive applications and high UX for manufacturing processes, available on any device accessed from anywhere;
- **Available-to-promise (ATP) functionality**, responsible for optimized back order management or shipment management, also accessed with SAP Fiori.

Manufacturing companies have to face high expectations, as one action decides what is the next step. One mistake many organizations pay for is thinking about their digital journey just in terms of sales, ignoring the fact that without an agile manufacturing approach, delivering to the customers with high expectations is a losing game.

The future of IIoT

The predictions in the manufacturing industry envision a manufacturing-as-a-Service approach in the next 10 to 20 years. It may be possible that a company won't need to open a factory anymore, as the future forecasts highly configurable industrial capabilities, ready to cover the needs of the market. And their main ally is AI, which will be ready to integrate new technologies and bring modular facilities without significant efforts and business reorganization.

SAP also predicts that the effort to continuously search for improvement and innovation will soon be history. Their approach of incorporating enhancements like machine learning and AI, while learning from customer insights will change the directions of the production process. This resolution will make room for employees to focus their energy on system improvement and other exceptional cases.

Final thoughts

How hard is it for your manufacturing company to keep up with industry demands?

Get in touch with SE16N, and let us offer a solution adapted to your company's profile and needs.