



Maximise Value for Industry 4.0

Achieve Smart Manufacturing Efficiency with Alleanitia and Intel

The value of data-driven industry is clear. Industries will implement digitization to increase productivity and yields, reduce operational costs, optimise capital expenditures, generate new digital revenues, and deliver new products and services.



83%

of industry decision makers expect data to have a significant impact on their decision-making over the next 5 years¹

72%

of manufacturing enterprises predict data analytics will improve intelligence across the product lifecycle¹

93%

of U.S. companies expect to increase operational effectiveness through Industrial IoT²



"Industry 4.0 will fundamentally reshape the competitive landscape and bring fundamental change to established industries."¹

Digitization of Industrial Assets and Production

12 Benefits for Industry C-Suite Decision Makers

1. Achieve near-real-time visibility into how machines, production lines, and equipment are working
2. Increase efficiency and automation of processes and operations
3. Monitor production environment and effectiveness
4. Increase asset utilization with better, near real time production planning
5. Achieve end-to-end management of the extended supply chain
6. Simulate the manufacturing environment reaction to changing scenarios using actual data
7. Enable predictive maintenance and save on repair/labor costs
8. Mine data value to maximize investment in connected systems and equipment
9. Inform decision-making with cross-system insight
10. Exploit products' embedded intelligence with plug-and-play simplicity to create and sell digital services
11. Monitor if equipment is being utilized according to specifications
12. Enable service providers implementing new, added value services and business models, including spare parts and consumables sales and management, equipment Insurance, variable leasing, and many others



Operational Efficiency Starts With Data Availability

Some manufacturers have already invested in systems and solutions that gather data from their products and production lines. All too often they are not getting the value (and certainly not the full value) of their data, while experiencing high costs and slow deployment speeds. Machines and industrial equipment may be unconnected to each other and use incompatible technologies. Technology capabilities may be insufficient to gather, store, and analyse the data in near-real time. Accessing insight from this data, however, is now a competitive necessity, requiring scalable and cost-effective data collection standardisation and distribution solutions. This enables comprehensive information sharing within the enterprise and its extended supply chain for achieving Industry 4.0 benefits.



“Identifying and gathering the right data, deploying it for the right purposes and effectively analysing it will be critical to make the right Industry 4.0 decisions.”¹



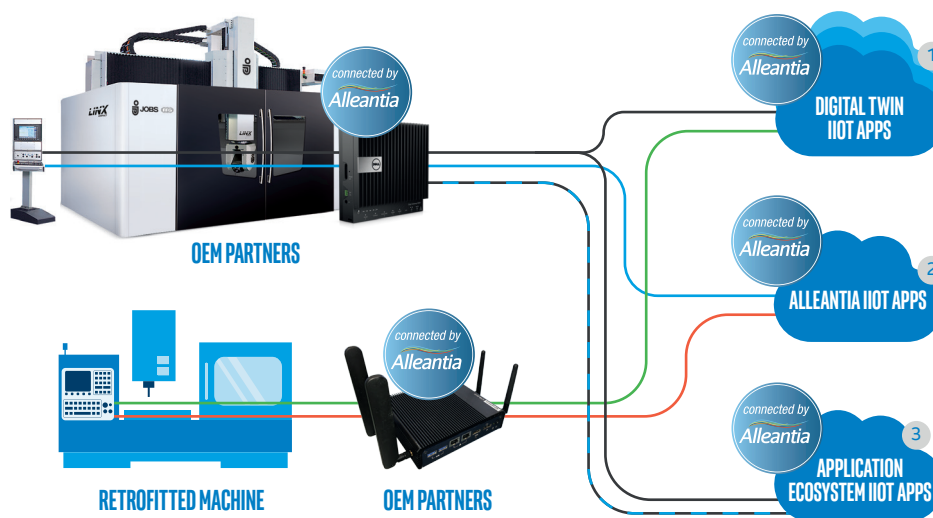
End-to-End Plug-and-Play Interoperability

Alleantia enables end users and machine manufacturers of all sizes to achieve Industry 4.0 transformation by bridging the gaps between machines, sensors, and IT applications with an easy to use, scalable and cost-effective solution.

The innovative software solution, running on high-performance, scalable Intel® architecture, is designed to help factories become more efficient, while improving operations, products, and services, whether through simple retrofitting of existing machinery or embedding in new machinery. Alleantia software works with a wide range of CNC and PLC technologies, machine manufacturers, leading Industry 4.0 applications, IT infrastructures, and cloud platforms to integrate and complement legacy infrastructure and support evolving technology decisions.

Now you can get the competitive advantages of Industry 4.0 without expensive retrofitting disrupting current operations, and without lock-in to vertical, siloed solutions that bind your data outside your control.

Alleantia solutions running on Intel® architecture integrate disparate systems and protocols so data is transmitted to the right destination, whether edge gateway, on-premise database, or public cloud.



- 1 **Digital Twin IIoT Apps:** FTP, REST, MQTT*, OPC UA*, Modbus*, EtherNet/IP*, MTConnect*, Microsoft Azure* IoT, SAP HANA*, IBM Watson IoT Platform*, Advantech WISE-PaaS*, GE's Predix™, and others
- 2 **Alleantia IIoT Apps:** SQL Server*, Dropbox*, OneDrive for Business*, Yammer*, Energy Pack, Machining Pack, and others
- 3 **Application Ecosystem IIoT Apps:** Dassault Systèmes 3DEXPERIENCE*, Leonardo i4.0 Suite*, MCE's jFMX*, Brick Reply*, Bravo Manufacturing*, SenseIoT*, BotJam*, Italtel IndyChatBot*, other ERP, CRM, PLM, MES, data analytics, predictive maintenance

Figure 1. Alleantia machine-to-applications plug-and-play interoperability

12 Distinctive Solution Features to Share with Your IT Professionals

1. Connect industrial plants and equipment to clouds and applications in minutes.
2. Library of more than 5,000 drivers for industrial devices.
3. Extensive CNC and PLC connectivity through easy-to-use (no coding) device driver editor.
4. No coding needed for upstream or downstream connectivity—built-in features handle complexity
5. Get alerts and notifications via email and SMS for any measure, threshold, and device connected.
6. Record and generate reports in near-real time, including generated signals and measures.
7. Control and confirm machine and system status from web, tablet, or smartphone.
8. Embedded IIoT Apps for performance control and reporting.
9. Multiple data streams can flow in and out simultaneously, with different data sets, under total end user control.
10. Connect to most common IT infrastructures, with IIoT Apps for a wide range of platforms including SQL Server*, Azure IoT*, GE's Predix™, MQTT*, Dropbox*, OneDrive*, REST API, and Yammer*.
11. Extensive partner ecosystem for hardware and machine makers, applications (with additional dedicated IIoT Apps), and system integrators.
12. Wide adoption by leading machine manufacturers as well as bespoke global industrial enterprises.



The Foundation for IoT

Intel works closely with the ecosystem to deliver smart IoT solutions based on standardised, scalable, reliable Intel® architecture. These solutions range from sensors and gateways to server and cloud technologies to data analytics algorithms and applications. Intel provides essential end-to-end capabilities—performance, manageability, connectivity, analytics, and advanced security—to help accelerate innovation and increase revenue for enterprises, service providers, and vertical industries. Intel can help organizations use data to monitor, control, optimise, and benchmark, as well as to share historical and near-real-time information to improve decision-making.

Increase Insight from Plant to On-Premise or On-Cloud IT Infrastructures

Alleantia solves the three key problems for effective Industrial Internet of Things (IIoT) deployment: connectivity, interoperability, and complexity. Alleantia technology, **adapting to any kind of devices and components**, brings manufacturers (both OEMs and end users) a simple retrofitting solution. When all your machines speak the same language, you can more easily adapt to different machine versions and models, and support new developments. And,

having these machines capable of two-way interaction with a wide variety of cloud infrastructures and IT applications ensures a successful integration of physical assets to enable new Industry 4.0 processes and business models.

With Alleantia and Intel, you reap the benefit of your data, achieve a holistic, actionable understanding of your production environment, and ensure complete integration into your Industry 4.0 application architecture.

YOUR INDUSTRY 4.0—FAST. SCALABLE. SIMPLE.

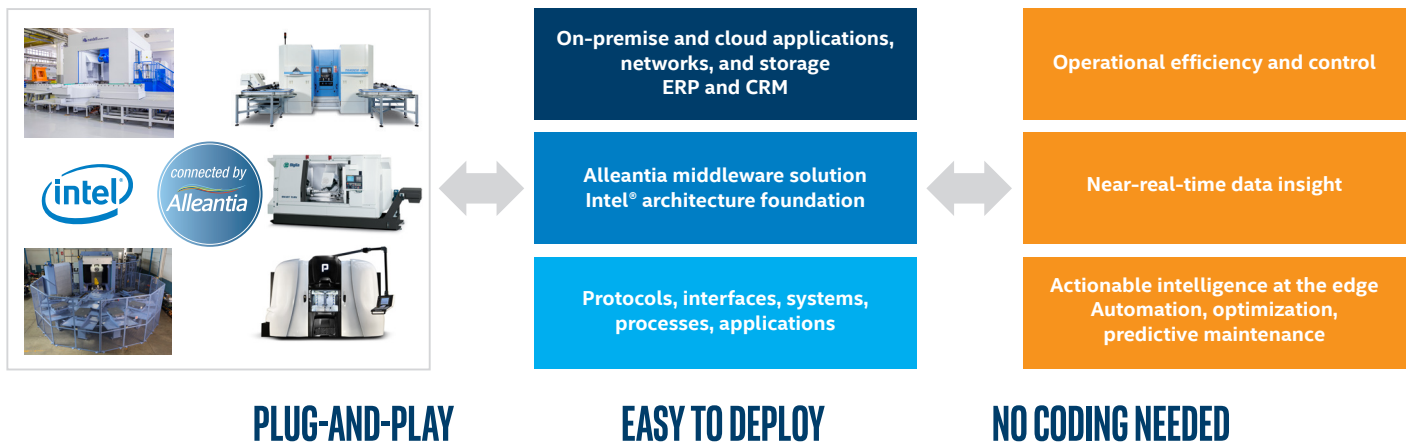


Figure 2. Alleantia and Intel are addressing the connectivity challenge for smart industry

Move Your Industry Forward

Maximise your investment with data insight throughout your factory or industrial facility. Prepare for new levels of machine learning, predictive maintenance, augmented reality, and artificial intelligence. Alleantia and Intel can help you move forward.

Alleantia is a member of the Intel® IoT Solutions Alliance, the Microsoft Partner Network, the SAP PartnerEdge* open ecosystem, and is a GE Digital Alliance Partner*, and is a founding member of EdgeX Foundry*.



Learn More

Learn more about Alleantia's Industry 4.0 solutions at alleantia.com/en or contact us at info@alleantia.com.

Explore Intel smart manufacturing solutions at intel.com/iot and intel.com/content/www/us/en/internet-of-things/smart-manufacturing-solutions.

For more information about the Intel IoT Solutions Alliance, please visit intel.com/iotsolutionsalliance.

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