

Automating Textile Life cycle Leveraging IoT



THE CLIENT

The client is a market leader in textile sector.



BUSINESS NEED

The client wanted ALTEN Calsoft Labs to automate the entire textile life cycle from production to storage and marketing. We developed an end-to-end IoT solution and deployed it. The challenges faced in this process includes:

- Connection Overhead and huge bandwidth consumption of multiple weaving machines over Ethernet
- Administration and management of huge volume of data
- Compatibility of ERP and Operations, Administration & management system with IoT service Management Platform



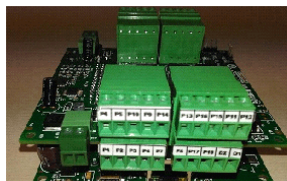
TECHNOLOGY USED

- Next-Gen Service: IoT
- Networking Components: Ethernet, PLC Interface Card
- Framework: .Net Framework 4
- Others: ERP, REST API

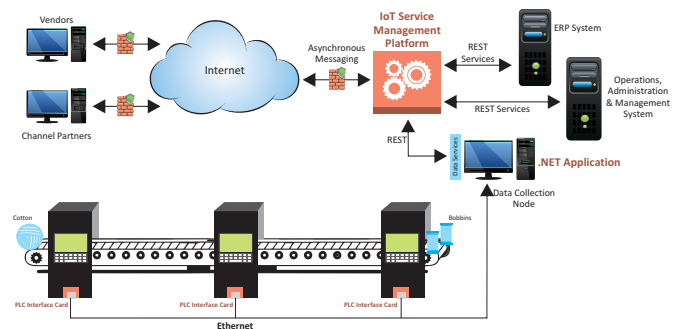


BUSINESS BENEFITS

- Achieved automated product life cycle
- Ensured faster time to market (TTM)
- Quicker return on investment



SOLUTION DELIVERED



Leveraging the disruptive Internet of Things technology, ALTEN Calsoft Labs designed and developed Plant floor IS Hardware which is actually an Ethernet Gateway for industrial equipment. It primarily consisted of a main board and a daughter board.

- Ethernet Port (RJ45 modular Jack) for user interface
- Three pin header for CAN interface
- DB-9 connector for Serial communication (not applicable for user access)
- USB2.0 Mini-AB connector (not applicable for user access)
- 2.1mm connector for power supply input & Power supply
- Various sensors through ADC
- External AC-DC adapter (230V AC to 12Vdc/1A /UL approved)

Components of Daughter board were:

- Opto-Isolator/level shifter
- Signal Conditioning Circuit
- Digital Isolator/level shifter
- DC Power

ABOUT ALTEN CALSOFT LABS

ALTEN Calsoft Labs is a next gen digital transformation, enterprise IT and product engineering services provider. The company enables clients innovate, integrate, and transform their business by leveraging disruptive technologies like mobility, big data, analytics, cloud, IoT and software-defined networking (SDN/NFV). ALTEN Calsoft Labs provides concept to market offerings for industry verticals like education, healthcare, networking & telecom, hi-tech, ISV and retail. Headquartered in Bangalore, India, the company has offices in US, Europe and Singapore. ALTEN Calsoft Labs is a part of ALTEN group, a leader in technology consulting and engineering services.

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