



Strategic Product Roadmap for IOT Device

SITUATION

The SearchLite was engaged by Parker Hannifin's Pneumatic Division to help understand the global technology trends around factory floor control automation, primarily related to smart devices and network protocols. The specific industries of interest included Fast Moving Consumer Goods (FMCG), Home Appliances and Material Handling. Parker needed a clear vision of this future state to guide its own product development pipeline. Four key questions were targeted:

- What is the industry adoption of competing network protocols?
- What are the technology trends relative to network topologies?
- What will be the future mix of actuation technology for electrical, pneumatic and hydraulic actuation?
- How are manufacturing trends affecting the way Smart Products and Networks will be utilized in the future?

ACTION

The SearchLite conducted 20 engagements with industry experts across a range of industries and geographic ranges. Market and industry insights were also created through secondary research as well as participation in online discussion groups and industry conference attendance. The SearchLite also created an Industry Ecosystem Map of the key global players by end use industry as well as the enabling supply chain sectors such as pneumatic controls, sensors and automation platforms. Finally, The SearchLite synthesized and summarized all key findings from both primary and secondary research into a "Jobs-to-Done" Matrix which Parker Hannifin would use as strategic specifications for future product development.

RESULTS

Key findings shaping final recommendations included the following:

Convergence between front office information technology (IT) and factory floor operating technology (OT) is accelerating.

New business models for monetizing data management in the value chain are often discussed, but not yet widespread in practice.

Many manufacturers compromise on the original CAPEX investment and related scope of implementation. This results in a shortfall on OPEX savings reflected in the original business case.

The Delivery Service Material Handling sector (e.g., Amazon, DHL, UPS, etc.) is an early adopter of factory automation and advanced Industry 4.0 implementation.

The SearchLite prepared a Jobs-to-be-Done Matrix to inform Parker Hannifin's product development roadmap:

Important:

- Prevention of data packet losses
- Compatibility with other products
- Number of nodes

Very Important:

- Transmission methods
- Topology protocols
- Transmission capacity vs. speed

Critical:

- Overhead
- Industry specificity
- Distance