

BUILDING AN INDUSTRIAL IoT STRATEGY

A stylized illustration of a smart building with two towers. The left tower is orange and shows four floors of office activity: a person with a briefcase, a meeting with a presentation, a team building exercise, and a person at a desk. The right tower is blue and features a large screen, multiple windows, and a taxi at the entrance. To the right of the building, five circular icons are connected by lines to specific parts of the building: a door with a Wi-Fi symbol, a security camera, a server rack, a smartphone, and a delivery truck. In the bottom left corner, a laptop displays a wrench and a document icon.

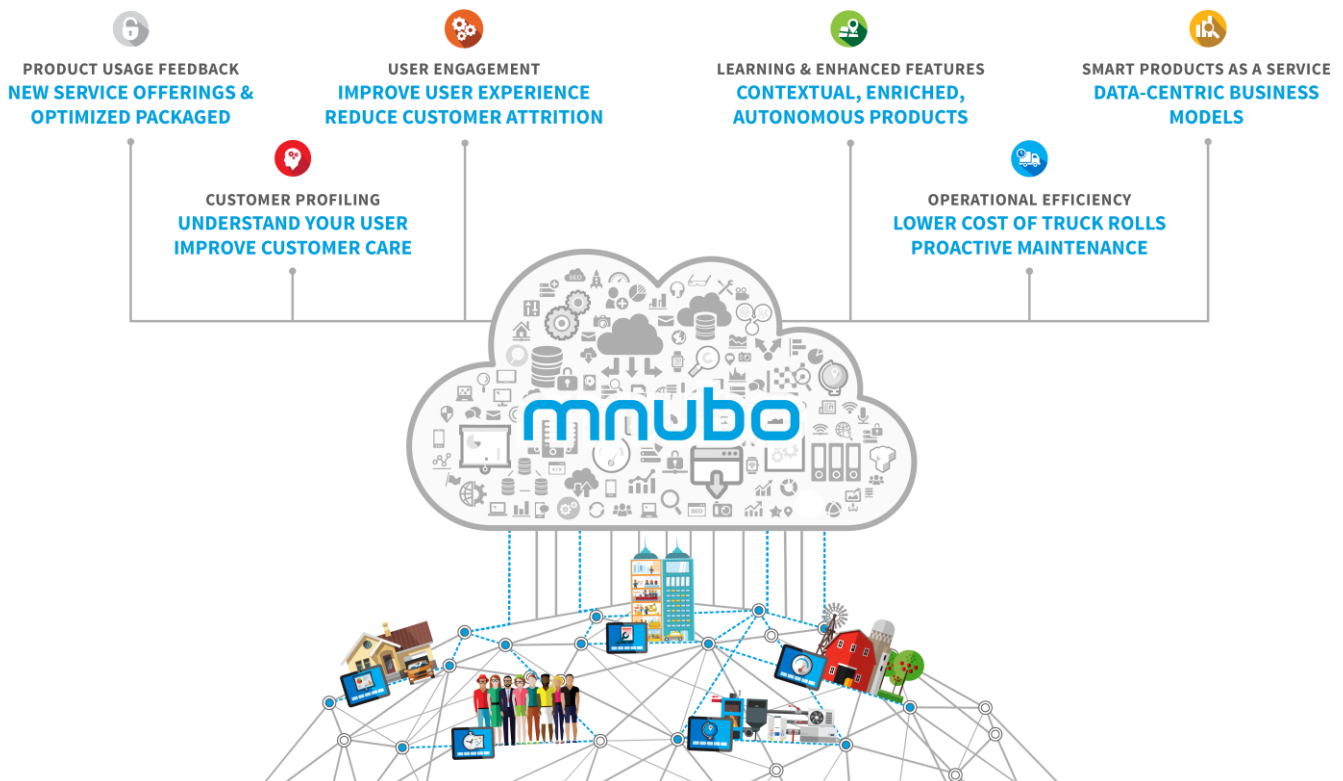
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EXECUTIVE TAKEAWAYS

Using a business-first approach, data analytics helped accelerate the transformation of Smart Product Manufacturer (SPM) into a connected business, where they quickly increased sales, optimized services and delighted end-users.

KEY TAKEAWAYS FROM THIS CASE STUDY ARE THAT

- **Proof of Concepts:** Even large companies start with small-scale IIoT projects, driven by product and innovation teams
- **Focus on Data Value:** Ensure your IIoT strategy is data-driven from the get-go to assess the value from your investment
- **Ecosystems:** Work with trusted solution partners who bring proven IoT implementation expertise
- **Understand your IoT Stage:** Value of data from a connected product evolves across different stages of IIoT lifecycle
- **Identify Stakeholders:** Cross-team alignment is crucial for a successful transformation to a connected product business



CASE STUDY:**Commercial Equipment Manufacturer****Building an Industrial IIoT Strategy***Think Big, Start Smart*

Embarking on an IIoT initiative within a large, established company can be a challenge.

Most companies are at an early stage of exploring the business drivers for IIoT. The starting point isn't always obvious, hence innovation groups within the organization scope targeted pilots and proof of concepts to build a clear assessment and business case for a wider, phased IIoT adoption.

These initiatives are usually led by Product, R&D and/or Open Innovation teams within the large organization and usually involve a light-weight end-to-end engagement - potentially across multiple solution providers across the IIoT value chain - with clear key success criteria. The potential of connected product data insights is a crucial factor in the assessment.

This real-life case study discusses how a large, global manufacturer of connected commercial products embarked on their IIoT journey from a proof of concept to a smart connected business line.

DEFINING BUSINESS OBJECTIVES

With over a hundred years experience and dozens of successful product lines, Smart Product Company (SPM) is a global pioneer in the commercial and industrial security and access solutions industry. They pride themselves on an unwavering commitment to customer satisfaction and high quality products, SPM wanted to better understand how their connected product data could be used to increase the value of their offering and facilitate new revenue streams.

By adopting Industrial IIoT (IIoT) solutions, SPM's business would benefit from real-time connectivity, remote control and monitoring applications, and actionable product usage insights.

Before committing the time and resources to a full IIoT product launch, SPM wanted to ensure they were set up a representative pilot environment. They would use this project to assess the value of their investment by gaining insights on customer experience, enhance day-to-day operations and optimize after-market services.

SPM's R&D team wanted to run this initiative with minimal disruption, in a focused time-frame of 3 months, under clear objectives to ensure executive alignment on the future strategy

CHOOSING THE RIGHT IIoT PARTNERS

SPM, like many traditional manufacturers, did not have the connectivity and data expertise required to successfully implement a ready-for-market IIoT connected product, in quick time. Working with the right solution providers is crucial to gaining a meaningful assessment from your IIoT project. SPM enlisted the help of mnubo and its connectivity partners to ensure they were going to market with a robust data-driven offering.

PUTTING TOGETHER THE IIoT SOLUTION

Within the scope of their IIoT pilot project, SPM setup 2000 smart connected security products (commercial door locks, access systems and other products) at a friendly pilot customer site. One of mnubo's partners helped with the device and connectivity management platform. Shortly after the initial solution prototyping, the products were streaming data to mnubo's SmartObjects platform within the first two weeks - and SPM were exposed to an initial set of out-of-the-box insights and product usage dashboards.

The solution providers easy-to-use APIs, existing integrations, and extensive experience in IIoT were the key factors in getting SPM's pilot project off-the-ground rapidly.

I. VALUE OF INSIGHTS DURING A PROOF OF CONCEPT

The minute their products were connected and pushing data to mnubo, SPM was collecting insights throughout the development cycle and field trials. The initial reports were used to diagnose and investigate product defects and faults in labs. Product usage feedback, allowed SPM to understand usage behavior in field trials, while also gaining visibility on real-time operations

STARTER



For example, during the pilot phase SPM would use mnubo's SmartObjects to observe connectivity or performance issue, build relevant fixes, use the partner's device management platform to push over the air (OTA) updates to the product, and analyze improvements.

They were able to tap into the data benefits *before* the products hit the store shelves, the insights generated from beta testing and field trials reduced the time-to-market, allowing SPM to go to market with a competitive, robust product.

II. INSIGHTS FOR PRODUCTS IN THE FIELD

Following the pilot phase, SPM was keen to understand how their newly connected business will engage with products and customers to create new long-term value. Streaming analytics provided SPM with real-time insights on its connected products. Lifecycle analytics extended the traditional product lifecycle management (PLM) process from pre-production all the way to live-in-the-field deployment.

With continuous data from connected products, multiple stakeholders were empowered with diverse actionable insights. Product management, sales and marketing, operations, and C-level gained end-to-end visibility on *actual* product performance and usage, user engagement and customer profiles, as well as operational feedback such as spare part management.

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mnuo's purpose-built IoT analytics solution and data science expertise, provided a complete picture of when, where and how products were being used. Drilling down to see interactions between products and customers, SPM could determine when there was a problem with a given commercial lock and the important (relevant) context around that problem. This not only allowed them to uncover new insights that were not conceived during the initial project planning, but it also proactively reduced the number of product faults, gain feedback to the product roadmap, and improve after-market services.

III. INSIGHTS TO ENABLE NEW SERVICES

With complete visibility on the product lifecycle, SPM uncovered new opportunities across each sales channel. New support and service systems were built based on the real-time stream of connected product data.

Beyond traditional product warranty services, SPM started to leverage product usage data to design new service packages with higher value product performance guarantees and service level agreements. 'As-a-service' business models are a good example of this; where customers buy (or rent) the device upfront and pay a recurring monthly fee for additional value-added services. SPM has forged a relationship with third party vendors - insurance & security providers, delivery services, cleaning companies, etc - to monetize these services, pricing them as a subscription, which drives a recurring revenue base.

GROWTH



Because SPM's product data was organized to make actionable decisions from the beginning, it was easily able to automate insights and incorporate new business models as their connected service continued to evolve.