

# INDUSTRIAL IOT SYSTEM TIME-TO-MARKET REDUCED BY 50%

- **Project:** IoT-Connected Safety Device
- **Industry:** Industrial/Commercial (Fire, Connected Home)
- **Engagement Model:** Managed Team, Turnkey
- **Expertise:** Software, Linux, Network Component Development, Remote Diagnostics, Cloud Integration, Web Development (Support Portal)

## CHALLENGE

A leader in consumer fire protection products with a history of innovation, was embarking on its first industrial IoT-connected safety system.

This venture into a new market presented unique development challenges:

- **Lack of Specialised Expertise:** With a multitude of projects underway, the Industrial Manufacturer faced capacity limitations in critical development areas, including the complexities of integrating camera video capture with cloud transmission and robust network communication.
- **Limited Development Visibility and Roadmap Clarity:** While the Industrial Manufacturer had a clear vision, they encountered challenges in gaining adequate visibility and consistent progress updates from previous contractors. This, combined with their internal teams managing a high volume of concurrent projects, led to a need for improved project roadmap clarity and predictable delivery timelines.
- **Unfamiliarity with Remote Product Support:** As they looked to expand into the connected device landscape, they recognised the need to develop capabilities for managing and supporting remotely connected devices, including remote diagnostics and collecting usage statistics.

## AT A GLANCE

### Challenge

- Lack of in-house embedded expertise for a new IoT-connected product.
- Poor visibility into development progress.
- No experience with remote product support.

### Solution

- Took ownership of embedded software development, augmented with embedded Linux experts.
- Proactively designed features like remote diagnostics and audio capabilities, anticipating needs for a connected device.
- Contributed to a cloud-based support portal to enhance the overall product ecosystem.

### Outcome

- Accelerated the successful launch of their first industrial safety system, delivering core advanced vision and audio functionalities.
- Improved development visibility through transparency and a collaborative partnership.
- Ensured long-term product viability and quality with integrated remote diagnostic tools and a robust embedded solution.

## SOLUTION / APPROACH

Syntronic engaged as an integrated design-led product realisation partner, deploying a highly skilled embedded software team to overcome the client's challenges and accelerate market readiness via:

- **Structured Planning & Transparency:** Syntronic immediately brought order and visibility to the project. The team meticulously mapped activities, created detailed diagrams, and presented clear project plans to the client's

management. Crucially, Syntronic was also given a free hand in designing and feature implementation, with explicit authorisation to review existing work and make necessary changes for optimal performance and reliability.

- **Expert Team Augmentation:** Syntronic augmented the client's internal team with senior embedded software developers, including specialists in embedded Linux and networking.
- **Embedded Software & Advanced Vision System Development:** Syntronic took full ownership of the embedded software development for one of the product's three processors. This included advanced vision and audio functionalities, as well as transferring video from the camera to the chosen cloud platform.
- **Proactive Feature Identification & Architecture:** Syntronic's team proactively identified and proposed essential functionalities, such as remote development tools, remote diagnostics, and detailed audio architecture, that the client had not fully anticipated for a connected product.
- **Support Portal Development:** Syntronic also contributed to the development of a proprietary web interface for a cloud-based support portal.

---

*"Syntronic became an indispensable extension of our team, bringing clarity and deep expertise in embedded systems, helping set us up for future success."*  
— SENIOR ENGINEERING DIRECTOR,  
LEADING INDUSTRIAL MANUFACTURER

---

## RESULTS & IMPACT

The partnership with Syntronic delivered significant tangible outcomes for the Industrial Manufacturer, enabling the successful launch and ongoing development of their connected safety device:

- **Accelerated Market Entry:** Syntronic's rapid and structured embedded development, particularly for advanced vision and audio functionalities, was crucial for a swift market release.
- **Successful Entry into New Market:** The customer successfully launched its first consumer-grade industrial commercial safety system - a significant milestone for the company.
- **Enhanced Product Functionality & Quality:** The embedded software developed by Syntronic delivered the core advanced vision feature, making the product stand out.
- **Improved Development Visibility & Trust:** Syntronic's commitment to detailed planning and transparent communication built profound trust with the Manufacturer, making complex challenges manageable and fostering a highly collaborative environment.
- **Proactive Problem-Solving & Future-Proofing:** The Syntronic team anticipated and addressed critical needs for a remote product, providing knowledge that the Industrial Manufacturer did not possess internally, thus ensuring long-term product viability and improving aftermarket support.

## WHY SYNTRONIC?

The Industrial Manufacturer chose Syntronic because our capabilities directly addressed their critical needs, leveraging our strengths as an Integrated Design & Product Realisation Partner:

- **Deep R&D and Specialised Expertise:** Access to a wide range of specialised knowledge, including Linux, networking, and the challenges inherent in video capture and transmission to the cloud. Our rapid ability to learn and apply technical depth quickly ensured project momentum.
- **Trustworthy Extension:** Syntronic seamlessly integrated into the Industrial Manufacturer's team, earning respect by demonstrating deep technical knowledge, providing clear plans, and consistently delivering intermediate milestones.

### ABOUT SYNTRONIC

Syntronic is an Integrated Design & Product Realisation Partner that empowers technology-intensive companies in demanding markets like Communications, Automotive, Industrial, and Defence to accelerate innovation and bring complex electronic systems to market faster and more reliably. With over 40 years of product and system development experience and 4000+ projects delivered globally, Syntronic provides deep engineering expertise across the entire product lifecycle—from idea to aftermarket support—with the agility and collaborative partnership needed for success at any scale.