BUSINESS CASE

Connected Fryers

Optimizing Operations & Driving Revenue Growth

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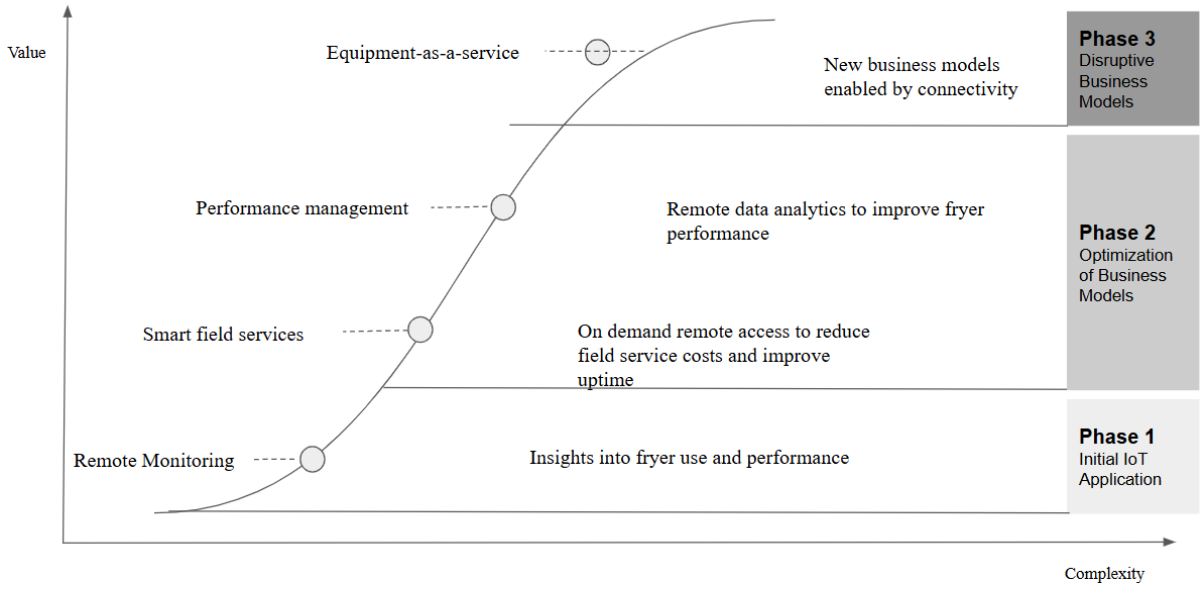
1 Executive Summary

This business case outlines how a leading industrial fryer manufacturer can leverage Industrial IoT (IIoT) to achieve significant operational and financial improvements. By connecting fryers to IoT platform, the manufacturer can gain real-time insights into fryer performance, enabling a phased evolution. The proposed approach is:

- Phase 1: Initial IoT Applications (Remote Monitoring): Gain insights into equipment use and performance.
- Phase 2: Optimization of Business Models (Smart Field Services, Performance Management): Reduce field service costs, improve uptime through remote access, and utilize remote data analytics to improve equipment performance.
- Phase 3: Disruptive Business Model (Equipment-as-a-Service): Enable new business models through connectivity.



a. Benefits for all stakeholders:

- Fryer Manufacturer: Increased profitability, reduced costs, improved customer satisfaction
- Distributors: Enhanced customer relationships, potential new service offerings
- QSRs: Minimized downtime, improved food quality, reduced wastage, optimized utilization

2 Problem Statement

Unforeseen equipment failures and inefficient maintenance cycles are a significant challenge for Fryer Manufacturer and their QSR customers. These issues can lead to:

a. Costly Downtime for QSRs: Industry estimates suggest downtime for a QSR fryer can cost a significant amount per hour. Even a brief outage can disrupt operations, leading to lost sales and frustrated customers.
b. Customer Dissatisfaction: Cook quality degradation leads to customer dissatisfaction.

c. Inefficient Maintenance for Fryer Manufacturer: Traditional, reactive maintenance schedules may lead to unnecessary service calls or missed opportunities for preventive maintenance. This can increase costs for Fryer Manufacturer and disrupt operations for QSRs.

3 The Solution

Fryer Manufacturer's investment in IoT provides a comprehensive IIoT solution:

a. IoT platform: The cloud-based platform acts as the central hub for collecting, storing, and analyzing data from connected fryers. It's advanced analytics capabilities allow Fryer Manufacturer to gain valuable insights into fryer performance and predict potential issues.
b. Firmware Agent: Installed on fryers, collects real-time sensor data on various fryer performance metrics (KPIs) such as oil efficiency, fryer health, service history, VAT utilization, filter status, and cook cycles.

4 Key Use Cases and Benefits

a. Predictive Maintenance

By analyzing sensor data, Fryer Manufacturer can identify patterns that precede equipment failures. This allows for proactive maintenance scheduling, minimizing downtime for QSRs and reducing overall maintenance costs for Fryer Manufacturer.

b. Improved Field Service

IoT data can pinpoint the specific issue with a failing fryer. The issue could either be resolved remotely by updating Firmware/Software Over the Air on the target fryer or allow Fryer Manufacturer to dispatch technicians with the necessary parts on the first visit, improving first-time fix rates and reducing downtime for QSRs.

c. Inventory Optimization

By integrating data on VAT utilization and filter status with QSR sales information, IoT platform can predict oil usage patterns. This enables Fryer Manufacturer to optimize inventory management for distributors and ensure QSRs have the necessary supplies on hand, avoiding stockouts and potentially reducing inventory holding costs.

d. Data-driven Subscriptions

IoT platform can generate reports and dashboards that provide QSRs with insights into fryer usage, oil quality, and preventative maintenance needs. This empowers QSRs to optimize operations, improve product quality, and potentially reduce oil consumption costs.

5 Conclusion

By leveraging IoT's capabilities, Fryer Manufacturer can optimize fryer operations, minimize downtime, and unlock new revenue streams. Through proactive maintenance, field service optimization, and innovative services such as remote software updates and recipe marketplaces, Fryer Manufacturer can solidify its position as a trusted partner for QSRs while driving sustainable growth and profitability.

Appendix:

- Business Case Tool – "*ROI Analysis.xlsx*" to provide estimated business case analysis for Fryer Manufacturer and QSRs.
- Solution Diagram – "*Connected Fryers – Architecture.pptx*" high level solution architecture for the proposed solution.