

# The "Product Passport" for Food Safety

Shifting the food industry paradigm from **Reactive Recalls** to **Real-Time Traceability & Trust** through immutable digital footprints. A Fortis & Peak Strategic Proof in Operations & Efficiency.

OPERATIONS & EFFICIENCY

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# The Challenge: The Traceability Gap

A multinational food distributor faced a full-blown crisis when a pathogen outbreak was linked to their fresh produce supply chain. Because their operations relied on fragmented paper trails and disconnected digital logs, it took **14 days** to identify the specific farm of origin — an eternity in food safety terms. The delay had cascading consequences that extended far beyond the initial outbreak.

## The Symptom

Massive "Blanket Recalls" resulted in millions of dollars of perfectly good food being destroyed simply to mitigate risk. Healthy product was condemned alongside contaminated batches because there was no way to distinguish between them in real time.

## The Complexity

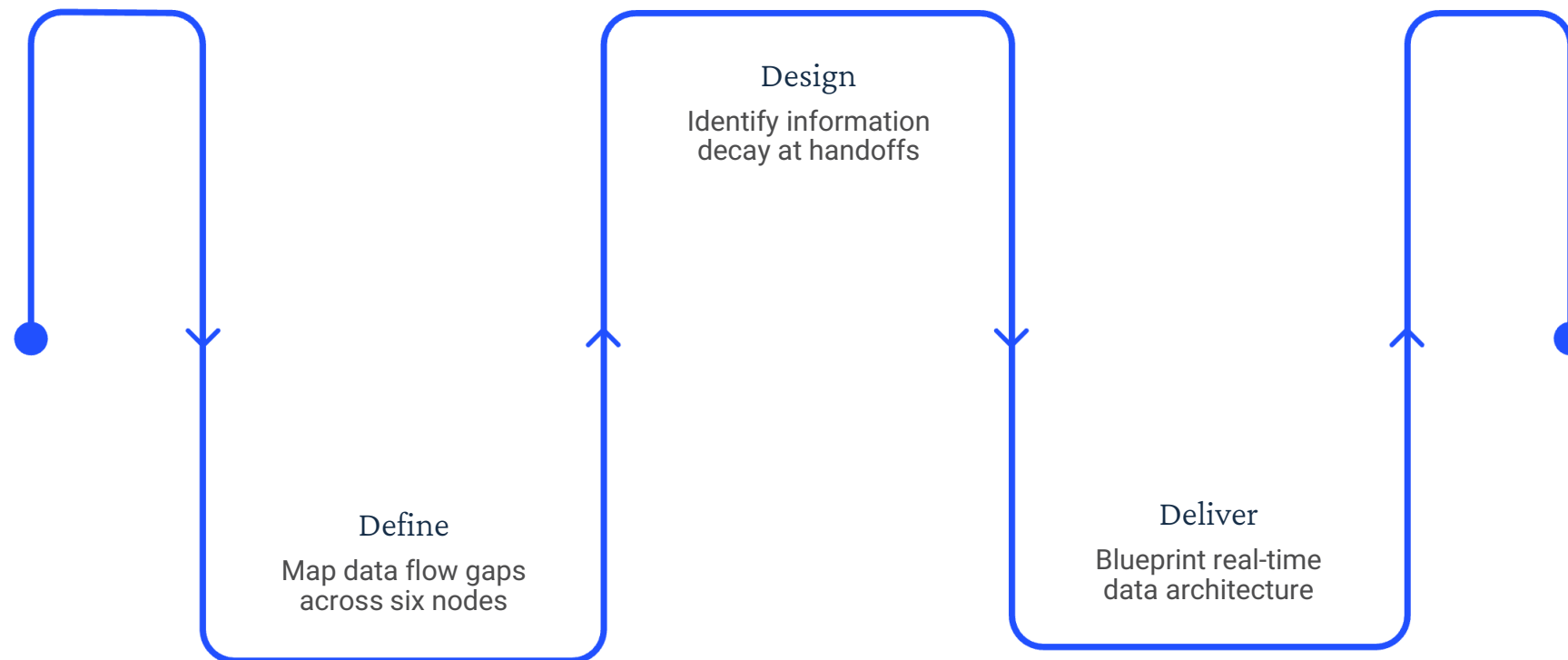
The product passed through **six different hands** — grower, packer, cold storage, shipping, regional distribution center, and retailer — with critical data being lost at every single handoff. No single stakeholder had a complete picture of the product's journey.

# The Diagnostic: Information Decay

"The distributor wasn't just moving food; they were moving 'Information-Dark' assets. When a problem occurred, they had to work backward through a fog of missing logs and manual errors."

Fortis & Peak applied our **3D&S methodology** — Define, Design, Deliver, and Sustain — to rigorously map the data flow across the entire supply chain. The core finding was both simple and alarming: **the physical product moved faster than the data associated with it**. By the time a batch reached the retailer's shelf, its digital record was already incomplete, outdated, or entirely missing.

This "Information Decay" was not a technology failure — it was a structural one. Each handoff in the supply chain represented a gap where accountability dissolved and traceability broke down. The distributor had no mechanism to capture, consolidate, or verify data in real time, leaving them operationally blind when it mattered most. The 3D&S diagnostic made clear that solving this problem required not just better tools, but a fundamentally new architecture for how product data is created, owned, and shared across every node in the chain.



The methodology revealed that the root cause was systemic — no single party was at fault, but every party was contributing to a collective blind spot that made rapid response impossible.

# The Pivot: Inside the Solution

Fortis & Peak developed and implemented the **Fortis Product Passport™** — a blockchain-backed digital identity assigned to every individual batch from the moment of harvest. Rather than retrofitting existing fragmented systems, we built a unified architecture where every unit is born with a **Digital Twin** that records its entire lifecycle in real time.

1

## IoT Edge Integration

Transit containers were equipped with temperature and humidity sensors that automatically updated the Passport. If a container's temperature spiked for even **ten minutes**, the Passport flagged it as a "Quality Risk" before it reached the warehouse — turning passive monitoring into active intervention.

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## Single Source of Truth

Using an immutable ledger, every stakeholder — from the farmer to the consumer — was given access to the same verified data stream. No more competing records, no more manual reconciliation, and no more information gaps at handoff points.

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## Supplier Adoption Strategy

Small-scale farmers were initially intimidated by the technology. We simplified the interface into a **mobile app** that allowed farmers to "check-in" a harvest with a single QR scan — making the technology an asset rather than a chore, and driving grassroots adoption across the supply base.

# How the Product Passport Works

The Fortis Product Passport™ creates an unbroken chain of custody from farm to consumer, with every node in the supply chain contributing verified, timestamped data to a single immutable record.



At every stage, data is written to the immutable ledger automatically – eliminating manual entry errors and ensuring that the record is always current, always complete, and always trustworthy. The result is a living document that travels with the product, not behind it.

# The Breakthrough: Evidence of Excellence

The implementation of the Fortis Product Passport™ transformed a major operational vulnerability into a brand-building asset. The results were measurable, dramatic, and immediate – validating both the technology architecture and the change management approach that drove adoption across the supply chain.

Metric	Traditional Tracking	The Product Passport	Improvement
Recall Identification Time	14 Days	2.5 Minutes	-99.9%
Food Waste (Perishables)	18%	4%	77% Reduction
Compliance Audit Speed	3 Weeks	Instant	Real-Time
Consumer Trust Index	Baseline	+45%	Significant Lift

99.9%

Faster Recall ID  
From 14 days to 2.5 minutes

77%

Less Food Waste  
Perishable loss cut from 18% to 4%

+45%

Trust Index Lift  
Measurable consumer confidence gain

0

Audit Lag  
Compliance verification now instant

# The "Peak" Insight

Food safety is no longer a back-office compliance cost — it is a front-facing brand promise.

By creating a Product Passport, you aren't simply tracking an item through a supply chain — you are **certifying its integrity** at every moment of its existence. The "Peak" performer is the one who recognizes that in the modern market, **transparency is the highest-margin product you sell**. Consumers, regulators, and retail partners increasingly reward organizations that can prove provenance, not just claim it.

This case sits at the intersection of Operations & Efficiency and high-impact innovation. It demonstrates how Fortis & Peak uses **"Hard Tech"** — IoT sensors, blockchain ledgers, mobile-first interfaces — to solve fundamentally **"Soft" problems** like consumer trust, supplier relationships, and brand equity. The technology is the mechanism; the outcome is a competitive moat that compounds over time.

The broader implication for the food industry is clear: organizations that invest in traceability infrastructure today are not just managing risk — they are building the foundation for a new category of brand differentiation. In a world where a single outbreak can erase decades of brand equity in 72 hours, the Product Passport is not a cost center. It is a strategic asset.

# About Fortis & Peak

This Strategic Proof is a demonstration of how **Fortis & Peak Consulting & Investment** enables organizations to redefine strategic direction and realign operating models to unlock sustainable, measurable growth. We combine the rigor of top-tier advisory with a distinctly hands-on approach — translating strategy into measurable performance, operational discipline, and scalable execution.

## Our Engagement Philosophy

We engage selectively with organizations that seek clarity at the top, precision in execution, and results that endure well beyond the engagement. We do not offer generic frameworks — we deliver bespoke solutions built on deep diagnostic work and a commitment to lasting impact.

## Get in Touch

Ready to transform a vulnerability into a strategic asset? Fortis & Peak works with leadership teams who are serious about operational excellence and long-term competitive advantage.

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