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Exception Management Is The Most Expensive Part of The Supply Chain

Why Cargo Theft, Loss, and Damage Continue to Rise - and How Sensos Eliminates the Cost of Exceptions

A White Paper

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Why Cargo Theft, Loss, and Damage Continue to Rise

Cargo theft, loss, and in-transit damage are no longer episodic disruptions. They are systemic failures embedded in modern supply chains. Over the past year alone, verified industry data and news reporting show double-digit growth in cargo crime across food, electronics, pharmaceuticals, consumer goods, and automotive shipments. Individual incidents now regularly exceed six- and seven-figure losses.

Yet the most significant cost rarely appears on loss statements.

For most enterprises, **exception management—detecting, escalating, investigating, and resolving problems after they occur—costs more than the stolen or damaged cargo itself.** Labor hours, emergency interventions, customer penalties, regulatory exposure, and claim disputes compound losses far beyond the value of the shipment.

This paper demonstrates why exception management has become the single most expensive operational layer in supply chains—and how **Sensos fundamentally changes the economics by detecting, understanding, and resolving exceptions automatically, in real time.**

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The Scale of the Problem

Cargo Loss Is Accelerating, Not Stabilizing

Food & Beverage: Theft Is Now a Structural Risk

Food and agricultural products have become prime targets due to resale ease, limited serialization, and weak in-transit monitoring.

- AP News reported multiple seafood theft incidents across New England involving oysters, crab, and more than **$400,000 in stolen lobster meat**, taken directly from aquaculture sites and warehouses.
- BSI Group recorded **a 79% year-over-year spike in global food supply chain theft**, making food one of the fastest-growing cargo crime categories worldwide.
- Food Logistics reports that food & beverage consistently ranks among **the top two stolen cargo categories**, alongside electronics, in 2025 theft data.

The operational reality: temperature excursions, dwell delays, and theft often go undetected until delivery—or never detected at all.

Electronics, Metals, and High-Value Goods: Fewer Thefts, Much Bigger Losses

Cargo theft has evolved from opportunistic theft to **strategic, intelligence-driven crime**.

- CargoNet Q3 2025 data shows average loss per incident reaching $336,787, driven by targeted theft of enterprise IT hardware, crypto-mining equipment, and copper product
- **Verisk CargoNet's 2024** Annual Supply Chain Risk Report

The Scale of the Problem

confirms electronics remain among the most consistently targeted commodities.

- In one of the costliest single logistics losses of the year, the car carrier Morning Midas caught fire and sank in the Pacific, taking **over 3,000 vehicles**—including EVs—to the ocean floor. Estimated loss: **$100M+**.

These events expose a harsh truth: **visibility alone does not prevent loss**, and post-incident response is slow, fragmented, and expensive.

Strategic Theft and Organized Crime Are Expanding Geographically

Cargo crime is no longer concentrated in a few hotspots.

- **TAPA EMEA** reported **€36.8 million in stolen goods within just 31 days** across Europe, the Middle East, and Africa.
- A December EMEA theft summary showed **nearly €37 million in losses in a single month.**
- In May 2025, U.S. authorities dismantled an Arizona theft ring that used a **gold semi-truck** to steal **$50,000 in beverages one day and $3 million in televisions the next**, exploiting fraudulent pickups and identity manipulation.

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The Hidden Cost: Exception Management

Most enterprises measure losses in stolen or damaged goods. That is a mistake.

The real cost lies in managing the exception.

Exception management typically includes:

- Manual detection (often days late)
- Email and phone escalation chains
- Emergency rerouting or reshipping
- Customer SLA penalties
- Regulatory exposure (especially pharma and food)
- Claims disputes and audits
- Post-mortem analysis with incomplete data

Industry studies and carrier data consistently show that **companies spend more reacting to exceptions than preventing them**.

According to **ATRI**, cargo theft costs the trucking industry billions annually, with operational overhead and response labor representing a substantial share of the burden.

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Why Traditional Visibility Platforms Fail to Reduce Costs

Most supply chain platforms are designed to observe, not act.

They provide:

- Location pings
- Static dashboards
- After-the-fact alerts
- Disconnected systems for tracking, claims, and operations

They do **not**:

- Interpret business impact in real time
- Prioritize which exceptions matter
- Execute corrective actions automatically
- Close the loop from detection to resolution

As a result, exception management remains manual, reactive, and expensive.

The Real Failure Is Not Loss— It Is How Exceptions Are Managed

Cargo theft, spoilage, and in-transit damage are often treated as isolated incidents. In reality, they are merely the **symptoms** of a deeper structural problem: how supply chains handle exceptions.

Most enterprises accept exceptions as unavoidable and focus their investments on:

- Post-event investigation
- Manual escalation processes

Why Traditional Visibility Platforms Fail to Reduce Costs

- Claims recovery and audits
- Customer appeasement after service failures

This approach is costly by design.

By the time an exception is formally recognized:

- The shipment has already failed
- Customer commitments are already broken
- Internal teams are already reacting under pressure
- Recovery options are limited and expensive

In effect, supply chains have optimized for **managing failure**, not preventing it.

This is why exception management quietly becomes the most expensive operational layer—absorbing labor, time, and capital long after the physical loss has occurred.

What If Exceptions Were Treated as a Control Problem?

If exceptions are the primary cost driver, then visibility alone cannot solve the problem.

What is required is a system that:

- Detects risk before it becomes loss
- Quantifies the business impact in real time
- Determines the correct response automatically
- Executes corrective actions without manual intervention

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Why Traditional Visibility Platforms Fail to Reduce Costs

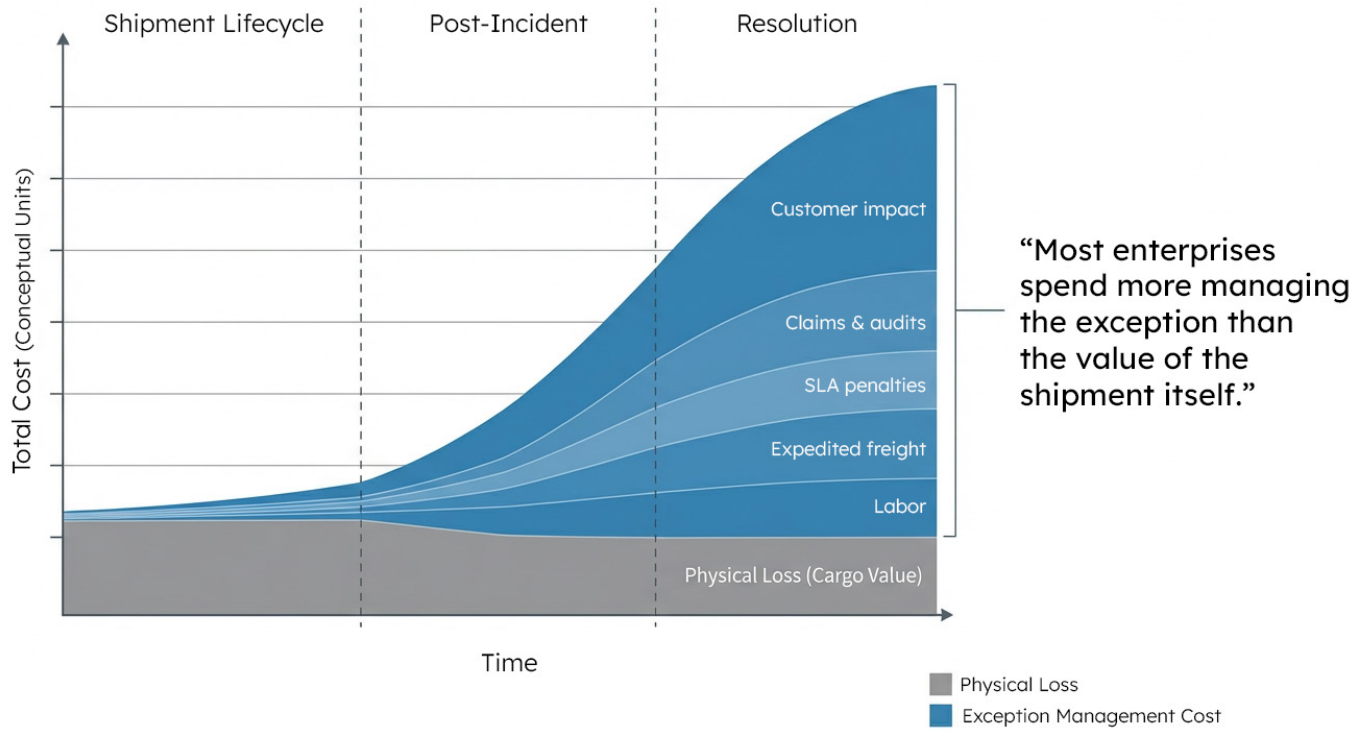
In other words, exception management must move:

- From reactive to predictive
- From manual to automated
- From fragmented tools to a single operational control layer

This is not a question of better dashboards.

It is a question of **system design**.

Only when detection, interpretation, and execution are unified can exception costs be reduced meaningfully—and at scale.



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Sensos: A System Built to Eliminate Exception Cost

Sensos was designed specifically to address the economic failure of exception management.

Rather than adding another visibility layer, Sensos functions as a **system of action**—one that continuously converts supply chain signals into operational outcomes.

At its core, Sensos enables enterprises to:

- See exceptions in real time
- Understand their true business impact
- Execute corrective actions automatically

This is achieved through a single, vertically integrated platform that spans detection, intelligence, and execution.

1. Uncover Exceptions

Vertically Integrated End-to-End Visibility

Sensos combines proprietary sensing with global multimodal data:

- Sensos Smart Labels with real-time sensor data
- Multimodal visibility across 1,500+ carriers
- Full integration with xMS, ERP, and legacy systems
- Air visibility (AWB-based, with or without labels)
- Ocean and complex multimodal journeys

This eliminates blind spots where most exceptions originate.

Sensos: A System Built to Eliminate Exception Cost

2. Analysis & Risk Interpretation

Turning Signals into Actionable Intelligence

Sensos does not stop at detection.

- Real-time exception identification
- Predictive risk scoring before loss occurs
- SLA, temperature, dwell, and route deviation analytics
- Cross-shipment and lane-level pattern recognition

Every signal is translated into business impact, not noise.

3. Supply Chain Execution

Auto-Convert Exceptions into Resolutions

Where traditional systems escalate, Sensos executes:

- Automated escalation workflows
- Priority-based intervention logic
- Claims- and audit-ready evidence generation
- Closed-loop exception lifecycle management

The result: fewer manual interventions, faster resolution, and dramatically lower exception handling costs.

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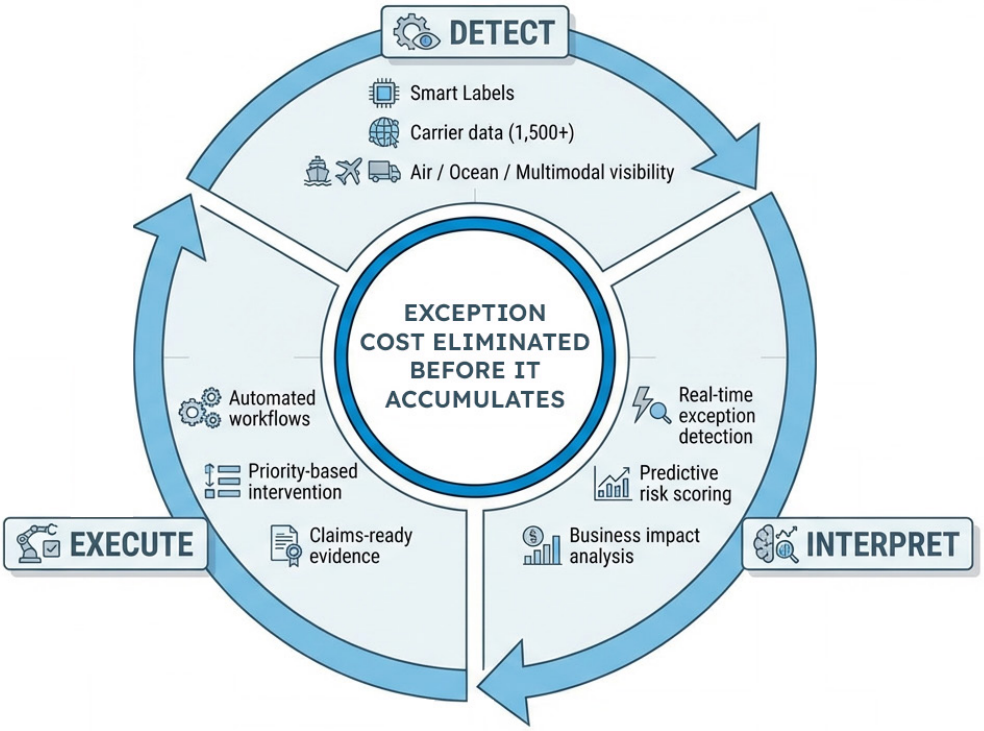
The Economic Impact: From Cost Center to Control Layer

Enterprises using Sensos consistently report:

- Fewer undetected exceptions
- Shorter time-to-resolution
- Lower labor cost per incident
- Reduced claim leakage
- Stronger compliance and audit posture

In many cases, exception costs are **reduced by orders of magnitude—or eliminated entirely.**



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The Economic Impact: From Cost Center to Control Layer

Visibility Is Not Enough. Action Is the Differentiator.

Cargo theft, damage, and loss are increasing. Organized crime is adapting faster than traditional systems. The cost of reacting continues to rise.

The competitive advantage now lies in **systems that see, understand, and act automatically**.

Sensos transforms exception management from the most expensive part of the supply chain into a controlled, measurable, and increasingly preventable function.

When exceptions stop being surprises, they stop being expensive.

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From Managing Exceptions to Eliminating Them

When exceptions are detected late, enterprises pay for them repeatedly:

- In labor
- In expedited freight
- In claims leakage
- In customer churn
- In compliance risk

When exceptions are detected early—and resolved automatically—the cost curve collapses.

Organizations using Sensos shift from:

- Manual firefighting → controlled intervention
- Reactive recovery → preventive execution
- Exception-heavy operations → exception-light supply chains

The result is not incremental efficiency.

It is a **structural reduction in operating cost and risk exposure**.

See how exception cost can be eliminated—not just managed.

Schedule a Sensos platform walkthrough to understand how real-time detection, risk intelligence, and automated execution work together to reduce loss, labor, and liability across your supply chain.