



# DATA TRANSPARENCY ACROSS THE COLD CHAIN

**Why Visibility Matters  
More Than Ever for  
Temperature-Sensitive Freight**



Transparency isn't optional in the cold chain; it's essential. From produce and protein to frozen goods and even pharmaceuticals, temperature-controlled freight requires end-to-end visibility to protect product integrity, reduce spoilage risk, and ensure FSMA compliance. This infographic breaks down the biggest visibility gaps in today's cold chain and the tools, processes, and innovations that solve them.



## WHAT SETS GENPRO APART

### How Genpro Stands Apart in the Cold Chain

Genpro goes beyond standard tracking by combining real-time visibility with strong carrier relationships and proactive exception management. Our integrated systems unite temperature, GPS, and shipment data in one platform, giving shippers a complete picture of their freight. Backed by a reliable nationwide carrier network and a dedicated operations team that responds within minutes, Genpro ensures that every shipment, from the first mile to the last, is protected, monitored, and delivered with precision.

- Unified data platform
- Rapid communication
- Temperature-focused carrier network
- Proactive issue resolution
- Industry-leading responsiveness

## WHY IT MATTERS

### The Impact of Full Transparency

- ✓ **Protects** product quality & freshness
- ✓ **Reduces** claims & spoilage
- ✓ **Strengthens** retailer/receiver confidence
- ✓ **Enables** smarter scheduling & routing
- ✓ **Supports** food safety & regulatory compliance
- ✓ **Builds** trust across every link of the supply chain



## Ready to Strengthen Your Cold Chain?

[Explore Cold Chain Visibility](#)

See how Genpro delivers next-level transparency across the cold chain with visibility, technology, and partnerships you can trust.



[www.genproinc.com](http://www.genproinc.com)



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## Why Visibility Matters More Than Ever for Temperature-Sensitive Freight



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### COLD CHAIN VISIBILITY GAPS

Visibility Gaps That Put Your Freight at Risk

#### GAPS



##### Manual Tracking Limitations

Creates blind spots and delayed communication.



##### Temperature Fluctuations

Even brief deviations affect quality, safety, and shelf life.



##### Lack of Real-Time Shipment Status

Slow updates prevent proactive problem-solving.



##### Delayed Detection of Anomalies

Issues are often found after the damage is done.



##### Fragmented Data Across Platforms

No single source of truth for shippers, carriers, and receivers.



##### Limited Load-Level Insights

Pallet or zone-level temperature differences go unnoticed.

### DATA-DRIVEN TOOLS THAT IMPROVE VISIBILITY

Technology That Brings the Cold Chain Into Full View

#### SOLUTIONS



##### Real-Time Temperature Monitoring

Live data from reefer units and sensors.



##### IoT Sensor Tracking

Temperature, humidity, shock & location insights at every stage.



##### Predictive Analytics with Machine Learning

Identifies risks before they become failures.



##### Automated Alerts & Notifications

Instant escalation when deviations occur.



##### Live GPS & ETA Visibility

Reduces uncertainty and improves planning.



##### Digital Exception Management Tools

Helps teams intervene quickly and effectively.

## MANAGING BY EXCEPTION: ENSURING FSMA COMPLIANCE & END-TO-END COLD CHAIN PROTECTION

Maintaining a safe, compliant, and fully transparent cold chain requires more than standard tracking. Under FSMA guidelines, every temperature-sensitive shipment must be monitored, documented, and protected with proactive controls. Genpro's Managing by Exception model strengthens this process by identifying the small percentage of loads that show early signs of risk; such as temperature fluctuations, equipment anomalies, delays, or route deviations, and addressing them before they can compromise product safety or integrity.

By combining real-time visibility with automated exception alerts, Genpro ensures that every step of the cold chain meets FSMA expectations and gives customers confidence that their freight is handled with precision from pickup to delivery.



#### Key Benefits:

- Continuous FSMA-aligned monitoring to ensure temperature adherence throughout the journey
- Early detection of temperature or equipment deviations before quality is affected
- Automated risk triggers & escalation workflows that support compliance documentation
- Faster communication with carriers and receivers to prevent safety breaches
- Reduced spoilage, claims, and regulatory risk through proactive intervention
- More predictable and reliable outcomes during high-volume or high-risk periods