

Intel® Connected Logistics Platform

PA Consulting's track and trace solution, built on the Intel® Connected Logistics Platform, helps improve responsiveness and reduce shipment loss.

Intel® Connected Logistics Platform.

The solution consists of Sensor Tags, a Gateway, a Mobile App, and a Dashboard:

- 1 Sensor Tags.** Placed on packages to collect data (temperature, tilt, shock, light, humidity, barometric pressure).
- 2 Gateway.** Placed on a package in the shipment; collects sensor data from Tags and transmits data to the Cloud.
- 3 Mobile App.** Pairs and unpairs a Tag with the package it is attached to; pairs and unpairs a Gateway with the shipment it is tracking.
- 4 Visibility Dashboard.** Enables shippers to view real-time sensor data and receive alerts.



Gateway



Sensor tag

Intel and PA Consulting Deliver Real-Time Monitoring of Package Condition & Location

Companies ship millions of tons of goods and materials every year. When a shipment is compromised in transit due to damage, spoilage or theft, companies lose revenue, time, productivity as well as goods.

Intel and PA partnered to develop an IoT hardware/software solution to increase the visibility, integrity, and security of shipments as they move through the supply chain. It provides real-time tracking of shipment location, temperature, light, humidity, shock and tilt, plus a dashboard for effortless monitoring and data analysis with programmable notifications and alerts for quick intervention.

Solution Benefits:

- **Real-time risk mitigation.** Live package condition and location data and alerts support loss prevention or reduction.
- **Geofencing.** Alerts when shipments are delivered facilitate process automation.
- **Trend & predictive analytics.** Visibility dashboard provides data to help triage immediate and recurring problems to optimize the supply chain.
- **Operational Efficiencies.** All-in-one device that allows for package-level tracking, and reduced costs associated with product waste and inefficiencies.



Lack of Supply Chain Visibility Has a High Impact

Current shipment tracking solutions either fail to provide real-time visibility or are too expensive for package-level deployment, which hinders the ability to mitigate loss, assess responsibility, and identify opportunities for process improvements.

30% of 76 billion packages are damaged or delayed each year

\$60 BILLION of cargo is stolen/year

2.2 DAY Cargo thefts in U.S. with an average value **\$233K**

30% of perishable goods never reach the table

Intel® Connected Logistics Platform Provides End-to-End Supply Chain Monitoring

High-Value, Sensitive Equipment

Challenge. Excessive tilt or shock can damage large, costly equipment like capital goods, laboratory equipment, and machinery.

Current Solution Gaps. Shock and tilt indicators only provide data upon delivery and do not identify where the breach happened.

Intel® Connected Logistics Platform. Real-time dashboard alerts of location and excessive tilt or shock enable root-cause isolation and triage.



Goods at Risk of Theft

Challenge. High-value shipments, like consumer electronics, branded apparel, pharmaceuticals, and intellectual property, are often targeted for theft.

Current Solution Gaps. Digital communicators are cost-prohibitive for package-level tracking, and analog devices do not provide a means to identify and address theft.

Intel® Connected Logistics Platform. GPS tracking and mesh networks enable real-time alerts if a shipment is outside of the geofence or if a single package has been separated.



Temperature-Regulated Shipments

Challenge. Products like pharmaceuticals, perishables and chemicals must maintain specific temperatures to prevent spoilage and meet regulatory standards.

Current Solution Gaps. Analog devices only provide information after products are degraded or spoiled.

Intel® Connected Logistics Platform. Sensors monitor interior and exterior package temperatures and signal alerts if measurements exceed regulatory levels.



Transform your Logistics and Gain the Competitive Advantage

- Real-time asset tracking and monitoring of shipment quality, integrity, and security at every stage of the supply chain, anywhere in the world.
- Easy-to-set-up visibility dashboard customized for your enterprise needs.
- Seamless integration into existing workflows with minimal onboarding.
- Cloud-based platform tracks packages worldwide and scales with your business.
- End-to-end security from devices to the Cloud by using an optimal mix of authentication and encryption.



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* "Cargo Losses Top \$55BN in 2015," Crane Worldwide Logistics, March 31, 2016, crane.com/wp-content/uploads/Industry-Insight-03-31.pdf
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