



TAG-N-TRAC



The Total Food & Beverage Cold Chain Solution Continuous Monitoring as a ServiceSM

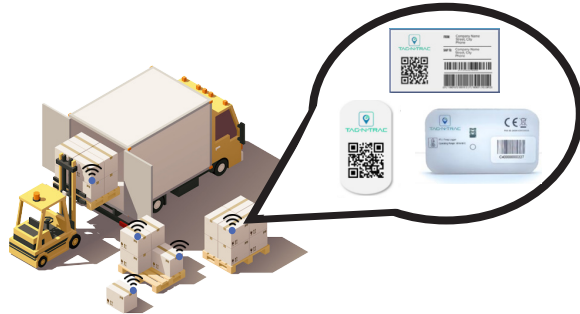
- Proprietary, Patent Approved & Pending Cellular, Bluetooth & RFID Solutions
- Intuitive Visibility & Traceability RELATIVITY™ Platform
- Flexible & Scalable Data Acquisition with Actionable Analytics

F&B Cold Chain

Sourcing



Our Food & Beverage Cold Chain solution continuously monitors the location and temperature of globally sourced raw materials & ingredients shipments to unlock operational efficiencies, assure product quality and streamline regulatory compliance.



1

Use Smart Labels, Asset Tags & Temperature Loggers to track raw materials & ingredients with a specific focus on ingredients requiring special transport or storage requirements.

Key Benefits

- Drive better decision-making using predictive insights
- Increased food safety and quality
- Streamline regulatory compliance
- Reduce risks by avoiding delays and quickly resolving operational issues
- Reduce costs with improved supply chain efficiencies such as minimizing food spoilage and theft
- Unlock operational efficiencies by increased visibility into shipments
- Quicker intervention via excursion alerts
- Enhanced traceability in the event of a product withdrawal or recall

2

Identify and quickly respond to any temperature excursions or unanticipated shipping delays.

Key Industry Statistics

- Roughly one-third of global fresh fruits and vegetables are thrown away because their quality has dropped below an acceptance limit...a high share of these losses is related to non-optimized handling during supply chain processes
- Cargo theft accounted for \$114 million in stolen merchandise in 2016...41% of these losses involved food and beverages
- 534 FDA and 122 USDA product recalls in 2019 with a \$10 million average direct cost to a food company per recall

F&B Cold Chain

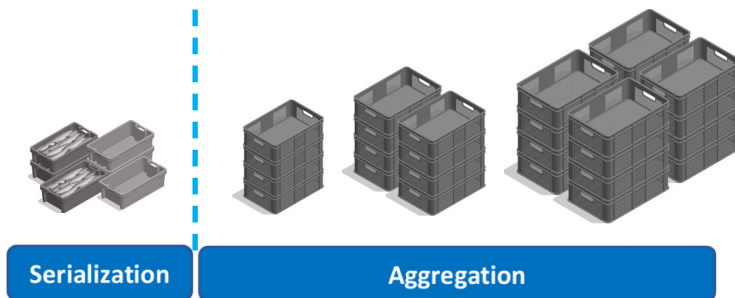
Manufacturing: Serialization & Aggregation



Tag-N-Trac provides a patent-approved, GS1-based Serialization & Aggregation capability, combined with continuous condition monitoring, to ensure traceability and compliance with the Food Safety Modernization Act (FSMA) and Global Food Safety Initiative (GFSI) requirements throughout the F&B cold chain.

- 1 Smart Labels can be affixed to primary, secondary and tertiary packs, cases and pallets.
- 2 Smart Labels, embedded with temperature sensors, now combine Serialization & Aggregation with Traceability. This combination allows fragmented systems to be combined into a single system.

- 3 Smart Labels provide location and continuously monitor the condition (temperature, shock, location insights) of products transported from farms to their final destinations.



	Items	Packs	Cases	Pallets
GS1 Code	GLN	SSCC		SSCC+GRAI

	Manufacturer	Transport	Distributor
GS1 Code	GLN	SSCC+GRAI	GLN

Since our labels are compatible with industrial thermal printers with built-in/add-on camera attachments and with vision systems on the manufacturing line, deploying Smart labels requires no new system integration.

F&B Cold Chain

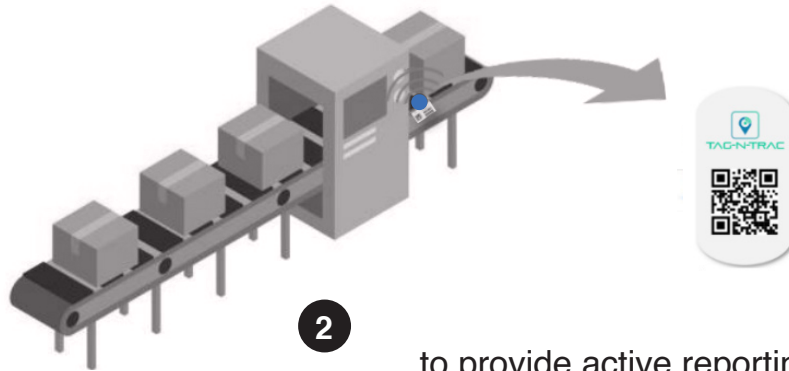
GMP & GDP (F&B Cold Chain Warehouse Management)



Our Smart Labels and FlexDot™ products, combined with Bluetooth access points, enable new capabilities at your warehouse facilities including continuous inventory tracking, improved traceability, and secured F&B cold chain custody.

1

FlexDot™ Tags and Smart BLE Labels are affixed to individual packages...

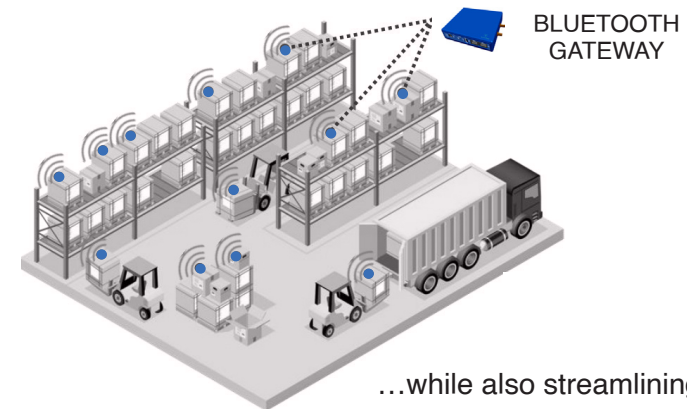


2

...to provide active reporting at a range of 60m (200') from Bluetooth Gateways and WiFi access points.

3

FlexDot™ Tags and Smart BLE Labels, coupled with Bluetooth Gateways, expedite inventory stock checks by eliminating the need to manually scan packages...

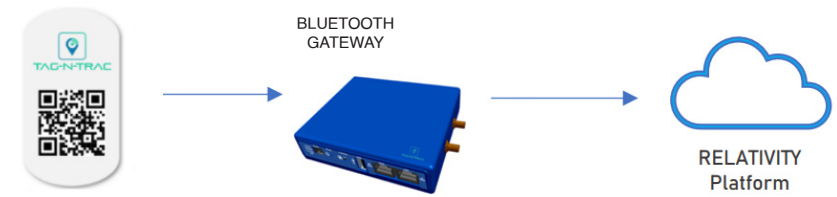


...while also streamlining shipping activities by enabling warehouse teams to easily identify the specific location of packages.

Key Benefits

- Increase operational efficiencies with faster inventory counts and shipping cycles
- Enhances planning accuracy
- Improves traceability by identifying dates processed & shipped and prior warehouse location of all packages by zone

Bluetooth Solution Overview



F&B Cold Chain

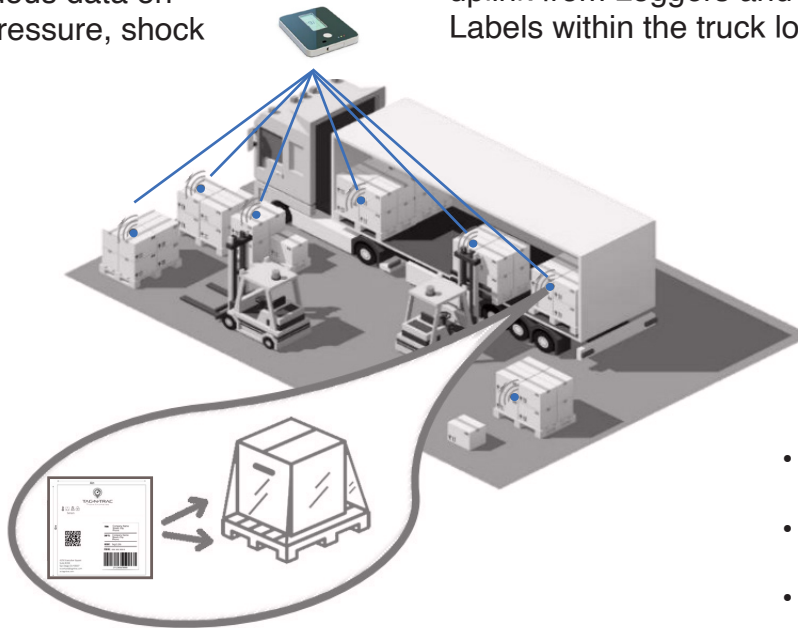
Distribution & Delivery



Tag-N-Trac provides complete visibility & traceability throughout the F&B cross-modal transport ecosystem. Our RELATIVITY™ platform, using advanced analytics, drives improved decision-making via actionable cold chain insights, proactive communications with key stakeholders, and compliance with regulatory and internal requirements.

Trailer Monitoring

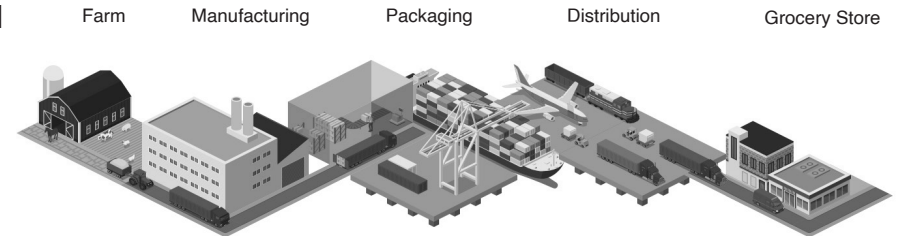
Bluetooth 5.1 provides range throughout the trailer to provide continuous data on temperature, pressure, shock and motion



Cloud Access

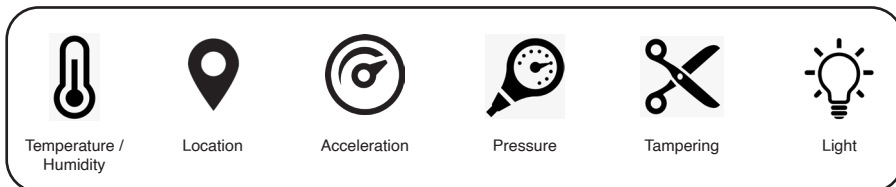
ST300 operates as a gateway to provide the mobile data uplink from Loggers and Smart Labels within the truck load

Cross-Modal Transport



Key Benefits

- Reduce spoilage by rapidly responding to any temperature/humidity excursions, equipment malfunctions, or mishandling issues
- Proactive communications to customers on any temperature excursions or shipping delays
- Increased visibility down to the item/case/pallet level during transport
- Improved OTIF (On-Time, In-Full) rates by continuous monitoring of location, temperature, and other critical sensor data
- Enhanced likelihood of consistently obtaining key customer's Must Arrive by Dates (MABDs)
- Maintain FDA compliance via cloud-based recordkeeping & storage
- Actionable insights into shipment performance by provider, mode & destination

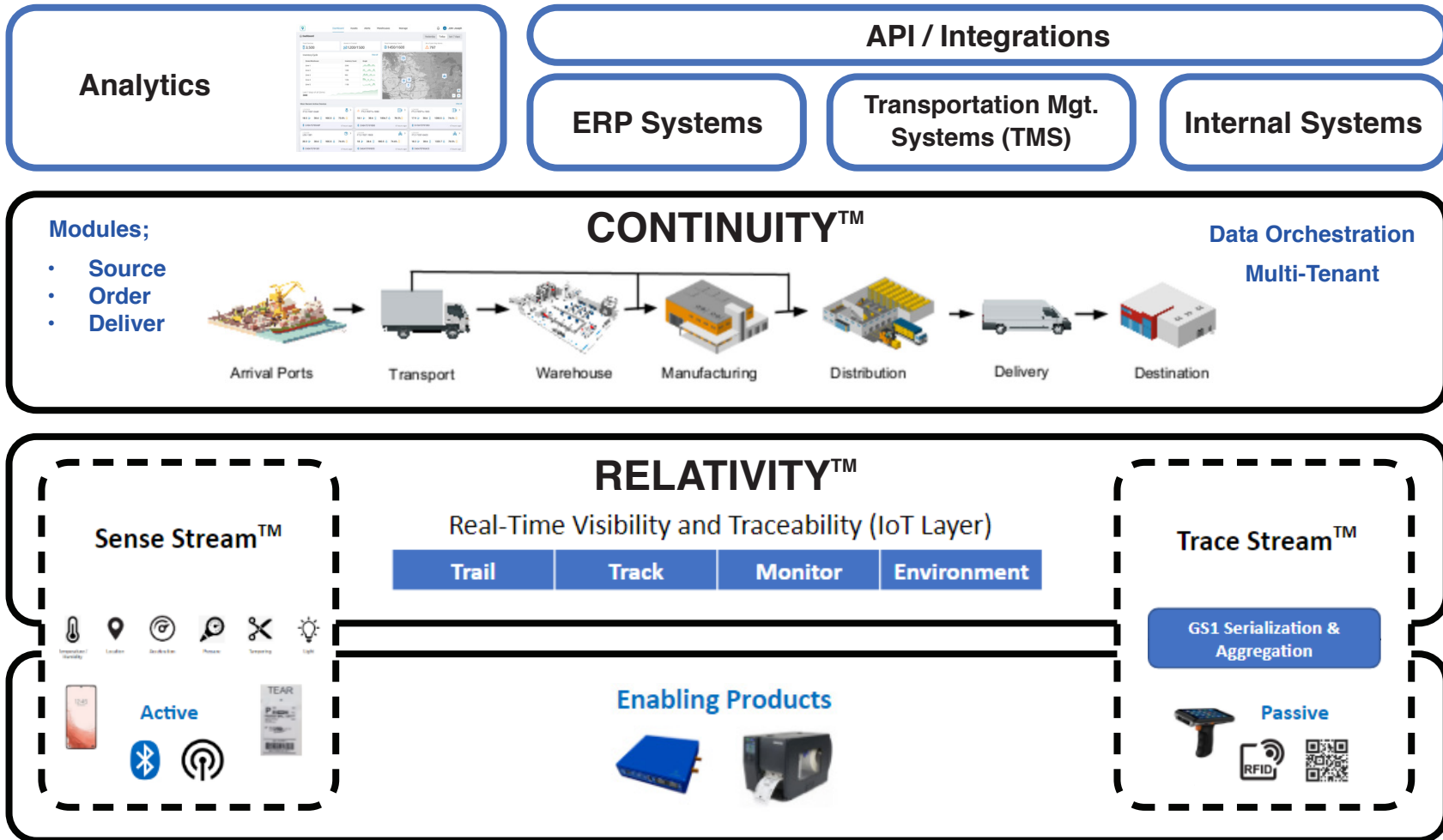


RELATIVITY™ Platform



Supply chain visibility & traceability combined with operational execution into a single platform.

The RELATIVITY™ platform provides continuous visibility & traceability to deliver the business intelligence required to optimize your supply chain, quickly respond to temperature excursions or shipping delays, and streamline regulatory compliance. We provide REST APIs and webhooks for seamless integration into internal and external (TMS, ERP) systems.

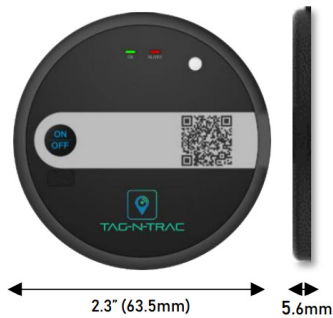


Product Suite

Tags, Loggers & Trackers

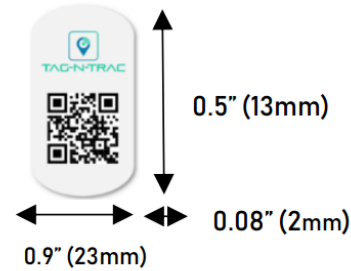


ASSET TAG (ST100) PUCK



Enclosure	Impact-resistant materials, IP65
Connectivity	Cellular (LTE Cat-M1, NB-IoT)
Sensor Data	Temperature, Pressure, Shock, Light, Humidity & Motion
Port	USB Micro-B
Battery Life	Up to 1 month (30-minute scans with 2-hour reporting)
Battery Weight	1 oz. (22g)

FLEXDOT™ ASSET TAG (FAT100)



Enclosure	Proprietary impact-resistant materials, IP65
Connectivity	BLE (Bluetooth 5.1)
Sensor Data	Temperature
Battery Life	Up to 36 months (30-second scans)

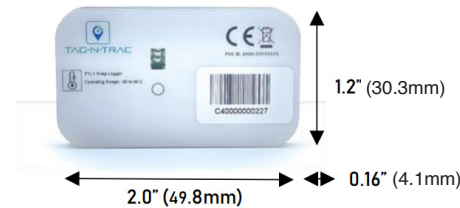
Reusable via Adhesive Pouches

ASSET TAG (SAM500)



Enclosure	IP68 Rugged
Connectivity	Cellular (LTE Cat-M1, NB-IoT) with 2G fallback
Sensor Data	Temperature, Light, Humidity & Motion
Battery Life	5- to 10-years depending on scanning frequency

FLEXDOT™ TEMPERATURE LOGGER (FTL1)



Connectivity	BLE (Bluetooth 5.1)
Sensor Data	Temperature, Humidity; Up to 8,000 recordings
Temperature Ranges	Operating: -30° C to 60° C; ±0.3° C (max) Storage: -40° C to 125° C
Battery Life	Up to 12 months (30-second scans)
Traceability	NIST Traceable

TRACKER (ST300)



Enclosure	IP65
Connectivity	Cellular (LTE Cat-M1, NB-IoT) with 2G fallback
Sensor Data	Temperature, Light, Humidity & Motion
Battery Life	Rechargeable; up to 4 weeks (15-minute scans with hourly reporting)

ASSET TAG (SMM300) CANDYBAR



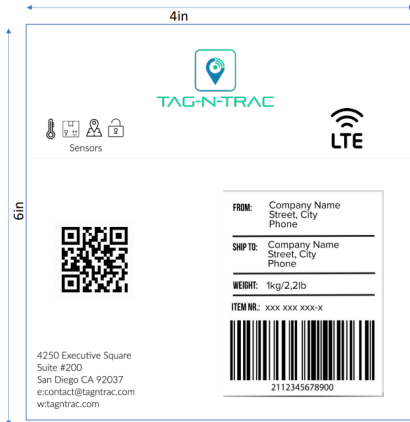
Enclosure	Impact-resistant materials, IP65
Connectivity	Cellular (LTE Cat-M1, NB-IoT)
Sensor Data	Temperature, Pressure, Shock, Light, Humidity & Motion
Port	USB Micro-B
Battery Life	Up to 3 months (30-minute scans with 2-hour reporting)

Product Suite

Labels: Cellular, Bluetooth, & RFID

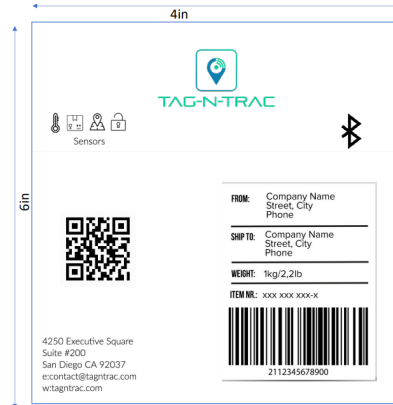


SMART LABEL: CELLULAR (SL100)



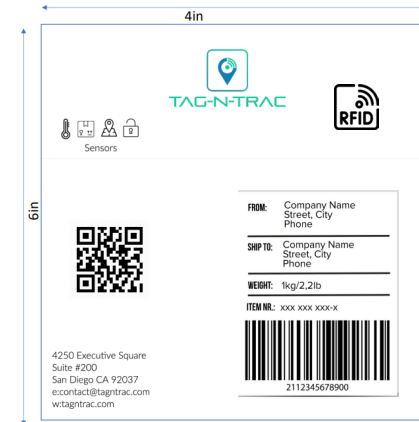
Enclosure	Proprietary, impact-resistant materials, IP65
Connectivity	Cellular (LTE Cat-M1, NB-IoT)
Sensor Data	Temperature, Pressure, Shock, & Motion
Battery Life	Up to 6 months (2-hour scans with 2-hour reporting)

FLEX LABEL: BLE (FLS-006)



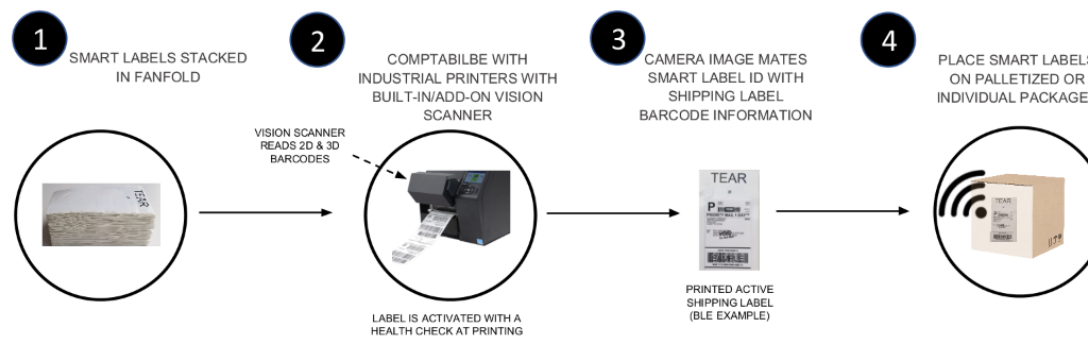
Enclosure	Proprietary, impact-resistant materials, IP65
Connectivity	Cellular (LTE Cat-M1, NB-IoT)
Sensor Data	Temperature
Battery Life	Up to 6 months (30-second scans)

DUAL RFID LABEL



Enclosure	Proprietary, impact-resistant materials, IP65
Connectivity	RFID, NFC
Sensor Data	Temperature; Up to 20,000 recordings
Battery Life	Up to 6 months (2-hour scans with 2-hour reporting)

Smart Labels: Printing to Package Process





TAG-N-TRAC

Proprietary Technology with Industry-Leading Total Cost of Ownership (TCO)
Intuitive Visibility & Traceability RELATIVITY Platform
Data Acquisition + Analytics

Tag-N-Trac industry partners:



Tag-N-Trac leading industry recognition:



To learn more about our solutions please visit our website, contact us by email or phone using the information below:



5015 Shoreham Place, #150
San Diego CA 92122 USA



www.tagntrac.com



contact@tagntrac.com



+1 (858) 365-5888