## rfxcel Integrated Monitoring

Real-Time Unit-Level Product Tracking & Management Anywhere Your Supply Chain Goes





# Award-winning end-to-end product tracking in real time

rIM is a real-time traceability and supply chain visibility solution that uses Internet of Things (IoT) technology to let you remotely monitor products in transit from anywhere in the world. And it really packs a punch, allowing you to view and collect data on more than a dozen environmental conditions, track the location of all your deliveries, and set precise parameters for alerts.

These powerful features allow you to be proactive about protecting your shipments. You'll safeguard their environmental integrity, track their position on land, sea, and air, and intervene immediately should something seem awry, like a spike in temperature or a route diversion. With rIM, it's like you're riding along with your products all the way through your supply chain.

Plus, it's device-agnostic, so it will integrate seamlessly with your existing systems, ensuring your operations keep running and your products keep reaching customers.



Track 12+ variables, such as temperature, light, humidity, and tilt. Monitor at a top-level (case, pallet, truck); track at an item level. Maintain the full tracking history of an item throughout its life cycle. "Ride along" with your shipments with real-time GPS tracking.



Change outcomes by receiving alerts about validation issues, changes in disposition, and environmental excursions. Get GeoFence alerts and alerts about incoming shipments for proactive supply chain management.



Collect real-time data about all of your shipments. IoT-enabled sensors continuously send data about your products at the container, pallet, or case levels. Build detailed provenance to tell your product story to consumers.



With 24/7 real-time environmental and location monitoring, you'll confirm your products are safe and on their prescribed route. You'll prevent damage to valuable cargo and know immediately if there's a threat of theft.

## rfxcel Integrated Monitoring (rIM)



rIM is a real-time traceability and supply chain visibility solution that helps you remotely monitor your products while they are in transit. A fully integrated solution, it features serialization and track and trace capabilities, and can synchronize with your internal systems, sensor devices, and cellular network connections.

#### **Item Traceability**

- rfxcel is the only provider that supports real-time tracking with serialized and aggregated items
- Monitor at the aggregate level and view at both the aggregate and unit levels with full event history



#### **Integrated Tracking**

- Consolidate data from multiple devices and systems into one view
- An integrated solution with serialization and track & trace platforms to monitor real-time data from IoT-enabled devices



#### **Device Independence**

- Avoid "hardware lock" in a rapidly evolving ecosystem
- Works with a broad range of devices, from USB data logs to real-time IoT devices



#### **Global Transport Channels**

- Real-time tracking on land, sea, and air: rail, roads, ocean liners, and aircraft
- Leverages marine network and aircraft wifi and offline synchronization

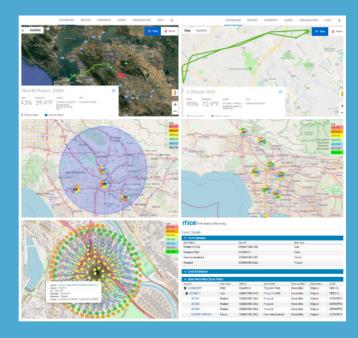


## **Real-Time Visibility**

rIM provides real-time views of your products as they move through the supply chain, enabling you to easily determine their status and condition as they move from Point A to Point B.

#### Views include:

- Route maps showing the current location of your items and their transit history. rIM flags any issues encountered during shipment in real time so you can quickly mitigate the problem.
- Cluster maps that provide summarized and granular views of your data
- Hierarchy lists that allow you to see all items in a shipment, pallet, or case and drill down to an individual unit



More than a dozen environmental factors can be reported to rIM, which captures these and other data and associates it to tracked items. This rich array of data is especially useful for cold chain products.



#### **Temperature**

is the foundational cold chain variable; rIM monitors it in real time.



#### Location

tracks the movement of goods. rIM logs both the current real-time location and historical in-transit path. Geo-fencing can be used to ensure products do not stray from the correct route.



#### **Light and infrared**

detects if a secured shipment is opened before it arrives at its final destination.



#### Orientation

(tilt) can be a precursor to temperature excursion.
Packaging used in cold chain operations can be compromised if it is not stored in a level position.

# Real-Time Insight and Data at Aggregate and Unit Levels

rIM allows real-time monitoring of aggregated products and the individual units within the aggregation. It also maintains the full tracking history of items throughout their life cycles. With just one click, you can monitor at the top level (e.g., truck, pallet, case) or the item level.



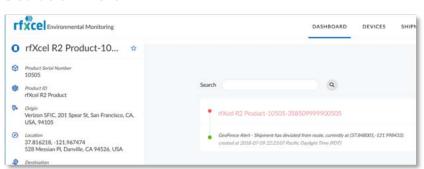
### **Configure for Real-Time Exceptions**

rIM empowers you to configure a wide range of alert thresholds, freeing every user to focus on their job and respond only when a deviation occurs. Thresholds can include minimum/maximum temperature variances, minimum/maximum deviation from prescribed routes, and minimum battery levels.

#### **Alert Configurations**



#### **Deviation Alert**

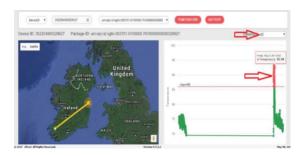


## rIM Industry Recognition

The Distribution Management Award, presented annually by the Healthcare Distribution Alliance (HDA), highlights "innovative collaborations between distributors and manufacturers that enhance processes, reduce costs and leverage advanced technologies or logistical practices. Recipients are models for leadership and innovation in the pharmaceutical distribution industry and demonstrate the power of successful trading partner relationships."



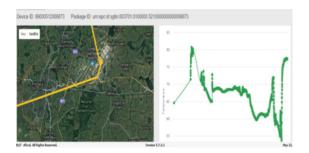
### **Distribution Management Award**



#### **Temperature Excursion Avoided**

A shipment from Ireland with a temperature threshold of 86°F had been sitting in a location that did not have temperature control.

As soon as the temperature exceeded the stipulated threshold, rIM sent a high temperature notification to the manufacturer, who intervened immediately and prevented a loss in product quality.



#### **Diversion & Contract Compliance**

A 3PL was required to ship a product only through approved airports. rIM immediately detected that the product was at an unapproved airport.

The manufacturer and 3PL investigation found that the 3PL's tracking system was incorrect and the 3PL was out of compliance per their contract.



#### **Risk Management & Process Improvement**

A shipment had sat on the tarmac beyond the acceptable timeframe (6 hours) and was at risk for a temperature excursion. Using rIM, the manufacturer confirmed this information and contacted airport personnel, who relocated the shipment as the manufacturer observed in real time.

## Why Do Customers Choose rfxcel?

#### Control

## Customers have complete control over their system.

- A separate instance for each customer is fully validated and locked down.
- Fully configurable, it will always suit your unique requirements.
- It features disaster recovery locations and additional virtualization benefits.

#### **Data Integrity**

Customers can rely on the maintenance and assurance of data over its entire life cycle.

- Actively assesses data accuracy
- Verifies data from internal and external systems
- Sets up bad data alerts

# A Full-Service Approach Customers enjoy the ease of success.

- Customer first a promise from rfxcel!
- End-to-end implementation and onboarding services
- No-fuss trading partner integration

#### **Integration** Server

Customers get the most flexible middleware platform and the most flexible partner interoperability hub.

- Provides mapping and transformation of incoming and outgoing data
- Integrates with thousands of industry trading partners
- Has the major L2 and L3 systems, CMOs/CPOs, and 3PLs
- Supports Web services, REST APIs, AS2, and many others

#### **Full-Service Onboarding**

## Customers get a designated team for onboarding.

In contrast to other vendors that offer a portal but pass the work of integration and configuration to the partner and customer, rfxcel provides full-service onboarding via our Professional Services Implementation Team.

- rfxcel works with your trading partners to establish partner connections and verify the <u>serialization workflow</u>.
- rfxcel integrates with your external customers and partners to integrate with your developed solutions.

## More rfxcel Solutions for F&B



#### rfxcel Raw Materials Traceability: Track inputs and create validated pedigree

- Track inputs from your suppliers and link to your finished orders
- Quickly trace backward and forward to determine source of materials for any product/order
- Flexible platform connects to vendors through Web, mobile, or advanced integration capabilities
- Help tell your product story, build trust with customers, and protect/burnish your brand



#### rfxcel MobileTraceability App: Data collection at every critical event

- See and manage all parts of your supply chain from virtually any location
- Scanning at harvest, shipping/receiving, during production, or by consumers
- Record data from raw materials to packaged goods
- Include documents and photos of activities
- Quickly build cases and pallets with serialized units
- Help tell your product story to consumers



## **rfxcel Serialization Processing:** Precise unit-level product tracking and visibility from farm to customer

- Assign a unique number to any raw material and finished product
- Increase the depth and breadth of your data
- Maintain the full tracking history of an item throughout its life cycle
- Create parent-child relationships to maintain visibility
- Follow cases as they're reworked
- Reduce impacts of recalls and improve investigations



#### **Compliance Management:** Fast, thorough, automated compliance for every industry

- The industry's most comprehensive compliance reporting solution
- Comply with all government regulations and trading partner requirements
- Always be compliant; future-proof your supply chain



## **rfxcel Integration Server:** Seamless connectivity to all your partners and exquisite data management capabilities

- Supports all industry and custom connectivity and data formats
- Secured connections to exchange information
- Workflow to manage transformation of data
- Flexibility and future-proofing (e.g., emerging tech such as blockchain)

## Are you ready to test rIM?

Contact one of our digital supply chain experts today and start seeing what you've been missing in your supply chain.

Email us at sales@rfxcel.com to request a demo and visit us at rfxcel.com to learn more about our digital supply chain solutions.



