



Intelligence to accelerate transformation

IoT Cold Chain Management APIs

Real-time Reefer Container Status and Alerts for Your Enterprise Applications

The journey of a reefer container filled with valuable frozen foods or carefully controlled medicines from its point of origin to its final destination can be filled with interruptions and disruptions along the way. As an owner and operator of reefer containers, it's crucial to orchestrate container movements and settings to ensure that they maintain power and temperature and are available where they are needed for customer satisfaction and growth. The deployment of IoT devices to record real-time reefer container activities has made it possible for carriers to have granular visibility of their containers.

Intelligent Data to Elevate Your Operations

Yet, with all the data available through IoT devices, sometimes it is too much. For example, without context, it is hard to know if power outages in containers are due to a switch from rail to vessel, or if it is a true exception that should be looked into or documented for safety concerns. IQAX analyzes data from multiple sources to harmonize the data using AI and machine learning and provide intelligent alerts based on algorithms and IQAX's deep understanding of cargo patterns making it easier to manage and take action on the data.

IQAX offers IoT Cold Chain Management APIs so that you can integrate not only raw data from your devices, but also harmonized data and alerts. Having visibility to precise reefer container conditions and locations, and to be alerted only when there is a true potential impact, helps ocean carriers more easily and quickly respond to customers, provide top service, and improve operations around reefer containers.

Software Capabilities

IoT to Shipment Integration	<ul style="list-style-type: none">• Enable supply chain parties to better understand the reefer situation by associating IoT data & shipment data• Enable supply chain parties to get big data harmonized shipment data• Enable supply chain parties to make event driven decision
IoT Inventory	<ul style="list-style-type: none">• Access an overview of container locations and whether they are in use to easily know their current distribution through your network and make plans.
Smart Alerts	<ul style="list-style-type: none">• Enable supply chain parties to identify operational disruptions on reefer setpoint setting, temperature deviation, humidity, O₂/CO₂, shocks, door-open, power, reefer machinery error, geofence in/out, etc.• Enable carrier to reduce false positive alarms• Enable supply chain parties to receive alert notification by business scenario• Enable cargo owner to plan the sales strategy
Compliance Report	<ul style="list-style-type: none">• Enable equipment owner & cargo owner to generate USDA compliance report anytime, anywhere

Built on the Microsoft Azure Cloud, IQAX's IoT API integration is your perfect answer for:

- Extending BoxPlus IBOX visibility through APIs
- Enhancing your IoT reefer data from all market-leading devices
- Consolidating offline reefer container recorders' data with your online device data

Every implementation is unique. Here are benefits your organization can experience through integration with your enterprise systems and new dashboards that you create:

Increase Customer Satisfaction

- Quickly look up precise container locations for VIP shipments or upon customer request.
- Look up container conditions on demand and save a log of records for accountability.
- Reduce time spent searching for the status of shipments to speed up customer response times.

Minimize Operational Costs

- View unused containers on a dashboard to make decisions for future allocations and repositioning.
- Better predict future container positions and locations to improve planning for cargo loading and empty returns.
- Save time and labor costs on mandatory Pre-Trip Inspections (PTIs)

Provide Premium Services

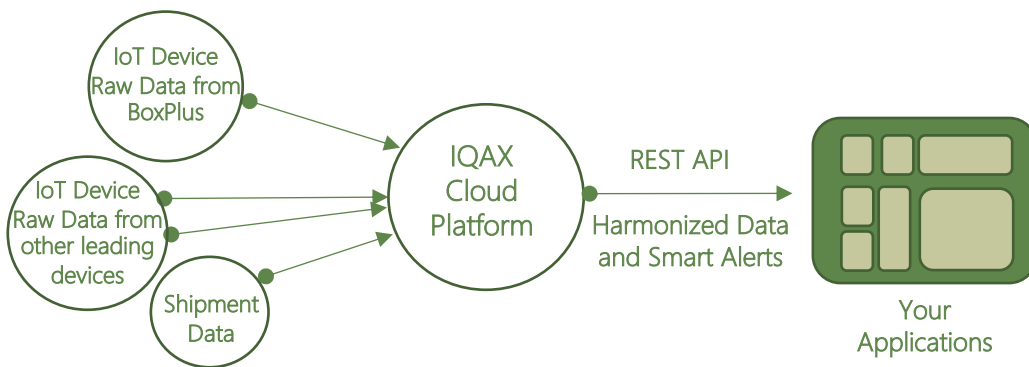
- Offer a service to tightly monitor customers' cold cargo and receive AI-driven alerts when deviations occur to prevent cargo loss
- Provide a window for your customers to monitor container conditions and location
- Offer the APIs to your customers so that they can integrate the container status with their systems



All Your Reefers' Live Information, Enhanced with AI

How It Works

1. Transmit your containers' device data to the IQAX cloud platform
2. Send your booking data to the platform so that IQAX can associate the device movements with shipment plans and milestones
3. As the platform receives device updates, vessel schedules, and other big data, it analyzes the device and shipment data for true exceptions
4. Pull updates from the cloud through your applications for live updates and smart alerts



Fast Setup for Developers

IQAX makes it easy to get started by offering:

- A product portal where you can find starter code, test APIs, and monitor your API transactions
- Standard schema for five APIs
- Inventory Map and Location Map UI Portlets that you can use and customize to save time creating integrated maps for your dashboards
- Flexible pull and push API options to receive the latest data and save data storage space

Build Apps to Empower Your Customer Service, Operations and Customers

Container Tracking – Look up precise reefer container locations and status for customers with speed

Asset Inventory Map – Visualize the closest available containers for upcoming needed locations

Task Bar – Display all temperature and power deviations of concern for your team to act on

PTI Reporting – Capture Pre-Trip Inspection information remotely, saving time and reducing errors

Customer Window – Let customers track their own reefer containers and status door-to-door

About IQAX

IQAX provides intelligent solutions to streamline and transform global trade, shipping, logistics and supply chain management sectors. With a mission to spearhead shipping digitalization and create a harmonized trading environment, IQAX prides itself on industry-leading technological expertise, accelerated product development and transformative business solutions.