

# Real-time Quality Control Keeps Fresh Seafood on the Menu



## Background

### *Seafood company leverages cargo tracking data to ensure the quality of international ocean freight shipments*

N.J.-based Eastern Fish Company is a leading provider of shrimp, scallops, crab, lobster and various types of fresh fish — sourced from premium suppliers around the globe. Founded in 1974, Eastern Fish has earned a reputation for consistently delivering the highest-quality seafood products at competitive prices. Its business model is based on maintaining long-term relationships with customers and an international pool of seafood suppliers, selecting only the most environmentally and socially responsible supply partners.

As the company's import manager, Mark Jacobsen leads a quality control (QC) team that's focused on monitoring and tracking the temperatures and locations of its international ocean freight shipments. Jacobsen explained that fresh seafood is flash frozen by its Indonesian and Asian suppliers and loaded onto shipping line carriers, where the journey to the company's east and west coast ports can typically take 30–45 days. Depending on the types of product in-transit, the value of a single shipment can range from \$100k–\$150k.

Protecting the integrity of these shipments, minimizing losses, and maintaining the company's well-earned customer trust are the QC team's top priorities. "Keeping these high-value shipments frozen throughout the shipping process is essential to our business," Jacobsen said.

## Challenge

### *Supply chain upheaval drives need for new approach to QC*

Like many companies that rely on international ocean freight shipping lines, Eastern Fish was greatly impacted by the supply chain disruptions that occurred during the COVID-19 pandemic. Jacobsen said that shipment lead times quickly grew from 30 days to more than three months, which placed significant strains on quality initiatives and created a backlog of imports waiting to be unloaded.

"Not only were there less available space and containers, but the cost of freight skyrocketed. Shipments also took longer and became harder to keep track of," he said.

To ensure quality, Eastern Fish has very strict temperature requirements on their in-transit perishable shipments. Frozen containers need to maintain temperatures within 5 °F of their setpoint, leaving very little room for error — especially when prolonged lead times can test the limits of container cooling capabilities. Defrosting and/or refreezing can quickly spoil a load, which could present risks to food quality and safety and result in missed deliveries and lost profits.

Jacobsen said that signs of temperature abuse are quickly apparent upon inspection at the company's distribution warehouses. "Our warehouse inspectors look for signs of boxes being wet or the formation of ice crystals," he said. But at that point, the damage has already been done.

Container security also became a growing concern for Eastern Fish during recent supply chain disruptions, increasing the likelihood for tampering, theft or simply losing track of a container's location. International ocean freight shipments often require the use of transshipments, where containers are loaded onto other vessels and may have several changes of custody before reaching their destination.

During the lead-up to the busy holiday season, the company can average up to 300 shipments per month, with roughly 15–20 active shipments at any given time. Jacobsen recalled how some carriers have mistakenly unloaded Eastern Fish's shipping containers in their own shipyards and described occasions when the QC team lost visibility to in-transit shipments.

Combined, these escalating cold chain challenges on overseas shipments required a new approach to QC. Although the team used temperature loggers to see historic trip data, they knew they needed improved visibility. "Given the supply chain upheaval and so many opportunities for errors, we needed a way to track containers at every step," Jacobsen said.



## Solution

### ***Oversight delivers in-transit visibility and remote intelligence***

The Eastern Fish QC team turned to the cold chain cargo experts at Emerson's Climate Technologies business, with whom they had already established a valued partnership. Jacobsen explained that his team had leveraged Emerson's Oversight portal software platform and temperature monitoring capabilities in its over-the-road trucking network in Mexico. "We knew how effective this was in Mexico, and we wanted to apply these same tools to our ocean shipping lines," he said.

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Emerson quickly went to work, coordinating with Eastern Fish's international seafood suppliers to set up a real-time cargo tracking infrastructure. The solution was comprised of GO real-time 4G/5G trackers — equipped with temperature and light sensors — and the Oversight portal, which provides real-time visibility to in-transit shipments on demand.

The Emerson services team configured the solution to provide email alerts when temperature excursions were detected or the light sensors indicated access to the shipping container. Emerson software helps to monitor these alerts, contact carriers, and advise Jacobsen's team when to take preemptive action. "They contact the suppliers when there's a problem on one of their shipments and help us evaluate the quality of our carrier network," Jacobsen said.

As the continual shipment data stream was aggregated in the Oversight portal, Eastern Fish was able to benchmark carrier performance and maintain an objective preferred carrier list. In addition, the solution provides historic trip records that Eastern Fish can use to settle shipping disputes and provide data needed for insurance claims.

## Results

### *Seafood safety delivers operational peace of mind*

Even though the supply chain has stabilized over the past several years, Jacobsen explained that Oversight has transformed their international ocean freight QC processes. From a visibility perspective, the Oversight portal allows him to track the progress of all in-transit shipments at any given time. “Even when I’m not getting alerts or responding to issues, I like to use the portal to track our shipments and check the live location and temperature status,” he said.

He recounted a recent anecdote that spoke to the value of Oversight’s capabilities in Eastern Fish’s daily QC processes. When an overseas shipment of shrimp arrived at one of their domestic coastal ports, inspectors discovered a large hole in the top of a shipping container. Of course, this raised immediate red flags; the team was acutely concerned about temperature excursions and the possibility of product defrosting.

Fortunately, Jacobsen said that the Emerson services team was able to confirm that the temperature logs showed no signs of thawing or temperature abuse. “Whenever we have any questions or need help with resolving a shipping issue, the Emerson team is always ready to respond quickly and provide any assistance we need,” he said.

Considering the high value of seafood shipments, the costs of overseas freight and the ongoing supply chain uncertainty, the Oversight solution has proven invaluable for helping Eastern Fish fulfil their customer promise: that their favorite seafood will be fresh, safe and always on the menu.

