



# The Cold Chain Tracking and Monitoring Market

2nd Edition

*The Cold Chain Tracking and Monitoring Market is the second consecutive report from Berg Insight analysing the latest developments on the remote tracking solution market for refrigerated cargo and cargo carrying units (trailers, intermodal containers, ULDs and rail freight wagons). This strategic research report from Berg Insight provides you with 160 pages of unique business intelligence including 5-year industry forecasts and expert commentary on which to base your business decisions.*

# The installed base of active cold chain tracking units to reach 9.2 million in 2026

Perishable foods, vaccines and pharmaceuticals, chemicals and electronics are typically sensitive to exposure of temperature variations as well as shock, tilt, vibrations and light. These types of goods require a steady and controlled temperature environment throughout the entire supply chain. Cold chain is the most commonly used name to describe such supply chains. Refrigerated trailers, intermodal containers, ULDs used for air freight cargo, rail freight wagons and other logistics units such as insulated cargo boxes and pallet shippers are used to maintain a steady cargo temperature during transportation. The global fleet of refrigerated trailers and intermodal containers amounts to more than 4.0 million units combined. The number of temperature-controlled ULDs and rail freight wagons in use globally are in the tens of thousands.

Cold chain tracking and monitoring solutions provide significant value for shippers and logistics service providers by providing real-time data on cargo location and condition. Berg Insight's definition of a real-time cold chain tracking solution is a system that incorporates data logging, satellite positioning and data communications to a backoffice application. The tracking device can be designed to track the cargo carrying unit (i.e. trailer, intermodal container, ULD, rail freight wagon etc.) or the cargo itself. Cargo carrying unit tracking devices are permanently or temporarily installed on the container unit while cargo tracking devices are typically placed with the cargo during transport. A range of device form factors and technologies are available on the market serving different needs.

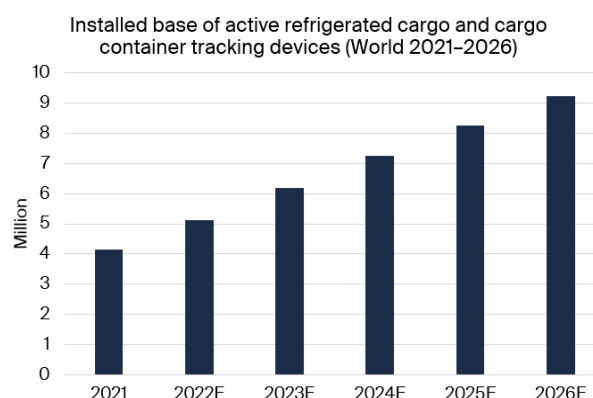
Berg Insight estimates that shipments of remote tracking systems with cellular or satellite communications capabilities for refrigerated cargo and cargo containers reached 2.4 million units worldwide in 2021. Growing at a compound annual growth rate (CAGR) of 16.2 percent, shipments are expected to reach 5.1 million units by 2026. During the same period, the installed base of active remote tracking systems for refrigerated cargo and cargo containers is forecasted to grow at a CAGR of 17.4 percent from 4.1 million units at the end of 2021 to 9.2 million units by 2026. Total revenues in the refrigerated cargo and cargo container tracking industry reached an estimated € 720 million in 2021. Software and service revenues accounted for 49.3 percent of the market value during the year, while hardware revenues accounted for the remainder. Growing at a CAGR of 11.4 percent, the total market value is forecasted to reach € 1.2 billion in 2026.

The cold chain tracking and monitoring market is served by a wide range of players. Maersk has rolled out a system for real-time tracking of its entire fleet of 385,000 refrigerated containers, making it the largest refrigerated cargo container tracking project worldwide. ORBCOMM has an extensive installed base of connected vehicles and assets. The company is the second largest player in the refrigerated

cargo container segment with around 380,000 units installed across refrigerated trailers and containers. The Denmark-based tracking specialist Globe Tracker is the third largest provider of tracking solutions for refrigerated cargo containers. The company collaborates with the major shipping company Hapag-Lloyd to equip the ocean carrier's entire fleet of around 140,000 reefer containers with tracking units. Additional leading players in the refrigerated intermodal container tracking segment include Envotech, Cooltrax and Emerson. Intermodal Telematics and SAVVY Telematics Systems are leading vendors of temperature-controlled tank container tracking solutions. Leading refrigerated trailer tracking players moreover include Spireon, Schmitz Cargobull, CalAmp and Idem Telematics.

DeltaTrak, Sensitech (part of Carrier), Controlant, Tive, Frigga (part of Dewav Electronic Technology) and Emerson are leading players in the refrigerated cargo tracking segment, each with more than 100,000 active trackers at any given time. These companies' solutions are based on trackers that are placed together with the cargo during transportation and can be used for various modes of transport including air shipments. Additional players in the segment include OnAsset Intelligence, Roambee, Adapt Ideations, Tempmate, Escavox, 7PSolutions and Intelyt. There are furthermore several cold chain logistics service providers that offer cargo location and condition tracking as a service for their customers. Examples of companies in this group are DB Schenker, FedEx and UPS.

The logistics industry is currently undergoing a major transformation. Accelerated by the supply chain disruptions following the COVID-19 pandemic, the industry is now investing heavily in digital solutions that will increase visibility and security in the supply chain. Products transported in the cold chain are in many cases high value goods and especially sensitive to unplanned stops and deviations. Having access to real-time data on the location and condition of the cargo helps managers to save the cargo load if an unexpected event occurs. It also provides vital information and data on shipments which can be used to optimize the supply chain.



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## Glossary



## Highlights from the report

**Insights** from 30 executive interviews with market leading companies.

**Comprehensive overview** of the refrigerated cargo tracking value chain and key applications.

**In-depth analysis** of market trends and key developments.

**Summary** of major refrigerated cargo tracking initiatives worldwide.

**Updated profiles** of 75 cold chain tracking solution providers.

**Detailed forecasts** by market segment lasting until 2026.

**The latest trends** on cold chain logistics and the tracking of cargo and cargo carrying units including trailers, intermodal containers, ULDs and rail wagons.

## This report answers the following questions

- Which are the leading providers of cold chain tracking solutions?
- What offerings are available from device vendors and service providers?
- Which modes of refrigerated transport have the highest penetration rates?
- What impact will regulations and legislations have on the market?
- What are the key drivers behind the adoption of refrigerated cargo tracking solutions?
- What are the latest trends on the cold chain tracking market?
- What impact will technology advancements have on the market?
- How will the cold chain tracking industry evolve in the future?



## About Berg Insight's IoT market research

Our market reports offer comprehensive information and analysis on key IoT technologies and markets, addressing important concerns including total addressable market, market penetration, market shares, industry landscape, regulatory environment, market trends and forecasts. Our research portfolio today comprises more than 60 items, where each market report focuses on a specific vertical application area or cover horizontal themes. All market reports come with complementary data sets in Excel format that can be easily analysed and converted into tables and charts. We offer a range of different license options together with bundled packages and subscriptions to suit your specific needs.



TRANSPORT & LOGISTICS

# The Cold Chain Tracking and Monitoring Market

This study investigates the market for tracking and monitoring of refrigerated containers, trailers, swap bodies, rail freight wagons, air freight unit load devices, pallets and cargo boxes. Perishable foods, vaccines and pharmaceuticals, chemicals and electronics can benefit greatly from these solutions as they are typically sensitive to exposure of temperature variations during transportation. Get up to date with the latest information about vendors, products and markets.

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## Who should read this report?

The Cold Chain Tracking and Monitoring Market is the foremost source of information about the adoption of tracking solutions for refrigerated cargo and cargo containers, including trailers, intermodal containers, ULDs and rail wagons. Whether you are a tracking solution provider, device vendor, cargo transportation stakeholder, telecom operator, investor, consultant, or government agency, you will gain valuable insights from our in-depth research.

AUTHOR

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Martin is a senior analyst who specialises in IoT applications for the smart homes and buildings, transportation and security markets. He joined Berg Insight in 2018 and is the lead author of numerous research reports. In addition to published research, he has provided bespoke research to clients ranging from IoT solution providers, management consulting firms, private equity firms and others. Prior to joining Berg Insight, Martin worked as a supply chain analyst at Volvo Group. Martin holds a Master's degree in Industrial Engineering and Management from Chalmers University of Technology.

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