HEALTHY, SAFE, SUSTAINABLE
COLD CHAIN

MOVES THAT MATTER: CONNECTED COLD CHAIN

Every day, the world relies on the cold chain to provide fresh food for people across the globe, to safely transport and store vital medicines and to protect time- and temperature-sensitive materials used in a variety of industries. As the year draws to a close and we look ahead to 2022, Carrier is committed to leading the way in creating a more connected cold chain to help deliver confidence in everyday life – and in the face of pressing global challenges.

CHALLENGES AND OPPORTUNITIES

Global trends such as a growing population, increased urbanization and climate change underscore the importance of a more connected cold chain. Continuing to drive improvements in the cold chain is essential to solving critical challenges and seizing new opportunities to make a positive impact for our planet and people around the world.

800 million people go to sleep hungry every night,[1] but 475 million tons of food could be saved by refrigeration this year[2]

2 billion people have no access to medicine, but temperature-controlled logistics failures in the biopharma industry cost $35 billion a year[3]

4.4 billion metric tons of carbon dioxide (CO_2) are produced per year from food waste,[4] but an improved global cold chain could reduce current CO_2 emissions by almost 50%[5]

Container

Truck Trailer

Growers & Manufacturers

1 2 3 4 5 6

Distribution Center

Last Mile & In-Store

CREATING A MORE
CONNECTED COLD CHAIN

Understanding what's at stake, Carrier is working to build a truly connected cold chain – one that is stronger and more intelligent. This effort focuses on a series of key goals, with continuous innovation centered around the needs of our customers.

CUSTOMER NEEDS

- Reduced transport cost and product loss
- Traceability and condition
- Improved end-to-end visibility
- Solutions that are agnostic to data sources
- Interoperability across multiple systems
- More seamless digital experiences

OUR FOCUS IN BUILDING A STRONGER, **MORE INTELLIGENT COLD CHAIN**

Focus on equipment innovation

Intelligently monitor every shipment to ensure safety and efficacy
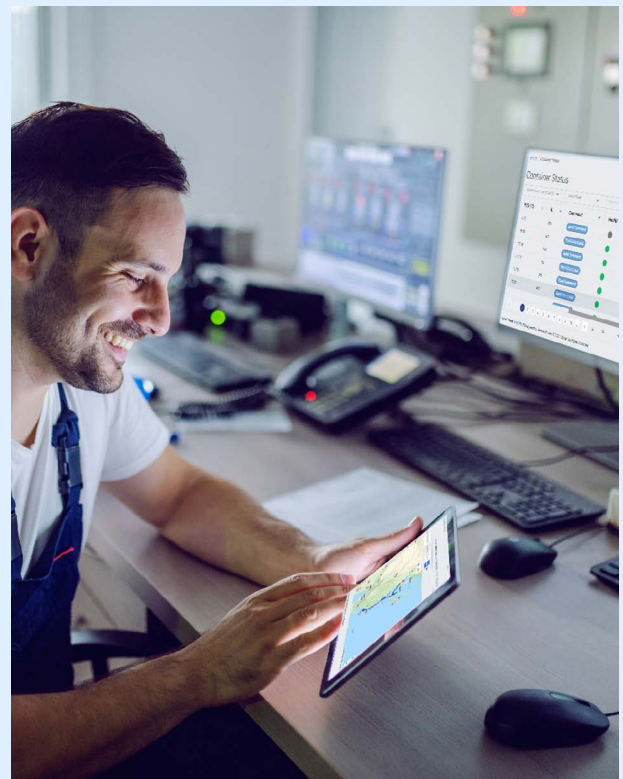
Contribute to building a more sustainable future

LYNX

DELIVERING CONFIDENCE IN A MORE
CONNECTED ECOSYSTEM

Developed in collaboration with Amazon Web Services (AWS), Lynx® is a digital platform that intelligently monitors connected refrigeration systems from anywhere in the world – providing vital information through a centralized data stream and improving cargo visibility for shipping lines, fleet owners, service technicians and ship crews.

With the Lynx platform, Carrier enables a more connected cold chain, delivers on customer needs and helps solve a number of critical challenges.

- **Improved product quality and compliance** standards throughout the supply chain
- **Supply chain visibility and intelligence** for more effective management of business operations and partners
- **OpEx efficiencies and savings** through automation and proactive reduction of potential supply chain disruptors
- **Sustainability benefits** through a reduction in both product and food waste as well as greenhouse gas emissions

LYNX ENCOMPASSES A FULL SUITE OF DIGITAL OFFERINGS:

Lynx Fleet	Lynx Cargo	Lynx Cold Systems	Lynx Cold Chain
Transport Refrigeration Equipment Owners	**Cargo Owners and Shippers**	**Stationary Refrigeration Equipment Owners**	**Proactive, E2E Risk Management Solutions**
• Equipment health and uptime • Business Intelligence (BI) and OpEx savings	• Product safety and compliance • Visibility and traceability • Supply Chain (SC) intelligence and risk management	• Equipment health and uptime • BI and OpEx savings • Energy savings and lower emissions	• Cargo insurance • Asset sharing and capacity trading • Safety and quality certifications

CONNECTED COLD CHAIN SOLUTIONS

Our Lynx offerings are just a part of Carrier's suite of advanced solutions for a more connected cold chain. Supported by Sensitech, Carrier offers a full range of products and services designed to help customers create healthy, safe, sustainable and intelligent cold chain environments. This includes the following:

CARRIER PODS™ MONITORED BY SENSITECH®

Deliver precise temperature control, digital intelligence through Lynx™ Fleet, increased operational efficiency, secure temperature recording and Good Distribution Practice (GDP) compliance to customers interested in adding cold storage capacity or helping to ensure the shelf life of vaccines.

CARRIER PRIMELINE® UNIT

The industry bestseller for over 13 years, with a long track record of strong customer adoption, low operating costs and low total cost of ownership. No refrigeration unit on the market today provides full-load performance as energy efficiently as the PrimeLINE unit.

CARRIER NATURALINE® UNIT

The first natural-refrigerant based solution ever developed for marine container shipping. Using CO_2 as a natural refrigerant, the NaturaLINE design can reduce carbon emissions by 28% compared with previous units using synthetic refrigerant.

GET STARTED WITH AN EXPERT

Visit us at corporate.carrier.com/healthycoldchain to learn more from Carrier leaders and industry experts about creating a safe, effective cold chain with trusted transport and storage refrigeration applications and the visibility of advanced cargo monitoring.

[1] https://www.fao.org/hunger/en/
[2] International Institute of Refrigeration
[3] Data Science (IQVIA)
[4] "Food Wastage Footprint & Climate Change," Food and Agriculture Organization of the United Nations, 2015, Web June 4, 2020, http://www.fao.org/fileadmin/templates/nr/sustainability_pathways/docs/FWF_and_climate_change.pdf
[5] https://iifiir.org/en/fridoc/142029

CONNECTED COLDCHAIN