



Complete and Discrete Answers for the Food Cold Chain

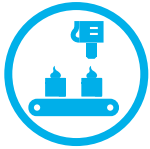
**Consumer, commercial and regulatory demands
require a tightly controlled cold chain.**

Delivering this new food experience requires an interdependent supply chain, one that shares the value of moving food from the point of harvest to consumers in a safe, consistent and economic way. While the pressure may be felt most at the points where food is sold or consumed, retailers and restaurants depend on their suppliers throughout this food cold chain — specifically, their abilities to collect, share and report data on the handling practices that help retailers keep food fresh throughout its journey from farm to fork.



The food safety imperative

The potential for foodborne illnesses threatens food manufacturers, retailers and consumers.



84 percent of consumers hold manufacturers and retailers responsible.



48 million people (or 1 in 6 Americans) contract foodborne illnesses each year.

Food quality is a differentiator

Brand reputations are built on the promise of delivering consistently exceptional food and dining experiences.



Willing to pay more for healthier foods



Global sales of healthy food products were estimated to reach **\$1 trillion by 2017**.

Regulations continue to disrupt

Energy, environmental and food safety regulations add complexity to every facet of cold chain operations.



The average U.S. company spends the equivalent of **21 percent** of payroll costs on regulatory compliance.



The DOE is mandating energy reductions from **5 to 50 percent** on various classes of commercial refrigeration equipment.



197 countries agreed to a global HFC phase-down via the Kigali Amendment to the Montreal Protocol.

Significant infrastructure and maintenance impacts

Rapidly evolving shopping behaviors are driving the emergence of updated, flexible retail formats with “always on” availability.

U.S. retailers are **investing billions annually** to update store formats.



Workforce demographics are increasing pressures on an already dwindling skilled technician pool.



An estimated **115,000 technicians** will be needed in HVACR by 2022.



Consumers demand fresh, healthy convenience

As consumer preferences evolve, retailers attempt to meet rising expectations with new format and merchandising strategies.



61 percent of millennials purchase prepared food at a convenience store at least once a month.



67 percent of grocery stores' perimeter (fresh) categories sales have increased in the last 12 months.

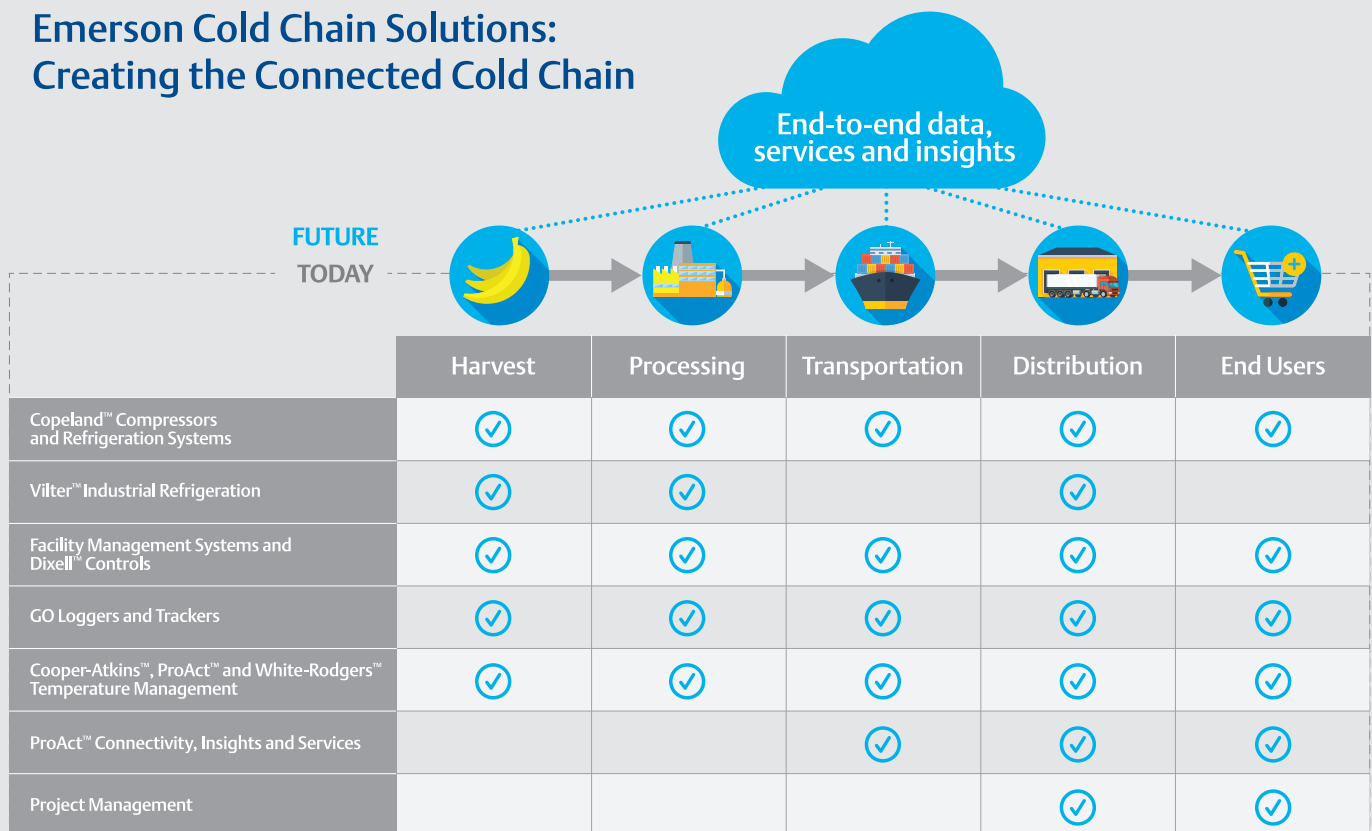
In this environment, Emerson is working with suppliers, customers, retailers and restaurants in several ways. We're helping them assure their customers that food has been handled properly and delivered at the highest possible quality. From compressors and refrigeration systems through project management, our solutions can be applied horizontally across the food chain, or vertically, within any area of expertise, support or service.

How is Emerson delivering practical, flexible approaches?

It starts with the devices and components for which Emerson is well-known and includes controls, electronics, compressors, software and newer areas of temperature management, trackers and loggers. We've become industry leaders at designing system architectures and integrating systems and solutions within businesses. Through ProAct™ and other tracking capabilities, our connectivity-enabled support and services allow us to help provide operators enterprise-wide visibility to temperature, systems and infrastructure that can potentially impact food, its condition and its quality throughout the food cold chain. We're providing operators with the data and insights that deliver deep information about how they're managing temperature conditions in cases and containers that hold food. This helps optimize their assets, assuring them that the systems and components essential to maintaining food quality are operating properly, saving energy, improving food sustainability and delivering the highest possible food quality.



Emerson Cold Chain Solutions: Creating the Connected Cold Chain

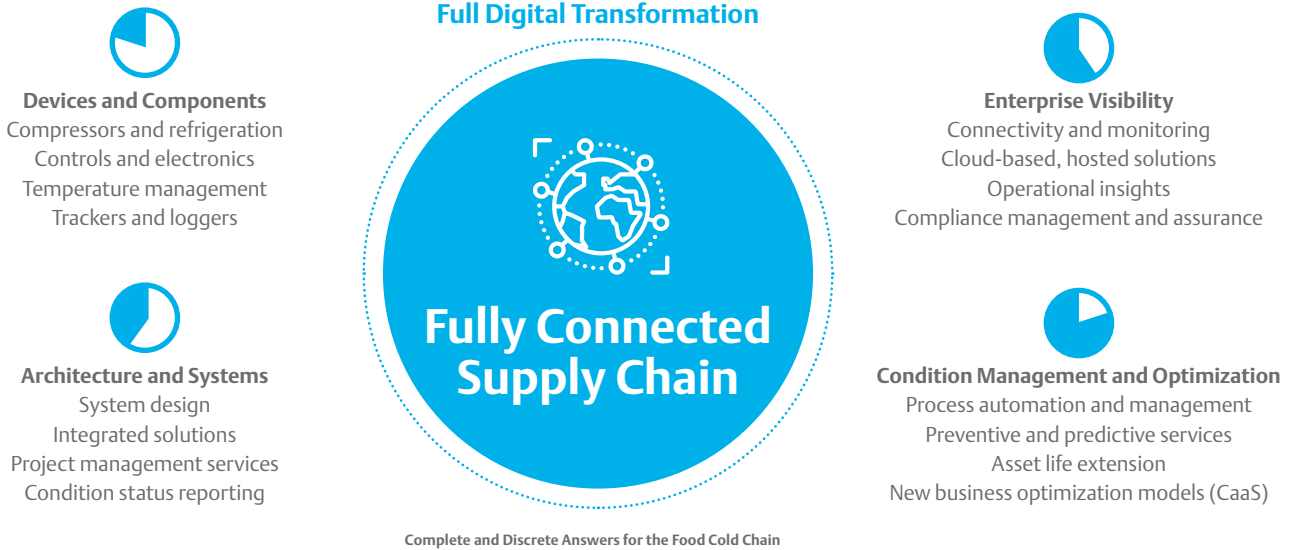


Complete and Discrete Answers for the Food Cold Chain

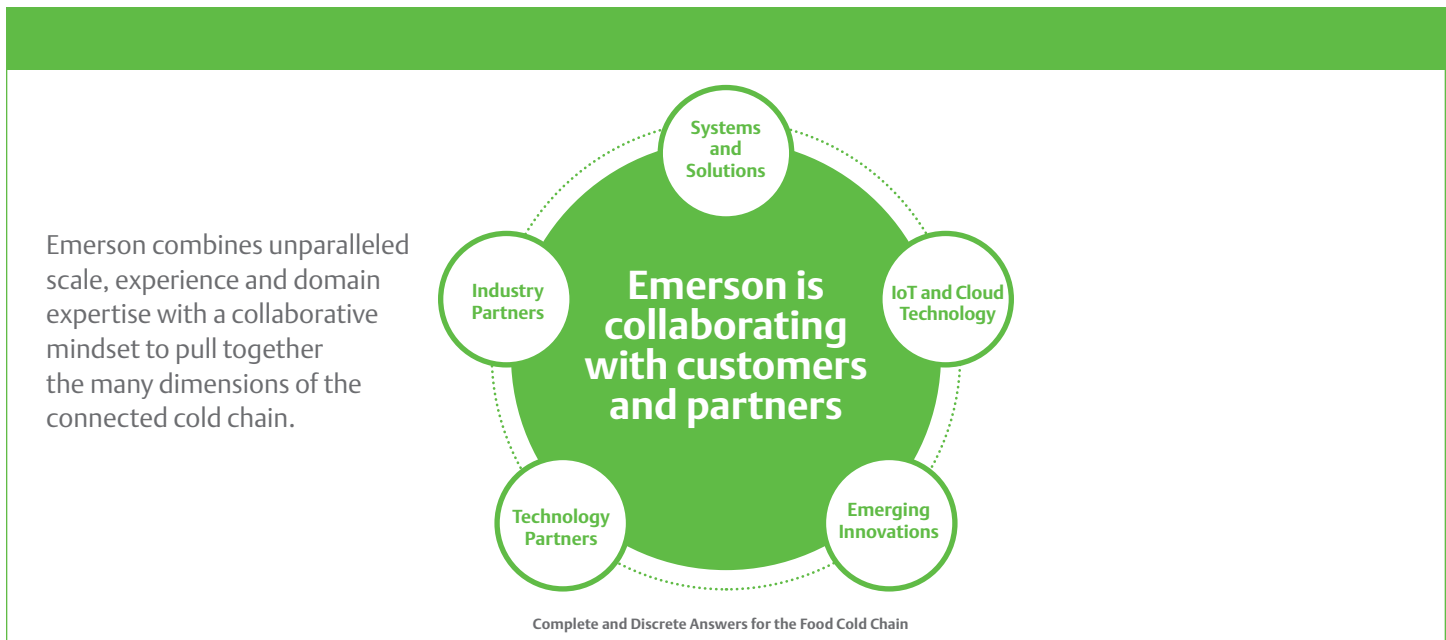
Emerson is a leader in this space today, and we have a vision of where it's going. We're committed to working with customers and partners to make that a reality. If you are one of those organizations interested in pursuing a fully connected, efficient and sustainable cold chain, Emerson should be one of your first points of contact.

We're delivering practical, flexible approaches

Digital Transformation: accelerating the use of data through incremental, expanded adoption of technology



Complete, connected condition management across the food cold chain



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