(intel®)

Transform the Cold Chain with the IMS Evolve* IoT Solution

Together, Intel, Dell*, and IMS Evolve* are empowering food retailers to enhance their brand, realize value quickly, and save money by transforming the cold chain with IoT.

Challenge

Reducing food waste is critical to solving global food issues

The Food and Agriculture Organization (FAO) has estimated that more than one-third of annual food production (more than 1.3 billion tons) does not reach consumers. If food production, waste, and population trends hold true, experts say that millions of people will be starving by 2050. Even developed economies will feel the impact.

This is a global issue that requires urgent attention and collaboration across governments and the private sector. Food retailers are expected to be part of the solution.

For food retailers, meeting this challenge is both a necessity and opportunity

In addition to fulfilling corporate social responsibility obligations, minimizing food waste presents retailers with a tremendous opportunity. Most food waste results from poor refrigeration. Embracing a new approach to refrigeration enables food retailers to gain benefits like new cold chain efficiencies, lower energy consumption, and improved food quality.

By transforming refrigeration practices across the cold chain, retailers can extend shelf-life and increase the supply of perishable foods for consumption – addressing global food issues and benefiting their bottom line.

It is an imperative for food retailers to embrace IoT to transform the cold chain

Only by harnessing the power of IoT can retailers utilize the data that exists within their existing machine environments across the cold chain to address this global issue and unlock considerable business value in the form of brand equity, rapid ROI, cost savings, and more.

Business Drivers and Desired Outcomes

Business Drivers

The food retail industry is a highly competitive space with fierce competition on price and customer experience. Additionally, new delivery models are disrupting the market, increasing the difficulty retailers face to maintain market share. Cold chain retailers are looking for IoT solutions that can help them improve product quality and gain operational efficiencies to enhance their brand, improve their bottom line, and maintain and improve market share.

Desired Outcomes

- Improve customer and colleague experience
- Maintain and improve brand integrity
- Increase profitability and market share
- Increase customer safety and satisfaction
- Improve food quality and minimize food waste
- Maintain compliance
- Minimize costs of the food chain infrastructure
- Cultivate environmental stewardship

Solution Overview

The IMS Evolve IoT solution enables food retailers to tap into the available data locked within their legacy machines. By integrating it with supply chain and merchandising systems as well as the fridge control systems in real time, not only can energy consumption be reduced, but a higher quality product can be achieved, enabling retailers to enhance their brand, realize value quickly, and save money.

In manufacturing and processing environments, consistency of both ingredients quantities and environmental factors can be regulated and the available data from each stage of the process united to ensure the highest quality, most profitable end product every time.

IMS Evolve delivers simplicity and consistency through one single view of the cold chain, with a pragmatic approach to reducing waste, assuring high quality produce for customers and continuing to deliver new benefits year after year.

This solution architecture has also been leveraged to deliver a complete IoT enabling capability to the whole retail store environment. Bringing together data and control across ovens, HVAC, security equipment and others to drive unrivaled levels of enhancement to customer and staff experience of the store environment.

Solution Components

- Dell* Edge Gateway 5000 / 3000 series
- Intel® Atom™ dual-core E3825 processor
- IMS Evolve IoT software

Business Benefits

With the IMS Evolve IoT solution, food retailers can be a part of the solution to solving global food issues by reducing food waste and improving utilization of environmental resources. In the process, retailers are also able to unlock tangible benefits for their business:

Enhance Your Brand
- Improve food quality
- Increase customer satisfaction and safety
- Maintain consistent compliance

Realize Value Quickly
- Deploy quickly
- Scale easily
- Integrate with legacy systems

Save Money
- Minimize stock loss across the food chain
- Maximize utilization of assets
- Leverage new economic models to reduce energy consumption

Proven Results

A leading global food retailer gained great results from their IMS Evolve IoT solution implementation that took just 2½ weeks

- $7M in energy savings from reduction in millions of degrees of cooling demanded by refrigeration estate
- 15%-20% overall cost savings
- 80% reduction in central resource requirements for maintenance functions
- 40% reduction in reactive maintenance calls
- 99.98% consistent availability of critical assets
- 49% reduction in stock loss
- 30% reduction in customer complaints

❯❯ The expertise within the partnership was a key reason for the success of the changes and we really never found the limits of the technology. The key point to make is that the IMS solution provided a real economy of scope for the business as the existing deployed solution continued to deliver new benefits year on year. ❯❯

Head of Change for Maintenance, Energy and Engineering
At Leading Global Retailer

Where to Get More Information

For more information on the IMS Evolve IoT solution visit ims-evolve.com/

To learn more about Dell IoT offerings and the Dell IoT Gateway, visit www.dell.com/iot and www.dell.com/iotgateway

To see the latest Intel technology for retail visit intel.com/retail