

LEADING-EDGE TECHNOLOGY FOR COLD STORAGE WAREHOUSES





By Ahearn & Soper Inc.

Introduction

The global food and grocery retail market will reach \$14.6 Trillion by 2026, with Online grocery revenue to surpass \$1 Trillion by 2026. But empty shelves, growing food prices, and labor shortages have highlighted the fragility of the global supply chain.

According to research from ABI Research.

That's why suppliers, distributors, and retailers are turning to digital transformations to cater to a rapidly growing market for end-to-end visibility and operational efficiency.

Technology adoption is low in the food industry due to tight margins on food products. However, it is these very challenges that wide-scale digital transformation can overcome, as well as help to ensure long-term price competitiveness and consistency in product availability. Accessible and scalable solutions are necessary for companies at each stage of the supply chain to thrive in such a fast-paced market.

Growing operational pressures and the incoming food traceability rules will drive investment, but collaborative strategies and up skilling will be necessary to smooth adoption.

Food companies must identify pain points and establish digital transformation plans.

ProVision WMS can help your Business



Increase Visibility

Reduce Waste

Maximize Uptime

Ensure Product Safety and Quality

The Food and Beverage industry has unique challenges with products that have a shorter shelf life. These products require special care to ensure there is no spoilage or contamination. In addition, retailers have specific requirements on expiry dates that must be met. Provision WMS is built with these considerations in mind offering flexibility to set requirements down to the product or customer. The software has a lot and date tracking functionality to provide visibility and control over products in the warehouse.

ProVision WMS helps you with handling inventory with shelf life or with specific features such as gluten-free or organic products. You can also manage your inventory with real-time data access and eliminate the need for excess inventory. You will know where and how much of your inventory is always available every time.

Benefits of ProVision WMS for Cold Storage Warehousing

Inventory Management

Maintaining real time inventory information of food and beverage to reduce lost goods and provide management visibility.

Warehouse Optimization

Ability to record and track lot numbers, expiry dates, and best-before dates to execute prompt order fulfilment and eliminate spoilage.

Validation of the Order

Quality control check of allocated items to pick products that meet the customer criteria to ensure accurate and acceptable goods.

Integration Options

Easily integrate with your ERP or TMS systems.

ProVision WMS Solutions

Provision WMS is designed to increase your warehouse efficiencies, and productivity, eliminate shipping errors and increase inventory accuracy. It contains Flexible Business Logic, user-level permission control of management functions, and data access. Provision WMS is a software solution that will put you ahead of the game and keep you in control of your warehouse operations.

SaaS Cloud WMS

- Pay by the month
- Lower upfront cost
- Enables you to scale based on seasonal needs
- Easy access from any Internet-enabled location
- Shorter implementation time
- Provision WMS performs upgrades and maintains environment

On-Premise WMS

- The client is in control and owns the license
- Does not rely on the Internet connection
- Enhanced performance of printers, wireless scanning, etc.
- Immediate access to data for backups, recovery, and more
- Integration and reporting ready due to direct SQL access
- Create and manage testing environments as needed
- Seamless integration with other types of software

Mobile devices in Cold Chain Environments

Working in extreme temperature conditions requires specialized devices that can operate in cooler, chiller or freezer environments, which means equipment must be able to handle not only cold temperatures but, in many situations, constant movement between different temperature zones and changing levels of humidity. Otherwise, condensation can ruin sensitive electronics. Ice can build up on keyboards and prevent data entry.



Foggy displays can be hard to read and the cold can impact application performance battery cycle times. However, mobile devices made for cold chain environments can streamline processes, increase accuracy and ensure safety.

Streamline Cold Storage Handling



No matter how cold it gets, your workers don't have time to stop with a device that fogs over, freezes up, refreshes slowly or stops working in the middle of a shift. Cold temperatures and wide temperature swings can cause internal and external condensation resulting in lost time, as well as the potential for major device damage and increased repair costs. Mobile devices today are built to withstand a wide range of temperature and humidity conditions. Special cold chain features, such as heated scan windows, freezer-related batteries, internal heaters and temperature sensors, will help to keep workers in constant motion in our cold environments and handling more orders per shift.

Increase Accuracy and Productivity



Your job involves quickly and accurately entering and retrieving data and many times this means with gloved hands. Carefully choose the right device, select the form

factor that fits the workflow and enables the freedom of movement required by the worker. Choices to consider are keypad and button size/layout, screen size, tough screen sensitivity and ergonomics. Creating a complete solution for every type of worker in every type of cold chain environment - from handheld and wearable mobile computers to ultra-rugged scanners, vehicle-mount computers, tablets, headsets and printers ensures your data entry and retrieval needs are covered.

Visibility Promotes Safety and Efficiency

Reducing waste and ensuring consumer safety are a top concern for decision makers in cold chain management. To prevent loss of perishable goods, implementing mobility at the edge of operations helps streamline and provide safe handling procedures to workers. Giving front-line workers the technology they need to communicate with team members and quickly reference proper handling instructions and temperature requirements with a simple scan or look-up is an invaluable resource to prevent loss or product degradation.

Optimizing Operational Efficiencies with Mobile Solutions Designed for Cold Chain Environments

Honeywell Gives You a Performance Edge in Challenging Cold Conditions.

Mobility solutions are helping your business succeed in many strategic initiatives—from increased global presence to the need to reduce costs and cycle times, all while increasing sales and customer satisfaction. But your current mobility solutions stop short where your cold chain starts—from refrigerators and freezers in food and pharmaceutical manufacturing, warehousing and retail to transportation and outdoor storage yards in winter climates. Consumer safety is the primary role of cold chain management. The food and pharmaceutical industries must take every measure to protect perishable goods from the manufacturing floor to the consumer's door—including transport, retail storage and merchandising in between. The Produce Marketing Association estimates that 25% of all food products are wasted

\$750 Billion

Annual global food industry losses primarily due to improper facilities, handling procedures and training for personnel working in the cold chain.

each year due to breaches in integrity due to fluctuations in temperature leading to product degradation.

With rugged and reliable mobility in your cold chain operations, you'll benefit from the end-to-end operational visibility you need to make better and more informed decisions. Important decisions that can help you reduce costs, while increasing overall efficiency, throughput, task accuracy and customer service and safety.

Honeywell has the expertise and solutions to help your cold chain operations run smoothly, efficiently and more profitably.



The Solution: The Honeywell Cold Chain Advantage

Deep expertise, knowledge and experience

Designing high-performance, dependable mobile solutions for use in the cold chain requires deep technical expertise in mobile device development, plus proven knowledge of environmental and user requirements. As a long-standing leader in enterprise mobility solutions, Honeywell has it all. Honeywell offers:

- Industry-leading solutions that work, not only in your environments, but also for your users.
- Technical features that ensure high-reliability in any cold chain environment.
- Special usability features that make it easy for workers wearing gloves to easily interact with the device and application.

A portfolio to improve productivity and safety in the cold chain

We understand all the different types of cold chain environments, as well as the different types of users and applications in those extreme environments. Honeywell offers one of the richest cold chain mobility portfolios in the industry, including:

- Rugged mobile computers, tablets, vehicle-mount computers and wearables provide options for cold and condensation producing environments.
- Ultra-rugged handheld scanners deliver unstoppable performance to improve productivity, enhance order accuracy and speed shipping times in demanding cold storage environments.

• **Durable, easy-to-use mobile printers and supplies** offer the latest connectivity interface with your mobile computers to bring high-quality printing and label application right into your cold storage areas, increasing productivity and efficiency.

Use Cases and Deployment Environments

Before you select a device, assess how you will be using it and where you will be deploying it. The application descriptions below will help guide the type of device you should consider.



Cold Rated Devices

Cold-rated devices are designed for areas where temperature shock and condensation are not an issue. These workers spend their day primarily in a single temperature zone and are not constantly moving between cold and warm environments—either primarily in the cold and briefly in warm areas, or primarily in warm areas and briefly in cold areas.

Condensation-Resistant Devices These devices are designed to withstand moderate temperature shock and condensation, ideal for workers who travel constantly between refrigerators/coolers and temperature controlled, less humid areas.

Condensation-Free Devices These devices are designed to withstand moderate temperature shock and condensation, ideal for workers who travel constantly between refrigerators/coolers and temperature controlled, less humid areas.

The Honeywell Cold Chain Mobility Portfolio

Built for the cold: Rugged mobile computers (handheld, vehicle-mounted, tablets and wearables), ultra-rugged scanners, printers and supplies.

With Honeywell's Cold Chain Portfolio, you'll find everything you need to create a complete solution for every type of worker in any type of cold chain environment.



Honeywell CK65

Built on the Mobility Edge platform, the CK65 minimizes TCO like no other product on the market by future-proofing your investment with support through Android S and beyond, and accelerated provisioning to minimize your time to value. And with its ultra-rugged design

that can withstand 3 m (10 ft) drops to concrete as well as being rated to IP65 and IP68, the CK65 is durable in even the toughest DC environments. The CK65 even offers cold storage models for freezer environments and non-incendive (NI)/ATEX models for areas with hazardous gases.

Honeywell PM45

The Honeywell PM45 industrial printer is designed to give businesses the flexibility and precision for high-volume printing. The PM45 printer's



track-and-trace functionality is aimed at improving print efficiency and supply chain transparency within a variety of industries, including food and beverage, pharmaceuticals, manufacturing, warehouse, and distribution center management.



Honeywell VM1Å

The Android[™] based Thor[™] VM1A combines all of the easy-to-use , easy-to-maintain features of the popular Thor VM1 and CV41 models,

with all the advantages of Honeywell's Mobility Edge[™] platform to help accelerate provisioning and deployment, optimize performance, and extend lifecycle for better investment protection and lower cost of ownership.

NEMA 4X Stainless Steel Printer Enclosure



During wash down a sealed NEMA 4X rated stainless steel printer enclosure can deliver the protection required. These enclosures are built from the ground up for high performance in corrosive, dusty, wet, hot and cold environments. Stainless steel enclosure promotes a more sanitary environment by allowing

regular intensive cleaning procedures. Both front and side doors are latched securely before high-pressure cleaning, thoroughly protecting the printer from water and contamination.

Wash down Bar Code Printer enclosures provide protection against spraying water and cleaning agents. The printer enclosure is completely gasketed with compression hardware. A secondary label exit door is closed when washdown is required.

Other option is printer enclosure manufactured using 1/4" thick ABS plastic. These printer enclosures offer significant savings over stainless steel enclosures. Each base cabinet includes a gasketed label exit door with an insert that is configured to the specific printer.



By Ahearn & Soper Inc.

Honeywell

Contact us today for a demo at marketing@provisionwms.com

www.provisionwms.com