

Avery Dennison
Identification Solutions

Freshmarx
Intelligent Food Industry Solutions

Freshmarx[®] Intelligent Food Industry Solutions

Made Possible
by Avery Dennison

Welcome to
the future
of the food
industry
supply chain



www.freshmarx.com

The food industry is going through deep, seismic changes driven by the evolution of new technology in both manufacturing and our daily routines. Through the Internet of Things, nearly everything in our lives as consumers is evolving toward less friction and more automation. From cashier-less stores to ordering via smart speaker, time-strapped consumers are gravitating toward shopping that's less of a chore. In addition, customers want to know what's in their food, and where exactly it came from, all the way back to the source. The race to deliver convenience is on, one where smarter supply chains must provide transparency and accountability above all.

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Freshmarx Intelligent Food Industry Solutions help connect the food supply chain from the farm, where connectivity starts, all the way through to the restaurant

or store, where the consumer can have access to all provenance, expiration, and nutritional information.

Freshmarx® Intelligent Food Industry Solutions

Freshmarx Inventory Solutions Inventory Verification and Visibility

- Produce Traceability Compliance
- Lot/Date Traceability
- Outbound/Inbound Inventory Tracking
- Transformation Tracking
- Serialized Inner Pack Labeling
- On-Demand RFID Labeling
- Item Level Verification
- Case Level Verification
- Meal-Kit Assembly
- Expiration Management/FEFO
- Automated Ordering
- Recall Tracking
- Provenance Tracking
- Omnichannel Optimization
- Frictionless Checkout

Freshmarx Operations Solutions Operational Accuracy and Efficiency

- Food Prep and Forecasting
- Temperature Monitoring & HACCP Checks
- Nutritional Labeling
- Food Waste and Donation Tracking
- Automated Checklist
- Automated Package Labeling
- Quality Assurance
- Distributor communications
- Special environment labeling (cold, hot metal)

Freshmarx® analysis, deployment and support



Freshtrax
Analysis



Freshmarx
RFID Design and
Deployment



Freshmarx
Systems
Integration



Freshmarx
Service and
Support



Grower



Processor



Distributor



Goods In



Kitchen



Restaurant



Grocery and
Convenience

Associations



Freshmarx Solutions for Growers and Producers

Grower and Producer Challenges

There are fewer farms operating than ever and yet more people to feed. Consumers are also demanding higher standards from food producers. This can lead to higher expenses for agriculture businesses as they attempt to meet the quality and transparency of operations being sought.

The cost of living and running a farm has increased exponentially while profits in the farming industry have declined.*

*<https://www.agsolutionsgroup.com/top-5-issues-affecting-agriculture-in-2020/>

Rising demand for more food and more food of higher quality

Reducing the impact on the environment

Managing food waste

Labor shortage

Disrupted supply chain due to Covid-19

Adopting new and changing government regulations

Satisfying consumers' changing taste and expectations

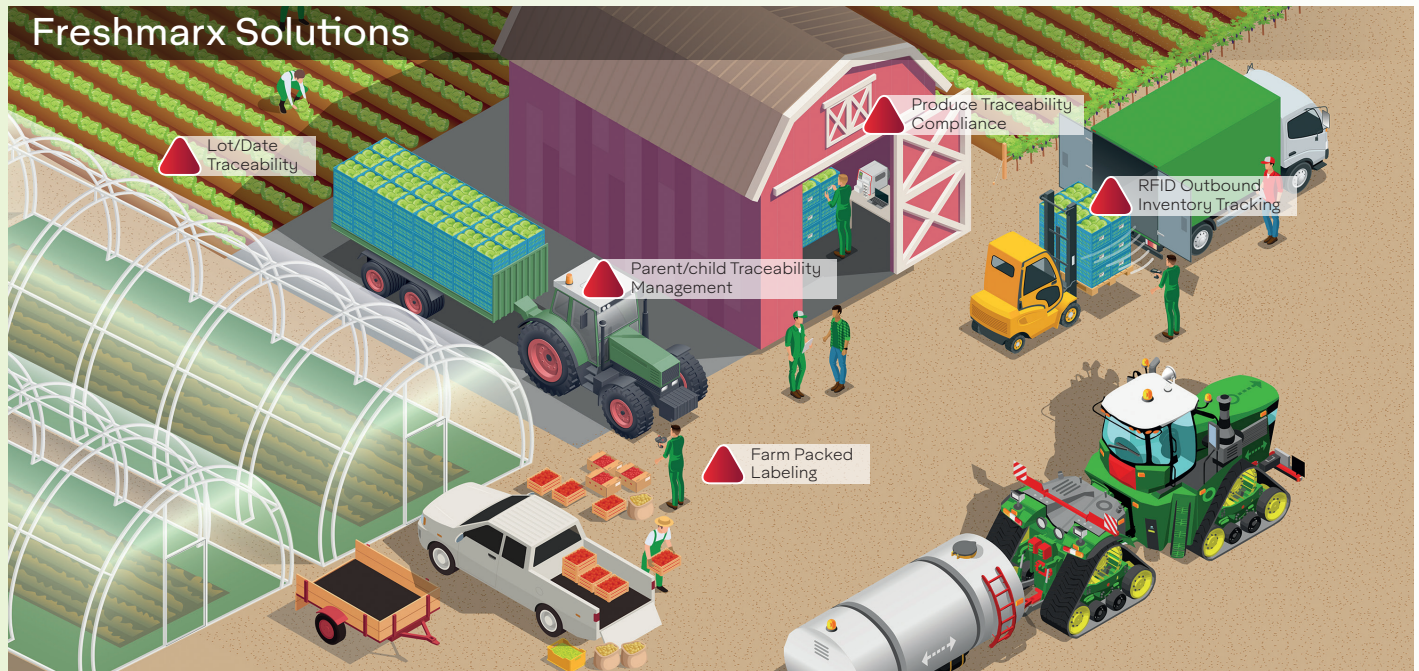
Managing food recalls, safety and quality

Learning and adopting new technologies

Ensuring supply chain transparency and visibility

What's the answer? Digital transformation at source

Connecting the digital and physical worlds at the source helps solve transparency and traceability challenges, achieving faster, more accurate recalls, visibility to downstream partners, and supplying provenance information to build trust with customers.



Freshmarx Solutions for Food Processors and Manufacturers

Food Processor and Manufacturer Challenges

Food manufacturers in the United States produce about one out of every six dollars generated by U.S. industries, according to consulting firm Merit Solutions.

Though the industry produces nearly \$700 billion in revenue each year, it faces increasingly tougher challenges. Strict federal regulations, fickle consumers and pressure from powerful retailers create an environment that forces food manufacturing businesses to be creative and innovative to produce profits.*

Understanding and satisfying demand

Managing food recalls, safety, quality

Labor shortage

Ensuring supply chain transparency and visibility

Sustainability goals; food waste

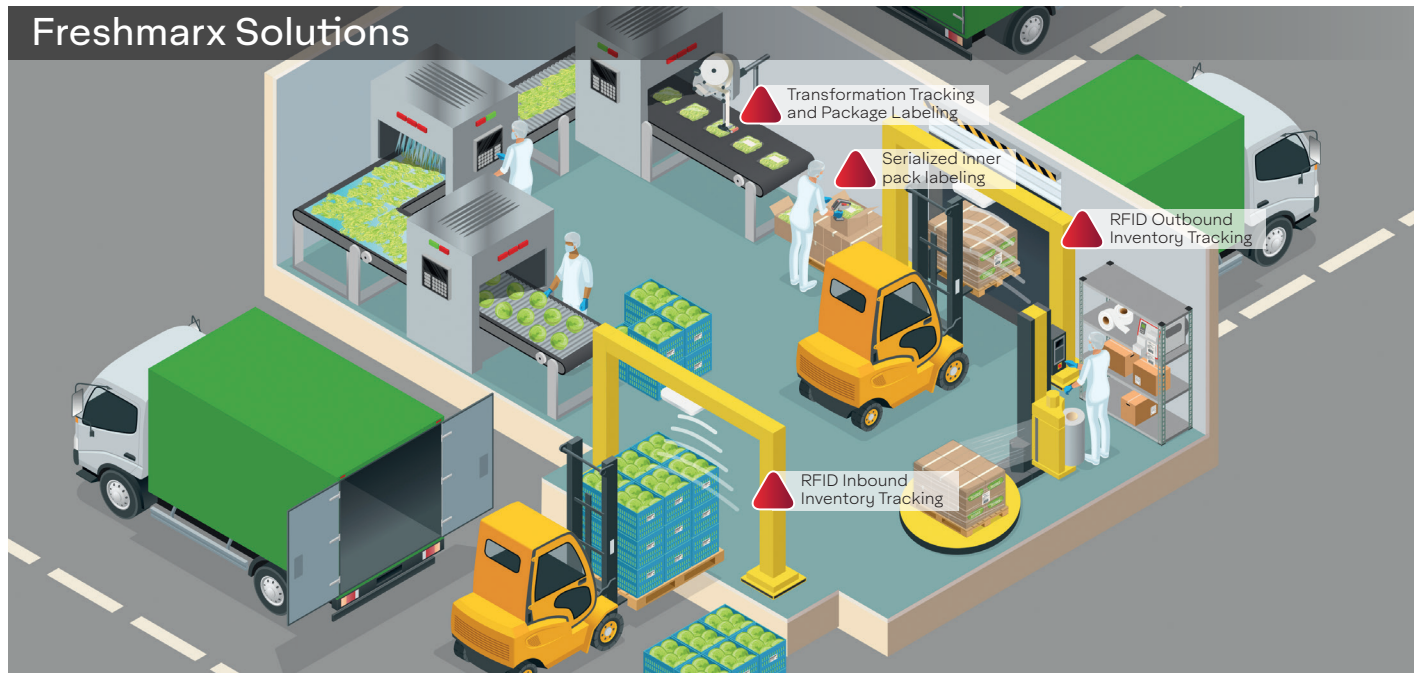
Maintaining continuous product development

Controlling costs

*<https://smallbusiness.chron.com/challenges-food-manufacturing-75101.html>

What's the answer? Tracking the transformation from raw to packaged food

One of the most important steps in the supply chain takes place at the processor or manufacturer, where raw food is transformed into consumables and packaged for sale. In an optimized supply chain, the transformation of each raw food item is recorded and stored in the event of a recall or for provenance information. Digitalization enables traceability.



Freshmarx Solutions for Distributors

Distribution Center Challenges

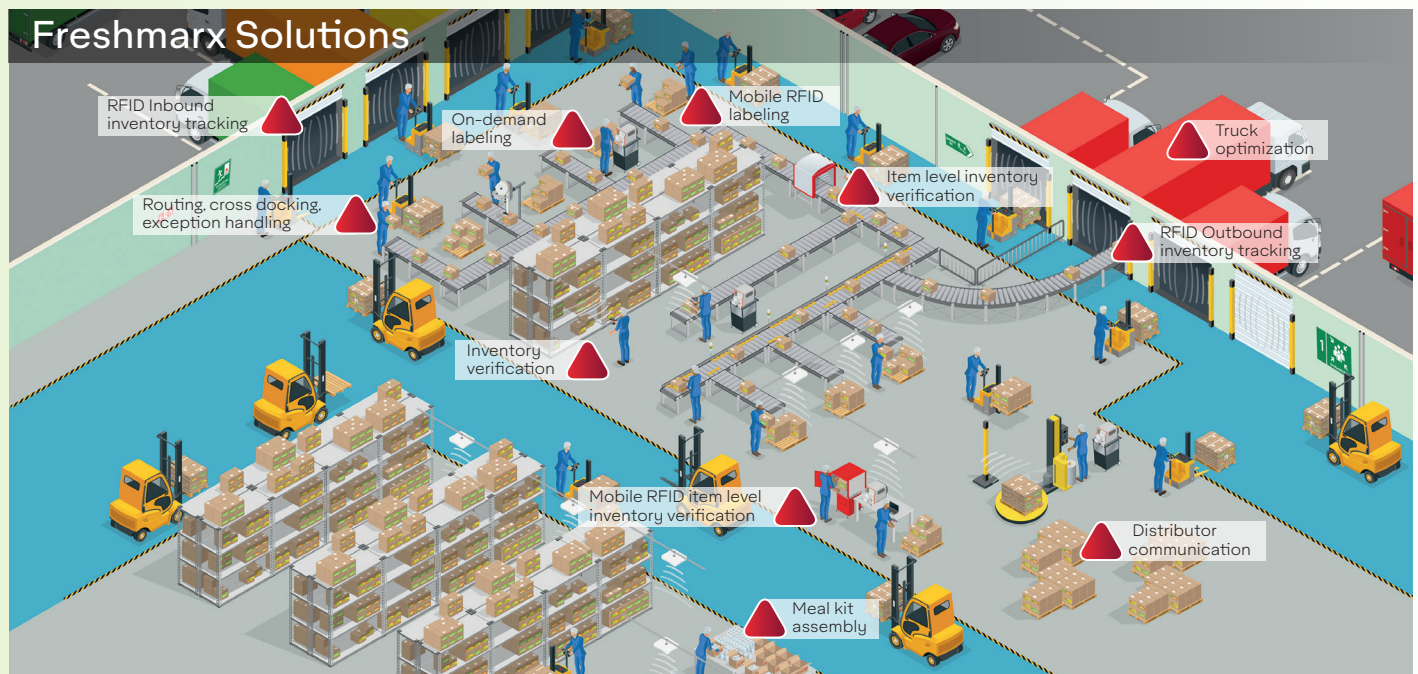
Distribution centers live and die on the speed and accuracy of their processes. Many distribution centers are finding they are having difficulty keeping pace with today's demand, especially if they are still using manual processes.

Distribution centers that handle food have the added challenge of working through short lead times to maintain food freshness and safety.



What's the answer? Accurate inventory for the right customer at the right time

Enabling RFID solutions at various points throughout the distribution center maximize productivity, speed and volume of product movement, and load optimization.



Freshmarx Solutions for Stockrooms

Stockroom Challenges

Stockrooms are the backbone of all restaurants, groceries and convenience stores.

If you get the inventory wrong, you risk wasting money, food and jeopardizing your customer's health and goodwill.*

*<https://www.agsolutionsgroup.com/top-5-issues-affecting-agriculture-in-2020/>



What's the answer? Automated solutions that save time and money

With the emphasis on increased food safety, fast, accurate recall, consumer demand for transparency, and greater emphasis on eliminating or redistributing excess food, restaurants, grocery, and convenience stores have never been more ready for the digital transformation of outdated, manual processes.



Freshmarx Solutions for Kitchens

Kitchen Challenges

Managing a restaurant kitchen and the customer experience is becoming more complex, for example escalating labor challenges, coupled with new food delivery models in which customers are expecting accurate access to real-time information.

Many kitchens are operating with limited resources, outdated processes, and deficient technology, but still being asked to provide a whole host of information to their shareholders, the government and their customers, while still holding food safety as their top priority.

Imprecise inventory counts

Provide high quality service beyond physical premises

Inventory verification upon delivery

HACCP compliance

Managing food recalls, safety, and quality

Sustainability goals

Track temperature in coolers

Labor shortage and training

Food waste

Ensuring supply chain transparency and visibility

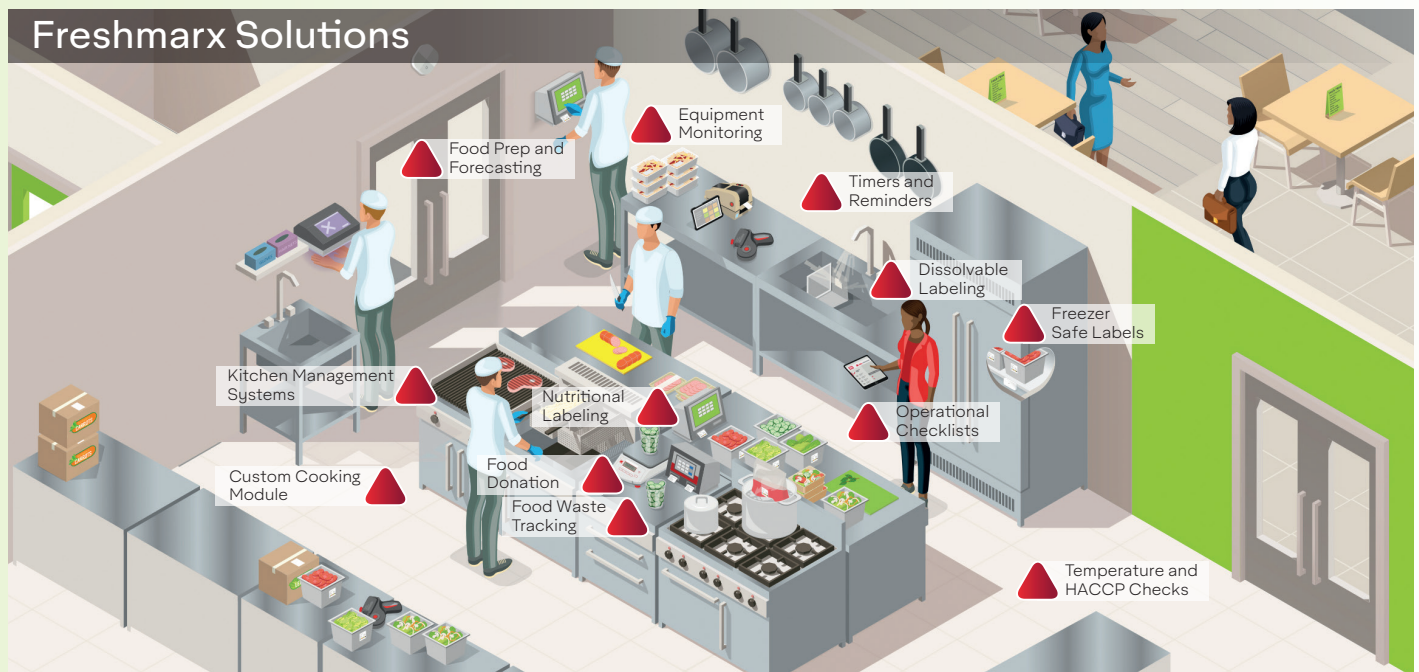
Improving ordering and fulfillment accuracy

Ensure daily tasks are completed correctly

What's the answer?

HACCP compliance and food waste management at the touch of a button

Automating kitchen processes such as food prep, equipment and food temp monitoring, inventory control and waste tracking improves HACCP compliance, leading to safer food, achievement of sustainability goals, and a better, safer consumer experience.



Freshmarx Solutions for Restaurants

Restaurant Challenges

The pandemic has shifted the discussion about food safety to focus on the overall safety of the restaurant environment, and not just the food they serve. Driving this shift are new consumer demands for total transparency. Full-service restaurants have an urgent need to assure guests that if they are open, then it is safe for guests to come in and enjoy a meal.

How can restaurants back their brand promise of total safety when they are tasked to do more and be more for their guests, with fewer staff and less financial resources?*

Labor shortage and training

Operating and variable costs

Changing consumer behaviors

Food waste

Managing food recalls, safety and quality

Sustainability goals

Ensuring chain transparency and visibility

Last mile deliveries

Consumer perceptions

Food safety

Improving ordering and fulfillment accuracy

Ghost kitchens

*<https://www.fsrmagazine.com/expert-takes/how-can-restaurants-ensure-safety-they-reopen> by Ryan Yost

What's the answer? Food safety through automation

In an industry now changed by pandemic and challenged to future-proof food safety and cleanliness, manual processes that might have been “good enough” in the past are now “old-fashioned” and can even be dangerous for the consumer and the brand. Automation and solutions that were years away pre-pandemic are now at the forefront as technology adoption rapidly accelerates for restaurants.



Freshmarx Solutions for Grocery and Convenience Stores

Convenience Store Challenges

Convenience store operators know that what happens in the supply chain will directly affect their inventory control.

Consider what the supply chain would have looked like during the pandemic if consumers and convenience store managers had the visibility into inventory levels for essential products like hand sanitizer, masks and gloves. There may not have been the panic-buying and hoarding that left convenience stores shelves empty.

The lack of total inventory visibility was a clear signal that technology offering end-to-end visibility throughout the global supply chain would be the way of the future.

*<https://csnews.com/what-convenience-stores-learned-pandemic>

Grocery Challenges

The COVID-19 pandemic has been a major disrupter across the food industry. In Grocery, both online and in-store sales have seen a significant increase. This rapid surge has shone a spotlight on major challenges as consumers shift their grocery shopping to online platforms.

Some of challenges that the pandemic has exacerbated are:

- Inventory management
- Expiration management
- Traceability
- Consumer experience

To stay relevant, grocers need a new strategy and better processes to tighten up their supply chain, track their in-store inventory, and delight their customers to ensure continued loyalty.



Labor shortage

Product transparency

Highly perishable products shelf life as short as 24hrs

Food waste

Customers expect a large and diverse product assortment

Variety of shelf lives

Pressure on supplier lead times and product quality

Consumers demand healthy and fresh items

Emphasis on convenience, quality, choice with speed to 'grab and go'

Variable consumer demand

What's the answer?

Building resilience

Grocery and convenience stores have been affected by "pandemic buying" which has shone a spotlight on major challenges as consumers shift their shopping to online platforms.

Optimizing inventory and expiration management, traceability and consumer experience are more important than ever.

<https://csnews.com/what-convenience-stores-learned-pandemic>



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Freshmarx EcoSystem

Freshmarx Intelligent Food Industry Solutions can help define your requirements and develop solutions that will ensure your product is safe for consumption, in compliance with regulations, and trusted by the consumer.

We can show you how to “future-proof” your operations to quickly and easily adapt to the ever-changing world of the food supply chain. Our solutions enable labor efficiency, food safety, sustainability and enhance the consumer experience by harnessing the power of accurate, shared data throughout the food industry supply chain.

We've created the Freshmarx EcoSystem to help you uncover new ways to think about the challenges you're facing in your industry.

Freshmarx Data Management Applications

From farm to fork, market challenges are driving foodservice providers to find new ways to:

- Track and move inventory efficiently
- Keep food safe
- Enable quicker, more accurate recalls
- Address consumer perception around food provenance and waste

This requires software solutions that are adaptable, flexible, sustainable, and resilient.

Freshmarx Data Management Applications help you achieve total control of your supply chain.

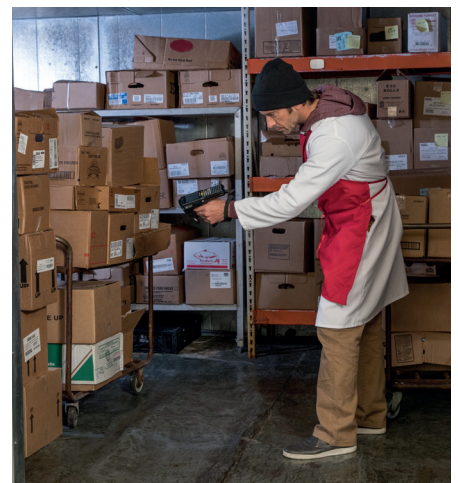


Freshmarx Inventory Solutions

Ordering and inventory capture have long been a manual process for foodservice providers. This time-consuming, antiquated process relies on inefficient counting and keying methods. Depending on the business, inventory tracking needs to be completed daily, weekly, or monthly – and sometimes even between shifts – to ensure stock levels and maintain profitable operations. But with limited labor resources, sometimes it doesn't get done at all.

What's the answer?

Freshmarx Inventory Solutions include digital ID solutions such as RFID that dramatically improve inventory management and enable you to see exactly what's come in, how much product you have, and when it leaves – with 99% accuracy. Automation allows foodservice providers to maintain quality and shelf life without compromise, to locate lost products, to redirect what needs to be redirected, and to withdraw only what needs withdrawing.



Freshmarx Connect

Today's food producers face many challenges such as:

- Food traceability from field to consumer with accurate food recall capability and the ability to inform customers immediately
- Providing consumer visibility to food provenance information. Compliance with new government regulations and customer requirements
- Timely delivery of fresh food to processors, distribution centers, and retailers

Farms need a sustainable, automated solution that provides supply chain transparency, is adaptable, flexible, sustainable, and resilient.

What's the answer?

It all starts with a label. Freshmarx Connect is a First Mile solution that enables the digitization of the food supply chain by helping farmers and producers create Produce

Traceability Initiative-compliant labels and data as close to the field as possible. Our digital ID technology solutions help companies verify a food item's journey across the entire supply chain- from source to final destination - minimizing risk and cost. Users can generate serialized global trade numbers (GTINs) and global location numbers (GLNs).



RFID Solutions for Food and Beverages

By adding a unique identifier and online connectivity to every item in any inventory, RFID-enabled labels let grocers, restaurants, convenience stores, and food suppliers dramatically improve inventory management, efficiency, traceability, sustainability, and customer satisfaction. We design our solutions to meet customers' most pressing challenges, and continually innovate to make sure we stay a step ahead of the industry's rapidly changing needs.



Freshmarx Operations

Freshmarx Operations Solutions

Managing all of the data that keeps food service providers running is a huge job. If done manually, this process uses time and resources that most food service providers just don't have. Information needs to be gathered quickly and accurately in a

way that can be easily analyzed for making critical business decisions.

What's the answer?

Freshmarx Operations Solutions optimize your processes by effortlessly automating processes such as generating labels, reducing labor and training time, and

streamlining tasks. In the kitchen, Freshmarx Operations can help you prep intelligently by using both inventory and sales data to suggest how much to prep each day, significantly reducing over prepping.

Freshmarx Checklists

Over 60% of the 48+ million annual foodborne illnesses in the US originate in restaurants. How does a busy restaurant keep track of all of the activities that keep the consumer safe and the brand image intact? Paper checklists are notoriously unreliable when it comes to tracking task completion accuracy or employee productivity.

What's the answer?

Freshmarx® Checklists takes the guesswork out of task completion compliance. This cloud-based, digital checklist application increases the accuracy of task recording, gives greater oversight to employee behavior, and helps standardize tasks across enterprises by providing instructions and materials in-app when a task is in progress. It also allows restaurants to collect "evidence" of completed tasks via photos, videos, text, or multiple-

choice questions. Our real-time dashboard provides visibility and reporting for managers, owners, and franchisor staff.

- Removes every manual step of temp capture and secures HACCP logs
- AI technology allows user to auto-recognize food with the phone's camera while simultaneously logging the temp, time and user's name
- Reminders for temps and actions
- Supports other HACCP activity

Freshmarx Equipment Monitoring

On average, kitchens experience refrigerator failures at least twice a year. With a typical refrigeration inventory averaging over \$10,000, these failures can result in significant food waste and lost revenue. Food safety can be compromised, jeopardizing both customer safety and brand loyalty.

What's the answer?

Freshmarx Equipment Monitoring Solutions keeps a small problem like an open door, power outage or compressor failure from turning into a huge disaster. Temperatures are checked at configurable intervals and digital records are created allowing for customized, on-demand

reports for inspectors and other stakeholders. When equipment is out-of-range, alerts and notifications can be sent via push notification, text message, email, and POS notification. Powerful reports, live dashboards, user management, and configuration tools are just a few of the features found on the online admin portal.

- Immediate alerts to equipment problems
- Increased food safety by ensuring proper temperature
- Helps prevent inventory loss due to improper storage temperatures
- Full traceability on food temperature storage history
- Improves efficiency, no more manual temperature checks

- Saves on energy costs - no need to open the cooling unit door to check the temperature.



Freshmarx Nutrition

Consumers expect foodservice providers to accurately label food to help them make important decisions that impact the health of their families. It's critical that our foodservice customers have a fast and easy method to produce accurate, legible nutritional labels.

What's the answer?

Freshmarx Nutrition integrates with ESHA's Genesis R&D Food Formulation software to create accurate and complete nutrition data, simplifying the recipe creation

process while supporting nutrition label precision. System-wide updates to nutritional values due to menu changes are made with the push of a button. Users can input recipes, calculate nutrition values, and import all nutritional information.

- Accurate and compliant nutrition data
- Elimination of manual data entry and automated data imports increase productivity
- One source for up-to-date nutrition facts, nutrition labels, and recipe storage

House Salad

Update Ingredients and Information

Nutrition Facts	
Calories 160	Calories from Fat 20
% Daily Value*	
Total Fat 2g	3%
Saturated Fat 0g	10%
Trans fat 0g	
Cholesterol 0mg	0%
Sodium 200mg	8%
Total Carbohydrate 33g	11%
Dietary Fiber 4g	14%
Sugars 23g	
Protein 4g	
Vitamin A 30%	Vitamin C 0%
Calcium 10%	Iron 20%

WHOLE GRAIN ROLLED OATS, SUGAR, DEHYDRATED APPLES, SALT, CINNAMON, CALCIUM CARBONATE, CITRIC ACID, GUAR GUM, MALIC ACID, NIACINAMIDE, REDUCED IRON, VITAMIN A, FOLIC ACID, CARAMEL COLOR
Contains no Preservatives

MUST USE BY 02/12/21
Net Weight: 8oz Price \$1.99
170 Monarch Lane
Miamisburg, OH 45342

Avery Dennison Identification Solutions

Freshmarx Food Donation

What restaurants do with their excess food is of increasing importance to their customers. A study by Unilever revealed that:

- 72% of U.S. diners care about how restaurants handle food waste
- 47% would be willing to spend more to eat at a restaurant with an active food recovery program

As a financial plus, most food donations are tax-deductible.

What's the answer?

Freshmarx Food Donation helps foodservice providers give back to the community and realize potential tax benefits by providing surplus

Freshmarx Intelligent Food Industry Solutions

food donations in a safe, traceable way. Now it's easy to track the donation recipient or log the type of food (protein, dairy, etc) that make up the donation, which is a requirement in many communities and makes it easy to digitize records for tax reporting.

- Logs and tracks food waste root causes
- Enhances food waste reduction efforts
- Reduces landfill waste and methane emissions
- Helps feed food-challenged families
- Reduces business cost and increase consumer saving

- Improves sales by gaining consumer respect
- Enables tax benefits



"Rethinking Food Waste through Economics and Data: A Roadmap to Reduce Food Waste" - www.refed.com

Freshmarx Food Waste Tracker

Managing food waste is a key component in running a successful food service:

- An additional \$620 million in profit potential per year could be realized by adopting prevention solutions such as waste tracking and analytics
- Every dollar invested in food waste reduction can result in approximately \$8 in cost savings*

What's the answer?

Freshmarx Food Waste Tracker helps determine exactly how much food inventory is lost due to inaccurate inventory management and kitchen processes. Food weight is automatically imported from an integrated scale, or the weight

or other units of measure can be entered manually. Trouble areas can be tracked and action plans created to reduce waste in the future.

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"Rethinking Food Waste through Economics and Data: A Roadmap to Reduce Food Waste" - www.refed.com

Freshmarx Food Prep and Forecasting

Keeping track of all of the data that keeps a kitchen running is a big job. From nutrition, ingredient, and freshness labeling to employee training, food waste, and donation tracking, restaurants need fast, accurate, and automated solutions for food preparation and more to keep their business profitable and customers safe.

What's the answer?

- Freshmarx Operations Solutions includes a wide range of automated and semi-automated food prep solutions to fit the needs of every kitchen
- Provides versatile label printing for freshness, nutrition, ingredient, grab and go, and more
- Includes solutions with flexible intuitive button-based interface and ability to change data field information on the fly
- Automatic calculation of expiration dates

Benefits

- Helps ensure food safety and regulatory compliance
- Increases labor efficiency
- Reduces costs
- Promotes sustainability
- Enhances consumer experience

Freshmarx Data Management Systems

For foodservice providers, managing data is more complicated than it's ever been. It gets even more complicated when manual processes slow down productivity and even sometimes put the safety of customers in jeopardy.

Avery Dennison has a wide range of automated and semi-automated data management systems. We provide versatile RFID labeling on demand printing for freshness, nutrition, ingredient, grab and go, and more.

*<https://www.qsrmagazine.com/outside-insights/implementing-efficiencies-within-your-restaurant>



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**Freshmarx Central and
Freshmarx Tablet Systems**

Integrates a full suite of back-of-house data management and printing applications into one cohesive system to help:

- Ensure food safety
- Increase efficiencies
- Save money
- Reduce waste
- Enhance the consumer experience
- Future-proof kitchens and address the unique challenges of foodservice providers

These Android OS data management and printing solutions leverage the Freshmarx Prep software application to provide versatile label printing for freshness, nutrition, ingredient, grab and go, and more; flexible intuitive button-based interface, ability to change data field information on the fly, compliance with food safety and quality standards. Users can prepare and label food items, watch training videos, view recipes, monitor cooler temperatures, and verify checklists.

- Freshmarx Central System is a tabletop printer featuring two printheads, durable metal casework, and a variety of communication ports
- Freshmarx Tablet System features an Android tablet and a small desktop printer.

Freshmarx
Intelligent Food Industry Solutions



Monarch Handheld Labelers

Eliminate the need to handwrite dates and ingredients by choosing a Monarch Handheld Labeler that clearly and efficiently prints your required information. These mechanical labelers provide the convenience of mobile printing. Print labels in any environment throughout the food supply chain, from the farm all the way to the restaurant/grocery store. Printing on-the-go allows your operations to boost productivity as you'll be able to quickly apply identification at the time of pick, pack or put away while providing increased legibility over handwritten solutions. Food labels should be easy to read, clear and concise, and the handheld labeler does that in one easy step.

Handheld labelers expand traceability with clean, clear, and concise labeling. In today's food supply chain environment, brands and suppliers are constantly looking for solutions to ensure food traceability. Handheld labelers and labels are a good choice when you need to track:

- Lot codes
- PLU codes
- Country of Origin / Field Location
- Prep/pull dates and times
- Product rotation
- Ingredients



Avery Dennison
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Monarch Pathfinder 6059 with RFID for the Food Supply Chain

Digital ID solutions such as RFID dramatically improve inventory management and enable foodservice providers to see exactly what's come in, how much product is in inventory, and when it leaves – with 99% accuracy. RFID enables automation, quality assurance, and shelf life accuracy without compromise, to locate lost products, to redirect what needs to be redirected, and to withdraw only what needs withdrawing.

Even in fully RFID-enabled restaurants, there may still be times when a product is received from a non-compliant supplier and needs to be RFID labeled before leaving the receiving area

The Avery Dennison Monarch Pathfinder 6059 with RFID is the only mobile one-piece solution that can encode and print RFID labels on demand. Now you can take RFID encoding and labeling right to the product.

- Empowers restaurants and stores to become 100% RFID enabled
- Scan a package, retrieve the routing information, encode RFID technology into the inlay of a label, and print the RFID-encoded label to apply to the package
- Encode cases and inner packs with source information that allows the food to be tracked and accounted for throughout the supply chain.

Freshmarx
Intelligent Food Industry Solutions

- Produce 2D barcodes that provide product details to the consumer
- Add RFID labels to products at the processor or distribution center as a value-added service or at restaurants or stores at receiving

By adding a unique identifier and online connectivity to every item in any inventory, RFID-enabled labels let grocers, restaurants, convenience stores, and food suppliers dramatically improve inventory management, efficiency, traceability, sustainability, and customer satisfaction.



Freshmarx Services and Support



Free On-Site Analysis

Determining the right solution for your business begins with a complimentary On-Site Analysis. Our consultants come on-site to your place of business (warehouse, restaurant, store, etc) and review your operations and identify process improvements. Our experts partner with you to examine each step of your everyday processes and operations and work with you to create a plan to:

- Increase labor efficiency
- Enable traceability and transparency
- Ensure product & food safety
- Create processes that promote sustainability
- Enhance consumer experience

How the analysis is done:

- 1 Understand Your Goals - Our consultants will work with you to gain a thorough understanding of what you are striving to achieve.
- 2 Understand Your Key Needs and Objectives -We want to understand your pain...what business challenges continue to put pressure on you.
- 3 Conduct a Thorough Analysis of Your Business Location - Our team of experts can observe and analyze your current processes.
- 4 Map Key Processes - We can provide you with flow charts of key processes.
- 5 Develop Recommendations - Post-analysis we can meet with you to discuss our findings and propose recommendations.



RFID Design and Deployment

Our consultative services help you achieve the most efficient and productive RFID solutions custom-suited to your challenges. Services include inventory management, systems integration and automation, logistics labeling, value-added solutions (VAS), reverse logistics, and load optimization.



System Integration

As part of our services, we do front-end consulting to understand your existing infrastructure. With that knowledge, we can then determine how our existing system can best partner with our products and solutions for complete systems integration and optimum efficiency.



Service and Support

Our team provides the industry-best installation and training support, as well as maintenance and technical support for our products and third-party printers such as Zebra, Sato, Datamax, and Novexx.

Every Freshmarx and Monarch product is fully supported by our Service team, the largest network of experienced, full-time bar-code and RFID technicians in the industry.

Freshmarx Supplies

Accurate food labeling is central to food safety compliance, but it's also critical for food retailers committed to quality, traceability, and consumer confidence. Our range of stock and custom innovative freshness, nutritional, promotional, tamper evident, dissolvable, durable, and high-heat food labeling solutions improve speed, accuracy, and productivity throughout the global food supply chain while informing customers.







Food Waste in America

Sustainability and food waste

The environmental impact of food waste in America cannot be undersold. As food rots in a landfill, it emits methane, a greenhouse gas 28 to 36 times more potent than the carbon that comes out of passenger vehicles. Landfills are the third-largest industrial emitter of methane, with food waste alone representing 8 percent of total global greenhouse gas (GHG) emissions. While it is possible to offset the harm of these emissions through organics recycling, composting, and anaerobic digestion, the best way to reduce these emissions is to waste less food in the first place.

<https://www.rubicon.com/blog/food-waste-facts/>

Freshmarx Intelligent Food Industry Solutions give foodservice providers the technology to create, implement and maintain sustainable processes that reduce waste from source to processor to distribution center to store. With not only the environmental benefits but cost savings across the supply chain, sustainable practices encourage consumer trust, increasing sales.

Our food technology enables a better and more sustainable food industry by preventing or decreasing food waste and tools for tracking and donating excess food:



Avery Dennison is listed as a solutions provider on the ReFed solutions finder directory.

- In the case of a food recall, the affected lot of food can be accurately traced and located, so no more food than necessary is discarded
- Track temperature throughout the shipping process to ensure product compliance
- Manage accurate expiry times/dates for food safety
- Prevent overstock or wrong stock in-store and efficiently manage inventory
- RFID tagging can help reduce waste by as much as 20 percent by aligning inventory with variable demand across different regions.
- Data provided by RFID also gives far greater visibility into expiry information, prompting markdowns to move inventory for soon-to-expire items while also prioritizing food safety.
- Using RFID, temperature-sensitive products can also be monitored during their journey through the supply chain to help avoid waste through spoilage.
- Accurate, legible prep labels to ensure food is used before it expires
- Constant monitoring of refrigeration units to prevent food spoilage
- Track food waste in the kitchen to target problem areas and save money
- Quick, easy food donation and tracking for sustainability and tax benefits

The importance of digital identification in the supply chain

By adding a unique identifier and online connectivity to every item in any inventory, RFID-enabled labels let grocers, restaurants, convenience stores and food suppliers improve inventory management, efficiency, traceability, sustainability, and customer satisfaction.

- **Inventory management:** By providing atomic levels of visibility into inventory and supply chains, RFID technology enables flexibility to adapt to the market and better satisfy consumer demands.

- **Traceability:** More consumers than ever expect transparency in their food supply. At the same time, product recalls are a major business risk, with millions of dollars' worth of product at stake. Solutions like RFID and barcodes dramatically improve inventory management and enable clarity to see exactly what's come in, how much product is available, and when it leaves – with 99 percent accuracy.

- **Frictionless shopping:** In the swirling sea of frictionless and touchless technologies, RFID tagging emerges as the best choice for grocery retailers of any size. It not only offers an easier, more enjoyable experience for customers – it also provides powerful advantages for your business.

atma.io

- atma.io is a platform that unlocks the power of connected products by assigning unique digital IDs to everyday items, providing unparalleled end-to-end transparency
- by tracking, storing and managing all the events associated with each individual product – all the way from source to consumer and beyond, enabling circularity
- Designed to be open, easily integrated and highly flexible – atma.io will solve the 'market pain' of supply chains using different digital triggers on products, such as QR codes, UHF RFID or NFC, by enabling all item-level events and product data to be connected in one end-to-end platform. The atma.io app store enables brands to tap into an ecosystem of applications

to unlock every connected product use case imaginable, and developers and partners now

have the ability to build on top of atma.io's end-to-end platform and unlock new channels for growth





Avery Dennison
Identification Solutions

Freshmarx
Intelligent Food Industry Solutions

Harnessing the power of accurate, shared data throughout the food industry supply chain to enable labor efficiency, food safety, sustainability and enhance the consumer experience.

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