



DESCARTES™

Taking Food Distribution to the Next Level

Using Smart Tech to Deliver for Evolving Business and Customer Needs



Introduction

Food distributors have never had it easy. In recent years, rising costs, demanding customers, and fluctuations in supply and demand have added to the challenge.

The pitfalls of falling short? Everyone's bottom line suffers when customers are disappointed and products fail to show up at the right place, the right time, and in one piece.

But proven remedies exist. Top-performing organisations are relying on advanced strategies and logistics technology like strategic route and hybrid route planning combined with artificial Intelligence and machine learning to keep customers happy and safeguard product integrity and security.

Advanced Solutions to Traverse a Competitive Landscape

These days, traditional delivery models are falling to the wayside. To consistently give customers what they want while controlling costs and addressing the labour shortage, it takes a mix of advanced strategies, tactics, and the latest technology.

Advanced route planning and real-time GPS-based execution solutions play a vital role in helping food companies be more flexible, responsive, and profitable.

To stay competitive, industry leaders are adopting the following technologies:



Strategic Route Planning

Identify the delivery strategy that optimises customer service and profit

Strategic route planning is a technology-enabled route planning process that determines the optimal combination and location of resources (e.g., distribution centers, fleet size, and drivers) to meet customer service and financial targets while considering service policies and operational practices.

Constant changes in order volume and mix, customers, customer service policies, and business strategies can cause distribution networks to become imbalanced. It's costly and means the organisation doesn't run optimally. Strategic route planning from Descartes addresses this and enables organisations to:

- Model and evaluate the impact of potential changes to their distribution network before implementation.
- Operate with agility by treating various operational factors as variables.
- Determine which new or altered routing strategies will best address demand changes or new business goals.
- Understand the best approaches to entering new markets or consolidate acquisitions.
- Predict the costs and capacity needed to move forward.

Strategic route planning is applicable to fleets that run static, master, and dynamic routes.



Hybrid Route Planning

Serve customers uniquely while reducing delivery costs

Traditional strategic route planning cannot keep up with customers' higher service demands and changing order mix, resulting in poor customer service and inflated operating costs. Distribution operations are moving to Descartes' Hybrid Routing, a blend of dynamic and static routing.

With this solution, food distributors get the benefits of both dynamic routing and static routing. **Dynamic routing** allows key customers to continue to be served on a fixed schedule and then dynamically adds the remaining customers into a route, improving responsiveness to customer order changes (e.g., off-orders) and route productivity.

The best of both worlds

Food distributors can continuously optimise routes with dynamic routing to respond quicker and more efficiently to unexpected situations, but without any disruption to the static deliveries that keep their top-tier customers serviced on time, every time.

Descartes' Hybrid Routing uses Artificial Intelligence and Machine Learning algorithms and is constantly learning from historical and real-time routing data to generate more accurate stop and drive times and customer delivery locations that improve customer service and reduce costs.



Proactive Route Execution

Orchestrating deliveries with maximum efficiency

Descartes' route execution solution provides distribution companies the comprehensive capabilities needed to achieve true delivery orchestration. Through a combination of real-time optimisation and GPS-enabled mobile applications, Descartes' route execution provides:

- A closed-loop solution that proactively manages drivers throughout their route and frees dispatchers and managers to focus on exceptions and process improvement.
- Complete visibility to routes as they are being executed.
- Machine learning for more accurate ETAs.
- Route sequence rescheduling suggestions to keep drivers on track and reduce disruptions.

As well, two-way communication automates delivery additions, deletions, and customers making last-minute schedule changes. If multiple resources are needed for a delivery, they can be automatically synchronised to arrive at the same time.

See route information any minute

All the route execution information captured is available in an easy-to-use real-time performance dashboard for drivers, dispatchers, and managers. Managers have mobile applications designed to help them understand how their drivers are progressing and workflow to approve specific changes.



Telematics

Building business intelligence

Telematics solutions continuously monitor vehicle and driver performance, helping food distributors reduce operating and maintenance costs and comply with regulations. They also provide more comprehensive, up-to-date business intelligence used for identifying areas requiring improvements, driver safety training, predictive maintenance, and long-term strategic decision-making.

Our telematics solutions offer these advantages:

Ensuring Driver and Product Safety

- Improve driver behavior and retention with performance management programs.
- Automate Individual Vehicle Mileage Reports (IVMRs) and fuel purchases for accurate reporting.
- Automatically record trailer movements, inspections, and security seal changes.
- Immediately detect temperature variations or door-opening events.
- Identify critical cold chain and traceability data points for chain of custody.

Reducing Costs

- Fuel
- Vehicle maintenance
- Potential fines
- Insurance



The Descartes Difference: A Seamless Solution

Delivery performance has never been more important for food distributors. The challenges of today's markets are causing a rethinking of distribution strategies and the role and value of distribution capabilities to the top and bottom line. But by adopting new business models, advanced distribution practices, and the right technology, distributors can accelerate forward.

Descartes is supporting food distributors around the globe with holistic routing, mobile, and telematics solutions. By combining AI and machine learning with our real-time planning and execution solutions, we leverage real-world performance data to better inform our route planning and execution solutions.

We've unlocked the next-generation strategies and tactics in our advanced planning and execution solution needed to thrive in today's challenging food distribution markets.



To learn more about our fully-integrated solutions designed to support the food industry, visit **Descartes' Route Planning, Optimisation & Dispatch.**

About Descartes Systems Group

Descartes (Nasdaq:DSGX) (TSX:DSG) is the global leader in providing on-demand, software-as-a-service solutions focused on improving the productivity, security, and sustainability of logistics-intensive businesses. Customers use our modular, software-as-a-service solutions to route, track and help improve the safety, performance, and compliance of delivery resources; plan, allocate and execute shipments; rate, audit and pay transportation invoices; access global trade data; file customs and security documents for imports and exports; and complete numerous other logistics processes by participating in the world's largest, collaborative multimodal logistics community. Our headquarters are in Waterloo, Ontario, Canada and we have offices and partners around the world.

Learn more at www.descartes.com and connect with us on [LinkedIn](#) and [X](#).

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