

EXPERT INSIGHT

NEXT-GENERATION DISTRIBUTION STRATEGIES, TACTICS, AND TECHNOLOGIES

Part III: Learn how Descartes' technology is having a positive impact on distribution organisations worldwide.

How Descartes Can Help

Descartes helps distribution companies **meet the broad range of challenges** they face by providing advanced solutions that enable the differentiated services that can help them grow and improve margins.

- Strategic route planning to determine the best service strategy
- Hybrid operational planning that keeps customer service levels high but reduces costs
- Proactive route execution that minimises the impact of disruptions
- Engagement with customers from the time of purchase to post delivery
- Better management of drivers that improves retention, productivity, and safety

Descartes' modular platform allows distribution companies to focus on improving their most pressing challenges. All these capabilities are underpinned by a modern, cloud-based architecture and use of artificial intelligence (AI), machine learning (ML), and advanced analytics.

With a comprehensive cloud-based solution, distribution companies can offer the highest levels of customer service while lowering costs, minimising the impact of route disruptions, and fostering positive relationships with their drivers.

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How Descartes Can Help



Single-Pass Strategic Route Planning

Descartes' **strategic route planning solution** uses a single-pass approach to strategic route modeling, which is a quick and powerful way to reset distribution operations. Strategic route modelling solutions have been used by distribution companies for two decades, but Descartes has **next-generation** optimisation technology that speeds up the process and produces superior results versus traditional sales and territory planning solutions.

Traditional tools require multiple steps to get to an answer. First, territories must be cut, then delivery frequencies assigned, delivery days selected, and, finally, routes sequenced. In each step, analysis must be completed to determine if that step violated any conditions of the previous step. With Descartes' strategic route planning, all three steps occur in a single pass. This approach is much faster and more effective, especially for distribution organisations trying to be more agile to react to today's changing demand and pivot to new business models.

Faster and more effective strategic route planning makes it possible to be a responsive organisation that can meet evolving consumer demands.

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Descartes' Strategic Route Planning

Hybrid Route Planning Combines the Best of Static and Dynamic Planning

With Descartes' route planning solution, distribution companies can execute **hybrid**, dynamic, and static route plans in a single platform. Descartes uses a unique approach to optimisation that allows there to be different customer types and service strategies with attributes that the optimisation engine uses to create the best route plans.

Service plans developed in strategic route planning are integrated into hybrid route planning to help ensure that service strategies are consistently followed at an operational level. The continuous optimisation capabilities of the solution allow for order cut-off times to be extended to take more orders and provides the ability to plan orders as they are booked and seed anchor orders for key customers.

Descartes' solution goes beyond creating optimal delivery routes. It helps create driver and warehouse resource plans, coordinate picking, packing, staging, and loading, and is forward-looking to minimise the impact of over and under capacity situations. Planning is automated, so planners only have to review the results and focus on exceptions to help improve overall operational performance.

Hybrid route planning brings together dynamic and static plans in one platform with a distinctive approach to optimisation.

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Descartes' Hybrid Routing

Easy-to-Use Proactive Route Execution

Descartes' **route execution solution** provides distribution companies with the comprehensive capabilities needed to achieve true delivery orchestration. Through a combination of real-time optimisation and GPS-enabled mobile applications, Descartes provides delivery operations with a closed-loop solution that proactively manages drivers throughout their route and frees dispatchers and managers to focus on exceptions and process improvement.

The solution provides complete visibility to routes as they are being executed, leverages ML to provide more accurate ETAs, and offers route sequence rescheduling suggestions to help keep drivers on track and minimise the impact of disruptions. **Two-way communication** automates delivery additions or 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.

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

Proactive route execution supports drivers, dispatchers, and managers in their roles—every day.

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Descartes' Route Execution

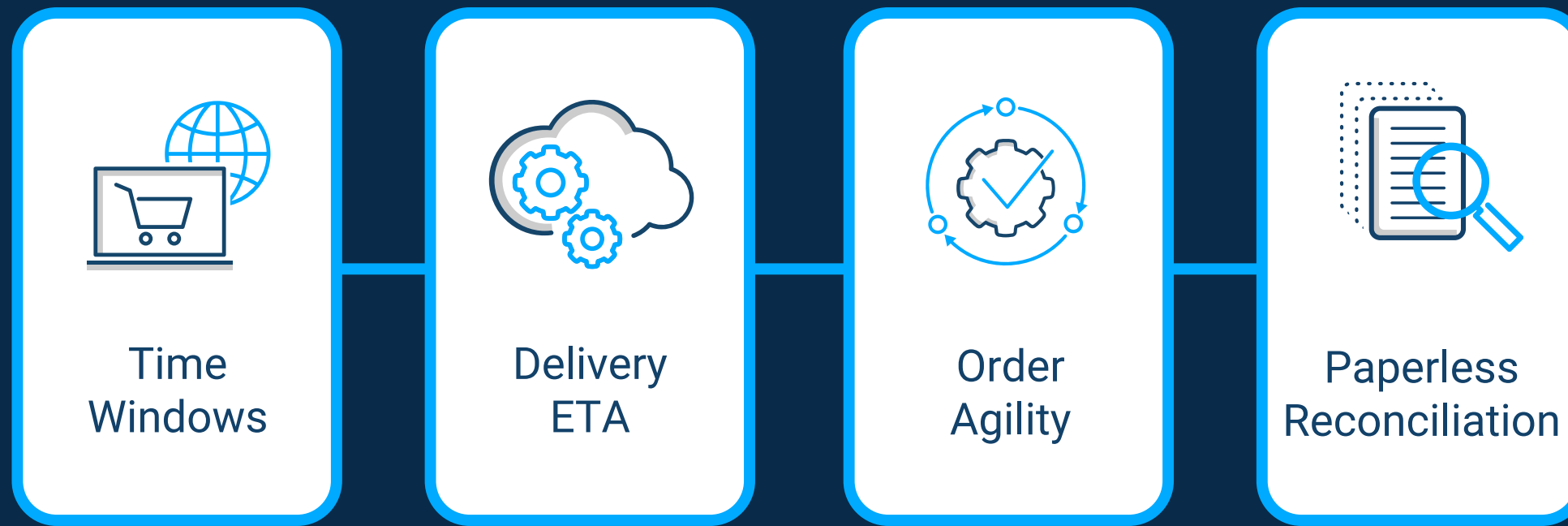
Comprehensive Order Lifecycle Customer Engagement

Descartes gives distribution companies the ability to digitise their customer delivery experience, engaging customers from the time they order to post-delivery surveys and returns scheduling. Using Descartes' **smart delivery appointment scheduling**, delivery companies can allow customers to self-serve their delivery appointment 24X7. Smart scheduling also allows delivery companies to offer new, more dynamic delivery services and control the delivery options offered to **minimise delivery costs**.

Once deliveries are scheduled, notifications keep customers informed of the status of their order and prepare them to receive it. This approach helps to

capture order changes before deliveries are attempted and reduces failed deliveries because customers were not available when deliveries are attempted.

During the delivery, POD information is **electronically captured** to confirm success or document discrepancies. Descartes uses GPS location and time stamping of the information to minimise disputes and to accelerate billing by reducing the order-to-cash cycle. After deliveries are made, Descartes enables companies to send surveys electronically to customers to capture important customer experience information and, using smart scheduling, customers can self-schedule returns of unused goods.



Improve Driver Productivity with One Solution

Descartes' **routing, mobile, and telematics solutions** help improve driver productivity, reduce driver stress, and improve driver safety. Descartes' solution produces accurate and feasible delivery routes that minimise the need for drivers having to make ad-hoc adjustments in route to make delivery promises. **Improved confidence** in the route reduces driver stress and makes their day more predictable. The two-way communication automates route updates and allows dispatchers and managers to interact with the driver while in route.

The solution also makes newer drivers more productive as it provides optimised routes, driver directions, and proactively manages disruptions. The real-time GPS tracking combined with vehicle telematics allows driver performance to be **measured** so driving behaviors (e.g., reducing speed, hard breaking, and excessive idling) can be adjusted.

Performance dashboards help managers coach drivers to make them more productive and operate their vehicles more safely. The solution also helps identify when vehicle performance is beginning to falter, enabling proactive servicing that reduces maintenance costs and keeps vehicles on the road longer.

Help your drivers perform better while increasing their job satisfaction and ensuring safety on the road.

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Driver Productivity

Solutions Powered by Innovative Technologies

Descartes' route planning, mobile, and telematics solutions leverage innovative technologies in many ways to produce superior results for distribution companies.

AI is used in system configuration and embeds the knowledge of Descartes' product experts to provide the optimisation settings that best meet a distribution company's planning goals.

ML is used in performance tuning to more accurately determine stop, service, and travel times, customer locations, and provide real-time route re-sequencing.

Robotic process automation (RPA) in planning takes the best planner strategies and techniques and standardises and automates them. In this way, RPA reduces the number of planners required and focuses them on exception management and process improvement. With RPA bots, planning becomes a review process and every plan across the company is consistent and as optimal as if the best planner developed it.

Descartes' advanced analytics solution was designed to take all of the data being generated and turn it into **deep insight into customer and delivery operations**. The solution does the "heavy lifting" of data preparation and integration with a leading analytics solution that has been preconfigured to get distribution companies quickly leveraging the powerful information it holds to improve operational performance and evaluate customer delivery behavior.

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AI, ML & RPA Technology

Summary

Delivery performance has never been more important for distribution companies. The challenges of today's distribution markets are causing a rethinking of distribution strategies and the role and value of distribution capabilities to the **top and bottom line**. The good news is that there are new business models emerging and greater proof of the value of advanced distribution practices. Equally, technology has progressed at a rapid pace and has the capability to transform delivery performance for distribution companies.

Descartes has a long history of serving distribution companies and a proven track record of investing in **leading distribution strategies and technologies** that keep its customers at the forefront of distribution performance. Descartes'

comprehensive solution for distribution companies enables the next-generation strategies and tactics needed to thrive in today's challenging distribution markets. The solution broadly addresses the most pressing challenges distribution companies face but allows organisations to start with the most important ones and expand to gain even more impressive results.

Let Descartes' distribution experts help your company understand how leading strategies and tactics enabled by Descartes' innovative distribution solutions can make a meaningful difference to your overall business performance.



About Descartes Systems Group

Descartes is the global leader in providing on-demand, software-as-a-service solutions focused on improving the productivity, performance and security of logistics-intensive businesses.

Customers use our modular, software-as-a-service solutions to:

- Route, schedule, track and measure delivery resources
- Access global trade data
- File customs and security documents for imports and exports
- Plan, allocate and execute shipments
- Rate, audit and pay transportation invoices
- 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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Uniting the People & Technology
That Move the World

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