

Optimising Ecommerce Parcel Shipping

How to Minimise Costs and Improve Performance
while Enhancing Customer Service



Introduction

As ecommerce sales continue to grow, many companies are closely evaluating their parcel shipping operations. Logistics managers are being challenged to select the right service and get the best price for all small package shipments, without sacrificing customer service.

This guide provides information on logistics technology that can optimise parcel shipping to help minimise costs and improve performance while enhancing customer service.



Ecommerce Parcel Shipping Challenges & Trends

The growth in ecommerce continues to be strong with double-digit increases predicted annually. The global popularity of online marketplaces is evidence that more consumers are opting to make purchases online.

Many companies, both Business-to-Consumer (B2C) and Business-to-Business (B2B), are using web channels to provide merchandise directly to customers as part of an omni-channel sales strategy. Having a strong ecommerce presence can increase visibility and generate demand for their products around the world.

Direct-to-Customer (D2C) distribution is becoming more prevalent in industries beyond retail. Home healthcare products and medical devices are being delivered directly to patients every day. Deliveries of prepared meals with fresh ingredients is a trend in the food and beverage industry. Plus, manufacturers are having suppliers drop ship parts directly to customers to improve profits.

Because a majority of ecommerce sales move via parcel carriers, these macro business trends are impacting supply chains and increasing pressures on small parcel shipping specifically. Here are some factors presenting the greatest challenges:

- **Rising costs** – Despite lower fuel costs, traditional carriers continue to raise basic rates, dimensional weight charges, surcharges and accessorial fees.
- **Rate complexity** – Pricing is more complex than ever, making it more difficult to determine the “best” price. The ultimate price is based on a variety of factors including terms of service, weight and size limitations, time of delivery and other factors.
- **Carrier compliance** – Unlike other transportation modes, there is not a standard set of “rules” for parcel shipping. Each carrier has separate ratings, label requirements and electronic connectivity systems. Rate and service updates are scheduled by the carriers and occur in different timeframes – some are annual, while others occur twice a year. It’s very important, and also time-consuming, for shippers to keep up with these changes. Plus, there are no global standards with unique capabilities offered by country and/or region of the world.
- **Carrier selection** – While price is important, there may be other factors to consider when selecting the best shipping scenario, such as pick-up/delivery windows (after hours, weekends), customer service history and mode options, e.g. would LTL be more affordable. It can be difficult to quickly source the carrier with the most economical solution.

The parcel shipping industry is also undergoing significant changes which are altering the landscape of how small packages are processed and delivered. Here are some industry trends that could impact your future parcel operations:

- **Broader carrier options:** Smaller, geographically- and industry-focused carriers are hoping to challenge the traditional parcel carriers. The number of regional carriers is growing, and they have formed alliances to provide better rates and delivery windows, as well as flexibility for line haul support and zone skipping.
- **Carrier partnerships/alliances** – Carriers are partnering to handle last-mile deliveries and cross-border movements. While more alliances may mean increased flexibility, they can add complexity to rates and services.
- **Globalisation** – Ecommerce is building demand for products in global markets, requiring shippers to prepare packages that comply with trade regulations around the world. This can add complexity to processing operations.
- **Carrier-neutral technology solutions** – Companies are deploying software that provides multi-carrier shipping solutions. Parcel services are also being integrated with enterprise Transportation Management Systems (TMS) to optimise planning and movements across all modes.

Faced with the continued rise of ecommerce and the resulting growth of Direct-to-Customer distribution channels, many companies are taking a closer look at their parcel operations. Logistics managers, who are being challenged to find cost-efficiencies while meeting customer service expectations, are exploring technology solutions that:

- Automate and optimise parcel operations with a **multi-carrier shipping system**
- Enhance an existing transportation management system by **integrating parcel planning and execution**



Faced with the continued rise of ecommerce and the resulting growth of Direct-to-Customer distribution channels, many companies are taking a closer look at their parcel operations.

Multi-Carrier Shipping Solutions

With ecommerce continuing to grow and omni-channel sales expanding, parcel shipping operations are faced with more complex customer requirements and must run smoothly to ensure customer satisfaction.

Multi-carrier shipping systems are a cost-effective way to make the best carrier and service selection for each shipment, which can reduce small parcel costs by 10-15%*. In addition to offering rate shopping between carriers at order entry, it can automate and optimise the routing, labeling, documentation, tracking and post shipment analysis for multiple carriers.

When considering a multi-carrier solution for parcel operations, here are some best-in-class capabilities to consider:

Automated Rating



- Multi-carrier compliance engine to route small package carriers
- Compliant with major carriers
- Service level selection based on transit time routing and/or arrival date
- Order/multi-piece level routing and rating
- Rule-based shipment consolidation logic
- Real-time order consolidation with shipper alerts
- Specific Point Location Code (SPLC) rating
- Dynamic rating capabilities to rate progressively
- Zone skip and drop ship rating
- Fuel surcharge management

Labels/Documentation



- Compliant shipping labels and manifesting documents
- Full export control from multiple sources
- HazMat/Dangerous Goods documentation
- One end-of-day, Master Bill of Lading (MBoL) for all orders to a destination
- Automated barcode processing capability
- Email notification for proactive, self-service package tracking
- Customer segment support for extended label lengths
- Extensive reporting capabilities

Processing & Execution



- Processing speed 6x to 10x faster than traditional systems
- Ad hoc shipping 'on-the-fly'
- Advanced pack and hold and release functionality
- Future ship enabling preparation in advance of the ship date
- Routing / carrier changes with automatic void
- 'Piece at a time' processing and labeling
- Weight checking by line with tolerance level
- Flexible rules to apply freight charges to consolidated orders

* Savings are estimates based on actual client engagements

Profit, Performance & Service Improvements

Using a multi-carrier shipping system for parcel operations provides a dynamic method to route and consolidate shipments based on carrier and service level to manage costs. Central management of parcel shipping offers not only financial benefits, but improves operational efficiency and customer satisfaction. Here's how.

Control Costs, Complexity & Compliance



- Optimise carrier and service level selection for every shipment
- Automatically incorporate business rules that comply with all carriers
- Maximise consolidation opportunities to get lower rates
- Reduce redundant, costly manual labour

A leading global manufacturer of outdoor power products needed a more cost-efficient way to distribute new products, parts and accessories. The company, which was using more than a dozen carriers, wanted a scalable enterprise solution to manage couriers and LTL.

Centralised installation of a shipping and rating API solution with automatic carrier selection provided:

- Dynamic routing and rating of ALL shipments
- Carrier optimisation based on cost and customer delivery requirements
- Compliant shipping documentation and electronic transmission to carriers

Because the new solution was integrated into the company's existing system, users did not have to be trained on new user interfaces. Annual cost savings to the company are projected to be \$400K.*

Improve Performance



- Streamline the flow of distribution
- Increase shipping throughput
- Ensure consistent shipping practices and processes across the business
- Reduce over-handling of product and data entry

A Canadian magazine distributor serving a widely dispersed customer base of 4,000 retailers uses express package carriers to reach small town and rural markets accounting for up to 20% of its deliveries. The company, which was using manual processes to enter data and label those shipments, needed to streamline its processes.

A multi-carrier shipping solution that interfaced with the company's in-house magazine picking and label generating systems was deployed. It automated a number of manual shipping processes and enabled a single labeling and manifesting system across all carriers. Plus, label processing speed and accuracy both improved.

Shipping performance improved considerably with a 25%* productivity increase and a nearly 100%* accuracy rate on labeling. Using a single automated shipping system versus multiple carrier systems led to other efficiencies while providing online package tracking and delivery confirmation. Ultimately, the company saved 2-3 hours a week in bill of lading filing and reduced staffing requirements.

* Savings are estimates based on actual client engagements

Enhance Customer Service



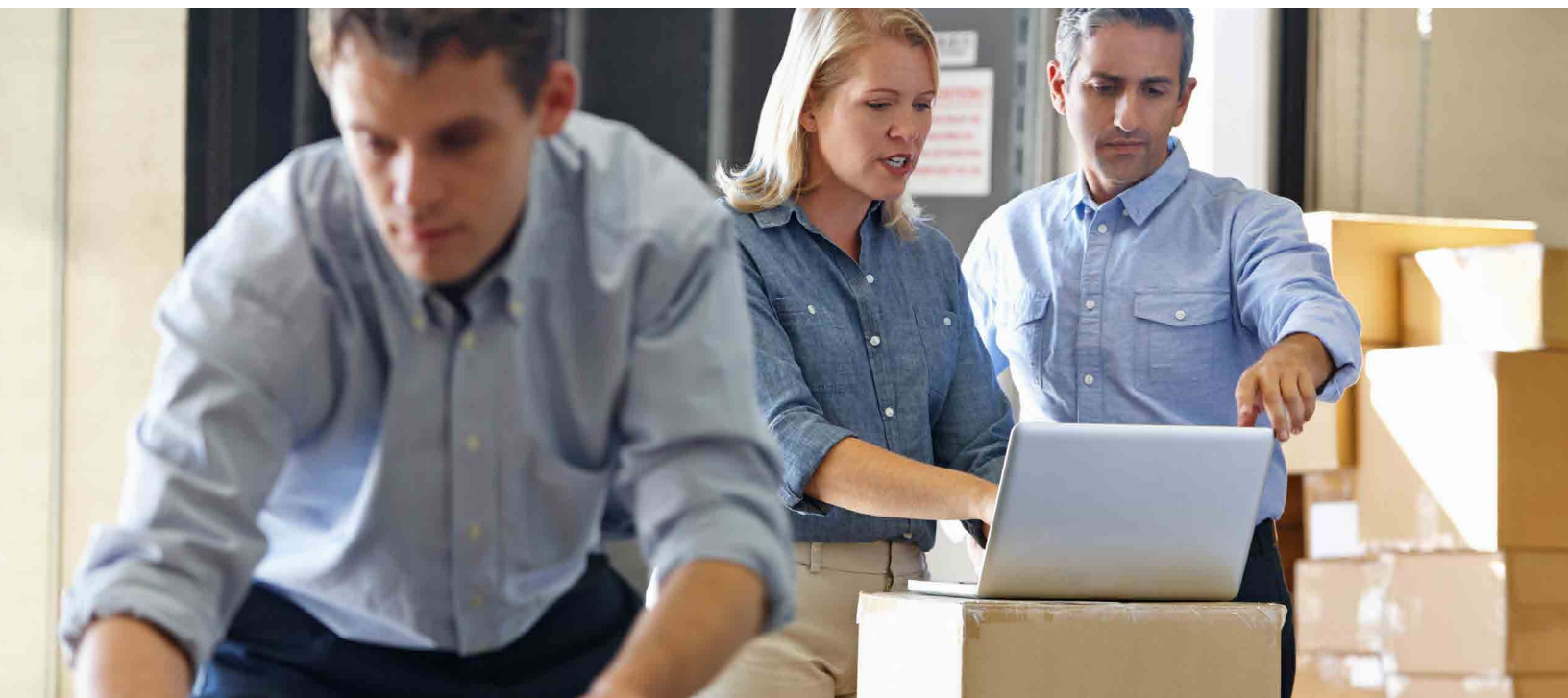
- Ensure fast and accurate order turnaround
- Provide real-time visibility of customers' orders throughout the order cycle
- Send email notifications to provide proactive, self-service package tracking functions

A distribution company serving surgical specialists relied on getting the right equipment to the right healthcare customer at the right time. The company had to not only manage limited inventory space, but also engage multiple courier and small package carrier services to handle 300+ daily deliveries.

A multi-carrier shipping solution provided the company a single point of access to manage pick, pack, scanning, carrier selection, labeling and order visibility across all carriers. The system recommends the carrier for selection based on geographical location, weight and urgency of delivery, as well as the carrier's historical performance.

Using the new system, the company was able to achieve a 99.97%* picking accuracy rate, which is phenomenal and a must for their business. Plus, customer service now has visibility into the status of shipments, allowing them to answer order inquiries in real-time which helps the operation run more smoothly.

* Savings are estimates based on actual client engagements



Integrating Parcel for an Enhanced TMS

Early versions of enterprise transportation management systems typically excluded parcel shipping. This was largely due to the fact that parcel carriers don't have standards for labeling, rating, service terms, electronic uploads and other processes. Unlike other transport modes where carriers follow similar procedures and rules, integrating parcel operations into a TMS was seen as too complex and time-consuming to maintain.

With the rise of ecommerce, omni-channel sales and Direct-to-Consumer distribution, parcel shipping is an increasingly important part of the supply chain for global, regional and local companies. Plus, changes in technology, such as the increased role of Application Programming Interface (API) technology and web-based Software-as-a-Service (SaaS) systems, have made access to multimodal shipping solutions more convenient and economically feasible.

The ability to optimise transportation planning and execution for shipments across all modes, including parcel transport, is a key part of an efficient logistics operation. To provide the highest level of mode optimisation, TMS solutions must include parcel movements as part of their offering and address specific planning and execution capabilities, such as:

Load Planning/Consolidation: Combine shipments for efficiency and cost savings with the ability to manually create loads, or use the system's aggregation and routing algorithms to automatically create optimised shipment combinations.

Carrier Selection: Automatically assess a range of user-defined decision criteria, such as contractual obligations, shipping lane, shipment priority, cost and carrier past performance, and evaluate the best way to convey every shipment. Some offerings track when planners deviate from the system-selected carriers and provide historical analysis of extra costs incurred to curtail "maverick" transportation spending.

Carrier Connectivity: Provide electronic connectivity to carriers, executing plans to achieve cost savings and service levels. Effective collaboration with carriers is essential to streamlining the end-to-end transportation management process and ensuring carriers and other logistics intermediaries meet the service levels your organization demands.

Tendering & Booking: Electronically offer a shipment to a carrier and efficiently manage their response. Tenders can be communicated to the carrier via auto-faxing, e-mails, texts, XML and EDI.

Documentation: Support shipment documentation across modes including carrier-compliant parcel labels, truck and ocean bills of lading, and airway bills.

Tracking & Proof of Delivery (POD): Enable the systematic sharing of data such as advanced shipment notices, booking confirmations, carrier statuses and proof of delivery using electronic messages.



With the rise of ecommerce, omni-channel sales and direct-to-consumer distribution, parcel shipping is an increasingly important part of the supply chain for global, regional and local companies.

Conclusion: Logistics Solutions for Parcel Optimisation

As ecommerce drives the global demand for more Direct-to-Customer shipping, parcel rates are growing higher and services more complex. Logistics managers must aggressively manage both costs and service to help ensure parcel shipping doesn't cut into profits.

Implementing technology solutions that feature multi-carrier systems can optimise parcel operations, reducing costs by automatically offering rate shopping at order entry. In addition to automated rating, these cost-effective solutions can optimise labeling, documentation and tracking for all your carriers. Also, integrating parcel shipping into an existing TMS enables higher levels of mode optimisation, which can lower transportation costs and increase efficiencies.

About Descartes Solutions for Parcel Operations

Whether you are just beginning to explore stand-alone, multi-carrier shipping solutions to optimise your parcel operations, or want to integrate parcel shipping with your existing TMS, Descartes has flexible solutions to meet your specific needs.

A leader in global logistics technology, Descartes offers multimodal, optimised planning, consolidation and tendering capabilities based on more than 25 years of proven experience. This expertise was used to develop our proprietary optimisation functionality to help you determine the right carrier and consolidation options to reduce transportation spend while meeting service requirements.

The fast and efficient planning algorithms in our software enable your logistics operations to focus on keeping the warehouse picking and shipments moving. In addition, because of its integration with the Descartes Global Logistics Network™ (Descartes GLN™), the connectivity to carriers and trading partners required to electronically execute shipments is readily available through pre-existing network connections.

[Ask us about Descartes logistics solutions designed to optimise parcel operations.](#)

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, performance and security of logistics-intensive businesses. Customers use our modular, software-as-a-service solutions to route, schedule, track and measure 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 [Twitter](#).

Network. Applications. Content. Community.

Uniting the People & Technology

That Move the World.

The Descartes Systems Group Inc. | TSX: DSG | NASDAQ: DSGX | 120 Randall Drive, Waterloo, Ontario, N2V 1C6, Canada
Toll Free 800.419.8495 | Int'l 519.746.8110 | info@descartes.com | www.descartes.com

© The Descartes Systems Group Inc. All rights reserved. Descartes, the Descartes triad logo and all product names used are Descartes trademarks unless specifically identified as the trademarks of a third party.