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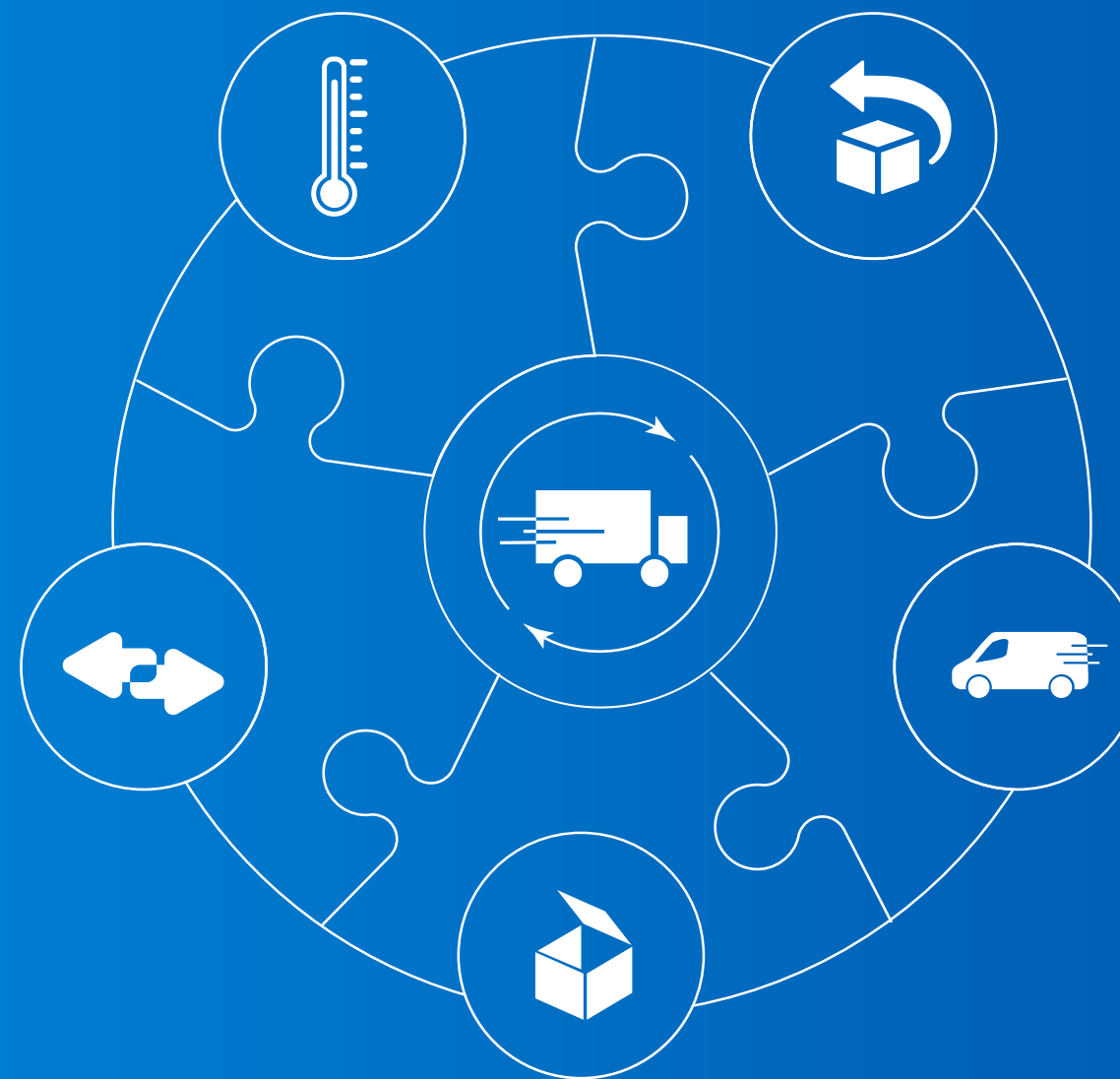
# Omni-Mode Integration

## *Unifying Private Fleet and Purchased Transportation*

A promising strategy for boosting transportation performance is emerging: looking at fleet and purchased transportation together for integrated, optimal solutions. This guide explores how Omni-Mode Integration is impacting the future of transportation management, while offering more information on the benefits, challenges and best-practices for implementation.

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# Omni-Mode Integration

## Unifying Private Fleet and Purchased Transportation

Technological advancements are changing how companies operate on a daily basis. Leading firms across multiple industries are looking for ways to optimize operations and gain efficiencies. Transportation management is one of the first areas to be evaluated and a prime opportunity for technology upgrades.

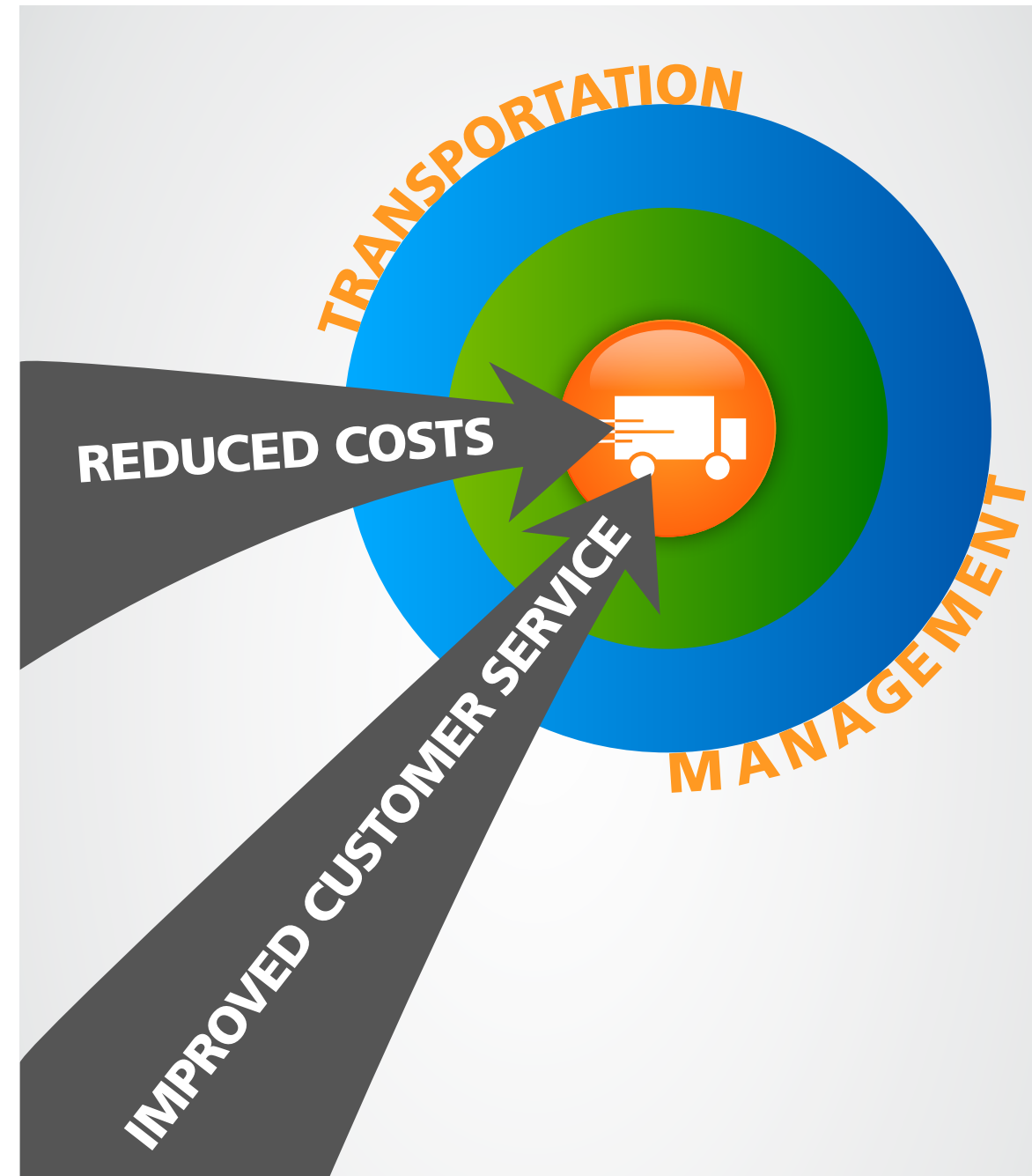
Whether a company owns a private fleet, purchases transportation or uses a combination of both approaches, it typically has two over-arching goals:

- Reduce costs
- Improve customer service

These goals drive transportation management decisions. And, both can be significantly impacted by technology.

To gain a good understanding of the future of transportation management, it's important to understand the industry:

- History – [A Tale of Two Models](#)
- Trends – [The Shifting Paradigm](#)
- Challenges – [Solutions for All Environments](#)
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The perennial challenge for both fleet and hired transportation management is how to lower costs while improving service. Integrated planning and execution across modes can save money and boost performance.

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# A Tale of Two Models

## *Different Concerns, Separate Systems*

Private fleet or purchased transportation? That's the question companies regularly debate. Both approaches face similar business challenges – how to reduce transportation spend and operate more efficiently while enhancing customer service. However, they address the same problem in different ways – each using their own unique set of processes and systems.

Companies that decide to operate a private fleet often point to reasons such as ensured capacity, branding, schedule flexibility, standardized service and specialized equipment requirements.

## **A Comparison: Purchased Transportation vs. Private/Dedicated Fleet**

Purchased transportation managers see the value in relying on carriers to shoulder the responsibility for equipment, drivers, performance and regulatory compliance. They are concerned with establishing and maintaining carrier relationships while trying to take advantage of low-cost opportunities.

Similarly, when looking for opportunities to optimize operations, each model has a different focus:

Purchased Transport Focus	Private/Dedicated Fleet Focus
<ul style="list-style-type: none"> <li>Carrier selection, performance management</li> </ul>	<ul style="list-style-type: none"> <li>Asset utilization</li> </ul>
<ul style="list-style-type: none"> <li>Contract management</li> </ul>	<ul style="list-style-type: none"> <li>Vehicle/driver scheduling</li> </ul>
<ul style="list-style-type: none"> <li>Cost/service balance for each lane or territory</li> </ul>	<ul style="list-style-type: none"> <li>Driver/carrier performance management</li> </ul>
<ul style="list-style-type: none"> <li>Load tendering</li> </ul>	<ul style="list-style-type: none"> <li>Compliance</li> </ul>

Purchased Transport	Private/Dedicated Fleet
<ul style="list-style-type: none"> <li>Leveraging contracted rates</li> </ul>	<ul style="list-style-type: none"> <li>Asset utilization: minimize trucks, mileage, hours</li> </ul>
<ul style="list-style-type: none"> <li>Intelligent mode selection and trade offs</li> </ul>	<ul style="list-style-type: none"> <li>Maximizing assets over working day</li> </ul>
<ul style="list-style-type: none"> <li>Carrier selection: balancing cost, transit, and business constraints</li> </ul>	<ul style="list-style-type: none"> <li>Street-level data, vehicle speeds</li> </ul>
<ul style="list-style-type: none"> <li>Concerned with practical miles and one-way moves</li> </ul>	<ul style="list-style-type: none"> <li>More accurate load/unload times</li> </ul>
<ul style="list-style-type: none"> <li>Time windows 'generally' measured in days not hours</li> </ul>	<ul style="list-style-type: none"> <li>Assignment/management of vehicles, drivers</li> </ul>

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# The Shifting Paradigm

## Evolving Trends in Transportation Management

Historically, a company's private fleet and purchased transportation management processes have operated in isolation. But there are increasing signs that this paradigm is shifting.

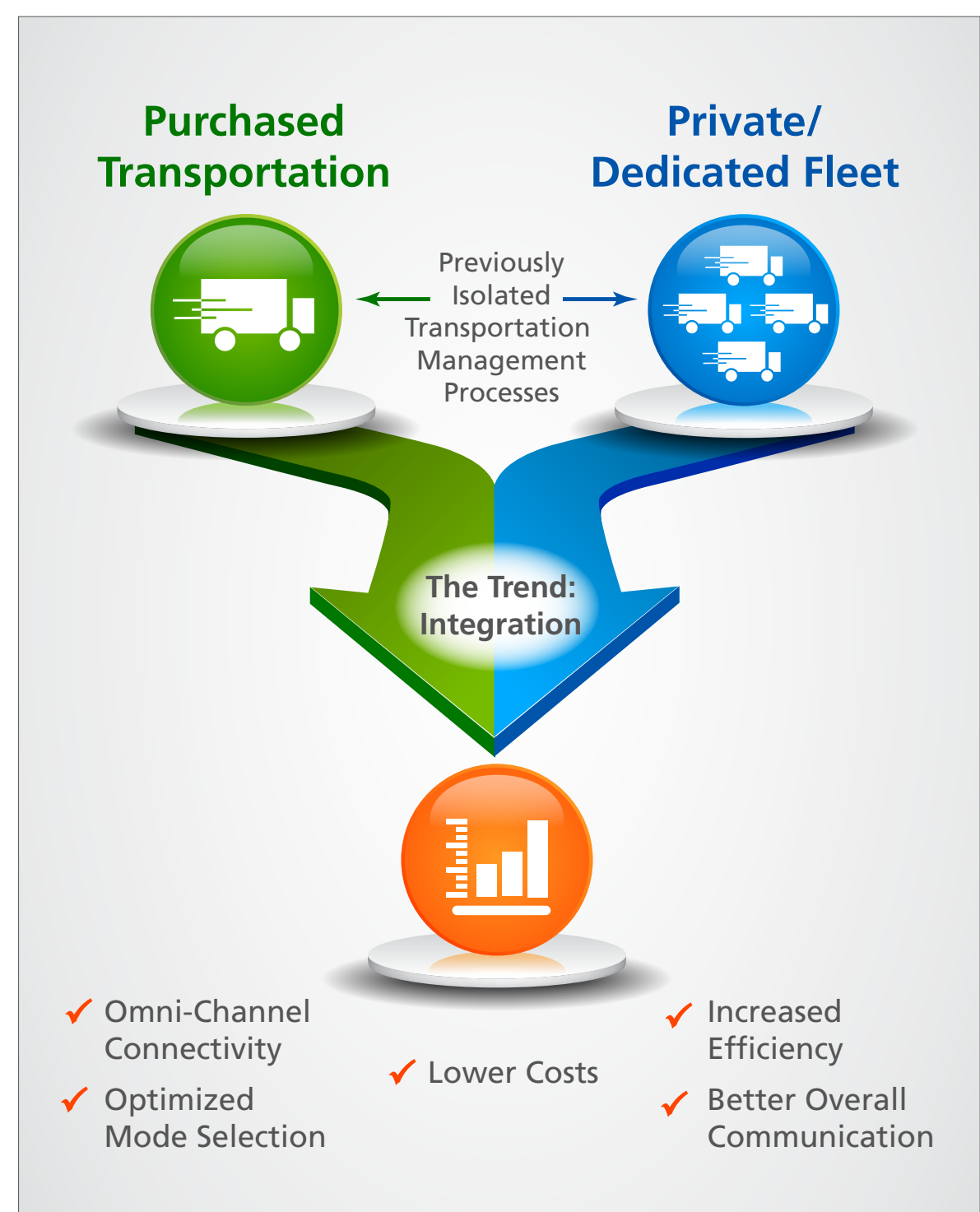
- Departmental walls in transport are breaking down
- Optimization and service opportunities are being found
- Fleets are getting more efficient
- Carriers are offering more specialized capabilities

In fact, merging private fleet and purchased transport planning and execution is the trend.

Over the past few years, discussion about the challenges and benefits of integrating the planning and execution functions of shipping has increased with many companies expressing an interest in optimizing transportation across all modes. Some leading firms have started omni-mode integration of transportation similar to omni-channel integration being successfully used in the retail industry.

Both omni-channel and omni-mode integration require technology that provides tight integration with operational systems. Visibility across all available transport modes, including fleet, carrier, parcel, and rail, is a must to select the best mode to fulfill orders and ensure capacity. Plus, in a perfect world, these solutions will all share the same technology platform. That allows them to be accessed via a single sign-on and an integrated navigation plan.

## Omni-Mode Integration: A Holistic, Dynamic Approach



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# Solutions for All Environments

## Various Strategies for Achieving Integration - Part I

A single company may have multiple shipping environments with a variety of transportation needs and characteristics, requiring a variety of strategies to achieve omni-mode integration. Here are some examples:

### Time-Critical Shipments

Companies dealing with time-sensitive products often use same-day or next-day shipments to ensure customer service agreements are met. Decisions are made reactively in real-time with customer service taking precedence over cost. The result - opportunities to optimize across modes are overlooked and higher-cost shipments cut into profits. But if route planning, dispatch and all transportation management systems are integrated and can communicate on a common platform, they can potentially lower transportation costs without reducing customer satisfaction.

### Inbound/Outbound Integration

Manufacturers often use separate transportation for outbound and inbound shipments. They rely on suppliers to deliver freight to their plant or distribution centers; then, use their private fleet for outbound delivery. This model provides opportunities where the fleet and hired carriers can combine on a single order to lower overall costs. There also may be situations where money can be saved using a company truck that's dropping off near a supplier's facility to pick up an inbound load ready for transport. This approach of mode optimization is particularly successful for companies with good forecasting and flexible schedules.

Businesses may inadvertently **bypass a critical opportunity** with costly reactive decision-making when coordinating time-sensitive shipments. Although the ultimate result is delivery, leading companies are able to take a path that integrates routing, dispatching and other systems to derive added value.



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# Solutions for All Environments *(cont'd)*

## Various Strategies for Achieving Integration - Part II

### Special Capabilities Required

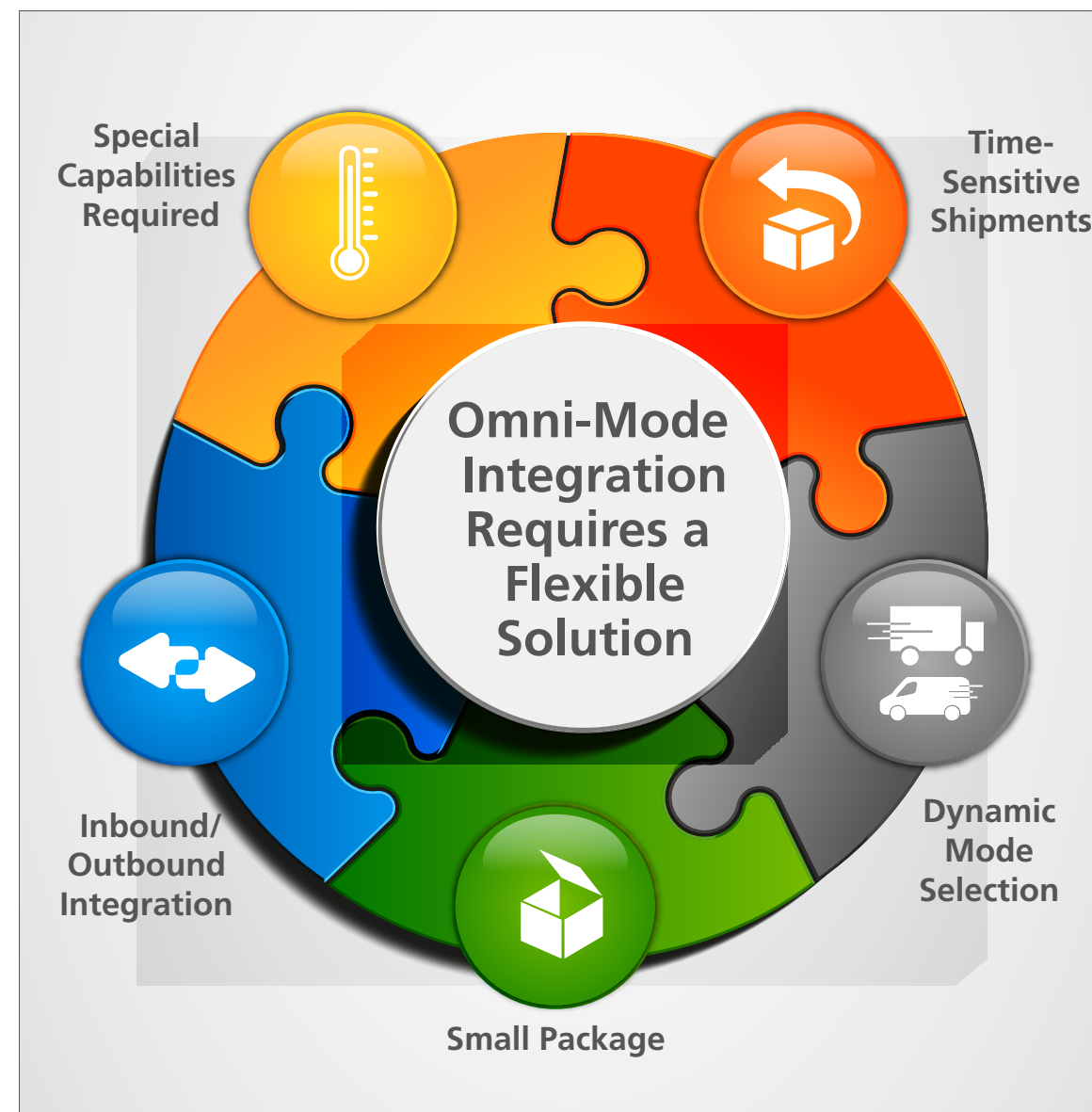
The need for specialized equipment and driver expertise motivates many companies to invest in a private fleet. Customized needs can limit the options for purchasing transportation. However, there may still be opportunities to combine the fleet with hired transport under certain circumstances. The key to successfully integrating hired carriers is to set appropriate mode selection criteria for each shipment, including special capabilities required. Companies can realize significant savings by taking advantage of combining hired carriers whenever possible.

### Small Package

Parcel carriers are often retained by companies that ship a large amount of small packages. For large orders, the same company may use an LTL freight provider or its own fleet. Too often, the decision regarding which mode to use is made based on fixed criteria such as volume, destination or timing. However, with dynamic mode optimization, companies may find opportunities when using their own fleet could be more economical, such as when a delivery is located on or near their fleet's planned route.

### A Better Approach to Mode Selection

Decisions about mode selection are often made on a set of static rules instead of a dynamic basis. This is usually done for simplicity, as trying to optimize across modes can be complicated without a system designed for that purpose. Unfortunately, static rules are typically based on a set of assumptions that become outdated and lead to wasteful decisions over time.



Omni-Mode Integration addresses many scenarios with vastly different requirements. It requires a solution that can adapt to special requirements, different modes, a range of planning horizons, and performance goals beyond costs and utilization.

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# Capitalizing on Integration

## Techniques to Maximize Omni-Mode Transportation Integration

The ability to link planning and execution across private fleet and hired carriers presents new opportunities for achieving cost reduction and service enhancement goals. Optimizing backhauls and increasing outbound distribution efficiencies are just two examples of how omni-mode integration can positively impact a company's bottom line.

However, while integration presents new opportunities, it also raises some interesting challenges that must be addressed in order to be successful. Uniting the different data and business processes of the fleet and hired transportation can be complex, but it's imperative in order to capitalize on the benefits of integration. Here are some suggestions to help you take full advantage of the opportunities offered with omni-mode transportation integration:



### Break down team walls

Integrating the fleet and transportation management teams will foster collaboration that can help the company become more efficient. Don't separate the traditional inbound and outbound roles. Think of each movement holistically – as a single logistics challenge.



### Identify your primary goal

Are you trying to maximize your current assets? Is optimizing daily costs your main objective? Establish key performance indicators based on your principal goal to ensure the integrated team stays focused on what's important.



### Invest in logistics technology

Communication, control and visibility are essential to effectively integrating different transportation modes. To realize the greatest benefits, messaging, mobility, and in some cases, dynamic dispatch are a must. Evaluate your current logistics technology to determine if new or upgraded capabilities are needed to address the ebbs and flows between order management systems, carriers and your fleet.



### Use your fleet

It represents significant trapped capacity in a tightening market and should be leveraged whenever possible. For example, backhauls can provide low-hanging fruit for certain fleets. Consider using the fleet in areas where vendors are offering good allowances and combining it with carriers to lower overall costs on a single order.

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# Making Omni-Mode Possible

## Uniting Planning & Dispatch with Transportation Management Capabilities

Omni-mode transportation requires combining the capabilities of a fully-featured route planning and dispatch system with a transportation management system – two traditionally distinct systems. To be successful, the combination must provide straightforward usability and flexible business processes.

How you approach unifying your fleet and transportation management systems will have a significant impact on operational results. As you explore potential technology solutions, here are some factors to consider:



### **A common platform is optimal**

When your logistics solutions share a common technology platform they can be deployed together. This approach also enables a single sign-on and integrated navigation plan, simplifying operations for your team.



### **Integration requires flexibility**

Look for solutions that incorporate business rules allowing operators to override standard cost metrics when more economical options are available. The flexibility to move freight back and forth between fleet and carrier options as daily plans evolve is critical to capitalizing on opportunities. Plus, you'll need to analyze freight against both functions at the same time to make the best decisions.



### **Advanced planning solutions are critical**

Fleet planning requires access to details that drive utilization, stop assignments and route scheduling. Logistics solutions must accurately calculate numerous factors to create multi-stop routes including detailed mapping, stop service times, precise delivery windows, driver skills and turn restrictions. Multi-stop routing, shipment consolidation, pooling, continuous moves and mode selection are planning considerations for purchased transport.



### **Real-time information can improve decisions**

Visibility and messaging solutions make dynamic dispatch and tracking a reality. Near real-time updates on truck position as well as route and stop status must feed into a scheduling engine and be intelligently understood to then update the route's schedule status. Logistics technology with this capability makes it possible to insert new jobs into the existing stop plan.

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## Introducing Omni-Mode Integration Into Your Operations

One final, but important observation. It can be difficult to craft totally disparate routing and transport solutions into a cohesive, easy-to-use solution. To achieve advanced levels of integration, it should be applied from the initial design of a solution.

However, companies can begin lowering transportation costs and improving services by simply starting to integrate a portion of their operations. As benefits are realized and lessons are learned, omni-mode integration can be expanded to boost performance throughout the entire transportation operation.

## About Descartes

As a global leader in logistics technology, Descartes has developed strong fleet management and transportation management solutions in anticipation of a growing customer need to integrate the planning and execution functions.

With that in mind, Descartes' team of logistics experts designed innovative route planning, dispatch and transportation management solutions that share the same technology platform to facilitate integration.

[Learn more about these solutions and how they've helped companies successfully optimize transportation operations.](#)



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