TMS 2.0
Buyer's Guide

Presented by

ShipHawk™

How to Choose the Right Transportation Management System for Your Business

Shipping software is the only purchase you make that has the potential to impact your customers before, during, and after the sale. Pick the right one, and it will deliver a consistent brand experience, low shipping costs, and accurate data to automate operations and catapult your business over the competition.

The right transportation management system (TMS) must do all your basic shipping duties like: accurately rate shipments, print labels, and provide tracking updates. A legacy TMS supports these features, but the basics are no longer enough to compete in the Amazon-guided world in which we live. The solution must be intelligent and capable of using shipping data to not only facilitate, but improve the fulfillment process. And it must be automated, removing errors, reducing damage, and eliminating the costly nature of manual fulfillment.

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We live in a new paradigm of commerce and the customers of this new world demand fast, easy, inexpensive shipping. The result is a complex logistics nightmare that every omnichannel retailer, manufacturer, and distributor must confront.

The right TMS will:

Support "Amazon power" by allowing companies to create a shipping experience that is data-driven and unique to their brand.

Proactively inform shoppers, keeping them up-to-date on every step of their order while providing them with control over post-purchase needs.

Analyze carrier performance and use real data to improve the delivery infrastructure

Provide the power to make changes in real-time in order to enhance sales results

Supply fact-based insights to facilitate business scaling and margin growth

We have good news. There is a solution. We call it Transportation Management 2.0, and it has the power and the data to have a radical impact on your business.

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1 What is Transportation Management Software?

Transportation Management Systems, aka Shipping Software, can have a variety of definitions:

1. **Label or bill of lading printing software**
2. **Carrier management software**
3. **Single or multi-carrier rating, booking and dispatch software**
4. **Shipment tracking software**
5. **Order management software**

TMS 2.0 solutions provide shipping and fulfillment services for marketplaces, eCommerce platforms, ERPs (enterprise resource planning), or WMS (warehouse management system) solutions. A few provide a web portal where users can manage shipping carriers, product orders, and reports, giving companies a streamlined process for importing new orders, label printing and booking with the carrier.

Some solutions specialize in post-purchase tracking, while others link customers to various carrier websites with different technology and user experiences. And a few do everything mentioned above with varying degrees of success.

What is Transportation Management 2.0?

The key differentiator of TMS 2.0 is its ability to support data-driven, automated supply chains and fulfillment.

What Are Your Fulfillment Options?

Not every company uses shipping software, and many that do, still use legacy solutions that were built for a prior generation. Companies who don't leverage transportation management systems must handle fulfillment-related tasks manually, either with a completely hands-on approach, or by bolting together several different software products in an effort to automate some of the work.

Manual Fulfillment

- Uses a completely hands-on approach
- Requires human management at each stage of fulfillment
- Most costly and labor-intensive option
- Error and damage prone
- Significant data limitations for making improvements/changes

Blended Fulfillment

- Blends hands-on fulfillment with some automation
- Automates some stages of fulfillment
- High technical needs due to multiple systems required to work together
- Somewhat costly and labor-intensive
- Error and damage prone
- Significant data limitations for making improvements/changes

Automated Fulfillment

- Leverages the use of shipping software aka Transportation
- Management Systems
- Automates most stages of fulfillment
- Least costly and labor-intensive
- Reduces or eliminates errors and damage
- Allow for data-driven decision making
- Produces the lowest possible shipping costs

A hands-on shipping strategy is not the best financially due to the working hours it takes to monitor and provide order fulfillment. Even small shippers who are only processing a handful of orders a day can become quickly overwhelmed with managing the processing of new orders, keeping an eye on in-transit orders, and dealing with delivery exceptions and returns. Furthermore, a manual approach to shipping does not promise customer satisfaction or low cost.

The old adage, you get what you pay for, has never been more true. Shipping automation solutions, a core component of TMS 2.0 systems, almost always deliver a strong ROI.

How Does a TMS Work?

A modern TMS will integrate into your current business systems or work as a standalone. Most integrations are done at the eCommerce shopping cart level or with an ERP, although WMS, CRM (customer relationship management) and IMS (inventory management system) integrations are not uncommon.
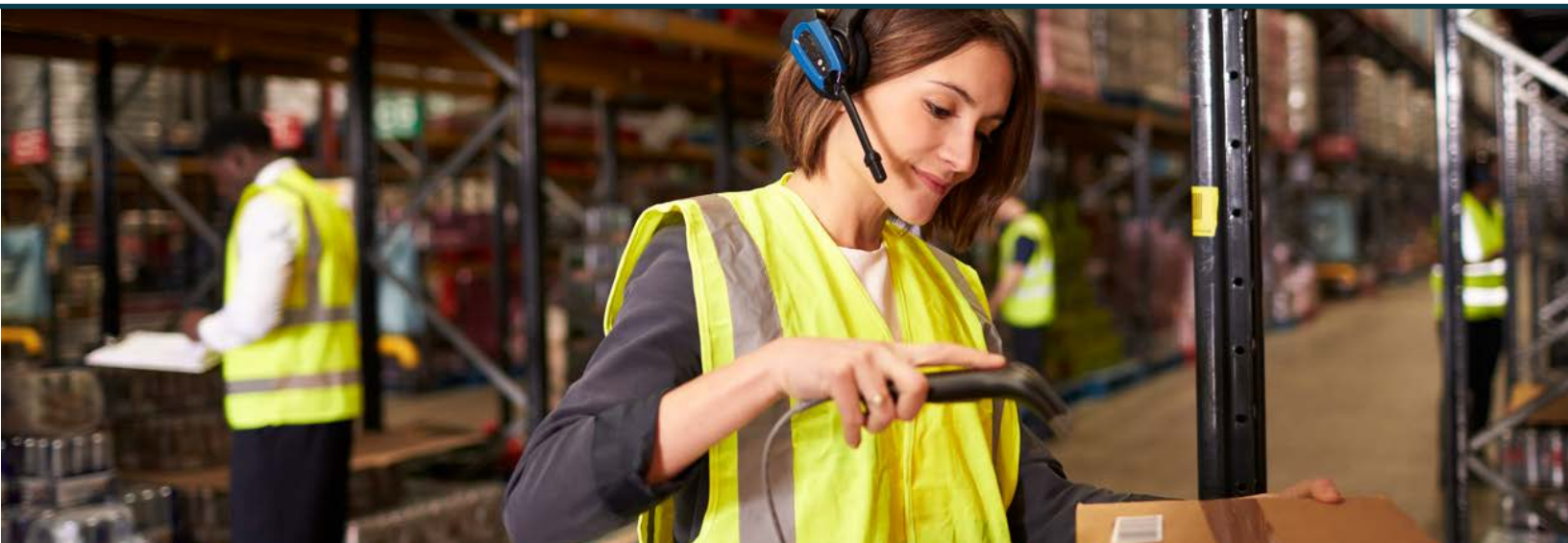
Basic functionality (typically features of "shipping software") usually includes:

- Importing orders
- Multi-carrier rating for USPS, FedEx, UPS and DHL
- Label and/or bill of lading printing
- Tracking
- Shipment management
- Standard reporting
- Basic integrations with eCommerce platforms and Quickbooks

Advanced functionality (typically features of "transportation management systems") can include:

- Packing optimization
- Order fulfillment automation
- Rules-based business logic
- On-brand tracking
- Vendor fulfillment interface
- Real-time data/analytics - full internal visibility
- Access to all carrier types (parcel, freight, white glove)
- Returns management
- Automated reconciliation
- Integration with scales, scanners and dimensioners
- Enterprise integrations with ERPs, WMS, IMS, CRM and accounting systems

A modern TMS should optimize each order for packing, carrier, service, and distribution point, efficiently moving inventory from the optimal distribution center or store. Remember, every order is unique and every buyer's destination address can impact margins (think delivery area surcharges, stairs, low hanging wires, gravel driveways, tolls and more). Choosing the best packaging, carrier, service and warehouse saves time, money, and improves the customer delivery experience.

"TMS 2.0 solutions almost always deliver a strong ROI."

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When integrated at the shopping cart level, proper configuration should support showing prospective buyers actual or subsidized shipping prices and all relevant shipping services (ground, express, white glove, etc). Shipment pricing directly impacts both conversion rates and order margins, so best-in-class shipping software should proactively support calculating the best shipping policies regardless of whether or not you offer free or subsidized shipping. These calculations can include carrier shipping costs as well as fulfillment costs like packing materials and labor.

Once an order has been finalized, picked, packed, and labeled, a TMS should keep customers notified with proactive order status updates. Intelligent analytics tools record shipping data from which you can pull valuable reports to maintain an informed strategy. And rules based business logic provides on-the-fly access to make instant changes to shipping policies so that changes can be made as the data reveals opportunities.

2 Why Do You Need a Transportation Management System?

Transportation Management Systems have many advantages and are rapidly growing in popularity.

Customer Advantages
- Reduction in shipping costs
- Order Updates
- Branded Post-Purchase
- Integrated Returns
- Enhanced Buying Experience

Company Advantages
- Reduction in shipping costs
- Automated workflows
- Analytics & Reporting
- Rule-Based Automation
- Smart Packaging

What Do Customers Expect?

In an era where giants like Amazon and Alibaba rule the market, online shoppers expect an informed, reliable, fast experience. They want to know exactly what they are purchasing, how much it will cost, and when they will receive their products. They also want to know if problems happen along the way and what shippers are doing to resolve them. When you deliver a top-quality buying experience, staying connected to your buyers throughout the fulfillment and delivery process, you create a best-in-class buying experience that meets or exceeds modern buyer demands.

" Online shoppers expect an informed, reliable, fast experience. "

How Does Shipping Software Power Your Brand Strategy?

Most companies want to offer their buyers a unique brand experience that sets them apart from others in their space. Regardless of whether they are doing business with an omnichannel retailer or a manufacturer, today's buyers usually have numerous buying options. The best way to get the initial sale and keep buyers coming back is a consistently deployed brand strategy.

Shipping is the first touch point that is outside of the control of the seller. But when things go wrong, who does the customer call? Definitely not the shipping company.

Shipping impacts the brand strategy before the purchase is made. Shipping policies and prices, returns guidelines, fulfillment timeframes, and delivery promises impact both the buying decision and the post-purchase experience. Behind the scenes, the invisible decisions are of equal importance. Which warehouse to ship from, which packaging to use, and which shipping carrier or service to leverage also influence how the buyer will view your brand.

Shipping software brings all this information to one place. Access all of your order transportation options and set automated rules based on cost, speed of delivery, and customer input.

Transportation Management Software powers the supply chain and the brand strategy in a variety of proven ways.

1. Proven ROI - Numerous studies have proven the cost reductions realized with the use of a transportation management system. The ARC Advisory Group, a leading technology research and advisory firm, found average freight savings of 7.5% when a TMS is utilized. ShipHawk's data supports cost reductions as high as 25% and average savings closer to 12.5%.

2. Easy to Access - Historically, TMS technology was only available to large companies with massive shipping volumes. Modern technology, cloud computing, and SaaS business models have made powerful TMS software easier to access. Today, businesses of all sizes are realizing the benefits of making transportation management a main business system.

3. Data Driven - Amazon has changed the way we do business. As Amazon has moved from eCommerce to omni-channel retail, manufacturing and distribution, the landscape has become more competitive than ever. To compete, shippers must leverage data. Modern transportation management systems allow every shipper to build a data-driven supply chain.

4. Beyond the Cloud - The real benefits of the cloud are not just fast implementations, automatic updates and universal access. The entire Fortune 500 could use the same legacy TMS and no two companies would benefit from each other's data. A cloud-based modern transportation management system allows everyone to access the highest quality information in real time. Are you paying more than your competitors? Do you have access to the same capacity and delivery services? A modern TMS will tell you.

5. Accessible Anywhere - Gone are the days when shipping data is only relevant to the Operations team. In today's environment, Marketing, Finance, Sales and even IT need access to accurate shipping information. A modern TMS will keep this data accurate and up-to-date across the entire organization.

6. Proactive - Don't wait 30 or 45 days for a carrier invoice to arrive before fixing costly errors. A modern TMS provides the tools to make changes as they come up. In addition, it will allow these changes to be made without having to wait for IT to make them. A modern UI will allow anyone to keep the supply chain functioning properly, reducing margin erosion due to unforeseen shipping issues.

7. Eliminate Errors and Damage - Automation removes human decision making that result in costly errors and high damage rates. Leverage data to setup automated workflows that squeeze every ounce of efficiency out of the fulfillment process and make the right decision every time.

8. Reduce Customer Service Calls - By keeping customers updated proactively, companies are able to reduce customer service contacts while increasing post-purchase Net Promoter Scores and increasing repeat purchase rates.

3 When Should You Integrate a TMS into Your Plan?

There is different software for different stages of business. There are also different products for different needs.

A small or micro business moving from Etsy to Shopify, will need different solutions than a mid market business leveraging Magento, or an enterprise moving to a new ERP like Netsuite. Most products are built to service a specific customer type or need, although there are a few platforms offering broader coverage.

No matter what size your business, there is a solution that's right for you. Whether manually label every shipment or you're ready to put fulfillment on auto-pilot and deliver an optimized customer experience of your brand, it's time to shop around for a solution.

Here are a few examples:

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Legacy TMS

MercuryGate - Enterprise

JDA - Enterprise

Manhattan Associates - Enterprise

Truckload only

Convoy

Transfix

Internet Truckstop

API

Easypost

Postmen

Project 44

Freight Forwarding

FreightOos

Flexport

Tracking

Aftership

Narvar

Warehouse and Fulfillment

Ship Wire

Fulfilled by Amazon

Inventory Management

Trade Gecko

Stitch Labs

Fuse Inventory

Label Printing Plugin

ShipStation

Shipping Easy

Shippo

Selection Criteria

Manual processes, system errors, damage, delays, high costs and other similar frustrations are all good signs that it's time to strongly consider implementing a transportation management system.

Before beginning, list out your problems and opportunities.

- ☐ **What is working?**
- ☐ **What isn't working?**
- ☐ **Where do you see opportunities for improvements or innovation?**
- ☐ **If you could dream up the perfect fulfillment operation, what would it look like?**

Next, list specific needs that are unique to your operation.

- ☐ **What modes do you use? Parcel, LTL, white glove, truckload, air, ocean?**
- ☐ **What systems do you need to integrate with? ERP, WMS, eCommerce?**
- ☐ **What carriers or service providers must be supported?**
- ☐ **Do you need multi-carrier rating?**
- ☐ **Do you need cross-mode or multi-mode rating?**
- ☐ **How many locations do you ship from? DCs or brick and mortar stores?**
- ☐ **Do you drop ship? If so, how do you interface with your dropshippers?**
- ☐ **Do you need the ability to book on multiple carrier accounts? Same carrier different account numbers?**
- ☐ **Do you process orders individually or batch process?**
- ☐ **Do you need to integrate with hardware like scanners, scales, dimensioners or packsize machines?**
- ☐ **How do you handle post-purchase tracking?**
- ☐ **Who in your organization needs access to distribution data? Where do they access it today?**

Preparing answers to these questions will not only better prepare you for sales calls with prospective providers, but it will also help you clarify what you really want and need in a new transportation management system.

4 How to Select the Right TMS?

It is vital that your needs are understood and documented in advance. Choosing the wrong platform can actually harm your business rather than help it, which is a good reason to start with a clear understanding of your needs before making a purchase.

This is what you need to know before integrating shipping software into your strategy.

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> "Choosing the wrong platform can actually harm your business."

What Results Do You Want?

There are dramatic differences between the marketing language used and the real results customers can expect to achieve. Shipping is one of those industries where it is easy for vendors to pretend they do it all, when in fact, their software has only surface level coverage.

A great example is packing optimization. A few years ago the major carriers applied dimensional pricing to all shipments. This means that selecting the wrong box can be costly.

There are several solutions on the market that claim to offer packing optimization. Here is the truth:

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- Accounts for characteristics of real items being shipped.
- Can pack and orient real items in boxes.
- Can nest, roll and pack in void space. (This means ShipHawk doesn't cube out every item which results in gross inefficiencies and higher costs.)
- Calculates the final packed weights and dims before the order is fulfilled. This allows the shipper to understand the exact shipping cost in advance.
- Indicates optimal box to fulfillment team.
- Tracks material and labor costs on an order-by-order basis.

Competitor who claims to offer "packing optimization":

- Allows user to set up spreadsheet of inventoried boxes.
- Offers interface for user to manually drag and drop items into predefined boxes. This allows the system to know which items ship in which box.

Knowing why you need packing optimization is important, too.
Do you want to:

- ☐ Reduce shipping costs?
- ☐ Remove steps in your fulfillment process so you can repurpose that labor?
- ☐ Better monitor labor and material usage?
- ☐ Understand your true shipping cost up front so you can improve your pricing strategy?

Not fully understand your needs before making a TMS purchase could result in higher shipping and fulfillment costs.

What to Look For When Buying a Shipping Automation Solution

The right TMS should:

1. Automate order fulfillment
2. Reduce/optimize shipping costs - to the nth degree
3. Remove error-prone manual decision making
4. Support data-driven business rules and logic
5. Increase order margins
6. Provide data in real time
7. Offer a simple, modern interface
8. Be completely configurable
9. Optimize all steps in the fulfillment process
10. Improve the customer buying experience

What Should I Pay?

One of the first things to investigate is pricing and pricing structure. Transportation Management System providers are notorious for complex and opaque pricing. Even after you learn about pricing and agree on terms, integrations, usage, users and other needs can radically change your all in cost.

Some providers offer monthly pricing tiers based on features. Others base their cost solely on the number of orders placed, and others charge by user. Buyers can have a hard time choosing a pricing structure since they are not sure how to compare solutions with different, and frequently confusing, prices. Even if you are established, and you can easily approximate order volume, usage and integration needs, choose a solution with transparent pricing that is easy to understand and plan around. This is the group that can grow with your business as you scale and needs change.

Helpful Questions to Ask about Pricing:

- ☐ What is the all in price?
- ☐ Will you put an all inclusive price in writing?
- ☐ When you say you offer feature X, what does that mean?
- ☐ What happens if my team grows and I need to add users?
- ☐ What happens if my shipment volume grows?
- ☐ What happens if I change systems and need you to integrate into my new system?

In addition to monthly costs, some software providers charge an annual contract fee, setup fee, professional services fee, integration fee, per carrier fee or other fees. Check the fine print and ask your representative what you will be charged in addition to access charges. Regardless of cost structure, the key is to work with a company that is transparent and upfront about their pricing policies. Establishing trust at this stage is key to long-term success.

Does it Integrate With My Business Systems?

In addition to costs, system integration capabilities and requirements is one of the most important due diligence items. Some solutions can't integrate into modern cloud systems and others may integrate, but features and functionality may be limited. It is critical to evaluate every business system that will be impacted by adding a new software to your operation. If done right, a TMS can revolutionize the business, but this takes proper investigation and planning.

Helpful Questions to Ask about Integrations:

- ☐ What ERPs do you integrate with?
- ☐ Can you integrate with my WMS/IMS/OMS?
- ☐ Can you integrate with my eCommerce platform? If so, what features are available within the platform? What are the specific limitations?
- ☐ What carriers and modes do you support? Do you connect with carriers via API or EDI or some other format?
- ☐ How long does the average integration take? How long will my integration and configuration take?

Most companies proudly list integrations on their website. If you don't see an integrations page, pick up the phone and make a call.

"Shipping software is the only purchase you make that has the potential to impact your customers before, during, and after the sale."

Incompatible shipping software leaves you with few options. The first step is to evaluate your current solution. It may be time to make an upgrade. The other option is to figure out why the prospective shipping software provider can't support your system. This may be a red flag indicating other limitations.

Does it Integrate With My Carriers?

There are hundreds of thousands of carriers in the US alone. No platform works with them all. What is important as far as carrier integrations is concerned is a) whether the TMS has integrations with the majors (FedEx, UPS, USPS, YRC, XPO, etc) and whether they are using the latest technology.

Helpful Questions to Ask about Carrier Support:

- ☐ What carriers and modes do you support?
- ☐ Do you support my 3PL/broker?
- ☐ Do you connect with carriers via API or EDI or some other format?
- ☐ How would you integrate a small carrier with dated technology or rate tables?
- ☐ How do you dispatch to smaller carriers without technology?
- ☐ How do you track different carriers with different systems? What will my customers see?
- ☐ What tracking data will be available to me internally and how will it look?

What's the Difference Between API and EDI?

Where integrations are concerned, it's critical to note the difference between a provider that offers API and EDI. EDI (Electronic Data Interchange) is a mode of transferring business documents that is outdated and has many processing delays and errors that are difficult to correct. API (Application Programming Interface) however, is an upgraded approach to data transfer. Your shipping software should use up-to-date integrations to ensure a smooth-running system. Some major carriers are starting to force API integrations.

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Additional Considerations

Number of Admin Accounts

How many people will be working in fulfillment and logistics? Ensure that your ideal software provider allows multiple users with appropriate administrative controls. If you plan to add more administrators to the account in the future, make sure you understand the provider's protocol for adding users.

Label Printing and Packaging

Do you need the transportation management system to print shipping labels? BOLs? Address labels? Commercial Invoices and other international documentation? What about return labels? Is the system compatible with your hardware and workflows? Printing and packaging should meet your cost and branding needs.

Cloud vs Local Installation

The rapid rise and success of platforms like Salesforce doesn't mean that every industry has successfully moved to the cloud. Transportation and logistics is a laggard industry and most shipping software solutions are still on premise, meaning they have to be setup and hosted locally. We call this legacy software. Only modern TMS 2.0 solutions are hosted in the cloud, supporting rapid onboarding, automatic updates, and access from anywhere.

Despite the large number of legacy solutions that still exist, cloud hosting is becoming the standard. On premise frequently means higher up-front costs, on site maintenance, manual, expensive and time consuming updates, difficulty scaling, and ongoing risk of system crashes and downtime.

Helpful Questions to Ask about Cloud Systems:

- [ ] Where is your software hosted?
- [ ] Do you have mechanisms in place to support rapid server scaling to handle volume spikes?
- [ ] Do you have a documented SLA (service level agreement)?
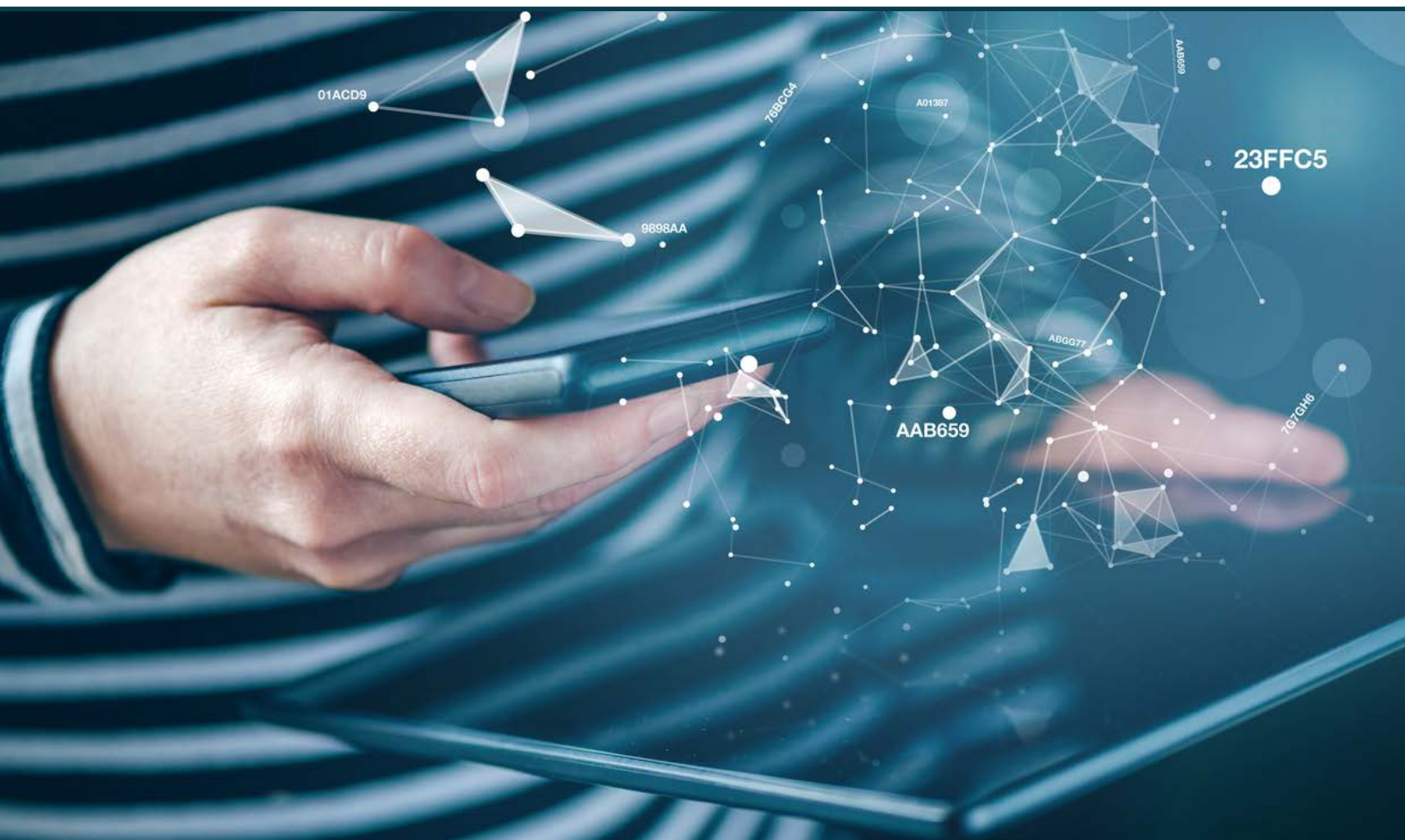
Final steps

As final checklist items, make sure you've seen a demo, been given access to a test account, and spoken to someone from the Product or Engineering team who answers questions the same way as the salesperson.

Once these final steps are complete, you should have all the data you need to make a wise decision and select the best transportation management system for your business.

If you need any help through this process, please feel free to reach out to our team. We are always willing to help you navigate this important decision.

Happy Shipping!

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Speak with one of our transportation management experts or try ShipHawk for free.