

Fulfillment Management

TMS Buyers' Guide

Introduction

The world of fulfillment solutions is vast, with many end to end solutions and point solutions. Keywords like Warehouse Management System (WMS), Transportation Management System (TMS), shipping, wave picking, audit, multi-carrier rating, dimensioners, are frequently thrown around by solution providers but often confuse a company looking at investing in improving the speed, accuracy and costs of their fulfillment process. In this guide we'll focus on one main component of a fulfillment process: a Transportation Management System (TMS).

In addition to TMS, the other major component of fulfillment management solutions is focused on the efficient storage and movement of products in a warehouse, a Warehouse Management System (WMS). Though there are many other related concepts and point solutions, these two solutions, whether leveraged together or independently, are the heart of all fulfillment goals: getting more orders out of the warehouse with greater accuracy and less labor. We have an accompanying guide for WMS linked [here](#).

This is not a guide to ShipHawk solutions, but rather one that aims to help you figure out what your company needs, and when. To get in touch about anything in this guide, [please contact us](#).

Table of Contents

1. How to Involve Key Stakeholders	2
2. Understanding Your Business Needs	3
3. Essential Metric and KPI Considerations	4
Essential Metrics	4
Essential KPIs	5
Key Considerations When Buying a TMS	7
4. How to Select a Vendor	8
5. Features and Functionalities that Matter	9
6. How to Prepare for Implementation	10
7. Pitfalls and Mistakes to Avoid	11

TMS Buyers' Guide

In the rapidly evolving landscape of logistics, TMS—a Transportation Management System, also known as advanced shipping software, has become a pivotal tool for transforming the approach to shipping and supply chain operations. Extending beyond basic logistics management to provide a comprehensive suite of advanced features, a TMS offers an expansive, rather than pin-pointed logistics solution.

Within this guide, we show the pivotal role that a TMS plays in optimizing transportation processes. As businesses navigate the complexities of the market, investing in a TMS becomes imperative for achieving efficiency, cost-effectiveness, and strategic decision-making. In order to figure out which TMS is right for you, it is essential to grasp the unique features of your order workflow—taking into account factors such as the nature of shipped products, staffing details, roles, packaging procedures, shipment processes, and visibility criteria maintained by both the shipper and admin—in order to know how and where you want to improve it.

One of the first steps in evaluating your own company's processes and flows is to make sure that the right people are at the table.

How to Involve Key Stakeholders

In the process of buying a TMS, involving key stakeholders is crucial for a successful and effective buying process. The engagement of the right individuals and the timely inclusion of essential perspectives can significantly impact the decision-making and implementation phases.

Key Recommendations:

- **Identifying the Right People:**
 - The success of the TMS buying process depends on involving individuals who bring the right expertise and perspectives.
 - Having the right smallest group as possible, including both functional (operations) and technical (IT, CTO) experts, is essential for a comprehensive understanding of requirements but also not having too many voices stating their opinions.
- **Avoiding Overcrowded Meetings:**
 - When there are too many participants (e.g., 10 people) on an evaluation of a solution, the efficiency of the discussion may suffer.
 - Streamlining the involvement of a focused group helps in maintaining a productive and purposeful dialogue.

- **Documenting Requirements and Features:**
 - Documenting the top 10 requirements and features is a proactive step to guide and structure discussions during the buying process. This documentation serves as a reference point, ensuring that key considerations are addressed systematically. The importance of this step cannot be overstated, as it is the result of you and your team having done a thorough analysis of your own fulfillment and logistic growth points.
- **Early Leadership Involvement:**
 - Delaying the inclusion of leadership (operations and technical) in the buying process can lead to wasted time and repeated efforts.
 - Getting leadership involved early ensures alignment with organizational goals and prevents the need for redoing aspects of the buying process.
- **Early Operations Involvement:**
 - Some customers make the mistake of not involving their operations team until a week before going live.

Timely involvement of operations in the buying process is essential to address operational requirements and avoid last-minute challenges during implementation. In addition, your operations team can often offer the best perspective on how processes actually work, rather than hypothetically. Make sure their voices are heard both during the self-evaluation and buying phases.

Understanding Your Business Needs

The journey towards finding the right TMS involves recognizing the unique needs of your business. It's important to acknowledge that a one-size-fits-all solution may not be the most optimal choice, especially given the varied interpretations of a TMS among different providers. Discovering the right TMS necessitates a thorough understanding of your business needs, for factors such as customization, scalability, integration, usability, cost, and vendor support. This meticulous approach ensures that the selected TMS not only addresses your current needs but also strategically positions your organization for future success. Shippers are seeking relief from the complexity of managing multiple-point solutions, for a singular, trustworthy partner to collaborate with as their business expands. The biggest rule of thumb here is that you should never utilize a fulfillment strategy in order to not do something internally, but rather to proactively seek partners who can help you achieve concrete goals. In other words, outsourcing a problem is not going to fix it!

Essential Metric and KPI Considerations

When considering TMS options, it's essential to focus on relevant metrics and Key Performance Indicators (KPIs) that align with your business goals.

Essential Metrics:



Availability of Warehouse Workers:

- How many warehouse workers are on the floor?
- What is the potential impact if a key person responsible for a crucial role calls out sick?
- How might the implementation of this TMS influence both your team dynamics and the efficiency of the hiring/training process?



Seasonal Fluctuations in Order Volumes:

- Can this TMS solution handle seasonal changes in order volumes?
- What does onboarding time look like for new employees?



SLA Adherence:

- Monitor Service Level Agreement (SLA) adherence to meet customer expectations regarding order processing and delivery times.



Packing Efficiency:

- Evaluate the efficiency of the packing process by analyzing packing time per order, number of mis-ships or amount of wasted space/materials.



Current Operational Practices:

- Assess existing workflows, understand how tasks are performed today, and identify areas for improvement.
- What is the order throughput per worker?



Order Processing Times:

- Determine how much time it takes to process an order. It is also important to define this to your vendor, as different companies have different definitions for this metric.
- What is the life cycle of an order?
- What is the estimated processing time for shipping out an order?

Essential KPIs:

Before and After - Order Throughput:

Before Order Throughput:

Measures the rate at which orders were processed before implementing changes.

Formula:

Total Orders Processed/Time Period

After Order Throughput:

Measures the rate at which orders are processed after implementing changes.

Formula:

Total Orders Processed/Time Period

Before and After Labor Costs for Fulfilling Orders:

Before Labor Costs:

Assesses the total labor expenses associated with order fulfillment before any changes.

Formula:

Total Labor Costs for Order Fulfillment

After Labor Costs:

Assesses the total labor expenses associated with order fulfillment after implementing changes.

Formula:

Total Labor Costs for Order Fulfillment

Before and After Orders Shipped Within SLA:

Before Orders Shipped Within SLA:

Measures the percentage of orders shipped within the agreed-upon SLA before changes.

Formula:

$(\text{Number of Orders Shipped Within SLA} / \text{Total Number of Orders}) * 100$

After Orders Shipped Within SLA:

Measures the percentage of orders shipped within the agreed-upon SLA after changes.

Formula:

$(\text{Number of Orders Shipped Within SLA} / \text{Total Number of Orders}) * 100$

Before and After Shipping Costs:

Before Shipping Costs:

Evaluates the overall costs associated with shipping before any changes.

Formula:

Total Shipping Costs

After Shipping Costs:

Evaluates the overall costs associated with shipping after implementing changes.

Formula:

Total Shipping Costs

Before and After Materials Costs:

Before Materials Costs:

Assesses the overall expenses related to materials used in the fulfillment process before changes.

Formula:

Total Materials Costs

After Materials Costs:

Assesses the overall expenses related to materials used in the fulfillment process after changes.

Formula:

Total Materials Costs

Monitoring these KPIs before and after implementing changes provides valuable insights into the effectiveness of process improvements, cost optimizations, and overall supply chain enhancements. Many buyers, unfortunately, dive into the process without a comprehensive understanding of their own operational benchmarks. For instance, expressing a need to "ship faster" is a common goal, but without defining how much faster and assessing the current duration it takes to ship an order out the door, the path to success remains ambiguous.



Key Considerations When Buying a TMS

- **Problem Solving Objectives:**
 - Clearly define the challenges or inefficiencies that the TMS will solve. Outline specific problem areas such as delayed shipments, manual processes, or lack of visibility. This list should be created by all stakeholders involved in fulfillment operations.
- **Targeted Metrics for Improvement:**
 - Identify the KPIs that the organization seeks to improve. This could include metrics like on-time delivery rates, transportation costs, order fulfillment times, number of mis-ships, and overall areas you are looking to increase supply chain efficiency.
- **Legacy or Modern Software:**
 - Evaluate the advantages of a TMS built on modern technology or based on legacy systems. Modern software is more likely to offer advanced features, better integration capabilities, continuous improvements, and ongoing support for emerging technologies.
- **Scalability:**
 - Assess the scalability of the TMS beyond just adding more features. Look for a solution that can adapt and grow with the changing needs of the organization, accommodating increased transaction volumes and complexity.
- **Workforce Efficiency:**
 - Consider how the TMS contributes to reducing the reliance on hiring additional personnel. The goal is to enhance workforce efficiency and productivity through automation and streamlined processes.
- **Consistent Performance and Uptime:**
 - Prioritize a TMS with a track record of consistent performance and high uptime. Reliable software ensures that critical fulfillment operations are not disrupted, leading to more reliable supply chain management.
- **Customer Support Commitment:**
 - Evaluate the vendor's commitment to customer support. Look for data or references that demonstrate how quickly the vendor responds to customer needs or resolves support tickets. Accessibility and responsiveness are crucial for ongoing success and if the vendor will not provide a reference, steer clear.
- **Onboarding Timeframes:**
 - Assess the expected onboarding times for implementing the TMS. A reasonable onboarding process minimizes disruptions to daily operations and allows the organization to start benefiting from the TMS as quickly as possible.

● **Customer References:**

- Seek and review customer references to gain insights into the experiences of other organizations with the TMS. Real-world feedback can provide valuable information about the system's effectiveness, ease of use, and vendor support. Look for a mix of case studies, reviews on third-party websites including ERP marketplaces or general review sites, and reference calls.

● **Total Cost of Ownership (TCO):**

- Calculate the total cost of ownership, considering not only the initial investment but also ongoing maintenance, upgrades, and any hidden costs. A comprehensive understanding of TCO ensures budgetary alignment.

How to Select a Vendor

Selecting the right vendor is a critical decision that can significantly impact operational efficiency and long-term success. As of this year, the trend leans towards the unification of systems, emphasizing the importance of a seamless integration that accommodates future growth.

Cost Considerations and Effective Management:

Delving into the financial aspects, it's crucial to carefully examine the cost considerations associated with both the purchase and implementation of a TMS.

Scalability for Future Growth:

Scalability emerges as a pivotal consideration, emphasizing the foresight required to plan for future growth. This aspect ensures that the chosen TMS can adapt and expand along with the evolving needs of your business.

Unification of Systems:

In the current landscape, there is a discernible trend towards the unification of systems. This underscores the importance of seamlessly integrating various systems, prompting buyers to pose essential questions about the management of different systems, technical debt, and the unification of multiple systems.

Challenging Vendors for Transparency:

Buyers are urged to pose essential challenges to vendors, in part by asking them to substantiate their claims with live demonstrations, thereby ensuring the solution can do exactly what the vendor claims it can do. And don't be shy about asking vendors for customer references!

Cloud-Based Solutions for Efficiency:

Exploring the benefits of a cloud-based solution adds another layer of consideration. This includes easier management, streamlined maintenance, and reduced IT costs, offering potential efficiency gains for your TMS implementation.

Overlooking Training Time:

In the comprehensive approach to TMS vendor selection, one often-overlooked element is the significance of training time. Emphasizing this aspect highlights its importance in the overall implementation process, ensuring a smooth transition and adoption of the selected TMS.

Features and Functionalities that Matter

A common misconception in the buying process is that an available feature automatically translates to a suitable solution. Make sure that you and your team don't rush through the solution consulting stage, but instead dive deeper to discern if a feature aligns with both your functional and available requirements. If they have a feature you need, make sure to ask and see how it will work specifically for your business use case.

Key TMS Features

High Level Features

Integration: ability to integrate with shipping carriers (parcel and LTL), WMS, ERPs and shopping carts

Visualization: insightful visualized real-time analytics that can show high and low performing workers, processes, shipments, carriers, and more

Channelization: support for various omnichannel workflows' diverse order profiles and sales channels

Flexibility: ability to rate parcel and LTL orders at the same time for the same order

Globalization: support for cross-border options that consolidate and distribute shipments to regional delivery networks, declared value, HTS codes, countries of origin, delivery and duty prepaid options to expedite customs

Ease of Use: Intuitive navigability means minimal training and no workers frustrated by complexity or errors

Access: works on any browser/device

Specific Features

- Domestic US Parcel
- Domestic US LTL Freight
- Global Parcel
- In-Cart Rate Shopping
- Address Validation
- Item Pack/Scan Verification
- Standard Reporting and Analytics
- Integrated Weight/Scale Support
- Integrated Dimensioner Support
- Configurable Shipping/Business Rules
- Virtual/Drop Ship Warehouses
- Blind shipping (alternate return addresses)
- Cartonization and Teach Mode
- Advanced Auto Printing
- Batch Processing
- Serialized/Lotted Inventory
- Return Labels
- Reference Number Mapping for Carriers
- Command Barcodes and Scannable Packing Materials
- External Shipments
- Ready to Ship mode
- Branded Tracking and Customer Notification
- Custom Carton/Pallet Labels and Packing Slips
- Multi-Origin Shipping
- Dangerous Goods/HAZMAT
- LPN/Tote support
- Configurable shipping documents
- Advanced user permissions
- Advanced ERP Audit Logs
- Master Packs/Kit configuration
- Automated Event-Based Webhooks
- Order Consolidation
- Prebuilt Workstations
- Customized Configurable Workstations
- Custom Reporting and Analytics
- UPS Mail Innovation Rate Card
- Child Accounts

How to Prepare for Implementation

The TMS implementation process is a critical phase that demands a well-defined plan and active engagement of key stakeholders. To ensure a seamless transition and avoid common pitfalls, it is imperative to emphasize best practices.

Best Practices:

Timing Considerations

Caution should be exercised against choosing busy periods or peak seasons for implementation, as this may lead to inadequate resources.

Support Collaboration

Buying a TMS is not merely a transaction; it should be viewed as a partnership. Buyers should inquire about the provider's implementation support and account management to ensure ongoing success after the go-live.

Key Questions to Ask:

To ascertain the level of support and partnership offered by the TMS provider, consider asking the following key questions:

- Does your support have an endpoint?
- Do you provide lifetime Account Managers?
- At what customer level is a named personal Account Manager assigned?
- What level of technical support is available?

By addressing these questions during the selection process, buyers can establish a comprehensive understanding of the support structure and account management practices, facilitating a more informed decision-making process.

Pitfalls and Mistakes to Avoid

Common Pitfalls and Mistakes:

- **Insufficient Needs Assessment:**
 - Failing to thoroughly identify and understand the specific requirements and operational needs before implementing the software.
- **Ignoring Scalability:**
 - Neglecting the consideration of a system's ability to handle increased order volume or adapt to growing demands and new systems over time.
- **Lack of Integration Planning:**
 - Failing to plan for the seamless integration of the new software with existing logistics systems, third-party services, and other relevant technologies within the company.
- **Inadequate Training and Change Management:**
 - Not providing sufficient training for staff and neglecting strategies to manage the transition to the new software, leading to potential disruptions in operations.

● Ignoring User-Friendliness:

- Neglecting the importance of choosing systems and interfaces that are easy to use and understand for the end-users.

● Underestimating Implementation Time and Costs:

- Miscalculating the amount of time and resources required for the successful implementation of the new software.

● Overlooking Vendor Support and Updates:

- Neglecting to consider the availability and quality of support from software vendors and the importance of regular updates to address evolving needs and challenges in the logistics industry.

● Neglecting Future Technology Trends:

- Failing to anticipate and incorporate emerging technologies or trends that could impact the relevance and longevity of the implemented solution.

● Inadequate Security Measures:

- Not implementing sufficient measures to secure the software and its data from cyber threats, unauthorized access, or potential breaches that could compromise sensitive information.

● Failure to Plan for Customization:

- Neglecting to anticipate the need for customizations of the software to accommodate unique business processes, industry regulations, or evolving requirements within the company.



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To learn more about this guide or about ShipHawk TMS, contact us.

Schedule a call