

# supply chain strategy

A newsletter from the MIT Center for Transportation & Logistics

## Options to Weigh When Choosing a TMS Solution

A guide to moving transportation

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**WHEN COMPANIES EXPERIENCE A DECLINE** in profitability, a shift in business priorities, or a major change in management, they are often forced to rethink and change their transportation strategies to reduce costs. But balancing the trade-off between the immediate cost of switching strategies and the long-term savings can be challenging.

Implementing a transportation management system (TMS) is one way to reduce costs and gain efficiencies. Here are some guidelines that will help you navigate through the different TMS options and choose one that is right for your supply chain and your business.

### Three Routes

There are three major ways to implement a TMS: license the TMS from a software provider and manage it in-house, license and host the TMS with a software provider, or out-source to a third-party logistics (3PL) provider.

Implementing a TMS offers proven benefits, including the ability to gain control over your transportation processes and experience long-term savings. But each solution offers pros and cons that require careful consideration (see table). Therefore, companies should evaluate which option is right for their company.

Here are some factors to take into account when weighing the pros and cons of the three primary ways in which you can implement a TMS solution.

### Licensing a TMS and Managing It Internally

Companies that consider managing a TMS in-house must meet several major requirements to ensure long-term success. They must be able to:

- Have ongoing access to enough IT resources to meet ever-changing business needs;

- Develop specific business processes that take advantage of a TMS; and

- Recruit, hire, and train qualified transportation professionals.

When the objectives that led to a TMS purchase aren't realized, it's typically because of a failure in one of these three areas.

### Scenario 1: ROI Change

Soon after Company A licenses a TMS and begins managing it in-house, it goes through an acquisition. Because its IT resources are currently committed to long-term integration projects (enterprise resource planning), the transportation department is left without IT resources for adding the new business to its TMS solution, which severely limits any business synergy. During integration, *all* TMS enhancements are put on hold.

While the idea of managing everything in-house is appealing to many companies, it may not be worth the overall cost. This option can lead to less-than-desirable results with a much higher than anticipated cost.

### Licensing and Hosting a TMS With a Software Provider

If a company rules out managing a TMS internally, it might consider having a software provider host the TMS. This option doesn't require installation on the company's hardware, so all the company has to do is set up the software and run it.

This option has low up-front costs and fast implementation, but it still requires having transportation professionals on staff to manage and operate the system. Companies must factor in the ongoing investment in training and the issue of

retaining the logistics department's staff. Many companies have limited career paths for transportation professionals, and it is not uncommon for logistics employees with software training to take jobs at other companies to further their careers. When licensing a TMS, the company will generally also have to pay continual ongoing maintenance and support fees related to the TMS, which can vary annually from 18 percent to 25 percent of the total license costs.

### Scenario 2: High Turnover

After determining that managing a TMS internally is beyond its scope, Company B decides to use a software vendor to host its TMS. Initially, this decision works out well, but over time, the company's trained staff leave to pursue opportunities with larger companies that offer higher pay for their expertise. Company B ends up incurring additional, unexpected training and recruiting costs that eat away at its long-term savings, and, more importantly, uses its TMS sub-optimally.

Before deciding to have a software provider host your TMS, consider how you will retain your trained staff and avoid the turnover that will lead to a loss of valuable employees and an increase in recruiting and training costs. If a company is unable to retain trained staff, it may experience the

same type of imbalance between costs and savings as if it had managed the TMS internally.

### Choosing to Outsource to a 3PL

Since there are many outsourced TMS models available, companies should fully investigate all options that prospective 3PLs offer and choose the one that best aligns with their business. The most popular 3PL solutions are (1) the single source and (2) the lead logistics (4PL) model. Since there is more than one model, your first consideration is to determine which one is right for your business.

For companies with smaller transportation spends or less head count, a single source may offer the greatest potential value. The single-source solution combines all the benefits of the TMS and established carrier relationships. This model can solve capacity challenges. The 3PLs are also likely to provide the customer with lower freight rates due to their broad access to capacity and purchasing power. An additional benefit is that the customer negotiates all the rates with one 3PL provider rather than with many carriers.

It is important to consider a complicating factor in the single-source model: 3PLs make a margin on the difference between what they charge to their customer and their cost

## TMS PROS AND CONS

### TMS Option

License the TMS and manage internally

### Pros

- Use own IT staff to implement and maintain the software
- Low ongoing licensing fees

### Cons

- High up-front costs
- Longer, more complex, and expensive implementation
- Requires trained staff to learn, manage, operate, and maintain the software
- Mid- to long-term software maintenance costs
- Ongoing IT dependency

License and host the TMS with a software provider

- Low up-front costs
- Minimal IT dependency
- Short implementation

- Ongoing leasing costs
- Requires trained staff to learn, manage, and operate the software
- Need to interface existing order system with the TMS

Outsource to a 3PL

- Low up-front costs
- Minimal IT dependency
- Short implementation
- Includes professional TMS operations staff

- Ongoing outsource costs
- Need to interface existing order system with the TMS

of hiring capacity. If the 3PL is not incentivized and measured on service results, the customer may not receive an optimal solution, the business relationship might fail, or the customer may change 3PLs. This problem can be avoided by setting clear pricing and service objectives up front. Using external benchmarks is a best practice in this model.

### Scenario 3: Single Source 3PL Hopping

Company C chooses to single source with a 3PL and saves a significant amount of money. Over the next three years, there are periodic rate increases. Eventually, the company shops the market and finds a provider who can do the work for less. But moving from 3PL to 3PL in search of the lowest bidder causes Company C to once again incur the costs of running the request for proposal, implementing new TMS solutions, and retraining, which significantly cuts into any potential savings.

With the lead logistics model, alignment of goals is less of an issue. The company receives full visibility to underlying rates, and the 3PL provides dashboards and reporting to help meet its strategic goals. The company sends orders to the 3PL in exchange for tracking, tracing, and payment information. In this model, costs can be fee-based (pay-as-you-go), so as your business changes, your costs go up or down (respectively) in tandem.

The 3PL also provides the professional operations staff to run and update the software for you. This minimizes the issue of staff turnover, since 3PLs are typically larger organizations that have the resources and career paths necessary to hire and retain seasoned transportation professionals.

Often, because the 3PL employs trained TMS professionals, it's possible that fewer resources will be required for operations than if the company hired staff on its own.

The staff comes at a cost, since the 3PL will charge a fee for providing staff to run the TMS.

Regardless of which outsourcing model you choose, remember that most of the knowledge and expertise about your transportation will be housed outside of your

#### [Key Takeaways]

- » One way to reduce costs and increase supply chain efficiency is to change the way you manage transportation by adopting a transportation management system (TMS).
- » There are three main routes to a TMS and each one requires careful thought if you want to arrive at a solution that not only meets your immediate cost and efficiency targets but is also aligned with your business strategy.

organization. While many companies view this as a negative, outsourcing the day-to-day operations to the 3PL allows a company to pursue more strategic issues, such as improving carrier performance or changing processes to increase on-time deliveries. If executed correctly and over the long term, outsourcing a TMS with a 3PL can be a successful model for companies to save money with limited investment.

### Final Considerations

With all the TMS options available, companies should consider each option carefully to determine which will strike the optimal balance between cost and savings. It is imperative that you determine a direction before creating an RFP. If you choose to license a TMS, your RFP should focus on the specific types of software features you need to implement your TMS. If you choose to outsource, the RFP should emphasize the kind of dedicated people and resources your business needs for a successful outsource relationship. The focus is simply different.

Before making a decision, companies should ask the all-encompassing question: Do we want to save money on our budget or on the results? Taking this question into consideration will help you make the right decision for your business and avoid the costly mistake of sacrificing long-term savings for what looks like the cheapest option. ♦

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