BY JIM PAPINEAU AND DAN GOODWILL

we're all in the transportation business

That's why even small companies can benefit from the insights, efficiencies, discipline and cost reduction that an automated transportation management solution can provide

Every company that ships products to customers on a regular basis – and which does not now employ some form of automated transportation management and execution system – can reduce costs and improve customer service by adopting the appropriate TMS solution.

It is rarely a question of whether a TMS should be used; it is more a question of, "Which one and how should it be used for my business?"

Let's review some of the underlying reasons for deciding to use a TMS, plus considerations of selection, implementation and how ongoing use should be managed to ensure that benefits are fully realized.

They may not be acting as professional transportation service providers, but companies with products to distribute must manage transportation execution to effectively service their customers. By definition, "commerce" embraces product trade and exchange and this requires products to actually be moved about in order to earn revenue. Whether or not the revenue will support a profit depends on how efficiently all parts of the company's supply chain are managed and executed – including the transportation component of the product-to-client activity.

To appreciate the critical role of transportation execution for most businesses, consider this: until a product is actually in the customer's hands, it is merely a bucket of costs which need to be offset by revenue. Without the efficient, reliable and cost-effective execution of the transportation activity, the costs to produce products cannot be profitably offset by revenue.

What is a TMS?

Think of any other process-specific application businesses you currently use, like order entry, inventory management, ERP, and even accounting. They all capture and verify data, provide tools for viewing, editing and reporting data, and usually have some ability to be configured for a company's specific needs, frames of reference (terminology), process timings and integration with related or adjacent business process applications.

A transportation management solution will do all of these things with special focus on the primary transportation elements to be managed:

- Shipments or orders;
- Customers to whom orders will be shipped;
- Carriers or other transportation service providers;
- Transportation rates by carrier – with details such as origin/destination, weights, commodities, service time, etc.;
- Rules or decision guidelines regarding which carrier is to be used for a specific destination/service/cost requirement.

With these elements as core components, TMS applications can range from simple structures designed to capture and maintain the data regarding carriers and rates to much more complex TMS solutions capable of managing an unlimited number of carriers, shipments and customers, and providing sophisticated decision support regarding carrier selection, shipment consolidation and routing on an order-by-order basis. At this level of transportation management capability, the TMS will also support shipment status visibility and automated data exchange within the company (between other applications) and between the company and its trading partners, such as carriers, customers and others via EDI (and its variations).

This internal and external data exchange capability is a hallmark of even modestly sophisticated TMS solutions since it addresses the "commercial" heart of transportation activity. It ensures that accurate and timely shipment data is shared along the supply chain (carriers, customs agents and officials, customers, etc.) to maximize transportation efficiency.

Some examples of this type of data integration and exchange include:

- Shipment order details are imported from internal sales or warehouse order systems;
- Customer location and delivery details may be sourced or at least validated with master customer data info also used for sales, accounts receivable, etc.;
- Shipment data can be transmitted directly to carrier systems (EDI) to ensure correct data is used in their provision of service, rating and invoicing;
- Customs clearance data may be sent to agents or into border clearance systems;

Scope – Starting off with Realistic Expectations

The decision has now been made to acquire a TMS. The company has recognized the potential for improving several areas of cost and efficiency:

- Consistently using the mode/carrier with the best cost/service for a specific order destination;
- Increasing shipment processing throughput – more customers served in less time;
- Generating carrier compliant shipping documents and package labels;
- Negotiating favourable rates based on carrier service and shipment volume data;
- Always obtaining the correct, negotiated freight rate for every shipment;
- Minimizing the use of express shipping services and their higher rates;
- Reducing sales recovery costs and refunds through improved delivery reliability;
- Reduced customer service cost through increased shipment visibility and follow-up;
- Reduced cost and increased accuracy of sharing data internally between departments;
- Reduced cost of freight rate auditing and payment processing.

The list can vary (for the better) depending on scope and the baseline level of transportation efficiency existing prior to adopting a TMS.

Scope is an important consideration when starting a TMS implementation effort. Departments and processes being automated for the first time, or being upgraded after a long period of inattention, are often saddled with the expectation of massive improvements and a quick ROI. A basic TMS implementation will bring significant process and execution improvements in terms of discipline, improved throughput, organized and consolidated information, and simple visibility and awareness. Many benefits will be a by-product of the newly consistent and reliable transportation management.

The recommendation to start at a basic scope level rests on a few important lessons from many implementation projects:

- Build on success using increments of scope and functionality to minimize risk;
- Adopt reasonable benefits expectations and ROI timelines;
- If it is a brand new automation effort, target tangible benefits to be realized in phases;
- A failed or compromised implementation is a barrier to making further investments.

A well-scoped and implemented modest solution is better than a poorly implemented elaborate solution – the modest one will get used and can be progressively enhanced.

However, for many companies, there certainly is a place for complex, sophisticated TMS solutions. Further enhancements and upgrades will come as you gain an understanding of what a TMS can and should do for your company, considering its scale, market competition demands and strategic plans. No company starts out on the TMS journey with this level of insight, but starting the entire process with modest and reasonable expectations will ensure a positive and cost-effective progression to the right level of sophistication.

Selecting the Right TMS Solution

The prime selection criteria revolve around:

- Complexity of shipments to manage (volumes, geography, transportation modes, etc.);
- Single or multiple-site shipment origination;
- Single or multiple business units to be supported, integrated (or not);
- Existing IT environment and capabilities;
- User experience preferences – to leverage best practices;
- Access requirements of internal users (internal network, remote, Web);
- Access/visibility offered to customers and partners (and by which preferred methods);
- Price relative to benefit value.

Commercial TMS solutions do exist that address all of these considerations either in their basic form or after some configuration. Structured analysis of a company's current and planned business profile, current and expected shipping patterns, technical environment and user community is the first step in determining which sub-set of TMS vendors should be considered, followed by a formal proposal and selection process.

TMS vendors use two basic deployment architectures for their solutions:

- Purchased (or leased) and hosted by the client in its own IT environment;
- ASP or SaaS (Software as a Service) – Vendor hosts the application which is accessed by the company, its customers and partners.

In both cases, the TMS solution can be tailored and configured for each company's transportation needs and scale. Deployment architecture is not usually a differentiation factor with respect to functionality, but it can be very important in regards to support and flexibility, the desire to integrate (or not) with a company's existing IT infrastructure and regarding preferred access methods for internal and external users.

Implementation Issues and Steps

Except in the smallest businesses, implementing a TMS will not be a simple plug-and-play exercise. But with appropriate analysis, planning and project management, the implementation time and complexity can be kept to a minimum. Implementing a TMS system with basic functionality can take as little as 30 to 60 days. More complex applications can take several months or more.

Most commercially available TMS solutions have fairly quick and straightforward implementation procedures. However, the type and extent of transportation process re-engineering the company is targeting must be thoroughly understood and built into the plan for an implementation to be successful and effective.

During the TMS selection process, a comprehensive analysis will have been done to document the company's transportation profile and its IT environment/integration requirements. This becomes the starting point for planning the technical and the business functionality aspects of the implementation effort. This earlier analysis will also have included forecasted scale and business direction, which will be reflected in the configuration of TMS functionality parameters and in the hardware, communications and

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• Selecting and implementing a suitable TMS solution to realize these benefits;
• Using the TMS system as planned and intended – or adapted as needed.

This last step is critical for realizing the value of the TMS – and the full value of negotiated carrier rate and service commitments.

• Use the TMS to manage and execute the transportation plan. Use it to select carriers offering the right service at the right price, as negotiated and formalized in contracts. Otherwise all that negotiation effort is wasted and price and service advantages may be missed.

Beyond execution of the transportation plan, the TMS will track and report shipment volumes, carrier load acceptances and refusals, on-time service, cost and service by carrier so that future negotiations are better informed and therefore more effective. It may be that these performance and cost reports identify actual shortcomings in previous carrier service and price negotiations that can now be corrected. However, if the TMS is not being used diligently, then none of these planned benefits or cost and service insights can be fully achieved.

Like everything else in business, change is the only constant, therefore review the transportation decision plans embodied in the TMS configuration (which carriers for which service to which destinations) on a regular basis and adjust them as needed to make sure that sub-optimal transportation decisions are not automatically being executed. Once again, the KPI reports (Key Performance Indicators for cost and service) will be valuable tools for monitoring the linkage between the transportation plan and current business objectives for volume, service and profit. But these reports will only be useful for plan review (and carrier negotiation) if the TMS has been used as intended for executing specific transportation plan processes and activities.

Summary

• A TMS can reduce transportation costs and improve customer service.
• Commercial TMS applications exist to meet the unique transportation needs of most companies involved in the manufacture and distribution of products.
• Successful implementations employ solid business leadership and standard project management techniques.
• Successful implementations will provide hard actionable data to direct and control all facets of your freight transportation programs. CT&L

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