



# **Intro to Transportation Management Systems (TMS)**

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## Business Case for a TMS

Value	Savings Percentage
Optimized Route	7 – 28 %
Optimized Rate/Mode	3 – 8 %
Improve effectiveness of operations	2 – 7 %
Control transportation centrally	2 – 9 %
Automate settlement	3 – 5 %
Leverage inbound/outbound across enterprise	3 – 12 %
Utilize spot bidding, bid boards to augment contracts	7 – 18 %

A Transportation Management System provides many different levers that can realize significant cost savings building a strong return on investment for Harsco. While actual returns may vary due to the unique characteristics of each business, experience has allowed us to develop some common Return on Investment (ROI) guidelines. These estimates should be helpful in determining how TMS capabilities may be able to deliver value to your business.

If Harsco could conservatively capture between 5%-11% of freight spend (~\$15M) based on the average of these percentages, they could realize up to \$900K - \$1.7M in potential savings.

## TMS opportunities for cost-savings

**Contract Management** – Online support of contracts and rates in a real time shared environment can enhance the communication of vital information across the enterprise. A true rate comparison across all modes not only enables correct core carrier selection but optimal use of modes results in freight cost savings. The cost of administering this information is greatly reduced through a web-native process. Client contracts that represent uplifts or unique discounts provide a unique method to share price information in addition to cost. This pricing/costing exercise is normally a time consuming and manual process. Estimated ROI can exceed 25% of the current costs of communication and administration of this process.

**Carrier Compliance** – The capability and support where the correct contracted carrier is consistently selected based on cost and service. Combined with the Contract Management function above, cost-effective negotiated contracts can be leveraged across the entire corporation throughout the region/world! Conservative ROI is estimated at 3-5% of total freight cost.

**Mode Shift and Aggregation** – Improved operational capability that allow a business to use optimal or efficient or correct modes of transportation. Aggregation allows multiple shipments to be consolidated reducing the possibility of utilizing inefficient or incorrect transportation modes thus greatly reducing the per shipment cost and tonnage rates. Estimated ROI ranges from 2-6% of total freight cost.

**Multi-Division Optimization** – Users across divisions or companies are allowed to combine shipments thereby developing routes that are mutually beneficial. The broader view generally provides more saving opportunities. Estimated ROI at 6-12% of total freight costs.

**Communications and Integration** – EDI and VAN costs are often a very large cost component of gaining visibility and linkage with transportation data such as ASN notification, status updates and tender processes. New methods of direct linkage, transport technologies and mapping capability can greatly reduce the costs typically associated with these activities. Estimated ROI can exceed 80% of total communications costs.

## TMS opportunities for cost-savings (continued)

**Visibility** – A huge advantage is the capacity to integrate information from communications and operations across your enterprise to authorized users. Advanced visibility can provide cost benefit in a number of different ways. In-transit status and the reduction of pipeline inventory can yield significant savings results. Additional value is derived from improved customer satisfaction based on real time availability of data. Visibility ROI goes far beyond simple costs savings however exact estimates vary widely from business to business.

**Proof of Delivery** – While agreeably hard to demonstrate true dollar value, visibility to what is delivered is a valuable aspect of a TMS. With the increased scrutiny on company financials, accurate revenue accruals are essential to business operations. A TMS will capture and display status messages from any carrier from any mode when goods are actually delivered. These status messages provide the kind of detailed backup required in today's demanding financial scrutiny allowing companies to accrue revenues quicker and with more confidence! POD provides valuable carrier and supplier compliance information but also provides the triggering mechanism to execute the settlement process; improved efficiency of POD helps in speeding up the cash cycle for billing.

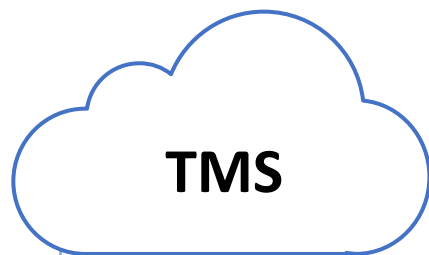
**Settlements and Freight Bill Payment** – Automation of Freight Bill Payment activities can have a significant impact on streamlining your business. Cost savings from electronic transmittal of rated payment information, electronic payment and automated match pay in a shared environment can all drive large efficiencies and cost savings. Time and costs associated with allocations, accruals and disputes can be greatly reduced while improving accuracy and information availability. Estimated savings and ROI results can exceed 50% of the cost of administering and auditing current freight bill process administration. This does not include the benefit of accurate and timely support of financial processing.

**Process Improvement/Automation** – Typical transportation processes are traditionally manual, labor intense and re-active in nature. A TMS is designed to support best of breed transportation processes and provide a pro-active, manage-by-exceptions environment. The improvements in operations and administration allow resources to be allocated to productive cost reducing and revenue generating activities.

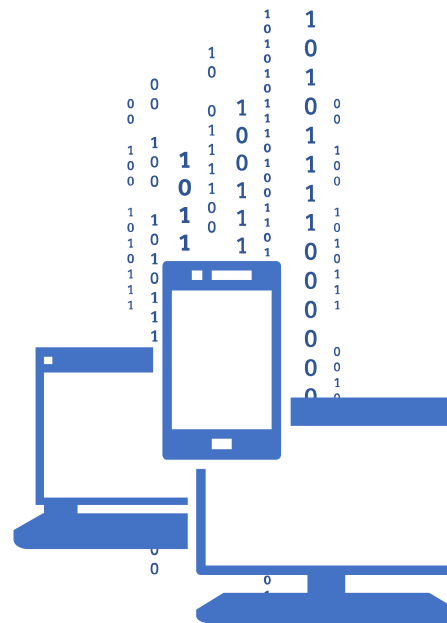
# Transportation Management Systems (TMS) connects your entire Logistics Ecosystem



ERP, WMS



- Customers
- Production sites
- Suppliers
- Storage locations



Web – EDI  
Mobile – Telematics



- Carriers
- Freight forwarders
- Shipping lines
- Rail operators
- Barge operators
- Airfreight

Logistics community