



The Guide to the Digital Revolution & Technology Shaping Less Than Truckload Shipping

A PUBLICATION OF CERASIS



A white wireframe dome graphic is positioned in the upper left corner of the page, partially overlapping the white content area. It consists of a series of concentric circles and radial lines forming a hemispherical shape.A vertical bar is located on the left side of the white content area, composed of three stacked rectangular segments: a green top segment, a teal middle segment, and a dark grey bottom segment.

INTRODUCTION

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Taking Everything Into Consideration

Demand for LTL is likely to increase in the coming months as more companies look to the new administration with hopes for decreasing barriers to domestic manufacturing and exports to other countries. Consequently, the rise in demand for capacity and subtle increases in LTL shipping costs will require shippers look for innovative ways to keep costs down and manage their LTL shipping strategy; more shippers will need an LTL TMS. However, not all TMS solutions are created equal, so knowing the core functions of quality systems encourages positive returns and further enhances your reputation and capacity as a shipper.

With so many variables going into LTL shipping, data, software-as-a-service (SaaS) systems, artificial intelligence, cloud-based system, technology and everything in-between, it is easy to feel overwhelmed. But, Cerasis can help you with all those challenges and possibilities and give you access to the original LTL-dedicated TMS system, the Cerasis Rater. It is time to move into the next generation of LTL shipping standards, and your moving partner is ready to help you.



EDI vs. APIs in Less Than Truckload Shipping: How Do They Compare & What Should a Shipper Use?

What About API?

APIs are comparable to EDI, but they have a basis in web-based protocols. They enable any system to communicate with one another without the challenges found in EDI implementation and management. In addition, APIs have several benefits that make it ideal for use in the transportation industry, which include the following:

- **API provides real-time data.** Real-time data lets shippers see exact costs for LTL shipping right now.
- **It eliminates the barriers to data retrieval and use in legacy systems,** reports William B. Cassidy of the Journal of Commerce. Since EDI systems require like systems to transfer information, they are limited in their capacity to interact with other, more advanced systems. APIs can interact with multiple systems via their universal nature.
- **API is a cloud-based technology.** API is also a cloud-based technology, so it can be maintained and updated without disrupting shipping operations.
- **It is fundamental to Big Data analytics.** Big Data and analytics are only as good as the accuracy in the data mined. In other words, recent data is critical to using analytics to their fullest potential.
- **API costs less to implement.** Implementing an API costs less than EDI, but testing during implementation can cause systems to crash.

How Does API Impact LTL Shipping?

The direct impact on LTL shipping from implementing an API can lead to significant benefits for shippers. This includes, but is not limited to, the following:

- **Data-based carrier selection for LTL shipping reduces cost.**
- **Carriers can make cost determinations based on supply and demand (capacity and demand).**
- **Shippers have more information to use in decisions.**
- **API automates carrier selection and information sharing.**
- **API takes less time to process.**
- **It reduces risk in shipping.**
- **LTL shipping is easier to manage and use.**

Should Shippers Use API or EDI?

The debate continues among transportation executives and industry experts about whether API or EDI reigns superior. Upon review of the literature available, including the past year's reports of changes in APIs, Cerasis predictions and increasing "talk" about APIs online, shippers and carriers appear to be moving toward better technology, toward APIs. EDIs will continue to be around for some time, but like all trends that promote business, APIs will eventually replace EDIs in their entirety.

APIs are only part of LTL in the shipping industry, and as a result, your company needs to understand how machine learning, artificial intelligence and automation will naturally follow an API-based industry.

Less Than Truckload Technology: Will Machine Learning, AI & Automation Solve Shipping Problems?

Freight shipping has relied on the same systems for years, ranging from manual entries to a constant struggle in balancing delivery windows with costs. However, the pressure for tighter, faster and more deliveries has increased to a point where the only solution is change. According to William B. Cassidy of the Journal of Commerce, truck capacity is not tight; it is simply hidden from view. Meanwhile, technologies, like machine learning, artificial intelligence (AI) and automation, will catalyze a reinvention of the transportation industry and less-than-truckload (LTL) shipping above all other modes. Before these changes can happen, shippers need to understand a few things about LTL shipping challenges and ways these technologies will impact them.

What Are the Major LTL Shipping Challenges?

The major issues with LTL shipping derive from assumptions shippers make during carrier selection. Some of these problems include the following:

- "Not all carriers handle LTL shipments," so finding a carrier that offers LTL shipping at a competitive rate is difficult at best.

- Poor transit time occurs as some carriers place LTL shipments on the proverbial backburner, resulting in delays.
- Carrier rates may vary. This problem tends to go unnoticed unless a transportation management system (TMS) is used to compare carrier rates side-by-side.
- Deadhead results in higher costs. Every mile driven without using cargo space is lost money to carriers and shippers alike. However, freight consolidation and LTL shipping can use technologies to reduce deadhead and increase profitability.

Machine Learning Will Enable Adaptive, Predictive Pricing Models.

Machine learning refers to computer systems, including cloud-based TMSs, that consider historic data and use it to improve the system's existing processes. In a sense, this is an automatic process, but it can be leveraged to define new routes, find lagging systems and errors in shipping practices and replace electronic data interchange (EDI) systems. In addition, machine learning is adaptive, so data coming into the system increases its efficiency and capacity to provide value for shippers and carriers. Moreover, machine learning will power adaptive, predictive pricing models, eliminating risk from misclassification or incorrect carrier selection.

AI Will Gradually Replace Manual Processes.

Think of AI as machine learning on steroids. It functions through an ongoing series of algorithms and internet-connected devices, the Internet of Things (IoT), to make data-based decisions before shippers overlook something. This is an important change in how small and mid-sized shippers operate, enabling rapid scalability and unmatched accuracy in both invoicing and shipping through LTL carriers.

For example, shipper A uses manual processes to manage invoices. Over one year, the shipper pays up to 50-percent higher costs due to double billing. But, shipper B uses AI, enabling automated payments and auditing within the system. It finds billing and compliance issues and implements changes, like triggering chargebacks, to carriers. Thus, billing is corrected, and the physical resources needed to process LTL shipments decreases.

An additional use of AI includes the use of embedded analytics to evaluate factors influencing an LTL shipment's rate, explains DC Velocity, considering possible delays and issues, giving shippers more information before selecting a carrier.

Automation Will Reduce Errors and Enhance Existing Shipping Practices, Reducing Problems.

AI also relies on automation, but for the purposes of this discussion, think of automation as systems that auto-populate data and replace the standard operations performed by people.

People are reactive. Shippers see a problem when it reaches the point of causing a disruption in the supply chain. But, automation can be used to identify the indicators of a forthcoming disruption before they come to fruition. Like changes in weather patterns that increase the risk of flooding. As a result, routes can be automatically adjusted to circumvent the problem. This is based on a proactive, not reactive, risk management strategy within the supply chain.

Now, consider the impact of automation in LTL shipping and last-mile delivery. Automated delivery via drones or hand-held scanners upon delivery increase delivery accuracy. In addition, automated tracking of shipments ensures visibility to consumers, carriers and shippers. As a result, customer service levels increase, safety increases and the product cycle continues.

Automation rests on the cornerstone of making the best carrier selection for each type of shipment, big or small. In LTL shipping, certain carriers have already switched to dimensional pricing models (DIM pricing), that considers weight and shipment dimensions in rate determination. With a growing number of shippers and local carriers working to meet the demands of e-commerce, automation is essential to maintaining today's companies' operability.

Could This Technology Replace Everything?

Automation, AI and machine learning are a triad of technologies that improve upon one another. These technologies overlap, producing many grey areas that can improve supply chains and reduce the "legwork" in LTL shipping. Furthermore, the technologies have the potential to replace all human jobs in shipping, but that possibility is far from the capacity of today's technologies. For shippers concerned



about the economic impact, consider how a change in technology standards will result in the need for more skilled workers to manage and develop such systems.

It is a shift away from traditional shipping practices to a digital-driven workforce and series of best practices. Unlike terminal-based systems of the past, these technologies reside the cloud, serving to empower new generations of technological systems that will enhance and propagate efficiency and resolution of LTL shipping challenges.

Next, it is important to consider how technology begets better collaboration among vendors.



Less-Than- Truckload Inbound Shipping: Using Technology to Stay Collaborative With Vendors

Less-Than-Truckload Inbound Shipping: Using Technology to Stay Collaborative With Vendors

Chances are good that you have had the unpleasant surprise of learning your vendors used a carrier you dislike. Even worse, the selected carrier charged way more for your vendor than the rate negotiated with your company!

This example highlights the need for better vendor-shipper collaboration, but it is still a shipper-facing problem. While vendors are supposed to adhere to your inbound freight routing guide, manual processes result in lower compliance rates. However, modern technologies can help you reach 99-percent, if not perfect, compliance rates among all shipping modes, including those with high risks, like less-than-truckload (LTL) shipments, reports Lisa Terry of Inbound Logistics.

In fact, a vendor management portal or module will enhance visibility and help vendors and shippers work together in astounding ways, ranging from better procurement processes and strategy to less reliance on internal IT resources.

Inbound Shipping in TMS Ensures Vendor Compliance With Inbound Freight Routing Guides.

The key to keeping costs down in LTL inbound shipping goes back to vendor compliance with freight routing guides. Not selecting the right carrier or delivery times could mean extra costs and longer delivery times to consumers. But, modern vendor management systems, including those within the Cerasis Rater, can ensure full-compliance with a shipper's inbound freight routing guide and reduce the problems with traditional prepaid and add carrier payments.

For example, shippers using an automated system are billed directly at discounted rates by an authorized carrier through the system. As a result, vendors do not have to worry about prepaid shipping charges and reimbursement shippers. In other words, vendors lack the freedom to select just any carrier, bound to the

stipulations within your inbound freight routing guide. Furthermore, shippers can focus on keeping both inbound and outbound costs down, critical factors in offering discounted or free shipping via consumer-facing retail channels.

Technology Offers Automatic Freight Classification and Rates.

Part of the allure of technology applied to inbound freight through a TMS comes from its ability to generate bills of lading upon requesting a rate, reports and costs associated with inbound shipments. A central location stores the information and helps keep both vendors and shippers aligned with the overall goals of moving more product and finding valuable ways to engage with consumers, becoming more marketing-strategy focused.

A TMS Can Handle Exceptions to Inbound Freight Guidelines.

There will be times when an existing inbound freight guide does not specify how vendors should proceed with shipping new or oversized items. Consequently, the risk for selecting a high-cost carrier and passing the bill along to shippers increases. However, modern technologies, like the Cerasis Vendor Management Module, can handle exception requests, reducing disruptions and adhering to other rulesets to find the best price and prompt carrier for inbound freight.

Technology Ensures Continued Access to Latest Inbound Routing Guide Information.

An effective inbound routing guide must reflect recent changes in carrier rates, fees, market demand, duties or tariffs and new products, explains Deborah Catalano Ruriani of Inbound Logistics. Unfortunately, manual processes for managing inbound freight can be misconstrued and result in errors. Yet, LTL inbound management systems ensure continued compliance even after an update to the guide. In addition, shippers can rely on the system to make automatic carrier selections and prevent shipment via unauthorized or low-preference carriers.



Today's Systems Cut Problems Finding or Managing Carrier Information.

Traditional inbound freight meant vendors had to keep track of the routing guide and carrier information alike. While it seems easy, remember that there may be dozens, if not hundreds, of last-mile carriers and LTL carriers working in various regions. Fortunately, modern technologies automate the process, eliminating unnecessary calls to obtain carrier information and schedule pickups or deliveries to shippers.

A Connected System Maximizes Use of Big Data to Enhance Product Cycles.

Cloud-based vendor management systems use Big Data to enhance product cycles too. Analytics find correlations among information, giving both vendors and shippers an opportunity to reduce deadhead, increase cost-effectivity per shipment and optimize routes and workflows. As a result, profitability and efficiency increases across the supply chain. This also benefits inventory control, especially when new tracking technologies, like radio-frequency identification (RFID) and automated data identification and capture (AIDC) tools are used concurrently with a system. Additionally, connected, centralized systems enable multi-site use and control over inbound freight.

Technology Cuts Unnecessary Touch Points.

LTL and last-mile shipping has an inherently higher number of touch points, but every touch point increases risk. However, vendor management systems optimize routes, palletizing and use of intermodal shipping. Therefore, the number of touch points decreases, increasing accountability and reducing risk.

It Acts as an "After-Hours" Service, Reducing Use of Internal IT or Help-Desk Resources.

An effective vendor management system may perform the services traditionally handled by an after-hours service desk. Since the process is automated, shippers can proactively manage all current and future shipments, and if an unscheduled shipment is needed, shippers can log in to the system and complete the respective fields to schedule and process the inbound shipment from any location with internet connectivity.



What Is the Overarching Benefit of Technology for Inbound LTL Shipping?

Collaboration is the ultimate benefit of technology in inbound LTL shipping practices. When vendors and shippers work together, the supply chain functions as a conveyor belt, eliminating redundancy, increasing efficiency and driving costs down. Of course, technology makes this level of collaboration possible. But, it begs the question, “How does a shipper know what data to track to make the most of LTL shipping?”

Keep reading to find out.





What Less-Than- Truckload Data Should a Shipper Track?

What Less-Than-Truckload Data Should a Shipper Track?

How do shippers know if their carrier selection process for less-than-truckload (LTL) shipping is working? The answer is simple; shippers must track the right data. Knowing the proper metrics and data points to track promotes cost-effective shipping practices and can improve vendor, carrier and consumer relationships, reports Merrill Douglas of Inbound Logistics. Unfortunately, there are thousands of data points shippers can track, but the most prominent indicators include these LTL metrics.

1. Cost Per LTL Shipment.

First, shippers should track the average cost per LTL shipment. This measure may vary, but the key lies in tracking the average costs across multiple carriers. Thus, shippers can identify trends toward lower-rate carriers over time. In addition, shippers should track the average cost of LTL against other shipping modes. Since most shipments are sent via road, LTL cost tracking is among the best ways to identify baseline changes in shipping cost.

2. On-Time Performance.

The best-laid plans and metrics to track LTL shipping are only effective when a high on-time performance score exists. Monitor on-time performance as an extension of delivery-acceptance rates. In other words, poor on-time performance may lead to increased rate of returns and additional costs to the company.

3. Freight Damage.

Freight damage occurs, but it should not be occurring frequently and without reason. Shippers tracking damage need to also track average costs associated with damaged freight, including returned items, refused shipments, insurance claims and changes in insurance premiums.

4. Billing Accuracy.

Next, shippers should only pay for what they send, but the volume of today's shipments can amount to millions of invoices and occasional problems in billing. Monitor on-time payments to and from vendors, and verify all sent payments for accuracy. If a carrier does make an error, like double billing or under-billing a shipment, make sure the issue is corrected. All occurrences should be tracked to identify trends and issues with the carrier's billing system.

5. Inbound Freight Routing Guide Compliance.

Vendors and suppliers are businesses too, but that does not mean they can skirt the rules in the inbound freight routing guide. Track each vendor's adherence to routing guide rules for compliance. If issues appear consistent, consider punishing the vendor by altering delivery windows or renegotiating contract terms.

6. Accessorials as Part of Total Freight.

Accessorial charges, like re-delivery attempts or fuel surcharges, should be tracked against total shipping costs. In addition, this metric can be broken down into individual modes, allowing shippers to track the accessorial charges of LTL shipping against total LTL costs.

7. Percent LTL Selection Against Total Shipments.

LTL shipping has the greatest potential for errors and problems due to frequent stops and more touch points per shipment. However, it is often the lowest-cost shipping solution when used in conjunction with freight consolidation and route optimization. Shippers need to track the percent of total shipments using the LTL mode.

8. LTL-Capacity Available Versus LTL-Capacity Used.

Over the past year, industry experts have pointed to a coming capacity crunch. To ensure your company is using LTL shipping correctly and to meet capacity demand, track the available LTL-capacity against LTL-capacity used. In other words, if you have capacity available in your LTL shipping, you may be losing.

money. This data point indicates if LTL availability could be used in place of other modes that may cost more or require longer delivery windows.

9. Number of EDI/ API Invoices.

A successful shipper needs to know how many shipments are going out, as well as the inventory of items shipped. Track the total number of electronic data interchange (EDI) and application program interface (API), two automated systems, processing invoices. These systems should also be tracked in comparison to billing accuracy

10. Acceptance Percentage of LTL Shipments.

Track the percentage of LTL shipments sent against those returned or refused. This results in both an acceptance and refusal rate, indicating likely problems with the carrier.

11. Percent of Internal Resources Used.

Each shipment uses internal resources, but your carrier and third-party applications may be considered external resources for shipping. Track the percentage of internal and external resources used per shipment and for total shipment volume. Consider labor and equipment costs as well to pick, package and send freight via LTL.

12. LTL Carrier Performance Scores per Carrier.

The last metric may include all aforementioned metrics relevant to specific carriers, but its primary use is in assigning a performance score to each carrier. The score provides a quick reference sheet for preferred carriers, and if using an automated system, performance scores can provide leverage during contract negotiation and legal issues, if they arise. The simplest way to determine performance score is by creating a scorecard that contains all carrier-specific metrics and assigning an average value to the carrier's dealing with your company.

What Else?

Staying profitable in a world driven by e-commerce is hard and may require unexpected investments. However, you can increase your company's profitability and decrease costs by managing your inbound and outbound freight through data. In addition, today's systems, like the Cerasis Rater, built with transportation business intelligence in mind, can help track these metrics by analyzing shipping patterns and system use to give you a better idea of how you can leverage LTL shipping to improve your bottom line.

When you think about it, this goes back to increasing LTL truckload tracking and visibility.



Less-Than-Truckload Tracking & Visibility: Why Shipper Communication & Carrier Transparency Matters

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E-commerce has been like an oil boom in the manufacturing and shipping industries. According to the National Retail Federation, reports Rich Weissman of Supply Chain Dive, more than 108 million Americans shopped online during the weekend following Thanksgiving. This means millions of more packages in need of last-mile delivery and less-than-truckload (LTL) shipping.

Since e-commerce shipments already have a substantial risk of returns, shippers must do everything possible to make the experience for consumers positive, including relaying proper instructions and needs to carriers and supporting carrier transparency. In fact, proper communication and visibility in LTL shipping leads to these key benefits.

Shipper Communication Ensures Carriers Understand What Is Happening.

Carriers are not omnipotent beings; they are companies that need shippers' correct, prompt information. The keywords are "correct and prompt." When a shipper does not relay information as needed, the entire delivery window can be affected.

Additionally, carriers that have information can take both proactive and reactive measures to ensure on-time delivery to consumers.

Consumers Demand Transparency and Visibility.

Modern consumers can find out absolutely anything via the internet. While this has created online personas capable of reordering preferred products and creating unique marketing campaigns, it also created a problem. Consumers want immediate satisfaction and explanation for all discrepancies between their expectations of a product and company and what actually happens.

If an item does not arrive on time, 47 percent of consumers refuse to shop with the same retailer again. More importantly, 94 percent of consumers blame the

retailer for any problems, even if it was the fault of the carrier. Thus, retailers have the greatest pressure to ensure maximum visibility and transparency.

Automated Pricing Encourages Consumers to Complete a Purchase.

Another factor to consider involves LTL shipping rates. Rates may change due to a variety of reasons, including changes in fuel cost, political turmoil in areas and Mother Nature. However, retailers with millions of orders to fill do not have the luxury of calling ahead and negotiating rates with carriers per shipment. This is where automated LTL pricing and freight estimate calculators can have a major impact.

When a shipper does not offer free shipping, consumers will want to know their shipping cost before completing a purchase. As a result, an automated shipping calculation is essential to closing online sales. Consequently, up to 13 percent of shippers outsource carrier selection and LTL shipping practices to third-party logistics providers (3PLs), like Cerasis, explains Jeff Della Rosa of Talk Business & Politics.

Automated Shipment Updates in LTL Shipments Lend Themselves Naturally to Meeting the ELD Mandate.

In tandem with automated freight classification and rating, shippers seeking better visibility need to automate tracking updates and equipment. Later this year, the electronic logging devices (ELD) mandate will take effect, requiring all carriers install automated systems to track mileage and over-the-road hours among truck drivers. This technology can be combined with tracking updates to provide real-time visibility into a shipment's location, especially among LTL drivers during last-mile delivery. The technology also has benefits for monitoring climate within a delivery van and access to the truck.

A Better View Into LTL Practices and Activities Enables Better Control Over Your Supply Chain.

Even the Big 3 carriers in the U.S. do not have it all. In other words, the largest carriers in America may not be able to complete LTL and last-mile delivery at

better rates than local companies. As explained by Roger Morton of Material Handling and Logistics, the key to finding the best rates lies in carriers' understanding of a shipment's route, destination and delivery window. This information is only possible through communication, and due to the volume of shipments, automated route optimization tools can help shippers select the best carrier-combination per shipment.

The need to work with multiple carriers is not limited to shippers; logistics technology providers and carriers have already started forming partnerships to make visibility and load-tracking a priority among all modes, including the frequent-stop nature of LTL shipping, asserts DC Velocity.

Strong Visibility and Communication Increases Accuracy in Reporting and Analytics.

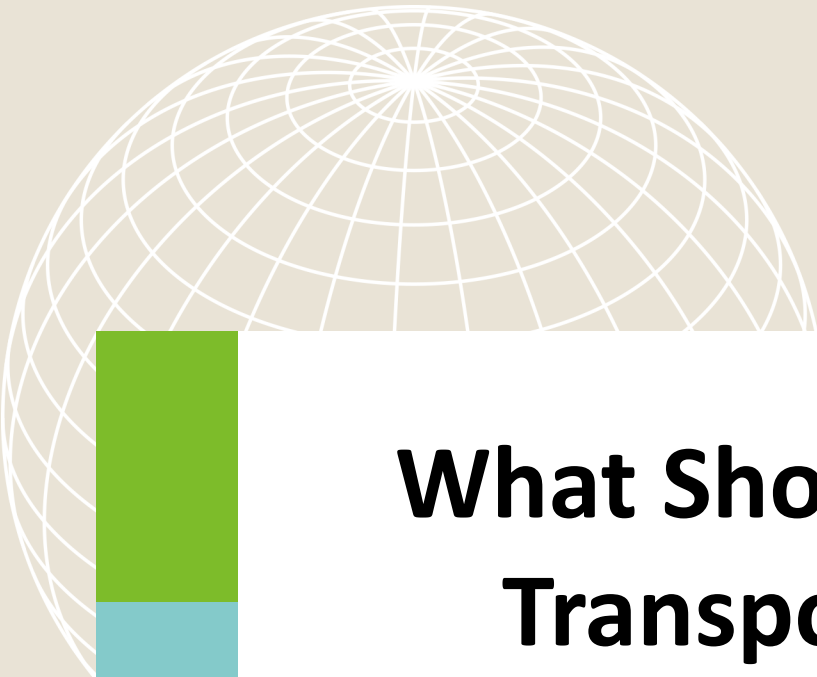
Shippers engaging in international trade face serious risks, including unexpected delays when importing goods to the U.S. Since the approval, or refusal, to accept goods can be based on point of origin, safety and accuracy in documentation, having a strong tracking (read logistics visibility) program in place to verify shipment details is critical to on-time delivery. Moreover, tracking information feeds directly into reporting systems and analytics, so outdated information from poor tracking systems can lead to inaccurate or unsuccessful reports and insights. A shipper needs access to the latest, real-time data for shipments, and this information needs to be kept in a central location, making accessibility easier as well.

What Does It All Mean?

Shippers, carriers and consumers need to be on the same page 100-percent of the time. Even the smallest error can result in the loss of future purchases and additional damage if a customer becomes angry and expresses his frustration through social media. Shipper-carrier communication and transparency are even more critical in shipments involving frequent stops and more touch points, like LTL shipping and last-mile delivery.



As a shipper, you need to think about how these benefits and effects of strong shipper-carrier-consumer visibility and communication can improve your profitability. You need to know how to stoke the fires of these relationships, and having the right LTL transportation management system is key. But, what does a LTL-based TMS really do?



What Should an LTL Transportation Management System Do for Me as a Shipper?

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“Unsustainable.”

That is the word being used to describe the state of the logistics industry in 2017, reports William B. Cassidy of the Journal of Commerce. While it may not describe everything in supply chains, it does accurately describe the overhead costs today's shippers and carriers have enjoyed recently. Last year, the 2016 State of Logistics Report alluded to rising shipping volume, partially responsible for decreased overhead costs, as a driving force behind declining overhead costs across all modes of shipping. Unfortunately, that hopeful decline appears to have stalled.

Less-than-truckload (LTL) shipping has been amid a capacity crunch. More consumers are ordering products through e-commerce platforms, and the demand for no-cost shipping by consumers has become critical to the foundation of today's omni-channel businesses. In addition, consumers want to know exactly where their products are, why they are taking so long to get there (even if it is only two days), and what shippers will do to fix it?

This sounds frightening to shippers faced with tough decisions in raising product prices or maintaining profitability. Rather than looking at it with only two options, shippers need a third solution; they need to take advantage of an LTL transportation management system (TMS), focusing on how leveraging today's systems, like the Cerasis Rater, can maintain profitability and drive expenses down. Yet, nearly two in three shippers have not yet implemented an LTL TMS, reports Bridget McCrea of Logistics Management, so being able to select the right one with the right bells and whistles is essential.

What Modules Should an LTL TMS Offer?

Think about the benefits you want from your TMS. This may include reduced

costs, load optimization, better carrier selection, flexibility, better levels of customer service, increased inventory management, accountability and transparency. To achieve these results, a quality LTL-based TMS must include the following modules:

- **Reverse Logistics.** Up to 30 percent of e-commerce sales come back as returns, reports Stacey Rudolph of Business2Community. Therefore, any LTL system must consider reverse logistics in every function.
- **Vendor Management for Inbound Freight Management.** Vendor compliance and management of inbound freight are also essential to positive returns on an LTL-based TMS.
- **E-Commerce.** Omni-channel sales are kind of the modern economy, so being able to handle increased volume and demand due to increased sales means your system must have wide scalability.
- **A Mobile App.** While a mobile app, like the app developed for the Cerasis Rater, may not seem essential, it reduces the workload and stress you experience when dealing with peak shipping periods, like the holidays.
- **Reporting and Insights.** Analytics systems and automated reporting help you make data-based decisions, so LTL selection and costs decrease.
- **Integration Capability With Existing Systems.** If you have an existing system, your new LTL TMS must have integration capabilities.
- **Automated Carrier Selection.** Finally, automated carrier selection must be an option to ensure scalability.

What Are the Key Capabilities of a TMS?

In addition to offering modules designed for enhancing LTL shipping options, a true, LTL-based TMS must also use four key capabilities throughout every module. These include the following:

- **Shipment Consolidation.** Shipment consolidation is the natural precursor, and by some definitions, the natural companion to LTL shipping. Shipment consolidation can lower costs across LTL shipments by combining existing LTL shipments for last-mile LTL delivery. In other words, shipment consolidation should be considered a fundamental aspect of leveraging LTL shipping to drive overall shipping costs down. Since consumers want their products yesterday, consolidation is key to moving more products, across bigger distances and at no cost to consumers.

- **Route Optimization.** Next, route optimization must be included in all LTL TMS solutions. Route optimization systems use maps, real-time data, like weather and traffic reports, and comprehensive analytics to find the most efficient and cost-effect route. As a result, products can get to consumers faster, and an optimized route will reduce fuel and labor costs per shipment.
- **Freight Estimate Optimization.** A perfect world would be just that, perfect, but shipping is not perfect. Consumers change their minds, and nature can throw a curve-ball. Freight estimate optimization is comparable to having an endless stream of “what if” scenarios in determining a route and best shipping mode. Pairing freight consolidation with this concept leads to better carrier selection and optimum cost reductions. Moreover, this information can be used to make better shipping selections in the future through reports and analytics.
- **Money Matters.** A shipper is only as good as the amount of money that comes in consistently. In other words, even the best products will eventually fail if consumers stop reordering and lose interest, but another thing that can drive away consumers is inflated costs and billing issues. The same holds true for shippers and carriers using LTL shipping. Payment and financial functions are critical to an LTL-based TMS and should include shipment reconciliation, generation of bills of lading, auditing of bills, automated match-pay systems and identification of inaccurate billing practices, like over-, under- and double-billing.

Summary: Taking Everything Into Consideration.

Demand for LTL is likely to increase in the coming months as more companies look to the new administration with hopes for decreasing barriers to domestic manufacturing and exports to other countries. Consequently, the rise in demand for capacity and subtle increases in LTL shipping costs will require shippers look for innovative ways to keep costs down and manage their LTL shipping strategy; more shippers will need an LTL TMS. However, not all TMS solutions are created equal, so knowing the core functions of quality systems encourages positive returns and further enhances your reputation and capacity as a shipper.

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systems, artificial intelligence, cloud-based system, technology and everything in-between, it is easy to feel overwhelmed. But, Cerasis can help you with all those challenges and possibilities and give you access to the original LTL-dedicated TMS system, the Cerasis Rater. It is time to move into the next generation of LTL shipping standards, and your moving partner is ready to help you.



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CONCLUSION

LTL Efficiency Gained from Best Practices, Technology, Fundamental Execution and Expert Help

If you are a small shipper, saving money on shipping is crucial to your business. Thanks to the internet, consumers are able to compare price between competitors in a matter of seconds. Because of the recession, consumers are price-driven and will purchase the item with one of your competitors for a minimum savings.

One way to be able to be more competitive is to lower your shipping cost. How do you do this? I hate to break it to you, but it's a catch 22. In order to get big discounts with LTL carriers is to have volume, but you can't get the volume because your shipping rates are too high. Now, let's level the playing field. Working with a third party logistics provider can offer you tremendous savings since generally their LTL freight spend is in the millions. For years, food distributors have been forming co-ops, by combining the freight spend of several hundred companies, into one. Think of a third party logistics company as a co-op.

Beyond just the volume, a third party logistics provider can help you with many things such as providing a transportation management system, help with freight accounting, and freight management services such as claims, carrier relationship management, and more.

If something like LTL is a focus for your company, it makes sense that you seek out a company to work with who is focused themselves on what your needs are and can provide that service expertly at a long term value. Whatever your needs are, write them down and when seeking out a logistics provider, make sure they are focused on YOUR needs by offering solutions. You can find our great blog post resource on giving you a checklist to figure out your needs and begin the process of finding the right 3PL for YOUR company's needs.



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For example, at Cerasis, we are considered a logistics provider, and our niche is less than truckload freight management (although we also support full truckload and small package/parcel) in North America (US, Canada, and Mexico). We believe this focus allows us to get the most value for our customers' Less than truckload freight. LTL freight management is a transportation mode to ship your freight which requires a transportation manager to have the ability to juggle many things in order to maximize efficiency and maintain overall transportation costs. There are not any reliable LTL load boards, such as in Full Truckload, nor is it as straightforward as the small package marketplace mastered by FedEx and UPS. Shipping LTL is a complex, process heavy, and hard to measure way of procuring transportation for your freight, unless you are lucky to have the talent, resources, and flexible smart technology. As companies grow, and they ship more LTL freight, it gets harder and harder to manage and feel confident you are making the right decisions to continue customer satisfaction and proper management. By focusing on this niche, we have really maximized our expertise, and our customers, who ship freight, get that benefit of years of experience. Therefore, our freight shipping customers get more long term sustainable value through our transportation management system and expert freight services which focuses on less than truckload freight management.



We hope you enjoyed this educational e-Book on how technology & the digital revolution is shaping LTL Shipping.

Cerasis, a transportation management company founded in 1997, has always believed in the use of technology to improve process to not only reduce cost but to stay strategic, competitive, and have the ability to use data from technology to continually improve. In fact, one of our core values is just that: continuous improvement of our people process and technology.

We built our Cerasis Rater TMS in 1998, launching it as web-based before Google was even a business. Our (now Army, as our Development Manager, Jerel Byrd calls them) development team are always continually improving the Cerasis TMS, as we know it is vital to have a system that is not only innovative, but sound, secure, and enables those in transportation to do their job all while doing it cost effectively.

Are you using a TMS to help manage your transportation department as a shipper? What are you seeing in the space?

In addition to our transportation management system (TMS), the Cerasis Rater, when you are a Cerasis shipper, you gain access to the following managed services:

- Transportation Accounting to include: Invoice auditing, one weekly invoice no matter how many shipments, and freight payment services
- Comprehensive end to end freight claims management: if your freight is damaged or lost, we will handle the freight claim on your behalf
- Carrier Relations: We will negotiate rates on your behalf and you get better rates thanks to our buying power
- Inbound Freight Management
- Reverse Logistics
- Robust Analytics and Reports
- Small Package Auditing
- Small Package Contract Negotiation
- Warehousing
- International
- & More!

Want to learn more? Visit <http://cerasis.com>



**Get a Demo of our TMS or Inquire
About Our LTL Shipping Services**

Learn More

