The Complete Guide to Intermodal Transportation

Everything you need to know about intermodal logistics and transportation
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2. Intermodal vs Truckload Shipping: A Side-by-Side Comparison
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There are several options for logistics managers to choose from when it comes to fulfilling their shipping requirements. When considering different strategies, shippers’ main goal is to balance lowest price with best service.

One shipping strategy worth noting in maximizing the combination of price and service is accomplished through intermodal freight transportation.

**Door-to-Door Intermodal Transportation** leverages the efficiency of rail and the flexibility of truckload to bring together best price and service into one freight mode.

**AAR (Association of American Railroads)** outlines the intermodal journey starting at the manufacturing facility where the intermodal container, which is affixed to an intermodal chassis, is loaded with a shipper’s freight then driven to the origin railroad ramp via a dray motor carrier. Once the container arrives at the intermodal ramp it is lifted off the chassis and placed onto a wellcar. The train cars then move the intermodal container across the railroad network for the largest portion (in miles) of the shipment. Upon arrival at the destination intermodal ramp, the container is then transferred to a chassis for a truck to get under it and deliver the freight to its final destination.

There are two types of intermodal: Container-On-Flatcar (COFC) or Trailer-On-Flatcar (TOFC). Under the TOFC model, the over-the-road (OTR) trailer is placed directly onto the wellcar versus an intermodal container. COFC is more cost effective because four containers can be loaded onto a wellcar versus only two trailers can be loaded.
Intermodal Transportation is a **reliable, efficient way for shipping freight efficiently**. However, its potential has been heavily undervalued on shipments of 700 miles or more because of a number of misconceptions and lack of understanding of how to best integrate intermodal into a logistics and supply chain successfully, which is what we are here to cover over the coming paragraphs.

Both truckload OTR shipping or intermodal freight transportation has its place within shippers’ logistics and supply chains.

To find the best strategy for a specific shipment, it is important to compare intermodal and truckload side-by-side, which we will do below by reviewing **11 different situations shippers find themselves in to help identify the strengths and weaknesses of each mode.**

**COST**

Cost can sometimes come at the sacrifice of lower on-time percentages for pick-up and / or deliveries, but that is not the case when looking at intermodal versus truckload. For **freight lanes that are a good fit for intermodal** a shipper can expect to save 10% to 15%.

**Winner: Intermodal**
Managers wanting to utilize intermodal transportation must take into consideration the length of railroad hauls. Intermodal averages out to be a truck transit, plus a day when moved on the same [class I railroad](https://example.com). If the freight needs to be interlined between two [class I railroads](https://example.com), intermodal transportation averages to a truckload transit, plus two or three days. Length of transit is important to note while choosing shipping methods as it pertains to how shipments are scheduled out through a period.

**Winner: Truckload**

**LENGTH OF HAUL**

Different haul lengths warrant more efficient options. Intermodal transportation provides a [leveraged efficiency when the haul if over 700 miles or more](https://example.com). As the miles increase in the length of haul, the rail portion becomes more efficient due to economies of scale.

Intermodal can still be competitive with truckload shipments, however, intermodal is best over at least 400 miles for the railroad segment of the haul. Truckload proves to be more beneficial for shorter distances.

**Winner: Draw**
WEIGHT

The dimension capacities for truckload and intermodal transportation are the same. But, intermodal containers loaded railroad cars are structured differently than those used in other OTR solutions.

The weight restriction for intermodal is 2,500 pounds less capacity than with truckload. The containers and chassis are heavier using intermodal, which limits the amount of freight shippers can load to comply with regulations set by the U.S. Department of Transportation. So, shippers must take difference in weight to abide by the regulations to avoid fines and other expenses.

Winner: Truckload

HIGH VALUE OF FREIGHT

Some shippers get more reassurance knowing one person will oversee the shipment from origin to destination, or start to finish. However, there is the possibility drivers will leave the load at some point for breaks, opening the opportunity for theft.

On the other hand, with an intermodal shipment the train is always in motion at high speeds on the railroad tracks. Also, well cars, or double stack cars, present challenges to any potential threat because the bottom car doors cannot be opened.

Even with truckload portion of intermodal, the shorter mileage for the dray drivers equates to a smaller opportunity for the freight to be unattended.

Winner: Intermodal
**ORIGINAL AND DESTINATION PAIRS**

Truckload transportation has access to more origin and destination pairs. The reason being is trucks are not held down to the location of intermodal ramps and inherently have the ability to pick-up and deliver to any location.

**Winner: Truckload**

**FLEXIBILITY**

Truckload shipments can provide shippers a greater range of opportunities in regards to flexibility. Shippers can make alterations to shipments easier than they can with intermodal.

Under intermodal lanes, shippers have a higher degree of responsibility of abiding to transit times for ramp delivery. The railroad haul also has limitations because once the train is moving, the containers are immobile until arriving to the next railroad ramp.

**Winner: Truckload**

**SCALABILITY**

In terms of scalability, intermodal has an advantage over truckload. Intermodal has dray drivers who can make several trips from the manufacturing facility to the railroad ramp which opens the opportunity for multiple drivers to be added to a dray segment.
Additionally, the railroad network adds more cars for carrying more freight. Truckload, however, has a one-to-one ratio with drivers to shipment, requiring more drivers for less amount of shipments in comparison to intermodal.

Winner: Intermodal

SUSTAINABILITY

Truckload hauls pose long-term detriment to the carbon footprint.

Railroad hauls grant intermodal a “leg up” in sustainability because railroads can transport freight 450 miles on only one gallon of fuel.

There is a growing trend of sustainable business practice, so intermodal appeals to the needs of the market.

Additionally, SmartWay certification is an incentive for some companies, and intermodal transportation is the ticket to achieving these guidelines while reducing the carbon footprint.

Winner: Intermodal

COMPLEXITY

Complexity of shipping is tricky. The reason it is tricky is a shipper only needs to call one IMC and the shipment will operate just like a truckload for them, which is one call and one invoice.
The tricky side comes if you are that IMC because intermodal transportation naturally has more complexities because it deals with more than one mode of transportation. By putting another mode into the mix, the IMC is confronted with additional complexities.

The intermodal service provider (IMC) is the entity responsible for origin dray, linehaul on the rail, and the destination dray.

**Winner: Truckload**

### CONGESTION

Intermodal avoids most congestion because it bypasses highway traffic, construction, and accidents because the majority of the move is on rails versus truckload is over-the-road (OTR).

**Winner: Intermodal**

### Conclusion

While comparing both freight modes, there is really no better option over the other because both strategies pose their own disadvantages and advantages.

Truckload is considered more efficient in terms of transit, origin and destination pair, flexibility, and complexity, while intermodal is better for cost savings, scalability and avoiding congestion.

So, when considering 53’ freight capacity it does not have to be an all or nothing approach. Combining both truckload and intermodal into a logistics strategy optimizes the solution.
Although intermodal transportation provides benefits for different companies and solutions, there are some guidelines to follow to understand if an intermodal lane is a good fit within a shipper’s freight and logistics strategy.

**LENGTH OF HAUL**

**700 Miles or More**

As previously mentioned, the efficiency and strength of an intermodal lane come into play when the freight move is 700 or more miles in distances from origin to destination. It is important to note intermodal transportation can be competitive with truckload, for shipments of 450 miles, if the dray moves are fairly close to the intermodal origin and destination ramps.

**DRAY DISTANCE FOR INTERMODAL RAMPS**

**Intermodal Ramps are No More than 50 to 100 Miles from Origin / Destination Locations**

The distance of the dray portion of an intermodal shipment another factor in what makes a good intermodal lane. To create the best road-to-rail conversion, a shipment should have dray lengths of 50 miles or less from the origin and destination ramps, but can increase as the linehaul segment on the rail increases.
WEIGHT

Gross Weight of the Shipment is 42,500 or Less

The number one issue connected with intermodal transportation is weight and weight distribution. The Federal Gross Vehicle Weight Limit of 80,000 pounds for tractor/chassis and container/trailer is the same for intermodal and truckload.

As mentioned earlier, the additional weight in the combination of a chassis and container, with intermodal, versus just a trailer, for truckload reduces the gross weight that can be loaded onto an intermodal shipment by 2,500. While this does not sound like much of a loading difference, it is often the difference that causes what is thought to be a perfect intermodal lane to remain on truck.

To try to test the boundaries is not a great plan because if the shipment is out of compliance the shipper will face scaling costs, possible fines, additional freight charges, labor cost to rework the load and other charges incurred to make the load legal to travel over-the-road.

Accessory charges like demurrage, detention, and per diem are added charges that can come with non-compliant loads also because of the delays that can occur in the rework process.

One additional item to take note under the weight category is weight distribution. Often times a shipment can be legal on its 80,000-pound gross limit, but the distribution of weight across the tractor and container is not in compliance. Also, a load may shift in transit so it could be legal at origin, but not at destination, which is another reason outside of damage that a shipper must adhere to blocking and bracing requirements.
TRANSIT

Shipment Can be Scheduled 1 to 2 Days Earlier

As mentioned earlier, intermodal transit is a truck transit, plus a day and for intermodal shipments that are interlined are truck, plus two days.

So, if a shipment can be loaded one to two days earlier, then intermodal is an option.

HIGH VALUE OF FREIGHT

Gross Value of the Load is $100,000 or More

Having high value shipments is not a requirement, but is beneficial for shippers that do.

The reason is having a shipment on rail makes it far less likely for it to be stolen because it is in constant motion and there is not an easy way for an individual to get under the load to take possession of the freight.

APPOINTED LOADS OR RETAIL DELIVERIES

Having appointed deliveries or retail deliveries is not a requirement, but is a strength of intermodal.

Not being on-time can cost businesses their reputation, clientele base and money in non-compliance fines.
Intermodal can provide higher percentages of on-time deliveries with these types of shipments because it is not a one-to-one relationship like truckload. Intermodal is a many-to-many relationship where the rail segment can easily move an abundant of 53’ containers on one train, while the dray segments of the lane can easily be fulfilled with many dray drivers handling multiple pick-up and deliveries within a day to meet the on-time requirements.

CAPACITY

Intermodal can either provide additional capacity or augment a shipper’s capacity requirement.

Dray capacity for drop and hook or live load/unload is quick and efficient with intermodal because dray drivers can coordinate to turn several loads within a day in the short mile routes to railroad ramps from the manufacturing plants and vice versa.

LANE VISIBILITY

Shippers needing increased lane visibility benefit from intermodal lanes. The tracking protocol is similar to small parcel tracking with the added advantage of more opportunities to check the status of the shipment along the railway versus trying to ping a GPS on a truckload shipment.

With the ability to “keep eyes everywhere” on an intermodal shipment, companies have a competitive advantage in their ability to manage their freight to higher on-time delivery and pick-ups percentages.
OTHER OPTIONS

If a shipment falls outside of the above criteria there are other options to evaluate and implement intermodal into a shipper's logistics strategy.

Transloading

Transloading is the transfer of a shipment between freight modes.

Transloading is frequently used for import containers where a shipper will transload from either the 20' or 40' ISO containers into 53' domestic intermodal containers. By maximizing every 53' container a shipper saves with the additional cube with every 4th shipment essentially shipping for free, while also being able to utilize intermodal.

Transloading is also utilized when a shipper positions its inventory closer to the end customer. There are two different situations where this will occur:

- Used in industries with heavier and bulkier products, for example, building products or paper where the product is moved via rail to a facility to them be shipped out to the final customer.
- Intermodal is used on the stocking freight lanes of the forward DC location, where the product then goes out via truckload, LTL or parcel to the final customer.
Consolidation & Pooling

**Freight consolidation** is when smaller shipments are being forwarded to the same location to be bundled together under a single shipment.

Consolidation is typically thought of with LTL shipments where shippers consolidate their LTL’s for significant savings, improved transit, and less damage.

Intermodal is used on the consolidated linehaul of consolidation and pooling freight shipment strategies.

**Forward Positioning Inventory**

Forward positioning inventory is best-suited for time-sensitive shipments. Typically you will hear shippers want to have “X” percent of their shipments delivered in one to two days of their customer order date.

Forward positioning inventory is mostly seen in the e-commerce industry and supports just-in-time manufacturing. Intermodal is utilized to stock the forward positioned warehouse locations. By utilizing this strategy, companies ship in bulk to regional distribution centers at lower costs due to the mass quantities economies of scale. The shipment is then delivered to the customer in the smaller piece quantities requested.

As with anything, there are both advantages and disadvantages and intermodal transportation is no different, so there is no need to shy away from those.

The issue for us to address here is often what is advertised as disadvantages is really misinformation coming from the common misconceptions interchanged through the freight market.
For your company to reach its maximum potential, it is important to take a deeper look into the value intermodal can potentially add to your organization.

**LONG TRANSIT TIMES**

Historically, intermodal transportation has unfortunately earned the misconstrued reputation of being “slow.” This misconception comes from shippers believing since intermodal moves on the rail it will have the same transit as railcars, which is just not the case.

Railroads know their competition for intermodal is truckload, so they deliver a much different product through their intermodal service.

The typical intermodal freight transit on a single railroad is truck transit, plus one day and truck transit, plus two days when the intermodal shipment is interlined between two railroads. Keep in mind, there are some intermodal lanes that provide the same transit as a truck transit and unlike its truck competition, railroads are moving over the weekend, so keep those transit days in consideration as they help to overcome the additional day when a shipment goes out on Thursday or Friday.

**UNRELIABLE SERVICE**

Shippers unfamiliar with intermodal think of railroad service as something as slow, unreliable or not up to speed. Again this misconception comes from the other services railroads provide, not intermodal.

Intermodal freight lanes have on-time deliveries that rival or beat truckload because of the precision of rail transit schedules.
Railroad have easily tracked transit times leading to consistent planning over the long-term.

To add to this misconception, keep in mind that the dray segment of the intermodal lane is where 95%, plus of intermodal failures will happen, so when evaluating your intermodal provider ask the question how they manage their dray lane segments.

**LITTLE TO NO COMPETITION**

The truckload marketplace is different than the intermodal transportation marketplace. There are over 700,000 for-hire-carriers and nearly 91% operate less than 6 trucks and 97.3% operate fewer than 20 trucks. On the other hand, the intermodal market has roughly ten main providers, with a bunch of smaller named IMC’s.

Within this smaller pool of providers, there are many providers which can provide a great deal of capacity and often offer more customize intermodal solutions for shippers’ requirements.

When observing the intermodal marketing company (IMC), there are several categories. The types of IMCs include bi-modal, asset-lite, non-asset, rail retailers and freight brokers. The providers have advantages and advantages, but the array of choices provide flexibility in options to choose from for a specific shipment need.

Also, federal agencies keep a very close eye on pricing within the rail industry to ensure competition does exist and there is no opportunity for price collusion.
DAMAGE AND LOSS

Contrary to some assumptions made about intermodal, this transportation method ensures the safety of your freight is no more open to damage or loss than truckload.

The key to damage is to understand intermodal is similar to truckload, however, not exactly like a truckload shipment. This is where many shippers fall down and cause the misconception that intermodal is more apt to be damaged in transit.

The difference in intermodal versus truckload is the element of harmonic vibrations. This vibration found on the rail segment of an intermodal shipment has the ability to move freight vertically, longitudinally and laterally. When a load is not properly blocked and braced, the harmonic vibrations move the freight unlike a truckload shipment and causes damage and overweight issues for shippers.

Blocking and bracing is not complicated or time-consuming. Often it as simple as a couple of 2 x 4 wood blocks and 16d nails.

OPERATIONALLY COMPLICATED

There is a common misunderstanding intermodal is operationally complicated in nature. While there are “more steps” in getting freight from A to B with intermodal, these processes have become more efficient over time and with the inclusion of a market leading IMC.

The IMC allows shippers to make one call and receive one invoice, making the intermodal shipment process similar to its truckload competitor.

Using the knowledge gathered from data analysis, your managed transportation service provider will make adjustments to your transportation processes on their end or make recommendations on how processes can be improved on your end. They will regularly assess these KPIs for you, leading to constant improvements for your business.
The advantages of intermodal transportation have been previously discussed, but the summarized benefits of intermodal transportation are as follows:

- Lower Cost Alternative to Truckload
- Sustainability
- Increased Level of Security
- Reduces Highway Congestion
- Reliable Capacity
- Optimizes the Efficiency of Truck and Rail
- Improves Safety
- Easy to Monitor
- Lower Cost Alternative to Truckload

When looking to implement an intermodal lane, shippers are apt to see a 10% improvement in price over truckload.

**Sustainability**

To put some numbers around the environmental advantages of intermodal lanes one train moves an average of 280 trucks; intermodal is 4 times more efficient than trucking, rail can move one ton of freight 470 miles on a single gallon of fuel.
Increased Level of Security

Intermodal provides the railway advantage of higher security. Trains are either in motion on the rails or in secured railyards versus truckload being out on open highways and left unattended at various points within its route between origin and destination. While the dray segments of an intermodal freight shipment is over-the-road, the dray is typically very short and therefore there is no time the load is not moving when in transit for either the origin pick-up or final delivery.

Cross border shipments also reap the benefits of secure across borders from the U.S. to Canada or Mexico.

Reduces Highway Congestion

Limiting the amount of obstacles truck hauls face is easier said than done. Intermodal lanes bypass highway congestion since the container is on railroad tracking throughout North America.

Reliable Capacity

Intermodal lanes provide reliable capacity with intermodal being a many-to-many relationship versus a truckload shipment characteristic of a one-to-one relationship.

This is because intermodal containers travel double stacked in high volume trains and a dray driver can make several round trips from the ramp to either the origin or destination during a given day.

Keep in mind the intermodal or truckload decision does not have to be an all-or-nothing decision. With the container/trailer size being essentially the same similar shipments can be run on the same lane based on transit requirements making both freight modes a method to augment high shipping lanes for a company.
Optimizes the Efficiency of Truck and Rail

**Intermodal is the best of both worlds** since its shipment characteristics are the combination of both rail and truck.

The rail segment being the most efficient and sustainable method of shipping, while a truck provides the most flexibility because it is not tied to rail tracking and can go anywhere a road is available.

In making the transition from an OTR (over-the-road) truckload solution, organizations always compare the cost of truckload to the **overall cost of intermodal**.

As we have found out in working with 100’s of shippers over the years, price gets a freight provider in the door and service keeps them there.

With that in mind, cost is a critical component when considering to use intermodal or truckload capacity for a particular lane with success of the supply chain strategy largely a bottom line decision.

When comparing pricing of intermodal to its trucking counterpart, shippers find they have similar cost components. Intermodal transportation pricing is almost like linehaul with its rate being linehaul, plus fuel.

The linehaul pricing includes the following:

- Dray from the origin warehouse/manufacturing site to the origin intermodal ramp.
- Rail line haul cost, with the interline fees, if the intermodal container needs to transition from one railroad to another as it travels from origin to destination.
• Dray from the destination intermodal ramp to its ultimate customer or customers, if it is a multi-stop load.
• Fuel pricing is most often a matrix developed by the IMC that is tied to the Energy Information Administration (EIA) national diesel rates.
  o The national diesel rates are published every Tuesday, except if Monday is a holiday then they are posted on Wednesday.

THE THREE TYPES OF PRICING

CONTRACT PRICING

Contract pricing is a rate promised by an intermodal service provider to move the shipper’s freight for a set lane over a set period of time, which is typically negotiated annually.

Contract pricing gives the shipper the opportunity to lock in price and capacity over an entire year. This provides an insurance policy, as such, because even when “peak retail season” surges the shipper is still going to get its allotted intermodal containers. The allotment is set on a rolling average.

The best time to go out for intermodal contract pricing is mid first quarter to early second quarter. The reason being is this is the lower freight volume season and railroads and IMC’s tend to price more on what they know at the time of pricing.

So, if you are a shipper try to convince your finance department that while budgeting makes sense to do in the 4th quarter it does not make sense for freight request for proposals (RFP’s).
SPOT RATE PRICING

Contrary to contract pricing, spot rate pricing is negotiated at the time a shipper needs to move its freight. Because the shipper is asking for immediate pricing for its shipping requirement, they will be obtaining rates based on the market at the time the request is made.

Spot rates fluctuate throughout the year based on seasonal patterns, along with a multitude of other economic or severe weather impacts. Spot freight rates will change day-to-day and at times even on an hour-to-hour basis.

Often times shippers have no choice, but to move all their freight on spot rates because they do not have the required volume to obtain contract rates. While the common belief is spot rate pricing leads to cost savings, there is data to prove spot rates only fall lower than contract rates for a short period of time. The result is over the course of a year it is disadvantageous to run freight on spot rates.

Spot rate pricing is always tied to market capacity supply and demand, which causes a lot of fluctuations in price.

With that in mind, financial teams will not like having their budgets tied to fluctuations throughout the year that are hard to predict; the shipper-carrier relationship is tough to develop if a shipper is only moving on spot rates because the freight provider will constantly change and with the constant change service levels will be inconsistent. Also, with the carrier always playing the spot market, there is a much greater risk of putting one’s freight on a less reputable motor carrier that could open up the shipper to a number of financial and legal liabilities.

All said, spot rates are a riskier option when it comes to pricing, therefore it is important for shippers to understand the market to get the best value out of this price method, which is often difficult.

PROJECT PRICING

Project pricing is utilized for, as the name foreshadows, “special projects.”
Special projects typically entail shipments with a volume outside of what would be considered the “norm” or expected quantities.

Project pricing allows for firms to take advantage of favorable prices over a shorter period of time because of volumes they can promise an IMC, although this could be a disadvantage because of when the special project is run during the year.

There is more to managing the various pricing models than is outlined above, so for more details recommend reading Freight Contract Rates vs Spot Rates - Comprehensive Guide and How-to Negotiate & Execute Best Freight Rates: Comprehensive Guide.

So, you have made the decision to transition your some or all of your truckload freight to intermodal to take advantage of cost savings, scalability, reliable, predictable service and to reduce your company’s the carbon footprint.

The big question to answer is how can one implement intermodal successfully, which is what we will cover next.

**Truckload-like, Not “Like Truckload”**

The first thing for companies wanting to implement intermodal lanes into their logistics strategy is to realize intermodal is truckload-like, not “exactly like a truckload.”

While intermodal has the same process of pricing, freight tender, track & trace and invoicing, as truckload, there are key differences companies need to address at the start of the implementation to best move forward and avoid roadblocks or failure with their transition.
3 Issues to Tackle for New Intermodal Encounter

There are three issues all shippers should focus on tackling intermodal:

- Load configuration.
- Transits.
- Selecting an IMC.

In regards to load configuration, it is imperative for companies to educate themselves on the weight requirements previously discussed (42,500 for 53’ intermodal container) and the blocking and bracing to properly manage harmonic vibrations. **Weight is the number one issue new intermodal shippers** often have trouble with making this a key component to understand and train the loaders on the dock. Not complying or understanding the weight and its distribution within a container can leave a shipper burdened with costly rework charges, fines, damage and delays all of which are the responsibility of the shipper.

On the topic of transits recall the rule of thumb is truck transit, plus a day, but that is not always the case. There are some lanes that are truck, plus two days, some lanes are similar to truck and still others that may be something altogether different. One of those altogether different examples would be for an intermodal lane that does not operate every day, which is not often found but they do exist.

Last but not least is selecting the intermodal marketing company (IMC), which is outlined well in our article entitled [Best Intermodal Companies and How-to Choose](#). Keep in mind the biggest is not necessarily the best for everyone because it is not a one-size fit all proposition, so if you are the point of choosing to get through the entire article.
The Intermodal Shipping Process

Because intermodal is truckload-like, relatively all of the processes follow suit with a truckload from a service perspective.

Like truckload, the IMC’s give intermodal shippers the advantage of making only one phone call to set up any shipment moving via an intermodal route. The IMCs negotiate rail and dray rates on behalf of the shipper for all North American intermodal traffic.

When determining intermodal requirements, shippers need the following information:

- Type of capacity required for either one-time all-in spot rates, project rates or contract rates.
- Origin and destination zip codes.
- Commodity.
- List the BCO, in other words, who holds the title to the cargo.
- Hazardous or Non-Hazardous cargo.
- Live load and unload, drop container; build a drop pool of containers for larger volume lanes.
- Volume.
- Seasonality.
- Temp controlled.

Once price and credit are set the process of shipping an intermodal load begins:

- The shipper will tender the load to the IMC.
- The IMC will coordinate the pick up the freight load from the shipper’s dock and dray the load to the origin ramp.
- (There may be a point where the intermodal shipment must be weighed)
- The container will be lifted off the chassis and loaded onto a rail wellcar.
- The train of intermodal containers will be built and rail segment will begin.
- Along the rail route, the container will pass various points where it will signal back to the IMC where it is along with the rail tracking.
- Once at the destination ramp, the IMC will coordinate the dray pick-up and final delivery to the ultimate customer.
As previously mentioned, the intermodal container has great visibility along its route. The IMC can communicate this to the shipper via an FTP, EDI, or XML system-to-system connection or will be given visibility through the IMC website or through reporting pushed to the shipper.

After delivery to the destination ramp, the IMC will get an invoice and BOL (bill of lading) from the railroad, which will be the basis of the invoice for the IMC to bill the shipper.

Step-by-Step Implementation

The following is a step-by-step guide in beginning the transition to the intermodal process:

- **Begin the Education Process**
  - Education is key to success in gaining all the advantages and efficiencies of intermodal. It is important to research all aspects of the freight mode, such as service, the market, what makes a beneficial intermodal lane, top intermodal transportation providers, etc. The more the shipper knows the more informed the decision will be.

- **Define Success and Obtain Operations & Management Buy-In**
  - Goal setting and defining success with management will be beneficial for the shipper because management will support the transition process from start to finish. Management buy-in is advantageous in its own right, but it is especially pivotal when obstacles appear during the transition process.
The operations team also needs to be brought into the decision, so they are a part of the choice and understand its impact, so they can execute successfully.

**Research and Evaluate Potential Providers**

- Different IMC intermodal service providers are not all the same and offer various options to shippers, therefore education is crucial in this step of implementation. Asset and non-asset intermodal providers are much different in structure than truckload, so combining what was gathered in the education step with information about the providers can pave the way for shippers developing the optimal intermodal solution. Since it is recommended to educate yourself in all of the providers, it is recommended to not lock into a single IMC at this stage of implementation, rather have four or five companies in entering the next phase.

**Intermodal Providers Perform Freight Analysis**

- Freight analysis is not a price review, rather an analysis of dock operation and equipment requirements at origin and destination. It also an analysis in the company’s freight lanes and their location in relation to ramps. This step is also where shippers construct their RFP for intermodal providers to bid. It is important to note that not every shipping lane has an intermodal solution, so truckload is very much a part of the decision process.

**Obtain Pricing and Transits in Freight RFP**

- Shippers should send out RFP (request for proposal) during this step of implementation. Multiple intermodal service providers should be incorporated in this step to cast the widest net, as not all IMC’s operate in the same lanes.
  - At this point, shippers should check in again with management to help walk them through the new vision of success and what caused it to change.
• Implement and Intermodal Solution

  o The recommendation in implementation is to not go all in all at once. A phased-in solution starting with the simplest lane and dock requirements matched against the best intermodal service lanes should be done first.
    ▪ The IMC will know what lanes have the best service levels, so let them take the lead because this is not the time to stumble and possibly lose the support of the goal. Once the initial pilot is up and operational, then pass in the other freight lanes.

• Evaluate the Outcome Against a Success Goal

  o It is important to ask: “Is this process outcome satisfying the success goal?” If not, then take corrective measures. If the answer is yes, then this still requires more evaluation to keep in a continuous review and improve the process. It is important to include the intermodal providers in the process to get an accurate evaluation based on what they are seeing and what other services they could provide to further optimize the program.

Comparing the Intermodal Providers

There are many intermodal providers than shippers often think, so do not fall into the trap to think there are only five IMC’s. Not only are there more than five, but there are various types of intermodal providers:
Types of Intermodal Providers:

- Bi-Modal
- Asset-Lite
- Non-Asset
- Rail Retailers
- Freight Brokers

While there are several options for providers, one of the most prevalent comparisons to make is between asset IMCs and non-asset IMCs.

Bi-Modal IMCs

Bi-Modal IMCs are also known as asset IMCs. Simply put, asset IMC’s own assets: containers, chassis and the majority of their dray capacity in tractors and drivers. These IMCs do not own any of the assets on the railroad side of intermodal (ie. trains, rails, ramps, railroad team) because these type of assets are always owned by the railroads. Companies like JB Hunt own most of the dray assets listed above but outsource some of this work during peak times. In the event of TOFC (trailer on flat car) shipping, bi-modal IMCs can cater to this need. However, TOFC is less commonly used because of the efficiency COFC brings in double stacking intermodal containers versus single with TOFC service.

Non-Asset IMCs

Non-asset providers do not own any of the dray assets or COFC boxes. Intek Freight & Logistics is an example of a non-asset IMC. These providers use the assets of the Class I railroads primarily and develop relationships with various dray companies, Some non-asset companies will buy a limited amount of dray shipping equipment.
Intermodal transportation is an undervalued shipping method which can provide advantageous efficiencies to your supply chain. However, it is important to evaluate the freight lane and characteristics to determine if the shipment would be a good fit for intermodal service.

To best implement intermodal methods, it is imperative to research the mode and evaluate the different providers to find which will be best for your company.

For more information on intermodal transportation and more, check out the Intek Freight & Logistics blog.