

# The Intermodal TOS Decision Guide



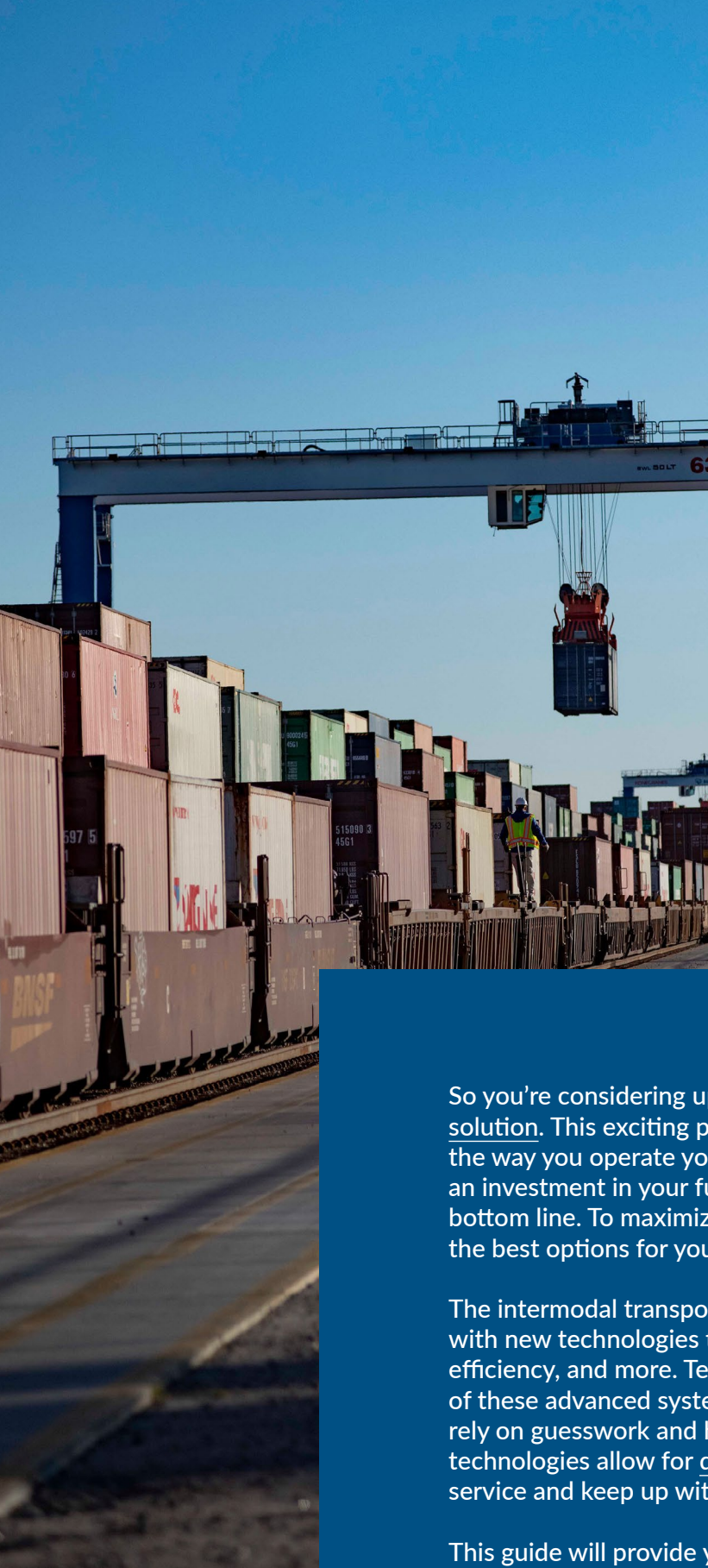
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So you're considering upgrading your legacy TOS to a more modern solution. This exciting prospect will bring lasting, positive changes to the way you operate your terminal. A new, state-of-the-art system is an investment in your future — one that will dramatically impact your bottom line. To maximize the benefits, however, you need to evaluate the best options for your needs to make an informed decision.

The intermodal transportation business is in the midst of a revolution, with new technologies that impact planning, automation, yard efficiency, and more. Terminals need a modern TOS to take advantage of these advanced systems. Intermodal operators no longer need to rely on guesswork and hunches to drive their day-to-day. These new technologies allow for data-driven decisions that improve customer service and keep up with consumer demand.

This guide will provide you with the questions you need to ask yourself and your potential TOS providers. Each question will help you properly evaluate your current operational needs, plans for future growth, and the role that a modern intermodal TOS will play in reaching your long-term goals.

# Evolution of the Intermodal TOS

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Before the last decade, most operations relied on simple inventory management tools that helped operators keep tabs on orders, structure deliveries, and organize their operations. These systems were effective for storing information and providing some data visibility, however, they lacked avenues for terminals to take actionable steps to improve based on the data.

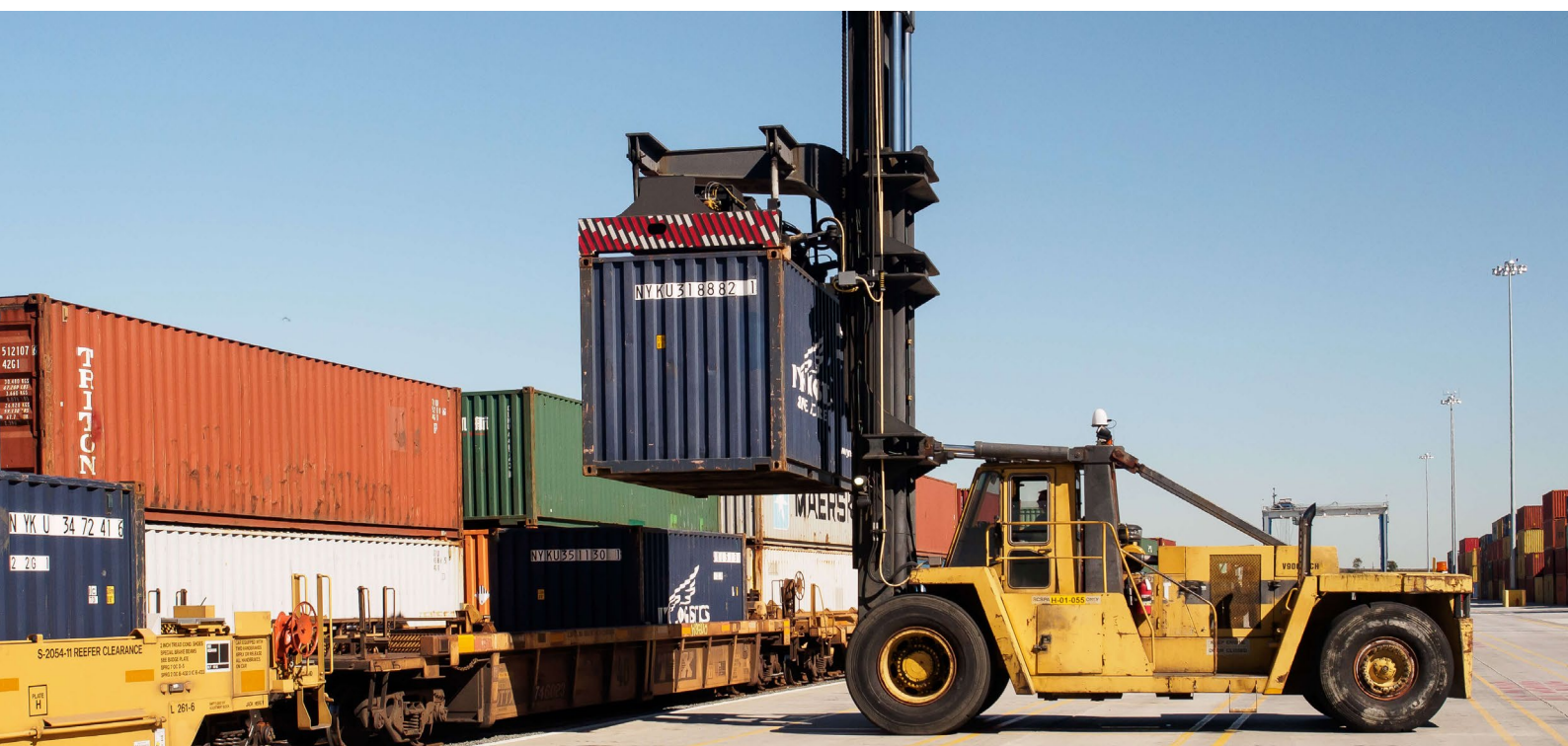
In recent years, the market has changed, and rail terminals of all sizes have begun re-examining basic assumptions about how they do business. Even before the COVID-19 pandemic, terminals faced increased competitive pressures and greater customer demands. These changes sparked the need for technological advances that could increase efficiencies and service levels. TOS providers responded by [modernizing their offerings](#), adding robust data analysis, graphical planning, and automation features tailored to the unique demands of intermodal operations.

The key TOS players are racing to advance their systems to:

- Integrate with new technologies
- Offer improved visibility into operational demands for effective planning
- Be cloud-enabled and mobile-device capable
- Provide real-time data to platforms BI tools can access

By modernizing their systems, terminal operators can cash in the investments made by TOS providers in recent years and enjoy significant gains in:

- [Move prioritization](#)
- [Equipment optimization](#)
- [Data collection and analysis](#)
- [Organizational communications](#)
- and more







# Why You Need to Examine Your Business Objectives Before Selecting a TOS

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By design, modern terminal operating systems are feature-rich and include many configurable options. While all terminal operations share similarities, each has unique processes, challenges, and business objectives. Therefore, your TOS solution should adapt to your specific needs.

Before a TOS provider can adjust and tailor their systems to your particular requirements, you need a thorough understanding of your operational, commercial, and technical objectives. A comprehensive understanding of stakeholder needs and requirements will help guide your TOS provider's efforts.

Over the 20 years Tideworks has partnered with intermodal ports to enhance their operations, it's received thousands of questions regarding a TOS's fit in a specific terminal.

If you follow the line of questioning provided in this guide and use it as a roadmap to explore modern intermodal TOS offerings, you'll arm yourself with a list of requirements to consider. You'll be prepared to compare TOSs from different providers and determine which best fits your requirements, operations, and budget.

# Questions to Ask Yourself When Considering a TOS

These questions will touch on several important issues that require a discussion. As you read, think about your own operation and take note of any related questions you want to include in your analysis.

## 1. What Are Our Desired Business Objectives and Expected Benefits?

What are you hoping to accomplish with a new TOS? It's crucial for terminal operators to identify key goals and objectives and then design metrics to track their progress.

Once you have a sense of your goals, ask yourself if your current systems are up to the task. Can they deliver the results you need in the time frame required? If they can't, what's missing? Your TOS solutions need to align with your defined business objectives and help you to achieve them.

## 2. What Are Our Current Pain Points?

Gather your team and talk about the business challenges you each face in your daily roles. Look at this as a judgment-free brainstorming session with the operations and business partners in your organization. Take an honest look at every aspect of your operation, both on the commercial and technology sides, to determine where you need help.

Once you have answers, ask yourself if your pain points result in lost customers or revenue. Examine your current solutions, if any exist, to see if they help solve your challenges, or in some cases, cause them. Most importantly, consider whether you'll be able to continue operations in the future if you don't find a resolution.

Let's discuss a few common pain points.

### Greater Demand From Shippers

Amazon, UPS, and J.B. Hunt, among others, are increasing their shipping needs on a steady basis. By doing so, they also raise the stakes on consumer expectations. Shoppers became well acquainted with online shopping during the height of the pandemic, increasing demand and upping the pressure on the shipping industry.

According to [Ware2Go's 2021 consumer survey](#), 42% of shoppers expect an option for two-day shipping for their online purchases. In 2022, these expectations are only [increasing with the rise in next and same-day delivery](#). When the business operations of large corporations change quickly to meet consumer expectations, the challenge falls to carriers and operators to make good on their commitments.

## Integration With Modern Technology

The terminal industry is enjoying a technological renaissance, unlike anything that came before. Artificial intelligence, automation, predictive algorithms, and more are all providing better ways of doing business. However, these technologies require a modern TOS to integrate into a terminal's operations and show ROI.

Demand will continue to rise and competition will continue to improve. Without expanding your terminal's footprint to solve capacity constraints, will your current technology continue to function in a year or two? How about five to ten years? Is your current situation sustainable, and if not, what do you need to get on the right track?



## 3. What Are Our Integration Points and Who Are Our Integration Partners/Vendors?

Put another way, what systems do you have that a TOS will need to exchange data with such as OCR, EDI, PDS? And what other vendors do you plan to partner with to reach your growth goals? How will those investments influence your TOS needs?

You will likely require systems integrations at your terminal. Identify your current systems and integration points, as well as the integration points you may have in the future. For example:

- Gate solutions
- Yard equipment
- In-house mainframe or record system

Understanding these and the role they play in your operations will help you evaluate various TOS solutions and providers. Once you've decided on a provider, this understanding will also help you communicate your needs during the sales process and onboard your new partner quickly.



## 4. What is Our Expected Scope?

What specific functions do you need in a TOS?  
Which solutions will help you achieve your operational, commercial, and technical goals?

To give you a frame of reference, we often see terminals pair the following three systems with our intermodal TOS, [Intermodal PRO](#), to add other areas of functionality.

Every major TOS provider will have similar products or modules. It's important to find out if they offer value at a competitive price, and are built on sustainable technology platforms.

### Terminal View

This [3D data visualization technology](#) gives terminal operators a visual representation of the real-time activity around their terminal. Fly through your terminal and quickly locate a container or piece of handling equipment, uncover potential bottlenecks and take corrective action, track hazardous materials, and more. Terminal View gives you a true 1:1 bird's eye view of your entire operation.

[Check Out the Terminal View Demo Now](#)

### Traffic Control

[Traffic Control](#) functions provide terminal operators dynamic control of their container handling equipment, taking the guesswork out of identifying the most efficient next move. The system electronically generates and dispatches work instructions to operators at the optimal moment and in the format that works best for your operation. With TC in place, terminal operators are able to increase equipment utilization and productivity, resulting in cost savings at their terminal.

[Check Out the Traffic Control Feature Demos](#)

### Tideworks Insight™

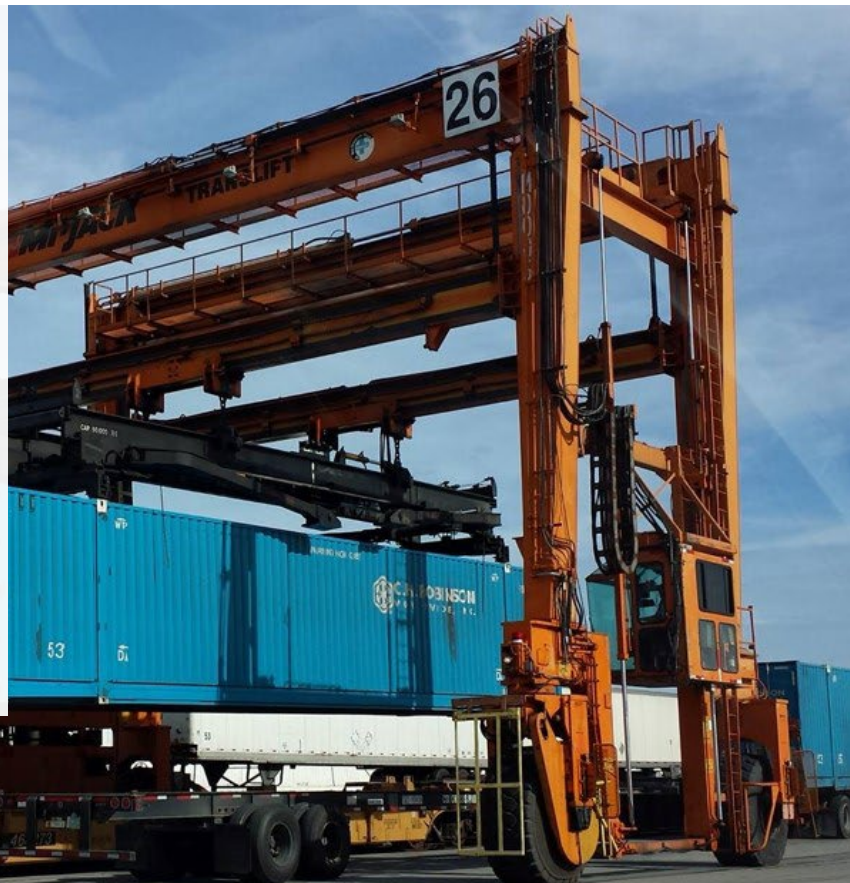
Take full advantage of real-time and historical data with this powerful data platform. Gain visibility into operational and business data, perform data analytics, and create your own metrics and reports. Track your operation in exquisite detail to discover problems and efficiencies and evaluate trends for future strategic planning.

[Watch the Data-Driven Decision Making Insight Webinar](#)

## 5. What is Our Competition Doing?

Part of understanding what you need in a TOS solution is being aware of the upgrades your competition is making. Modern TOSs are no longer reserved for the Class 1 rail terminals. Today, more rail terminals understand the value in these new technology solutions. What will your terminal do to differentiate itself?

Examine the changes the competition is making to their equipment, yard, processes, and operating systems. Understand how these changes will give your competition an advantage, and what you will need to do to maintain your current market share, or even better, grow.





## 6. Are We Ready for a Change?

This may be the most important question of all. You've taken a look at your business objectives, understand your current pain points, and considered how you can differentiate from your competition. Now it's time to imagine how each of these will change with a modern TOS solution.

Ask yourself if you're ready to move your operation into the future. It takes a commitment, but operators that are bold enough to reimagine what's possible for themselves will reap returns they can't reach with their current suite of solutions.

As you consider your readiness, it's also important to note the internal resources you will need to fully support a new TOS, including your current technology. Take an inventory of your internal resources and ensure you understand what you'll need from your teams to maximize your investment.

If you're ready to make the leap to a new TOS, your operation will gain tremendous value and see a swift return on investment.



## What Questions Should You Ask TOS Providers?

If you've decided that the time is right to update your TOS, there are several questions you should ask the providers you're considering. Their answers will help you make an informed choice that's best for you.

### 1. What is the Technological Foundation of the TOS?

Not only should a vendor's TOS be powerful, but it also needs to be adaptable to end-users and technological advances. The technical architecture of the solutions will largely determine if it's built to meet your operation's current and future needs.

The industry standard is headed towards cloud- and browser-based platforms. Today's browser-based, cloud-enabled web applications are just as powerful as

standard desktop programs, while also benefiting from portability, increased security, and the ability to adapt to user demand as an agile platform versus a static product. With a browser-based solution, you can access critical information from anywhere as long as you have a modern web browser.

The modern TOS should also integrate with a data platform without compromising the production database. The real value of data analysis comes when you can integrate multiple systems to leverage your terminal data and answer deep questions about your entire operation without impacting performance.



Finally, your new system should have an intuitive user interface that enables you to make better, faster decisions and boost productivity. The system design should provide a clear and customizable user experience so the people at your terminal can effectively perform their tasks without issue and keep your operation moving efficiently. Intentional UX equals a productive workday. Concise messages about successful actions or errors encountered will reduce ambiguity while precise data handling allows for a more accurate understanding of productivity throughout your operation. Ultimately, it comes down to little details that may seem small but add up to a significant impact.

## 2. Will the TOS Scale With My Terminal?

A TOS's ability to scale is one of the most valuable aspects of a modern system. Terminals today must continuously increase throughput on physical footprints that won't grow as time goes on. It's important to understand how your new solution will help you now, five years from now, and beyond.

You may opt for a TOS that specializes in small terminals, but if your forecasted volume five years from now is double your current throughput, you could quickly run into a problem. The capability of the TOS you invest in should match your growth goals.

Talk to your sales rep about how their company will grow and scale with you. A TOS provider that offers a platform with a core system that grows alongside your terminal, is worth more than one with a complex framework and too many services from the get-go. Request a detailed demo of the software to understand the user experience better. Are you able to follow the demonstrations? Does the setup seem logical and intuitive? Will new team members be able to pick up the system quickly? Will there be a lengthy training process to get future, larger teams up to speed?

Another aspect of a flexible, scalable TOS solution is access to third-party integrations. Does the solution offer robust APIs to facilitate integrations with current and future external systems into the TOS? A well-designed solution will support integrations with systems beyond the TOS to allow you greater visibility into your operations. You should avoid a situation in which you have to depend on expensive, custom-built integrations that require continuous updating to stay in step with your system.

## 3. How Will the TOS Provider Support Me?

### Sales Support

The sales support you receive from a prospective provider will indicate the type of support you'll receive after becoming a customer. Your TOS is the lifeblood of your terminal operation. Be sure your sales rep empathizes with you and does everything in their power to guide you in the right direction. Ask your sales rep questions about their products and observe how they answer. Are they direct? Do they provide helpful resources? Are they transparent regarding the TOS's capabilities? Are they able to speak about their solution versus the competition intelligently? If they seem honest and forthright, there's a good chance that their support style will translate to your customer experience.

### Customer Support

Dependable, effective customer support is crucial when working with any software platform, including one as mission-critical as your TOS. Your provider should be adequately staffed and provide 24/7 phone support from industry-savvy dedicated customer service representatives.

Ask them directly what sort of customer support you can expect. How quickly will they return calls and answer questions? Do they offer onsite support? How hands-on are they after installation is complete? Don't leave your support relationship to chance. Ask prospective providers to explain exactly what you can expect from your partnership.

### Comprehensive Training

The success of your relationship with a potential provider starts at the beginning of the engagement. Terminals that are onboarded thoughtfully submit fewer support tickets, leverage their system more effectively, and have faster system adoption from their staff.

Your next TOS provider should be able to offer your team custom-tailored training in a way that works best for their workflow, whether that's in-person, virtual onboarding and training, or self-directed learning through comprehensive resources. Make sure your provider offers robust training and support resources so that no matter what your terminal needs, they'll be able to get resolutions in a timely manner.



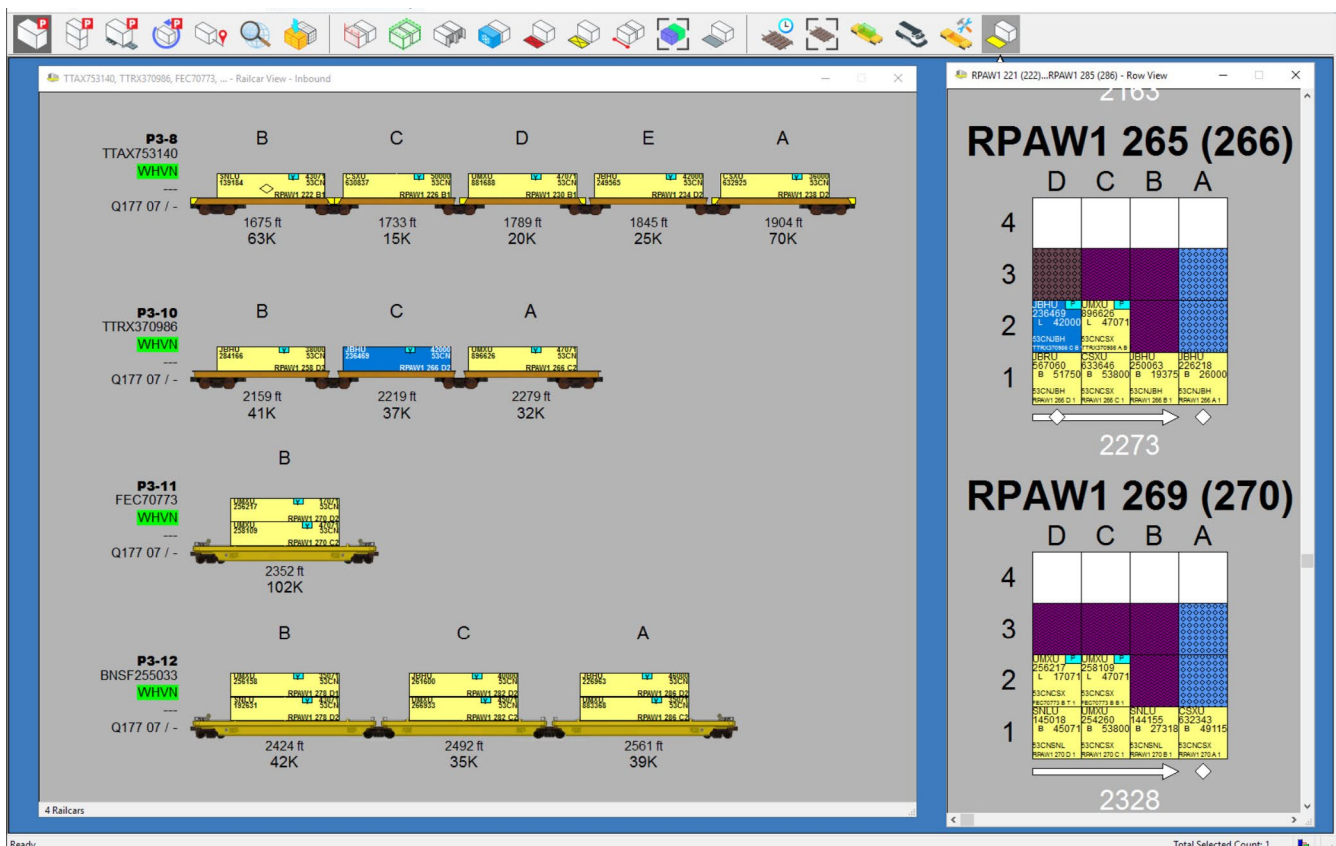
## 4. What is the Total Cost of Ownership?

Everything we've discussed thus far in this guide contributes to one of the most important considerations for your TOS: the total cost of ownership. While your financial evaluation should include elements like the licensing fee and ongoing maintenance costs, you should also factor in costs associated with integrating third-party systems, training personnel, ongoing support, and enhancements required now or in the future.

If you invest in a rigid system that requires heavy engineering on the back end to adjust to changes, you may find yourself paying more over time in hidden fees and extended timelines. A flexible, configurable system will allow you to make changes quickly without needing new code.

In short, understanding the total cost of ownership means considering a variety of factors. It is paramount to choose a solution that is scalable enough to fit your needs today in addition to accommodating your growth in the future. A vendor that's invested in their customers' success will be fully transparent about their TOS's capabilities and the true cost of ownership. If they aren't, move on.

Selecting the wrong TOS for your future, without satisfying the components mentioned in this guide, may put you in a compromising position as the industry continues to evolve and your competition grows.



## Add Tideworks' IPRO to Your List of Contenders

We believe those searching for a modern world-class TOS will find that Tideworks provides the best option. We designed our applications to be highly flexible and configurable to meet any terminal operator's needs. We dramatically reduced the training time for the end-user by creating applications that are intuitive and simple. Our intermodal TOSs data capture and reporting capabilities empower terminal operators to make decisions and take control of their operations.

[IPRO](#) is one of the most successful and proven TOS systems among Class 1 railroads and smaller operations alike. We offer the most powerful, extensible, and manageable solutions on the market, as well as world-class support through a collaborative partnership.

[Contact our sales team for a demo](#) to see what IPRO can do for your terminal.