

Achieving a seamless transition from an in-house terminal operating system (TOS).

Running ports is a tough, competitive business. It has been made tougher by globalized trade putting enormous pressure on ports to remain competitive by operating at maximum efficiency while fitting neatly into a seamless supply chain.

There is also huge opportunity, to provide a more flexible, customized service than the mega–ports by moving faster and smarter. For growing and ambitious ports, challenging their bigger competitors often requires investment in new information technology like terminal operating systems (TOS), but the potential risks of moving away from established systems can be a barrier. What are these perceived risks and how can they be addressed?

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Why bother to upgrade to a new TOS?

Terminal operations are the beating heart of any port company. The efficiency and effectiveness of terminal operations is key to the quality of services a port can offer, and therefore their ability to differentiate and attract customers.

Port operations can improve efficiency without a recognized TOS, achieving automation with manual systems or in–house systems like spreadsheets or custom software developments.

The real issue is one of growth and vision. Once volumes exceed approximately 10,000 TEU per annum a port operations' cargo becomes harder to track and the impact can be felt in processing ships and servicing customers. A real–time system helps monitor and control operations more effectively, reducing the risks of inefficient performance.

While terminal operations can be efficient in different pockets of the port, the next level of growth is about being able to have a complete and integrated view of all transactions, so smarter decisions can be made about operations today, and better planning put in place tomorrow.

Gains are very dependent on the situation in a port, but terminal operations can typically achieve 15%-20% productivity improvements by implementing a TOS.

Also, the relative costs of using a TOS have diminished over recent years as computer hardware and associated costs have reduced. Given the per TEU cost of a TOS, the return on investment can be very attractive in comparison to large capital investments like new crane technology.



The 80/20 rule

Scoping is critical. While an industry standard TOS will support 80% of your processes, it is the other 20% where the real opportunity lies. Understanding these variations and how you are going to address them, either with process changes or with modifications in the new system, can help create real gains in your operations.

For example, the 20% often involves processes that touch external parties such as trucking companies. Some ports use this as an opportunity to introduce new ways of working, such as establishing a booking system for trucking companies so they can deliver at a scheduled time, which improves your efficiency while potentially giving them a better experience.

The 80/20 reality also means you need to select your vendor and their TOS platform with care. A flexible technology, supported by a committed and responsive vendor is important.

It's about people, not technology

It's easy to get carried away with shiny new technology and all of its potential. But migrating from an in-house system to a proper TOS is much more about people than technology.

Different people in a port have different objectives and different performance measurements. While a new TOS can make perfect sense to an operations manager measured on improvements in productivity, other workers sometimes find it harder to see how it will support them.

It is critical that this process is managed effectively, and you can't under–invest in good business analysis and project management skills. That means you can have a good understanding of what processes need to change, and/or how the TOS needs to be modified to fit, and how to manage change with different groups of people.

It is not just overcoming people's natural aversion to change, but to help them get equipped to use a new system. Users' skills can vary widely and investing in training is critical to migrating from an in-house TOS. Getting the training phase right creates a lot of momentum.

The key is to invest right through the process and get the right people involved.



Bringing the beating heart to life

A new TOS is not an island, sitting alone and untouched in the middle of your operations. It is an interconnected system that depends on a lot of other human and technological connections to work effectively.

Understanding what networking infrastructure is in place, and what needs to be upgraded (if anything) needs to be clearly understood and factored into the project early on. Having the right infrastructure will ensure the TOS can deliver its benefits quickly and avoid any user frustration.

Consideration also needs to be given to your computer hardware and associated infrastructure. An industry standard TOS requires a proper server environment (either in–house or contracted offsite), with the appropriate power supply, data backups, disaster recovery and system monitoring strategies in place. If you don't have these in place, or the skills to implement them, ensure you evaluate whether your TOS vendor can supply them.

A new TOS also needs to sit within your broader information technology strategy. It should form the heart of your IT by integrating with other important tools like financial systems, HR/payroll and business intelligence. Your TOS should also be able to integrate with new technologies that come along, and give you the ability to access it using mobile technology like tablets and smart phones.

The moment of truth

As 24x7, high–transaction volume environments, terminal operations provide a real challenge in migrating to a new system. For a new TOS, the 'Go Live' is the most important element of the project. It is the moment of truth.

Data migration is one aspect of this, both mapping the data structure from your existing system to new software, and ensuring historical data is captured. Having that historical data is important for being able to review and improve performance. Your TOS vendor should have automated tools, and the requisite experience, to manage this process effectively.

The other aspect is how you plan and manage your Go Live process. There is a continuum of approaches, from the 'laissez faire' through to being so conservative it is almost impossible to go live in your new system. You need to find a comfortable balance, where you have the confidence that the new system is working well and matches the previous system, for example running them in parallel and then doing physical spot audits of cargo to ensure records are accurate.

Are you ready?

Migrating from an in-house system to a formal TOS can boost your port's productivity and transform the way you attract and service customers.

The benefits are obvious; the challenge is to manage the transition carefully to ensure it quickly starts delivering gains to your business.



About Master Terminal from Jade Logistics Group

Designed to handle all cargo types in one integrated system,
Master Terminal is the world's leading terminal operating system (TOS) for mixed cargo ports.

Master Terminal is licensed at over 120 terminals worldwide, from vehicle terminals in Italy to steel terminals in North America.

Implementation is the key to success, and our implementation record is second to none in the industry. Our proven and robust methodology, partnership approach, thorough training and unrivaled implementation timeframes deliver tangible results fast.

Jade Logistics has been designing, building, and supporting innovative logistics software since 1993.

Our experienced people understand the global logistics industry and are the foundation on which we build long-term relationships with our customers.

We have offices in New Zealand, Australia, USA, the Netherlands, the United Arab Emirates, and Indonesia.

For more information, visit us at **jadelogistics.com**