One size doesn't fit all.

Balancing performance and flexibility in terminal operating systems.

The modern port: producing more with less

Productivity is the watchword of the modern port. More than ever, following the global financial crisis, ports and shipping lines across the world have been under intense pressure to cut costs, increase efficiencies and get the most out of their existing infrastructure. It's basically been a rigorous process to make the entire operation as lean as possible without the need for any major additional investment.

The silver lining here is that the operators emerging from this will be those with complex, but highly efficient operations that keep a tight control over costs and implement systems that create the maximum efficiencies. The nerve center of this network of systems, software and a multitude of computers and devices is a port's terminal operating system (TOS).

A rock solid TOS is the foundation for an ambitious port raring to take on bigger competition. If that TOS is simply an exact replication of your competitor's systems then any real advantage is lost. You need performance AND flexibility.

The key to success for an ambitious port is a TOS that fits your business needs perfectly.

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Fitting like a glove

The significance of a state–of–the–art TOS is not lost on teams managing growing ports, looking to compete with the bigger, established ports. Many of these teams have realized that one of the best ways to achieve differentiation is to achieve efficiency and excellence in processing break bulk cargo which is usually avoided by large ports.

While this is a perfectly sound strategy for the growing port, it also needs to be complemented by a TOS that facilitates the execution of this tactic.

A TOS designed primarily to process the movement of millions of containers only, isn't likely to be a comfortable fit.

Most off–the–shelf TOS are built for large established ports with little consideration for mixed cargo functionality or configurations tailored for specific needs for each port. They are someone else's idea of how to run a port operation.

These systems usually have a very high up–front cost, with little room for customization. This forces the port to fundamentally change processes to align with the way the TOS is built, instead of the other way round.

A perfect fit for a port is the TOS that is based on industry leading process benchmarks and best practices, while providing the flexibility for adaptations that may be required to meet the individual needs of the ports.

Avoiding the trap of in–house customization

Many enthusiastic IT teams at growing ports choose to heavily customize a proprietary TOS to suit the unique needs of their port. While it is always a worthy intent, often it adds to the complexity of the code and increases the cost of the project due to the support and maintenance load. It also limits the amount of technical support that can be provided by the original vendor, and can lock a port into using the in–house experts in the customized system.

Port authorities are always in a position of strength if they are supported by a proven TOS developer and vendor, who understands the complexities of the trade, can provide high level advice in terms of implementing industry best practices as well as building in configurations into the system specific to the port.

This is usually the ideal approach from most perspectives, most of all from a total cost of ownership (TCO) point of view. And since all customizations are done by the original vendor, all post implementation support and upgrades are easy.

The human element

No matter how sophisticated a TOS is implemented and no matter how automated the operations, what ultimately differentiates a port and the quality of its operations are the quality and experience of the team running it. Technology can never be a substitute for a smart and experienced team running the port.

However, technology can be the enabler and differentiator. A state–of–the–art TOS can automate most key processes but it cannot replace the decision making abilities of an experienced team. In your search for the ideal TOS, look for the system that empowers a proficient team, not one that aims to replace them.

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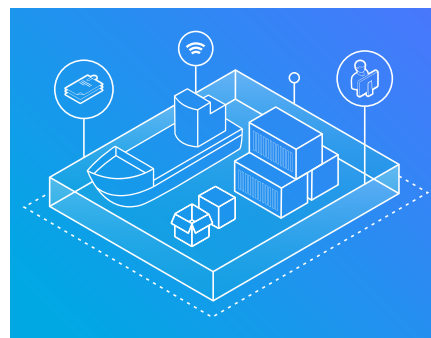
Evaluating a terminal operating system

When evaluating terminal operating systems for ports that are ambitious, want to grow at a rapid pace and compete with established players, what are the criteria against which an advanced TOS should be measured?

Evaluating a TOS for your port

1. Is it rock solid?

The top priority (and one that some ports underestimate) is the robustness and dependability of the system. A modern TOS is a mission–critical application and every hour lost due to technical glitches means loss of business, revenue and reputation.

2. Is it backed by port people?

Is it backed by port people? It also helps to understand the team behind the solutions and its background. A TOS supplier may have the best software people, but domain expertise is crucial for the team producing and implementing the system. Though TOS are fundamentally built on software and hardware, it is not merely technical skill that sets the implementation on the path to success. A thorough understanding of the complexities behind the areas of shipping, logistics and port operations is necessary to build a TOS that complements existing processes and enhances efficiencies.

3. Does it deliver efficiency gains?

The next top parameters for evaluating a TOS are that it should be able to increase throughput capacity at the terminal, decrease operating costs and optimize utilization of existing equipment, such as container cranes. Is there proof it has achieved this for other port operations of a similar size and capability to yours?

4. Is it flexible enough?

And this can only happen if the solution is built around the specific needs of the port and caters for the multiple variables, scheduling optimization and exception handling of equipment moves that are unique to the port.

5. Can I understand the return on investment?

Last but not least, a TOS implementation is an expensive affair and usually happens relatively few times in the lifetime of the port. Before embarking on the implementation project, detailed and thorough calculations hould be made about the return on investment of the solution and the total cost of ownership.

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**

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