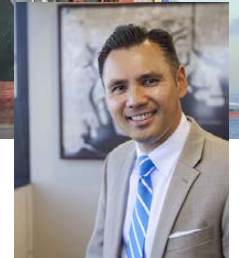




# LOGISTICAL PORTS

## THE CRITICAL CONNECTION POINTS IN THE SUPPLY CHAIN



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The recent wave of consolidation in the shipping line industry set in motion a series of realignments across all sectors of the supply chain. Marine terminal operators, railroads, trucking companies and port authorities are adapting to working with fewer ocean carriers concentrated in fewer but larger and more powerful alliances. As the shipping lines attempt to optimize their networks, ports, in particular, are under pressure to upgrade their infrastructure, drive operational efficiencies and leverage technology in order to stay competitive. However, these improvements can no longer be done in isolation. As intermodal gateways, ports must ensure that their operations and infrastructure are in alignment with the business models of the broader supply chain and the needs of the customer. This requires ports to think ‘outside the docks’; that is, to look beyond the port’s borders in order to add value to the entire supply chain.

### **BUILD SO THEY WILL COME?**

As competition for fewer shipping services and vessel calls intensifies, ports must ensure that their investments are enhancing the overall value proposition of the supply chains they support. The old adage of ‘build and they will come’ has been rendered obsolete. Today, ports can build, but there is no guarantee the cargo will come. Ports have to build and modernize in strategic alignment with supply chain partners in order to attract cargo. In Long Beach, we are investing US\$4 billion in our infrastructure to expand terminal and rail capacity. The success of our investments, however, can only be measured in relation to the value these create and add to the broader supply chain. We engage shipping lines, marine terminal operators, railroads, trucking companies, warehouse and distribution center operators and shippers to ensure that our product and service offerings align with their needs and provide a smooth port-centric logistics infrastructure for our customers.

For example, when the shipping lines announced their intention to deploy bigger ships, the Port of Long Beach responded with a ‘big ship ready’ capital campaign that prepared us for the big ships of today and the bigger ships of tomorrow. Long Beach is the only seaport in North America with three container terminals capable of handling 20,000 twenty-foot-equivalent units (TEU) ships. However, handling big ships is only part of the puzzle; the next key element is the ability to facilitate a smooth logistics chain within the port conducive to contemporary evolving trade demands. Furthermore, in order to deliver value to the customer, the terminals, railroads and trucking companies working within our port have to ensure that the proper equipment and labour are in place – and optimized – to handle the additional cargo efficiently.

### **PORTS ENABLE SUPPLY CHAINS**

Ports enable supply chain efficiency when they upgrade and modernize their



infrastructure. Ports that can handle the biggest ships, for example, create value for the entire supply chain. The advantages are amplified when port upgrades are matched by infrastructure improvements by the railroads, trucking companies and warehouse and distribution centre operators that support the supply chain. An integrated transition from the port to the hinterland is the key to a seamless, end-to-end supply chain. This is the best way to ensure a win-win strategy that benefits all in the supply chain, including the shipper.

### THE 'AMAZON' EFFECT

One of the major factors driving the need for end-to-end supply chain efficiency is Amazon and its ongoing quest to deliver products in the fastest and most reliable and cost-effective manner. Also referred to as the 'Amazon effect', the emergence of e-commerce is shifting consumer behaviour and, with that, their expectations of their online order and delivery experience. Each year, the number of online shoppers and the frequency of their purchases grows exponentially. In fact, retail e-commerce sales worldwide are forecast to double in the next five years. In the United States alone, 40% of internet users make online purchases several times per month and 20% make online purchases on a weekly basis. Amazon's introduction of its Prime membership service is driving even more online shopping and, with that, more efficient ways to deliver goods to consumers more quickly and reliably.

As a result, speed-to-market and precision are more important than ever before. This means containers can no longer sit in the terminal, on top of a chassis or inside a warehouse for days or weeks. Access to containers and quick, reliable transportation of the container is necessary to meet today's 'last mile' requirements. This is why port-centric logistics has become so crucial of late.

The massive expansion of e-commerce is changing the way goods are transported in

the 'last mile' but 'last mile' delivery has to be supported by 'first mile' transportation and every mile in-between, including transport from the manufacturing firm, to the port of origin and to the port of destination. In order to achieve supply chain efficiencies, investment in physical infrastructure and operational enhancements is necessary but, by itself, this is not sufficient. The role of technology in driving supply chain efficiencies has also evolved, and ports can play a critical role in facilitating the digital transformation.

### DIGITAL TRANSFORMATION

In addition to upgrading and modernizing facilities and executing process improvements that meet the needs of the supply chain, ports have to participate in the digital transformation of the supply chain. The rapid evolution of technology has created opportunities for supply chain actors to communicate, coordinate and integrate like never before. Whether it is advance visibility, predictive analytics or machine learning, ports can create value by leveraging technology to enable end-to-end visibility and to optimize port operations.

In Long Beach, we recently completed a pilot demonstration of a port information portal in partnership with General Electric Transportation (GET). GET's 'Port Optimizer' information portal was developed to facilitate the collection and transfer of data across the supply chain under a common user information platform. A platform like this improves line of sight and also enables users to execute operational transactions. 'Port Optimizer' has the potential to increase visibility, inject predictability and improve productivity by aggregating data from different sources and allowing terminal operators and other supply chain stakeholders to receive advance notice of cargo arrival.

Collecting and sharing data has become a critical tool to alleviate bottlenecks and improve operational transfers between supply chain actors. 'GeoStamp', for example, is a port traffic monitoring software that provides live port traffic

updates to beneficial cargo owners and marine terminal operators on real-time port traffic conditions, which helps users avoid trouble spots throughout the day. Users contribute data by simply using the app on their mobile devices and connecting truck GPS devices. Information that is collected through the app produces reports for the marine terminal or localized 'geofenced' area. Terminal operators can use the reports to analyze performance, assess recurring conditions and, ultimately, improve truck productivity in the harbour.

### CONCLUSION

As intermodal gateways, ports are a critical connection point for the broader supply chain. In order to remain competitive and add value to the supply chain, ports must align their operations and infrastructure investments to new customer needs, emerging trends and supply chain requirements. This is the path to value creation and the key to a win-win strategy for the entire supply chain.

## DR HACEGABA'S PREVIOUS PAPERS

### ABOUT THE AUTHOR

Dr. Noel Hacegaba serves as Deputy Executive Director for the Port of Long Beach. He is responsible for managing the day-to-day operations and administrative functions of the Port, including commercial operations, finance, human resources, real estate and security. He joined the port in 2010 as Executive Officer to the Board and has also served as Chief Commercial Officer and Chief Operating Officer.

### ABOUT THE ORGANIZATION

The Port of Long Beach is the premier U.S. gateway for trans-Pacific trade, the nation's second-busiest container seaport and a trailblazer in innovative goods movement, safety and environmental stewardship. With annual trade valued at more than \$180 billion, the port supports hundreds of thousands of jobs and is 'Mega-Ship Ready,' serving 175 shipping lines with connections to 217 international seaports. The port is nearly seven years into a decade-long capital improvement program worth \$4 billion, the largest in North America.

### ENQUIRIES

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