

HARNESSING DATA FOR THE FUTURE: THE PORT OF LOS ANGELES' VISION

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STRENGTH IN WORKING TOGETHER."**





Syed Rakin Rahman, Staff Reporter,
Port Technology International, interviewing
Gene Seroka, Executive Director,
Port of Los Angeles

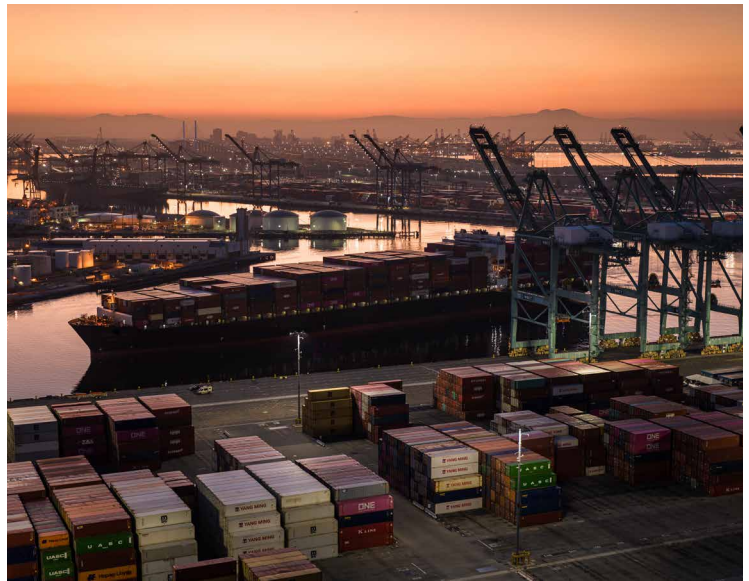
*As 2024 comes to a close, we take a moment to reflect on the milestones achieved and the challenges that lie ahead. At the IAPH World Ports Conference in Hamburg, **Syed Rakin Rahman**, Staff Reporter at Port Technology International, had the privilege of speaking with **Gene Seroka**, Executive Director of the Port of Los Angeles—the busiest seaport in the Western Hemisphere. The discussion centred on the transformative role of data in shaping the port's operations and its broader vision for the future.*

Seroka outlined the evolution of the Port Optimizer™ system, a groundbreaking platform that has revolutionised data sharing and operational efficiency. He also highlighted how fostering collaboration across stakeholders has been crucial to overcoming bottlenecks and driving productivity.

Looking ahead, Seroka detailed the port's ambitious decarbonisation plans, which aim to lead the industry toward a zero-emission future.

How is the Port of Los Angeles using data management to improve operational efficiency and predict future challenges?

Back in 2014 and 2015, we had a protracted labour negotiation between our dockworkers and

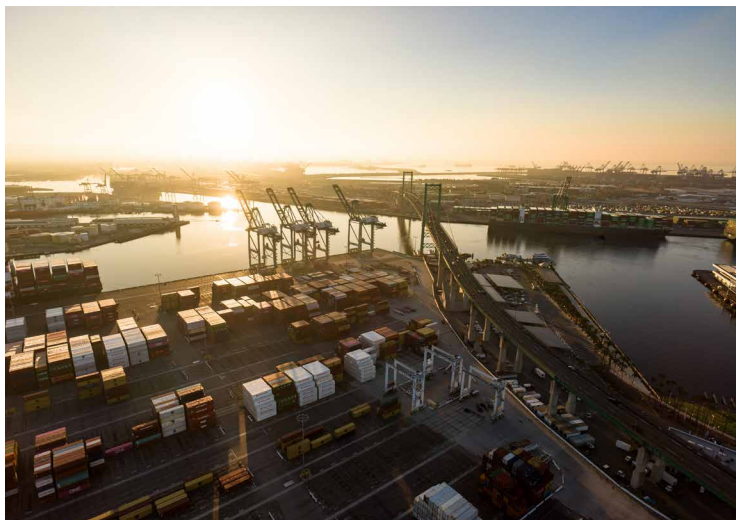


employers. We began seeing some cargo and ship backups and thought that using data to help us view cargo earlier and plan better would make a positive impact. We then initiated a public bid, partnering with General Electric Transportation, now Wabtec, to create our nation's first port community system. This system was built on the architecture of United States Customs and Border Protection Information and its 24-hour manifest. We gained access to information before a ship even

left Asia for Los Angeles, and our goal was to view that cargo 24 hours in advance. We achieved that goal.

Fast-forward to 2024, and we now have over 5,000 companies using this system. Every morning, we have a dashboard that allows us to assess the port's health in less than a minute. We focused on three key metrics: volume (how much cargo is coming to the US), velocity (how quickly it's moving), and any variation in the first two. If there's more cargo, we know how

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to prepare; if there's less, we can allocate resources elsewhere. If the cargo's velocity slows, we know which partners we can approach to help expedite it.

The Port Community System I'm talking about is the Port Optimizer, which now can capture data from multimodal stakeholders. We publish that data 24 hours a day so different port customers and stakeholders can access it, and our staff can use it to enhance efficiency. Over the past six months, we've been moving about the same volume of cargo as we did during the peak of the COVID-19 surge—without any backups. While there is still work to be done, I'm very pleased that the data insights we've developed have enabled our port to operate more efficiently.

When you mentioned that each morning you can check the health of the port, does that include metrics like throughput, tonnage, and similar factors?

We can see the throughput and tonnage, the number of workers on the job, how much cargo is moving by truck and by train, how long it sits, the availability of empty containers, and how many exports are arriving to complement the imports. It's quite comprehensive, but since we've trained it ourselves, we can review this information quickly and then drill down into details as needed to address specific issues.

I believe data plays a crucial role in the port's efficiency. But it's also due to the tremendous efforts of our dockworkers, who bring invaluable knowledge and expertise to cargo movement, and our marine terminal operators, who drive productivity to its limits. The shipping lines, cargo owners, trucking community, brokers, forwarders, and intermediaries, all of them now work collaboratively. It's no longer about working in silos; it's people who have known each other for years, who have great respect for each other, and who work across different segments to make the port more efficient. Data is essential for us all as we leverage that collaborative spirit.

To what extent does competition among ports impede their ability to advance collectively, particularly in terms of data sharing and cooperation?

I haven't seen any conflicts among stakeholders in our discussions. Jens Meier, the CEO of Hamburg Port Authority, and I established a group called Chain Port nearly eight years ago. Our goal was to unite like-minded individuals from various continents to explore the possibilities of data sharing and collaboration. We recognised that we didn't have to use the same systems or databases; instead, we focused on how data sharing and collaboration could enhance

our ports. Ports are situated at the intersection of many activities, making us natural conveners for other stakeholders in the industry.

For a shipping line, it's crucial to bring a vessel in, process it, and get it out as quickly as possible. Longshore or dock workers want a safe environment to avoid injury and also to maximise cargo movement, and there are similar priorities for each of these segments. I've been very pleased with the collaboration among progressive ports—those who see opportunity and strength in working together. Jens is one example of a true leader in our industry.

I can't speak for other ports, but I believe there is significant competition among them, as each one aims to secure as much cargo and revenue as possible. Many individuals in the industry are extremely busy, and participating in conferences or organisations like the International Association of Ports and Harbors (IAPH) requires additional time that might take away from their regular work responsibilities. There are several factors to consider in this regard. However, I am convinced that, for the growth and betterment of our industry, we should all be encouraged to collaborate.

Given that the maritime industry is one of the oldest and is now becoming increasingly globalised, what are your thoughts on the socioeconomic impacts of this continued globalisation?

This is very important to us because we believe that change starts at the local level. In Los Angeles, our port is located in an urban area that is home to approximately 260,000 residents. As a result, the effects of the port—both positive and negative—are directly experienced by our community members. This is why we strive to maximise the amount of cargo we bring in, creating jobs for many people.

Over the past 25 years, we've also focused on reducing pollution as much as technology, along with our commitment and desire, allow. Additionally, we aim to create opportunities for others, whether through visitor-serving attractions close to the port, retail, dining, entertainment, or educational support for local schools, colleges, and universities. We also partner with organisations like EXP, which helps high school students prepare for college, careers, and workforce opportunities.

I believe that all US ports must operate at full capacity to strengthen the local economy. A robust economy allows us to support the nations we trade with, helping to elevate their trade industries and improve their

standards of living. Additionally, we can apply best practices in areas such as community engagement, trade, and investment to expand opportunities in developing nations. This is why conferences like the World Ports Conference are so valuable; they bring together ports of all sizes and types. One common factor we all share is the importance of our ports to our local communities.

Our trade, workforce, investment levels, or technological advancements may differ, but we collectively bring power and meaning to our communities. There is a direct connection between our core local efforts to full-scale globalisation, that's why these relationships are so impactful to me.

Could you elaborate on any upcoming initiatives or technologies the port is considering to develop its data-driven approach further?

We have some key milestones coming up that are vital to us. Together with our neighbour, the Port of Long Beach, we're the only port with a documented plan to become a zero-emission cargo handling port by the year 2030. Between the two ports, we have about 5,000 units of cargo handling equipment, and we aim for all of them to be zero carbon by 2030. By 2035, we want all 20,000 Class 8 heavy-duty trucks to be zero carbon or zero emission. Both of these endeavours will require data, as we can't simply replace all that

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equipment at once. However, we can identify where we can achieve the greatest impact.

For example, about a third of our trucks operate about 80 to 100 kilometres outside the port. If we can plan key commerce corridors for new equipment incentive programmes to help make truckers competitive, along with infrastructure for fuelling and charging—whether battery electric or hydrogen fuel cell electric—we can drive industry change by focusing on the largest portion of its traffic and transportation. The same concept applies to cargo handling equipment. Currently, we are working with our city agency, the Los Angeles Department of Water and Power, on a \$500 million project to bring more electricity to the port to support that cargo handling equipment.

All of this requires data to determine what our investments should look like. With the data, we can identify these key commerce corridors, where the heaviest traffic occurs, the timing of that

traffic, and where truck drivers like to stop for fuel or to grab a cup of coffee or tea each day. It also tells us where they prefer to have their trucks repaired. Additionally, the data will help us forecast so we can prepare the right amount of energy or hydrogen and the appropriate number of fueling stations, etc. Therefore, understanding our business through a data-driven approach will enable us to invest in a zero-carbon future with much more confidence than if we approached it differently.

Data drives much of what we do—in our business, community, employment, and decarbonisation efforts. However, there is still so much more to learn. Attending conferences like this and talking with people like you, who have experience and relationships, helps us absorb as much knowledge as possible. I want to return to Los Angeles after this conference and add even more value than we've been providing so far. This is truly a great opportunity.

ABOUT THE AUTHOR:

Gene Seroka has been the Executive Director of the Port of Los Angeles since 2014, leading North America's busiest container port through record-breaking milestones, including processing 10 million TEUs in a year. A global trade expert, Seroka drives sustainability, innovation, and workforce development.

Recognised for his industry leadership, he has received numerous accolades and serves on key federal committees and global advisory boards.

ABOUT THE PORT:

The Port of Los Angeles is the busiest seaport in the Western Hemisphere and a key gateway for international trade. Spanning 7,500 acres along 43 miles of waterfront, it handles diverse cargo and passenger operations. The port has led US container throughput since 2000, moving 8.6 million TEUs in 2023. With a \$2.6 billion infrastructure investment and cutting-edge technologies, it enhances supply chain efficiency and supports global commerce.