"Port Optimizer gives our supply chain community a holistic view of what’s happening – well in advance. It is enabling a new level of efficiency and optimization."

Gene Seroka, Executive Director
Port of Los Angeles

**Business Challenges**

Supply chains face a complex set of market dynamics and emerging disruptive forces — globalization, outsourced manufacturing, intense competition, tighter margins, and market threats. All of this is against the backdrop of an economy where expectations for delivery are becoming shorter and more exacting. Ports, serving ~90% of global trade, are the center point of supply chains. Traditionally, supply chain operations consisted of multiple systems, each designed to measure and monitor singular aspects, for example ocean transit. There has not been the ability to consolidate and provide that “single pane of glass” that supply chains need to see how cargo is moving — holistically.
Challenges Faced by Supply Chain Stakeholders

- Lack of advance visibility to cargo in transit – not knowing in advance when cargo will be available impacts planning for trucks, equipment, and labor.
- Siloed information. The inefficiencies of data sharing can add an entire day to the supply chain.
- Accessing multiple web sites to secure valuable information.
- Inaccurate information.
- Not knowing the status of cargo.
- Unpredictable and unreliable visit times by motor carriers inside the yard.

Solution Description

Port Optimizer is a cloud-based software solution that enhances supply chain performance and predictability by delivering real time data-driven insights through a single portal to partners across the supply chain. Integrating data from across the port ecosystem, combining machine learning and deep domain expertise, it helps the supply chain monitor and respond to dynamic conditions, align people and resources, and proactively communicate across functions – enabling maximum port throughput and delivery performance.

Optimizing the Global Supply Chain
Features

- **Unified Information Portal**: Digitizes disparate supply chain data and brings together into a single source of truth.

- **Cloud-Based Platform**: Automated data ingestion. SaaS model enables rapid deployment and seamless operation.

- **Flexibility**: API-driven architecture enables easy integration into existing IT systems (operating systems, appointment systems, etc.).

- **Persona-Based Visualization**: Flexible, modern user interface tailored by persona. Users only see their data.

- **Predictive Analytics & Data-Driven Insights**: Real-time vessel & container status, intermodal equipment planning, and empty container returns.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>Vessel Tracking</td>
<td>Visibility to containers for equipment management and resource planning.</td>
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<tr>
<td>Vessel Operational Status</td>
<td>Real-time progress of ship discharge and loading activity.</td>
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<tr>
<td>Container Tracking</td>
<td>Current container status by port, city, state, and final destination.</td>
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<td>Container Allocation</td>
<td>Ability to see which motor carriers are picking up containers.</td>
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<td>Empty Container Management</td>
<td>Aggregation of data from shipping line and terminals to provide real-time updates.</td>
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<tr>
<td>Operational Status</td>
<td>Real-time, actionable insights into terminal operations, container dwell, availability status.</td>
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<tr>
<td>Chassis Readiness</td>
<td>Real-time inventory of available chassis by size across each terminal.</td>
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Outcomes:

- **Increased Visibility**: Eliminate cargo speculation with ~14 days of advance visibility.

- **Predictability**: Dynamic ETAs, machine learning and other analytics drive predictive performance.

- **Throughput**: Facilitates immediate throughput improvements to cargo flow.

- **Productivity**: 8-12% projected productivity increase as the solution scales.
Port Optimizer allows you to:

- Extend the window of visibility of inbound cargo for proactive equipment and resource planning.
- Collaborate with supply chain partners through a single portal.
- Identify potential problems in advance, thus reducing supply chain dislocations.
- Achieve greater productivity from existing assets and resources.
- Increase cargo velocity and improve service delivery.

Predix Platform: The foundation

A scalable, asset-centric data foundation is critical to the success of industrial applications. Port Optimizer is built on the Predix Platform, a comprehensive and secure application platform to run, scale, and extend digital industrial solutions. The platform delivers shared capabilities that industrial applications require: asset connectivity, edge technologies, analytics and machine learning, big data processing, and asset-centric digital twins.

Security

Predix Platform is secure by design. Built with defense-in-depth across every layer, and continuously monitored, Predix Platform security addresses the security of the platform itself, the applications it powers, the software development process, and the security of data that flows through the platform.

For more information on Port Optimizer:
www.gettransportation.com/portoptimizer

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