

Port Optimizer

Eugene D. Seroka, Executive Director

June 07, 2023

THE PORT
OF LOS ANGELES 



HOW WE GOT HERE



TRAPAC (POLA)
YTI (POLA)
ITS (POLB)
WBCT (POLA)

ALLIANCES



LABOR



CHASSIS

WHAT WE WANTED TO DO



PROOF OF CONCEPT



DATA SOURCING



RFP & PILOT

PORT OPTIMIZER™: TRACK AND TRACE



NYKU8489129

Outgated

-

BOL TYOD27730800, TYOBWL95086	SHIPPING LINE ONE LINE	CUSTOM HOLDS Cleared	ORIGIN PORT -	OWNER -
VESSEL ONE HENRY HUDSON	ATA 25 Mar 03:00	VOYAGE NO. 086E	DESTINATION PORT Los Angeles	CUSTOM -
TERMINAL YTI	BERTH 214	YARD LOCATION -	TERMINAL HOLDS Cleared	CUSTOM 2 -
LAST FREE DAY -	OUT GATED TIME 30 Mar 08:55	MODALITY (SCAC) -	CHASSIS NO. FVKZ10143	OTHER HOLDS Cleared
TYPE CODE 40'DV	HAZARDOUS -	APPT STATUS Fulfilled	APPT TIME -	

PORT OPTIMIZER™: THE SIGNAL



Quickview Dashboard

VESSELS AT BERTH
Current

7

AVERAGE TIME AT BERTH
Based on Last 30-Day Rolling Average

3.7 DAYS

TOTAL PLANNED VESSELS

91

TOTAL PLANNED CONTAINERS

200,936

Import Volumes

MAY 28 - JUN 03 (WK 22)

85,298 TEU

SCHEDULED VESSELS: 18

Change from previous week ▼ 1.78%

Change from previous year ▼ 17.80%

JUN 04 - JUN 10 (WK 23)

107,291 TEU

SCHEDULED VESSELS: 23

Change from previous week ▲ 25.78%

Change from previous year ▼ 1.51%

JUN 11 - JUN 17 (WK 24)

105,934 TEU

SCHEDULED VESSELS: 18

Change from previous week ▼ 1.27%

Change from previous year ▼ 7.06%

PORT OPTIMIZER™: THE RETURN SIGNAL



APMT

SHIPPING LINE	TERMINAL SHIFT	20ST	40ST	40HC	45	20RF	40RF	FLAT	SPECIAL
CMA-CGM/APL/ANL	Shift1	Yes	Yes	Yes	Yes	No	No	No	No
	Shift2	Yes	Yes	Yes	Yes	No	No	No	No
Cosco	Shift1	No	No	No	No	No	No	No	No
	Shift2	No	No	No	No	No	No	No	No
Evergreen	Shift1	Yes	Yes	Yes	Yes	No	No	No	No
	Shift2	Yes	Yes	Yes	Yes	No	No	No	No
MSC	Shift1	Yes	Yes	Yes	Yes	No	No	No	No
	Shift2	Yes	Yes	Yes	Yes	No	No	No	No
Maersk	Shift1	Yes	Yes	Yes	Yes	Yes	Yes	No	No
	Shift2	Yes	Yes	Yes	Yes	Yes	Yes	No	No
SM Lines	Shift1	No	No	No	No	No	No	No	No
	Shift2	No	No	No	No	No	No	No	No

PORT OPTIMIZER™: CONTROL TOWER

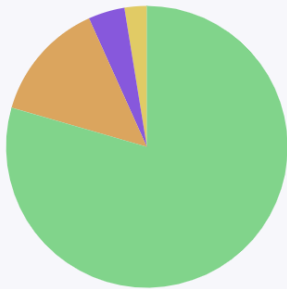


LOADED IMPORTS

LOADED EXPORTS

EMPTIES

PORT OF LOS ANGELES



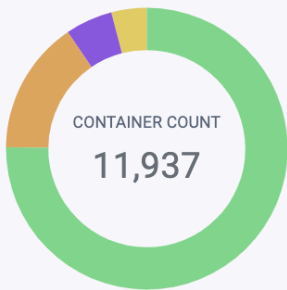
Age Group	Count
0-4 Days	29,957
5-8 Days	5,190
9-12 Days	1,575
13+ Days	965

CONTAINER COUNT
37,687

CURRENT AVERAGE (DAYS)
3.1

Terminal	APMT	ETS	FMS	TRPC	WBCT	YTI
	5.0	1.9	3.0	3.3	1.9	3.7

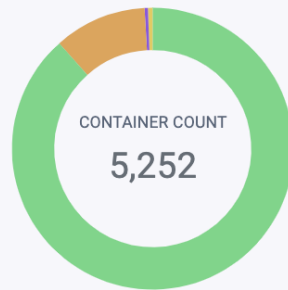
APMT



Age Group	Count	Percentage
0-4 Days	8,971	75.2%
5-8 Days	1,833	15.4%
9-12 Days	647	5.4%
13+ Days	486	4.1%

CONTAINER COUNT
11,937

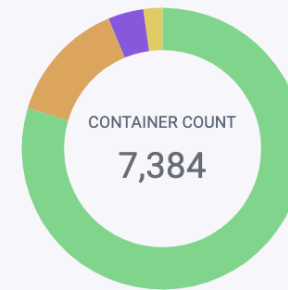
EVERPORT



Age Group	Count	Percentage
0-4 Days	4,645	88.4%
5-8 Days	558	10.6%
9-12 Days	20	0.4%
13+ Days	29	0.6%

CONTAINER COUNT
5,252

FMS



Age Group	Count	Percentage
0-4 Days	5,881	79.6%
5-8 Days	1,039	14.1%
9-12 Days	301	4.1%
13+ Days	163	2.2%

CONTAINER COUNT
7,384

PORT OPTIMIZER™: HORIZON



Total Volumes by ATA: 6 Month Prediction

Port Optimizer™ Horizon provides a 6-month prediction of expected cargo volumes at the Port of Los Angeles using predictive analytics based on historical and planned cargo volumes.

Port of Los Angeles

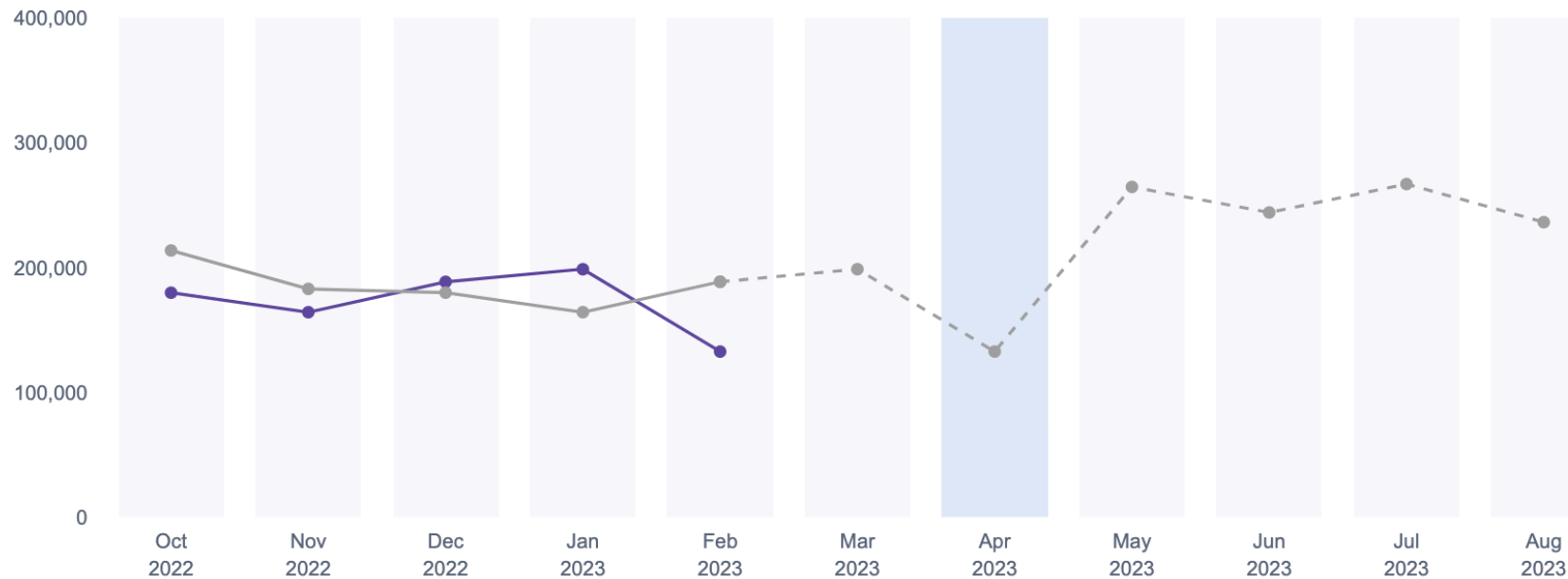


Chart Settings

Port of Los Angeles

Unit of Measure

TEU

Container

Container Status

Import Loaded

Export Loaded

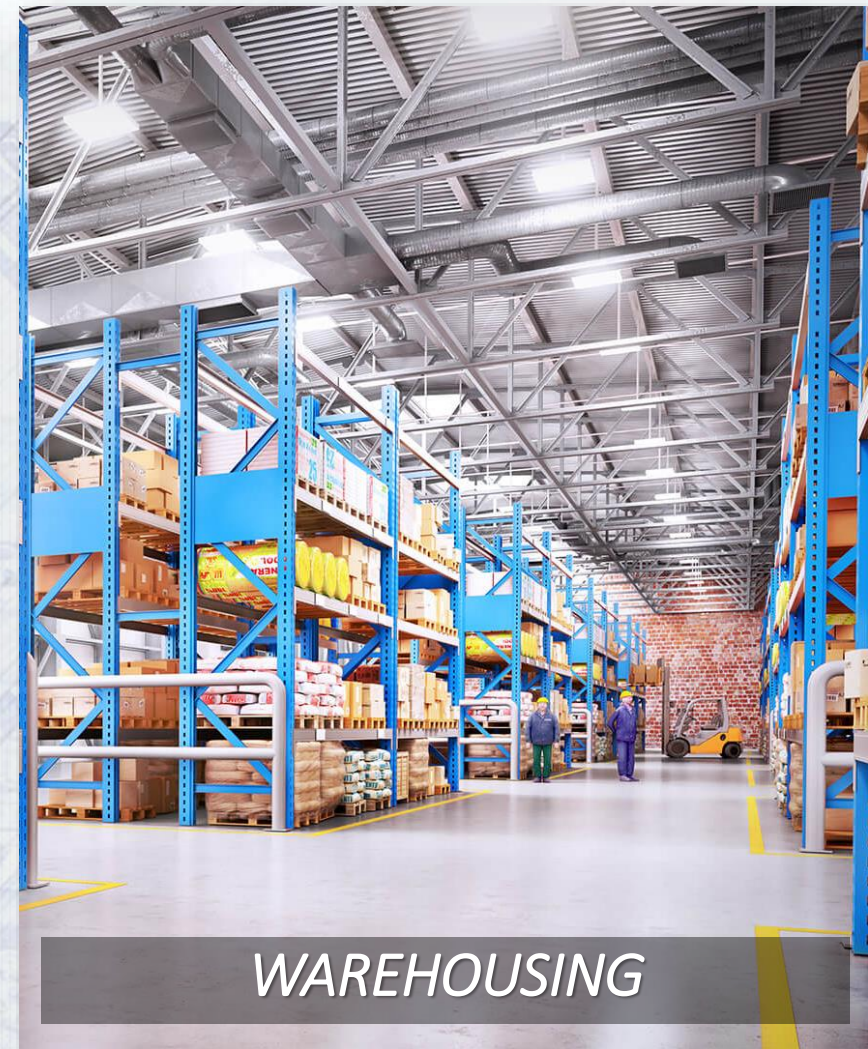
Export Empty

Selected Month Prediction 133,108

Proposed Predicted Range 118,789 - 147,427

2 Month Average Percent Difference 10.76 %

UPCOMING INITIATIVES

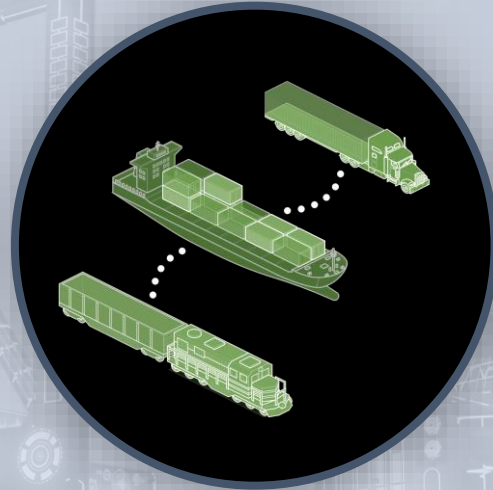


ROAD TO THE DIGITAL SUPPLY CHAIN



CARGO VISIBILITY

4455678
4447978
4397765



CARGO OPTIMIZATION



FUTURE INITIATIVES

Track & Trace
Control Tower
API Store

Cargo Analytics
Land/Ocean Asset
Tracking

Unified Appointment System
Environmental Initiatives

Cargo Routing &
Supply Chain
Optimization

API Enhancement
Next-Gen
Optimization

Proposed Sixth Amendment to Agreement No. 17-3425-A with Wabtec Transportation Systems



**Sheeba Varughese
Chief Information Officer
June 07, 2023**

SUMMARY REQUEST

Sixth Amendment to the Amended and Restated Agreement with Wabtec Transportation Systems, LLC. (Agreement No. 17-3425-A):

- Enhance the Port Optimizer Control Tower
- Implement three new modules (Phase 1)
- Clarify certain contract terms
- Contingency for as-needed development
- Increase the not-to-exceed compensation amount by \$6,500,000

CURRENT STATE

Port Optimizer Suite Implemented:

- Control Tower: Operational insights for improved planning
- Track & Trace: Real-time container tracking with 15+ day advanced visibility
- API Store: Modern and responsive APIs for seamless data integrations

Project Scope Completed:

- Data from 11 Terminals (full access for 6 Terminals)
- 15+ Vessel Operators
- US Customs and Border Protection
- 1300+ Registered Users
- Railroads
- Other Supply Chain Stakeholders

Goals Achieved:

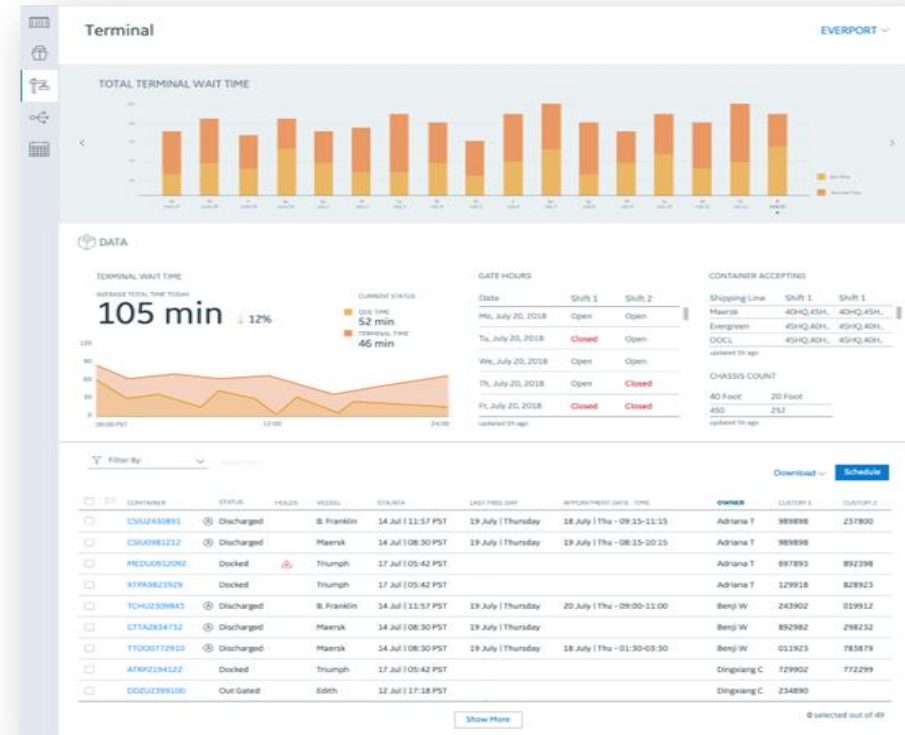
- Increased supply chain performance
- Increased Visibility
- Improved Predictability and Reliability
- Increased Throughput
- Improved Efficiency
- Single View to all POLA Terminals

PROPOSED SIXTH AMENDMENT

- Control Tower Enhancements
- Implementation of three new modules:
 - Universal Appointment System (Phase 1)
 - Export Visibility (Phase 1)
 - Warehouse Capacity Visibility (Phase 1)
- Contingency for as-needed development
- Clarification of certain contract terms
- No change in term (year), increase not-to-exceed amount by \$6,500,000

UNIVERSAL APPOINTMENT SYSTEM

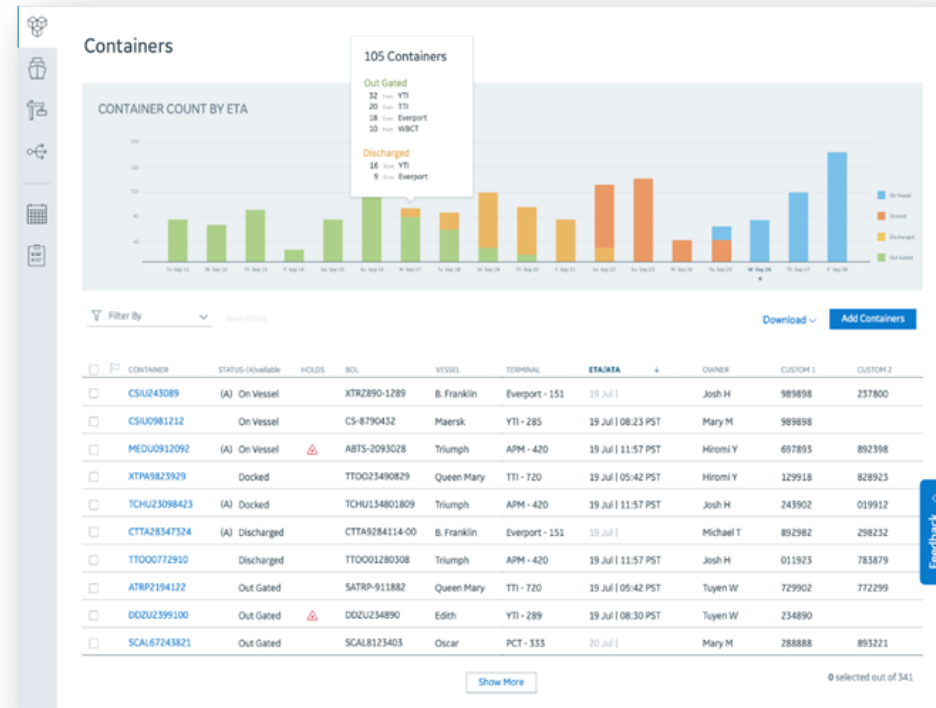
- Potentially connecting 6 to 9 terminals in San Pedro Bay
- Allow trucking companies to add/delete/change appointments through a single, common user application
- Port-wide appointment KPIs



Phase 1 includes the core appointment scheduling functionality and user interface design and implementation.

EXPORT MODULE

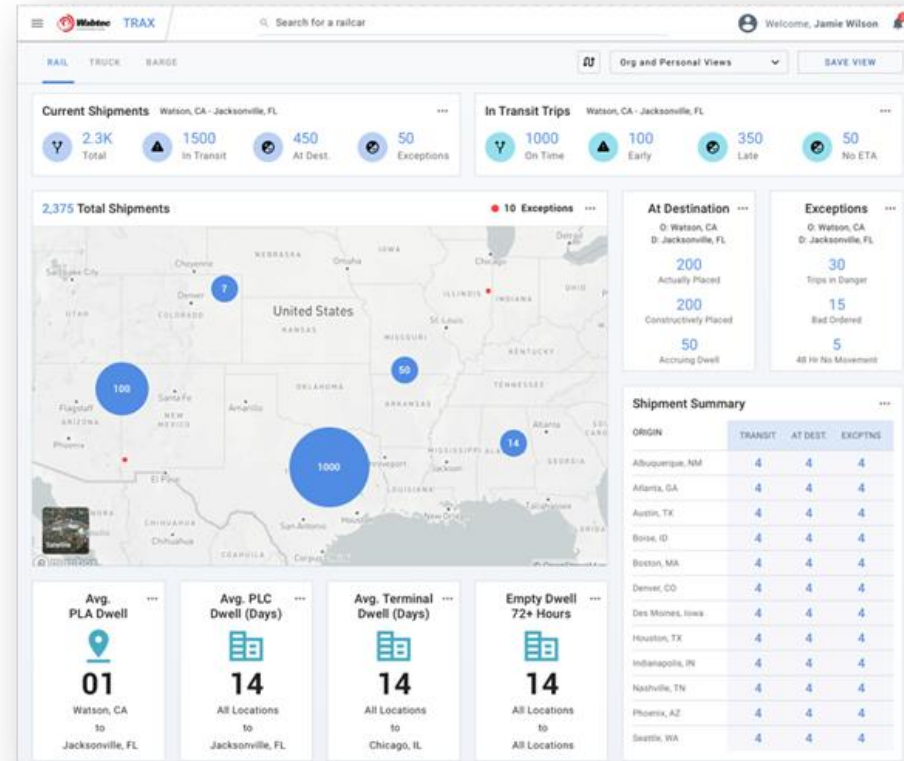
- Improved monitoring of export cargo
- Visibility by carrier, by terminal, and by mode
- Advanced visibility of expected export cargo
- Improved equipment availability metrics



Phase 1 will focus on data acquisition and integration of data into the Port Optimizer Data Foundation, initial testing and quality assurance

WAREHOUSE CAPACITY VISIBILITY

- Visibility of warehouse capacity within Southern California/Other defined regions
- Control Tower dashboard integration
- Searchable interface by region and geo-mapping



Phase 1 includes project discovery with required stakeholders, initial data acquisition and integration within the Port Optimizer Data Foundation.

BUDGET



Agreement	Term	Budget	Expenditure
Pilot Project	11/4/16 - 11/3/17	\$1,319,050.00	\$1,163,050.00
Amended and Restated Agreement	11/4/17 - 11/3/19	\$11,781,370.00	\$10,086,917.31
Amendment 1	11/4/19 - 11/3/22	\$3,000,000.00	\$3,368,105.50
Amendment 2	no change	no change	\$618,651.18
Amendment 3	no change	no change	\$707,697.32
Amendment 4	11/4/22 - 11/3/26	\$6,500,000.00	\$2,350,000.00
Amendment 5	no change	\$5,500,000.00*	
Proposed Amendment 6	no change	\$6,500,000.00	
Total		\$34,600,420.00	\$18,294,421.31

* \$3M is reimbursable by FHWA Advanced Transportation Congestion Management Technologies Development (ATCMTD) grant.

STAFF RECOMMENDATION

Staff Recommends that the Board:

- Approve the Sixth Amendment to the Amended and Restated Agreement (Agreement No. 17-3425-A) to enhance the Port Optimizer, begin implementation of three new modules, clarify certain contract terms, include contingency for as-needed development, and increase the not-to-exceed compensation amount by \$6,500,000.

THANK YOU

