### Organization at a Glance

- Founded in 1907
- Municipal Port
- Non-Taxpayer Supported
- "Hybrid" Port Model
- 4,300 acres Land (1,740 hectares)
- 3,200 acres Water (1,295 hectares)
- 270 Berths & 27 Cargo Terminals
- 7 Container Terminals
- 86 Cranes
- **9.3 Million TEUs in CY2017**

### Global Ranking (by TEUs)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Port</th>
<th>TEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Shanghai, China</td>
<td>40.2</td>
</tr>
<tr>
<td>2.</td>
<td>Singapore</td>
<td>33.7</td>
</tr>
<tr>
<td>3.</td>
<td>Shenzhen, China</td>
<td>25.2</td>
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<tr>
<td>4.</td>
<td>Ningbo, China</td>
<td>24.6</td>
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<tr>
<td>5.</td>
<td>Hong Kong</td>
<td>20.8</td>
</tr>
<tr>
<td>6.</td>
<td>Busan, South Korea</td>
<td>20.5</td>
</tr>
<tr>
<td>7.</td>
<td>Guangzhou, China</td>
<td>20.4</td>
</tr>
<tr>
<td>8.</td>
<td>Qingdao, China</td>
<td>18.3</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Los Angeles &amp; LB</strong></td>
<td><strong>16.9</strong></td>
</tr>
<tr>
<td>10.</td>
<td>Dubai, Arab Emirate</td>
<td>15.4</td>
</tr>
</tbody>
</table>
Cargo Congestion Q3 2014 thru Q2 2015

Contributing Factors

- Vessel sharing Alliances deploying larger ships
- Divestiture of Equipment
- Dislocations in the Supply Chain
- Protracted Labor Contract Negotiations
Consolidation & Vessel Sharing Alliances

The Alliance

- **29%** Trans Pacific Market Share
- POLA - 3 Terminals
- POLB - 1 Terminal
- **2022 Agreement Duration**

Ocean Alliance

- **41%** Trans Pacific Market Share
- **EVERGREEN LINE**
- POLA - 3 Terminals
- POLB - 2 Terminals
- **2022 Agreement Duration**

2M + HMM

- **21%** Trans Pacific Market Share
- **MAERSK**
- **COSCO SHIPPING**
- **OOCL**
- **APL**
- **CMA CGM**
- **HMM**
- POLA - 1 Terminal
- POLB - 1 Terminal
- **2025 Agreement Duration**
Our Operational Focus Points

**Strategic Land Use**
- Ongoing terminal modernization projects
- Re-purposing surplus land to support short and mid-term cargo needs
- Creating Terminal Alliances

**Process Management**
- Supply Chain Optimization efforts -- 100+ stakeholders
- Continuing strong engagement with State & Federal Policymakers, including FMC and Departments of Commerce, Labor & Transportation

**Technology**
- Digital Infrastructure & Port Community Systems
- Increased development & application of Blue & Green technology
• Deeper Joint-Port Collaboration
• Dialogue with Supply Chain Stakeholders
• Engagement with Academia
• Develop efficiency programs that improve:
  ✓ Cargo Flow
  ✓ Secondary Conveyance (Truck and Rail)
  ✓ Chassis availability
• Develop Performance Metrics embraced by Supply Chain Stakeholders
Strategic Land Use
Big Ships = Big Land-Side Demands

13,000 TEU Maersk Evora @ APM Terminals-Pier 400
• First U.S. port call with 9 containers high on deck
• 24,846 TEU Discharges & Loads in Port
• Deployment of Tallest STS Cranes in North America

43% Increase in 13,000-TEU and larger vessels (2015-2016)
Strategic Land Use
Harbor Performance Enhancement Center Concept

- Chassis Pool
- Cell Phone Holding Yard / Bobtails
- Wheeled Storage
- Potential Solar Operations
- Gate Entry
Supply Chain Management

Launched in 2017

- One terminal, two steamship lines, and one string of ships
- Channeled, secure access to data that supply chain stakeholders need
- Benefit supply chain efficiency, predictability, and reliability
- Keeps the supply chain flowing
GE Port Optimizer Features

- Unified Information Portal
- Cloud-based
- Flexible
- Secured, channeled access
- Predictive analytics and data driven insights
- Vessel tracking, vessel operation status, container tracking, and equipment management
- Persona-based visualization
GE Port Optimizer User Interface

Key information highlighted at the top for quick and easy access

Mouse over for specific information

Ability to search by multiple criteria to view data specifically how you want
GE Port Optimizer Pilot & Benefits

**Pilot Results**
- 93% agree that the data in the portal is easy to understand and valuable
- 94% agree that the portal is easy to access and visually appealing
- 8-12% Projected efficiency increases, as the solution is scaled @ Port of LA

**Benefits**
- Increased cargo visibility
- Predictability
- Collaboration
- Productivity & Asset Utilization
- Increase cargo velocity
- Improve service delivery
- Environmental benefits
GE Port Optimizer Implementation

Usage Growth

2017
- Onboarding Lines and Terminals
- Data development
- Wider stakeholder engagement

2018
- Implementation
- User acceptance
- Feature/function build-out

2019
- Drive efficiency gains
- Analytic outcomes
- Continuous improvements
Cyber Security – An Expanding Priority

- 24x7 defense against 20+ million intrusion attempts per month
- **Technologies**: Cyber Security Operations Center (*First for ports, in operation since 2014*)
- **Processes**: ISO 27001 certified Information Security Management System (*First and only for ports, certified since 2015*)
- **Personnel**: Dedicated cybersecurity team, including qualified employees with cyber security industry certifications
- International Collaboration is essential