

BUILT-IN VULNERABILITY

The Hidden Cyber Risk Inside America's Port Cranes

BUILT-IN VULNERABILITY





ARCHITECTURE OF DEPENDENCE

The Architecture of Dependence.

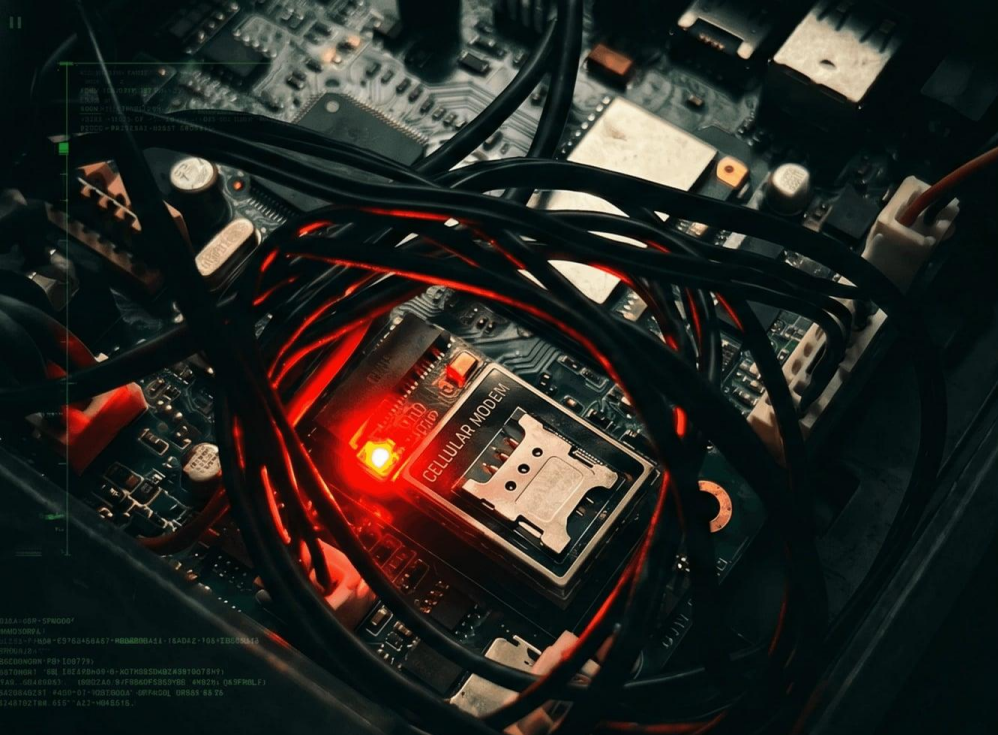
- 🎯 ZPMC supplies **80%** of U.S. port cranes
- 📍 State-subsidized pricing undercuts Western competitors
- 📍 Over **200 cranes** integrated into critical infrastructure



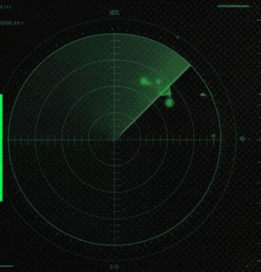
REMOTE ACCESS RISKS

- 🎮 Cranes designed for remote control and programming.
- ▶ ZPMC engineers maintain persistent access.
- ⚠️ Chinese law mandates intelligence cooperation.





THE MODEM DISCOVERY



UNAUTHORIZED HARDWARE

- CONGRESSIONAL PROBE FOUND UNAUTHORIZED CELLULAR MODEMS ON ZPMC CRANES;
- DEVICES BYPASSED FIREWALL CONTROLS;
- PURPOSE: 'OBSCURE METHOD' FOR DATA COLLECTION AND DISRUPTION.



SUPPLY CHAIN INFILTRATION

Critical components shipped to China for installation;
Parts stored in China for months;
Hardware-level manipulation risk.



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STRATEGIC CALCULUS

- **Port disruption** is a key element of Chinese military planning for a Pacific crisis.
- **West Coast ports** are vital for moving U.S. military personnel and equipment.
- **Control over port data** provides "privileged insight" into global commerce.





ECONOMIC CONSEQUENCES

- Port of Long Beach handles **\$200 billion** in trade annually.
- Single day shutdown costs **\$2 billion** to local economy.
- **Simultaneous** disruption would be catastrophic.





DOMESTIC RECOVERY

\$20 BILLION FEDERAL INVESTMENT
to restart domestic crane manufacturing

- **PACECO Corp.** (U.S. subsidiary of Mitsui) leading the onshoring effort
- First U.S.-made ship-to-shore cranes in over 30 years.

MADE IN USA



LEGISLATIVE SHIELD



LEGISLATIVE SHIELD

- Senate passed act to fund replacement of Chinese-made cranes.
- Grants available for ports to switch to U.S. or allied-nation equipment.
- Bipartisan recognition of the urgent national security threat.



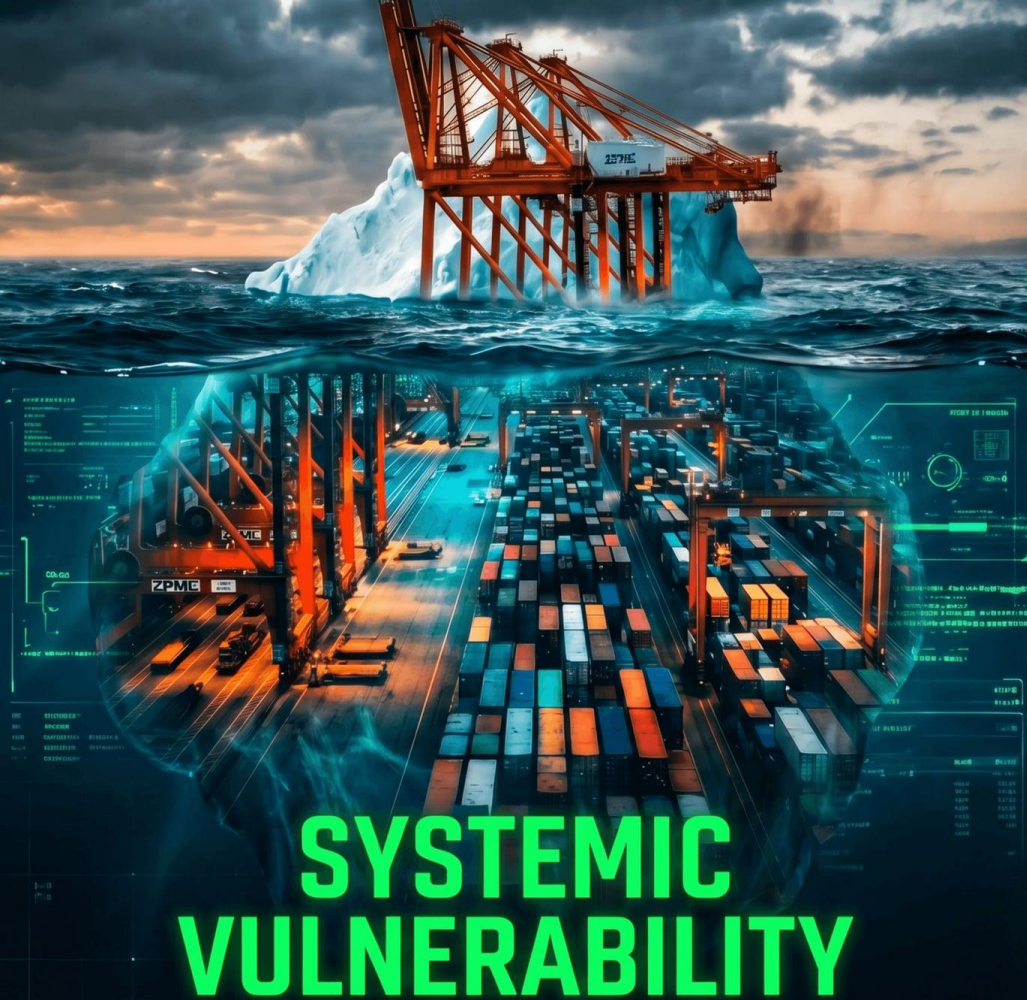
THE TIMELINE GAP



THE TIMELINE GAP

- Replacing 200+ cranes across 23 ports will take 10 to 15 years.
- Current USCG inspections have covered less than half of existing cranes.
- The risk remains “current and ongoing” for at least the next decade.





SYSTEMIC VULNERABILITY

SYSTEMIC VULNERABILITY

- Vulnerabilities extend to cargo scanners, logistics platforms, and sensors;
- Most 'Western' alternatives maintain deep PRC supply chain ties;
- Need for comprehensive maritime cybersecurity standards.





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VIGILANCE & RESILIENCE

- Hardware-based risks cannot be 'patched' like software
- Continuous monitoring and proactive defense are essential
- Trident Group: Your partner in maritime resilience



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TRIDENT GROUP AMERICA

- Specialized Maritime Cyber Red Cell;
- Global Maritime Security Solutions & Asset Protection
- Professional Training & Security Operations
- Bridging the gap between policy and actual port security.

