

Freight Information Real-Time System for Transport (FIRST)

Industry and government are concerned about the capacity of ports and terminals, and the highways, rail lines, and waterways that serve them, to handle steadily increasing volumes of intermodal traffic, especially containerized freight. The volume of intermodal containers moving through ports worldwide doubled during the last decade. Similarly, the volume of intermodal freight moved by air, rail, and truck grew just as dramatically. Over the next two decades, volumes are expected to nearly double again.

Today's intermodal freight system is not equipped to handle this growth. Ineffective links among modes are degrading the reliability and performance of carriers, shippers, and terminal operators. Moreover, the lack of effective information sharing among stakeholders creates bottlenecks and unnecessary delays in the efficient movement of freight. These deficiencies increase operating costs and congestion and decrease safety, economic competitiveness, and air quality.

For the Port Authority of New York and New Jersey, the most acute problem centers on landside access to terminals. With very little room for land and facility expansion, the private terminals at the Port Authority's marine terminals are struggling with the ever-

increasing flow of trucks to unload and load container ships. This problem is likely to worsen in the coming decade as the number of containers entering the port is expected to increase by 4.2 percent annually. In response to this situation, the Port Authority, supported by public and private stakeholders, is



Truck Line at a Port of NY-NJ Terminal

looking to leverage information technologies and intelligent transportation systems (ITS) to improve Port operating efficiencies.

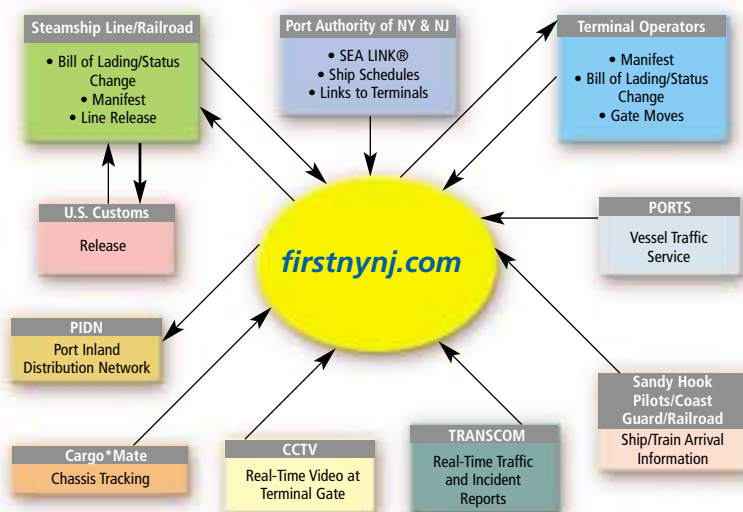
The FIRST Demonstration Project

Supported by the Federal Highway Administration's Office of Freight Management and Operations, the Congestion Mitigation and Air Quality Improvement Program, and the I-95 Coalition, the FIRST Demonstration Project was funded and developed, in part, to provide unique solutions to freight transportation problems. FIRST is an Internet-based, real-time network that integrates many resources into a single, easy-to-use Web site on cargo and port information. Designed by the intermodal freight industry, in cooperation with public sector partners, FIRST uses the Internet as a platform to data in a variety of formats to facilitate the safe, efficient, secure, and seamless movement of freight through the Port of New York and New Jersey.

The FIRST Web site—www.firstnynj.com—provides real-time information on cargo status to ocean carriers, exporters, importers, foreign freight forwarders, customs brokers, terminal operators, and rail and trucking services. A trucking company, for example, can use the system to find out the status of a cargo container waiting to be picked up at the port. By verifying that the container is at the terminal and has been released for pickup, the trucker can avoid multiple telephone calls to the terminal and prevent unnecessary trips to the port.

FIRST System Overview

When fully developed, FIRST will enable port users to post and receive information on the location and status of intermodal freight shipments, including export bookings, customs manifests, receipts and invoices, gate moves, carrier insurance/credit status, delivery confirmation, and truck identification. With connectivity to public and private ATIS systems, information on travel conditions along access roads and major freight routes serving the Port of New York and New Jersey will also be provided. Shared cargo and traffic information should facilitate the movement of cargo by reducing time delays caused by incomplete cargo documentation, delayed release of cargo, and bypassing traffic congestion. Eventually, FIRST will also include a truck driver's appointment system that would allow private terminals to provide appointment times for a trucking company to pick up or deliver its containers.



Several other key information and ITS systems have been or will be integrated with FIRST. SEA LINK®, which provides a central database of registered trucking companies and their truck drivers doing business at the port, has already been integrated with FIRST. Other systems expected to be integrated with FIRST include the U.S. Coast Guard Vessel Traffic Service and the U.S. Customs Automated Manifest System. A potential also exists for future information connectivity with systems being deployed under the Cargo*Mate Demonstration Project, which is testing an intermodal freight logistics system through the real-time tracking of intermodal chassis.

Benefits of FIRST

In terms of private sector benefits, terminal operators at the port can use information on the FIRST Web site to plan cargo arrivals and dispatches, and ocean carriers can monitor equipment usage, thereby achieving cost savings in asset and resource management. Additionally, truck drivers, freight forwarders, and brokers can increase productivity, efficiency, and security by determining the status of multiple container shipments at various locations from one single source.

In terms of public sector benefits, state and regional transportation agencies can use the information to evaluate strategies for meeting regional transportation plans and improve highway utilization, thereby reducing congestion and vehicle emissions.

Moreover, the combination of a cargo status and trucker container appointment system, along with integrated real-time traffic and incident information, could significantly increase productivity for freight movement and mitigate congestion in and out of ports. This would, in turn, be expected to produce measurable air quality improvements.

For More Information Please Contact

Mike Onder
 Team Leader, Operations and Technology
 Office of Freight Management and Operations
 Federal Highway Administration
 (202) 366-2639
 michael.onder@fhwa.dot.gov

Expected Benefits of FIRST

Stakeholder	Expected Benefit
Shippers/Consignees	Pickup/delivery notification In-transit visibility
Ocean Carriers	Savings in data transmission Pickup/delivery notification Enhanced customer service Effective equipment utilization
Freight Forwarders/Brokers	Ability to select trucker Real-time trucker status In-transit visibility Pickup/delivery notification
Terminal Operators	Increase gate moves/throughput Quicker collection of fees Savings in data transmission Pre-notification of truck arrival More efficient use of labor/equipment Enhanced customer service
Truck Drivers	Real-time container status Advanced notice of fees due Real-time gate activity Real-time incident and traffic management reports Efficient use of labor/equipment Increase capacity for additional moves
Regional Transportation Agencies	Reduce highway congestion and vehicle emissions Increase in commercial vehicle safety
Port Authority	More cohesive terminal operations Comprehensible statistical database for future planning Greater competitiveness as the region's "port of choice"

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