

Implementing an automated terminal appointment system can reduce the length of time a truck spends waiting to be processed at terminal gates. Research suggests that turn times can be reduced by 30 percent, saving over 200 gallons of fuel per truck or about \$500 annually.

What is the challenge?

The arrival time of drayage trucks at a terminal is typically left to the discretion of the drayage truck/fleet operator. Without coordination between the drayage fleet operators or between operators and terminals, fluctuations in truck traffic volumes result in periods of both over and underutilization of terminal capacity. Overloaded gates and terminals mean longer wait times and lost revenues for truck drivers, decreased throughput and customer satisfaction for terminal operators, wasted fuel, and increased air pollution.

What is the solution?

Gate efficiency can be improved by implementing automated terminal appointment systems. These systems often make use of the internet for greater coordination of terminal capacity and operating conditions with truck appointment scheduling. This helps to reduce lengthy truck queues and information processing times and facilitates a more efficient allocation of personnel. Trucks arrive when needed and benefit from faster processing and reduced wait times. Minimizing wait times and improving timeliness of deliveries can improve customer satisfaction and productivity for both drayage fleet and terminal operators.

Internet technologies that allow for automated scheduling can also facilitate online information processing. Shipment

information can be updated online and relayed between terminal users and gates prior to trucks arriving at the port. Information on container status can help trucking companies to efficiently dispatch trucks to pick up available loads. Online fee payments and driver information can dramatically reduce the occurrence of problematic transactions and minimize terminal delays. Equipping trucks with transponders allows driver information to automatically be transmitted to the gate house to improve the speed of processing.

The results are in . . .

The Port of New Orleans has implemented a mandatory terminal appointment system to improve efficiency and better manage the flow of truck traffic. The Gate Entry Management (GEM) system is a web-based application that integrates the terminal management systems of multiple operators. GEM allows dispatchers to schedule appointments and provide information for pre-clearance prior to the trucks arrival at the terminal gates. This reduces paperwork and communications delays and provides early identification of problem transactions. The result has been improved traffic flow, increased terminal throughput, and improved productivity for trucking companies and terminal operators.

The Georgia Ports Authority's (GPA) WebAccess system was introduced to

provide real-time access to online data on container shipments. WebAccess allows customers 24 hours access to update data on container shipments. The system has reduced gate processing times and delays caused by problematic transactions. GPA estimates that WebAccess has reduced truck turn-times by an average of 30% and has virtually eliminated problems with queuing outside terminal gates. The result has been a reduction in idling at the gates and savings of approximately 3,020 gallons of fuel, a half ton of nitrogen oxide and 33 tons of carbon dioxide on a peak day.

Next steps

More efficient gate operation is being mandated through state legislation at terminals in California, with legislation pending in other states. Critical components to the successful implementation and operation of gate efficiency programs include training the terminals and truck drivers to use the technology and ensuring that the new systems are easily accessible. The time and fuel savings benefits for the drivers and the better planning potential that is provided at the terminals through automated terminal appointment systems make this technology a readily adoptable option.