

Virtual Vessel Arrival Systems Improve Both Efficiency and Emissions

Even in the short-term, technological improvements in logistics will leap far beyond online booking services and track-and-trace solutions. Shippers should not only look for providers with access to leading digital capabilities, but expert partners and advisors who can employ those technological tools in a way that makes the most optimized practical impact on a shipper's supply chain.

For the last few months, the Port of Houston has been demonstrating how the practical application of new technologies can significantly impact operations. Over the last few years, Houston has broken records for monthly and yearly volumes of freight processed. Relative to the port's historical data, operators have been consistently processing dramatically more freight than traditional averages. Eventually, that increased volume led to backlogs.

To battle these backlogs, the Port of Houston has employed a virtual marker system for vessels on certain high-volume port rotations. This system allows ships to virtually reserve berths at Houston while loading and unloading at other ports in the region including Port NOLA and the Port of Mobile.

Virtually reserving berths in advance minimizes any onsite backlogs, and the method has proven to improve throughput efficiency. Additionally, data collected by the Environmental Protection Agency (EPA) on this virtual marker system used in Houston and some select other gateway ports around the world shows that it can significantly reduce emissions and cut vessel idling time. The tracking system can also help vessel operators understand exactly when their individual berth will become available, and that can help more efficiently manage speed, fuel use, and again, potential idling time outside the port.

Leveraging modern technological services like this virtual market can help shippers save time, improve reliability, and speed up their supply chain while simultaneously promoting fuel efficiency and global emissions goals. Choosing an expert provider with an in-depth knowledge of these tools, relationships with logistical hubs that properly employ them, and proven strategies on their practical application will be essential moving through 2023 and beyond.