



can be bought off the shelf for \$29. Even complex Transportation Management Solutions can be acquired for tens of thousands of dollars.

Other modes have taken similarly narrow approach to fleet management. In rail, where routing is a non-issue, fleet managers have used technology to improve signaling and run the trains without drivers. In ocean transport, carriers have implemented GPS and RFID solutions to track containers and chassis. Airlines have deployed gate assignment and management systems to improve the turntime of aircraft at gates, and have applied fleet management systems to ground support equipment (although I recently heard a story about ground support equipment being parked several miles off airport property in Germany!).

velocity of individual pieces of equipment. They are using fleet management technology to increase the throughput of the system's constraint at the hub so that an improvement in one unit's utilization is multiplied by the increase in throughput of all the vehicles using the terminal.

- **Administrative simplicity.** The International Air Transport Association (IATA)'s working group on e-freight has established a working group to improve the speed and accuracy of transmission of 13 administrative documents shared between trading partners. The group has found that over half of administrative errors result in delayed shipments, and that means poor equipment utilization and loss of profit margin. Forty-nine airlines are collaborating to solve this problem, according to Syridis Constantin, chairman of the working group.

- **Revenue management.** Emirates SkyCargo is improving its cargo forecasting and costing system to enable it to price and prioritize cargo depending on the unique characteristics of each shipment. By addressing the revenue side, this system has the potential to earn more in margin than most traditional fleet management applications could programs could save through operational efficiency.

If implemented fully, fleet management solutions should generate benefits that are noticed by the customer. After all, customers are a lot happier when the fleet gets their goods to them on time. Sometimes the customer even becomes part of the fleet. For passenger airlines, luggage and customers are part of the whole passenger supply chain, so they are a fleet in themselves that can be measured and accelerated through customer self-service check-in and RFID tracking. Watch out - fleet management is getting closer than you think! **D**

Fleet Management - It's not about the fleet!

David Jacoby

Most conventional thinking on fleet management is about the efficiency of the assets themselves. But fleet management is merely a path toward optimization of the entire logistics system. Forward thinking companies are designing and applying more extensive solutions today.

Within trucking and private fleet operation, shippers and carriers used to focus on developing or implementing solutions to reduce the number of vehicles required to pick up or deliver a certain number of shipments in a day (or a season or year, given seasonal peaks). Logisticians developed linear programs based on the "traveling salesman" problem to minimize the number of miles traveled. Today's routing and scheduling software packages

The air cargo industry is taking fleet management to a new level. While it's doing some of the same things as other modes (outsourcing, pooling, etc.), this industry realizes that managing the fleet is about much more than equipment productivity - it's about getting the most profit out of a flow of goods from place A to place B, and that goes way beyond the equipment. Air cargo carriers are targeting terminal productivity, administrative simplicity, and revenue management through the fleet.

- **Terminal productivity.** Sinotrans and Maersk are using a license plate recognition technology to enable better yard control and security tracking. For them, fleet management does not stop at the

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