Title: Courier company Speedy, a member of DPDgroup, saves 7-9% total costs with Transmetrics' Predictive Analytics Tool

The Background

Managing 700 vehicles and handling over 16 million of parcels annually, Speedy (DPD Bulgaria) controls one third of the courier/express market in the country. Its network consists of ten major logistics hubs and over 100 inter-hub truck lines. Moreover, being part of the DPDgroup gives Speedy an extensive reach to the regional, continental and global markets.

To facilitate its rapid growth connected to the e-commerce boom, the company started to invest heavily in modernizing and upgrading its IT and physical infrastructure. Additionally, its product portfolio has been constantly evolving to meet the extra demand.

The Problem

Speedy's high rate of growth has further amplified the effect of several very common problems in the industry:

- First, it became nearly impossible to adequately prepare for the peaks in demand during major holidays and events like Christmas, Easter, Black Friday, and others. Trucks often had to be ordered in the last moment, which was very costly and sometimes not possible at all.
- Second, there was no loading factor visibility. It was typically estimated based on the perception of the loading personnel and did not provide full and correct data about the loaded capacity.
- Third, the company was unable to accurately assign cost by customer, especially for non-standard sized items.

All of these factors created the need to build operational resilience by moving planning know-how from individual people to an IT system to support complex operational decisions.

The assignment of Transmetrics

Given its proven record of successfully developed intelligent tools for several global logistics companies, Transmetrics was assigned to implement its data-driven predictive optimization product for express/parcel/pallet/groupage terminal-based businesses called NetMetrics. NetMetrics would allow Speedy to effectively estimate its loading factor, forecast its future volumes and efficiently allocate resources. As the end goal, the company aimed to improve

capacity utilization, reduce hub-to-hub costs, and refine pricing strategy for end customers with NetMetrics.

What Transmetrics did

Data Cleansing and Loading ➤ Integration of Analytical Module ➤ Integration of Forecasting & Optimization Module

The NetMetrics implementation process was done in three phases:

1) Data Cleansing and Loading

   Using three years of shipment history, data was assembled through a process of cleansing, enriching and restructuring to make analysis possible.

2) Integration of Analytical Module

   A thorough business process analysis was supported by regular meetings with internal stakeholders at Speedy. It allowed Transmetrics to create a set of rules and restrictions to enable a precise estimation of loading factors. Using this methodology, Transmetrics also created a set of historical reports to help identify the trucks with low loading factors (candidates for cancellation) and hub-handling problems (where loading instructions were not followed).

3) Integration of Forecasting & Optimization Module

   By using Artificial Intelligence and complex proprietary forecasting and optimization algorithms, NetMetrics was able to fully accommodate all features of the rapidly evolving business. A highly accurate and granular demand forecast was created by combining already enriched and structured historical data and a set of customized external factors. The forecast served as a base for the optimization (capacity planning) module, whose main tasks are to calculate the most cost-effective ways for transporting the predicted volumes and to show which trips are safe to cancel without impacting delivery performance and customer service levels. These modules assured the continuous improvement of the network performance.

Results and value for the customer

As a result of the NetMetrics deployment, Speedy realized an immediate reduction in linehaul costs and an increase in loading factors. The improved usability of the cleansed data as well as structured reports have been extremely useful for measuring the efficiency of the fleet. These

reports helped the client to identify issues in the processes related to capacity planning, loading of shipments, and pricing.

With NetMetrics predictive tool, the company managed to identify and cancel repeatedly empty or half empty trucks, leading to a **25% hub-to-hub cost reduction**. Additionally, the software provided a more accurate estimation and led to an up to **34% increase of the loading factor**, which improved internal accountability. Overall, **NetMetrics led to a 7-9% total cost reduction** for Speedy.

The management of the company is already able to make better data-driven decisions weeks in advance. As more data is gathered over time, NetMetrics will enable continuous improvements of network performance, planning flexibility, and network resilience, so the benefits will continue to accrue for Speedy.

Testimonials from the customer

Alexander Petkov, Director of Operations and Board Member at Speedy: *"We are impressed by the improvements delivered by the Transmetrics platform, which were both immediate and quantifiable. Using Transmetrics' reporting system, we can measure the efficiency of our fleet and set correct KPIs for our warehouse team. The implementation was easy and support from the Transmetrics team is always excellent. We encourage other divisions within DPD to implement the solution. We have also been able to drastically improve our pricing accuracy with Transmetrics' tools thanks to the ability to now accurately measure the delivery expense of each parcel. This has enabled us to identify low or negative margin customers and adjust our pricing accordingly."*

Danail Danailov, Board Member at Speedy: *"With the Transmetrics' application, the benefits are very visible. Before using Transmetrics' solution, the rate of fleet utilization was 72%. Currently we have above 82% [utilization] and we are expecting this to increase. We estimate the total cost reduction at 7-9%, which is a great result for us."*

About Transmetrics
Transmetrics is a Big Data, predictive analytics solution which was created exclusively for the cargo transport industry. By applying AI and machine learning, Transmetrics product is solving the existing inefficiencies of the industry concerning capacity utilization. The product implementation consists of multiple steps: data cleansing, advanced forecasting, predictive optimization, and execution controlling. Transmetrics' products help companies make better, data-driven decisions and continuously improve their operational performance. Transmetrics works with the world's leading logistics companies, including global Fortune 500 companies.