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IFORMATIONAL SYSTEM DYNAFLEET

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Introduction

Informational system Dynafleet, which is provided to carriers by VOLVO manufacturers, offers functions that ensure obtaining of information about the fleet, the drivers, or respectively about the transport. This informational system works on the remote access through an internet connection with server, where all information from driver, concrete vehicle or from dispatcher is kept. Other informational systems (Table n.1), which are provided by individual vehicle producers, also operate on the same principle.

Table n. 1

Informational systems offered by vehicle producers

Name of the vehicle producer	Informational system
IVECO	BLUE&ME Fleet
Mercedes Benz	FleetBoard
Volvo	Dynafleet
Scania	C200
MAN	Telematics
DAF	
Renault	Infomax

Carrier doesn't need own software and hardware solution, he needs only computation technology, internet access and hardware in individual vehicles. Dynafleet consist of four packages of different services and it is on carrier's own decision which one he is going to use. It is possible to change these packages during the maturity of the vehicle. Monthly costs of each variation is 15 € per month per one vehicle. Dynafleet provides these four packages:

- Fuel and the Environment
- Driver's Activities

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- Vehicle Location
- Communication

1. Hardware needed in vehicle for Dynafleet usage

In order to use Dynafleet information system, carrier has to buy and install an appropriate hardware into vehicle. Price depends on the concrete hardware equipage. We can divide hardware equipage into these three groups:

- DF-BAS (elementary)
- DF-MED (middle)
- DF-HIGH (the highest one)

For usage of packages "Fuel and the Environment", "Driver's Activities" and "Vehicle Location" carrier needs to have an installed elementary hardware equipage DF-BAS in his vehicles. This hardware equipage is without driver's panel control (without Drivertool) and includes only DF Gateway (used to obtain information about the vehicle and the driver that can be downloaded from the server by dispatcher in order to analyze them), antenna and an emergency button. Price of such hardware equipage is 700 € when purchasing a new car.

If a carrier wants to use the "Communication" package of services fully, he needs to have hardware equipage DF-MED installed in his vehicle as a minimal requirement. Hardware package DF-MED is with driver's panel control and besides DF Gateway includes also DF Drivertool, antenna, emergency button and keyboard. Price of DF-MED hardware equipage is 1 250 € by the purchase of a new car.

DF-HIGH is the highest hardware equipage which is offered with the Dynafleet informational system. This equipage encompasses DF Gateway, DF Drivertool, antenna, emergency button, keyboard and a slide-out display. For procurement and installation of this hardware equipage carrier pays 2 100 € when purchasing a new car.

Hardware equipage can be also additionally installed into the older vehicles by an authorized dealer, but the price will be higher by approximately 30%.

2. "Fuel and the Environment" package

It is a tool for analyzing fuel consumption and its effective reducing. This package offers detailed reports that may discover over-consumption, how to save on fuel and also control concrete measures, which were introduced after ascertainment of such imperfections.

It is recommended to use this package with a driver's training, because the over-consumption is in the most of the cases connected with bad driving technique. This package offers to carrier these functions:

- Reports of consumption (current and average consumption), travelled distance, vehicle emissions
- Analysis of the driving style of each driver
- Comparison of different vehicles and drivers
- Reports that for example show what driver did well and what he should improve

3. "Vehicle Location" package

By subscribing this package carrier will always know the exact location and the final destination of his vehicles. Package "Vehicle Location" offers these functions:

- Current and historical location of vehicles, where the vehicles are currently located or were located
- Information relating to speed, time, driving and relaxation displayed directly on the map
- Dispatcher is alerted when the vehicle is approaching the final destination (function Geofencing)
- Routes and transports planning
- Access to customers, who can see the position of the vehicles with their shipments
- Possibility to connect to Garmin navigation, which will send the map of loading or unloading destination, eventually the map of whole route, directly to the vehicle

4. "Communication" package

Service enables exchange of SMS text massages or e-mails between the driver and the dispatcher (Pic. 1.). The control of receiving and reading of concrete massage can be realized whenever carrier wants and needs.

Pic. 1. "Communication" package

5. Drivers training and the Fuel Management

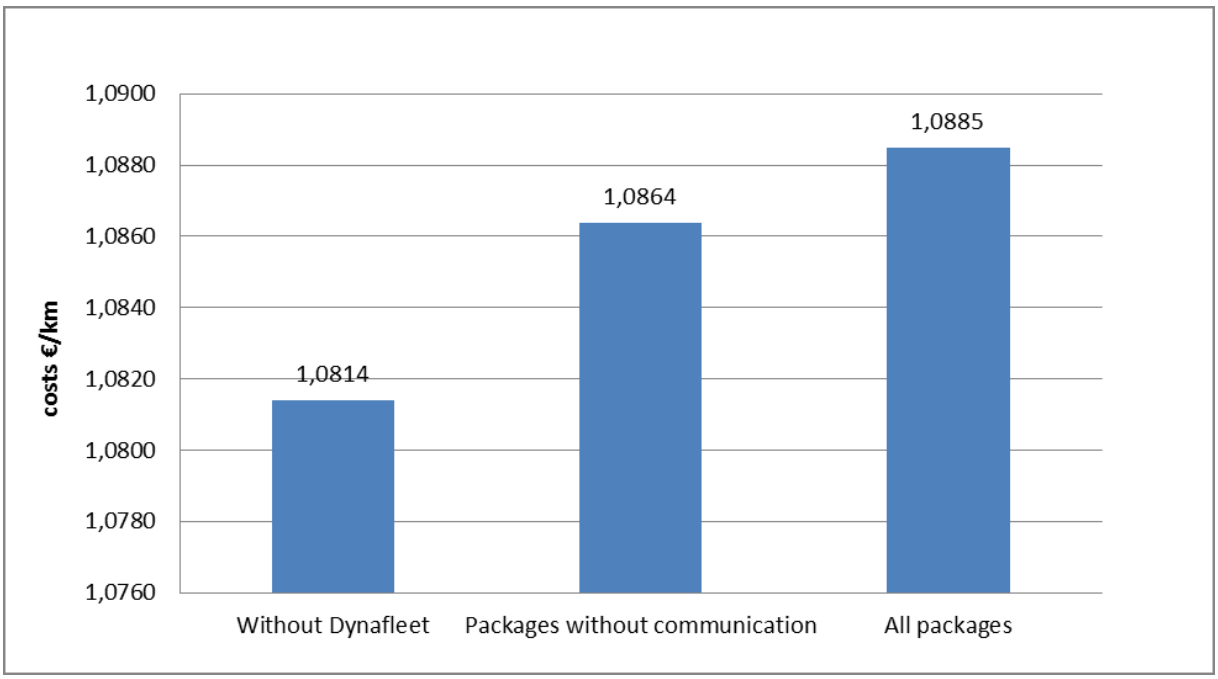
If a carrier uses Dynafleet information system he can also obtain an additional service Fuel Management. It is a drivers retraining program during which the driver is controlled when he drives a vehicle. If there arises any problem, driver will be retrained. Thus, the transport company can save fuel costs and the costs of repairs and maintenance of its vehicles.

Conclusion

Dynafleet informational system is intended to carriers, who want to optimize operation of their companies on the basis of information obtained from individual vehicles, transports and drivers. Carrier can choose within 4 different packages of services according to his preferences and demands that can optimize his own costs. It can improve the quality of his services and therefore to acquire new customers.

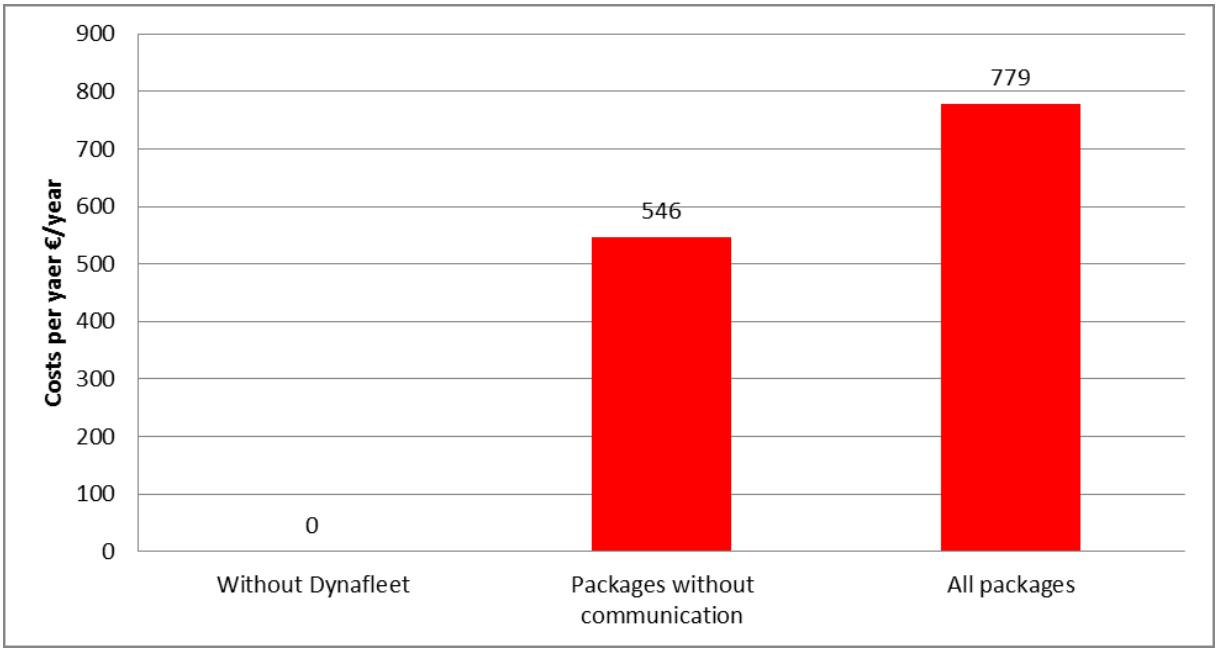
If carrier buys new hardware and particular services packages, his initial costs will be higher. But by optimizing he can reduce his costs and his savings should be higher than initial costs for information system Dynafleet.

Costs €/km without information system Dynafleet, with services packages without communication and with all services packages are depicted in picture. (Pic. 2.).



Pic. 2. Costs €/km by using information system Dynafleet

Annual costs €/year without information system Dynafleet, with services packages without communication and with all services packages are depicted in picture. (Pic. 3.).



Pic. 3. Costs per year €/year by using information system Dynafleet

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