

# Digital Tachograph Cards

## Case Study



**Project:** Software solution for personalization of digital tachograph cards with an integrated chip  
(Программное обеспечение для персонализационного комплекса карт цифрового тахографа)

**Country:** Belarus

**End-customer:** Government Authorities, Private Sector

**Subcontractor:** CryptoTech <http://cryptotech.by/about/info/>

**Launch:** Autumn 2017

**Country specifics:**

Population in Belarus: 9,5 million

Card personalization facilities: approx. 300 cards per day

Road accident index: average

## Regulation

The United Nations Economic Commission for Europe (UNECE) has incorporated the European Agreement Concerning the Work of Crews of Vehicles Engaged in International Road Transport (AETR) that aims to prevent drivers and crews of commercial vehicles of more than 3.5 tons, or transporting more than 9 people, engaged in international road transport, from driving excessive hours. In particular, Appendix 1B of the Annex to the AETR specifies requirements for construction, testing, installation and inspection of the digital control device used in international road transport.



## Reasons to implement a digital tachograph solution:

- to comply with regulation increase in road safety – less accidents and improved road safety by reducing identity fraud, excess driving time and speeding
- Smart way to fight abuse or any other types of manipulations
- In-depth analysis of driver working conditions
- Better working environment for drivers
- Fair competition between transport companies

## Types of Tachograph Cards



### Driver card

Driver cards are issued to drivers and used by drivers to record driving information.

- Smart cards are issued to drivers.
- The driver can have only one valid card.
- A valid driving license & face photo are required for the application process.



### Workshop card

Workshop cards are used by authorised tachograph technicians to fit and calibrate tachographs.

- Smart cards are issued to workshop technicians who install, activate and calibrate digital tachographs in vehicles.
- Smart cards operate with a PIN.
- The application must include a face photo and official certificate that approves workshops and states the competency of technicians.



### Company card

Company cards are used by operators to retrieve data regarding their employees from the tachograph.

- Smart cards are issued to companies operating road transport.
- The application must include an official document confirming that the company uses vehicles with mounted digital tachographs.



### Control card

Control cards are used by law enforcement agencies to retrieve data from the tachograph.

- Smart cards are issued to road transport control officers and customs officers.
- Cards may be personalized for an individual (e.g., control officer) or control unit.
- The application requires a face photo if the card is personalized for the officer.

## Project overview:

X Infotech deployed a solution for personalization of digital tachograph cards. Solution includes the Member State Certification Authority and card personalisation software. Personalised cards are compliant to the European Agreement Concerning the Work of Crews of Vehicles Engaged in International Road Transport (AETR) regulations. Implemented solution includes following components:

- X Infotech MSCA
- X Infotech Chip Encoding
- X Infotech Data Preparation
- X Infotech Key Management System
- Print client for laser engraving personalisation machines
- Tachograph cards personalisation scripts

## X Infotech solutions integrated:

- X Infotech Tachograph Public Key Infrastructure (PKI).
- X Infotech Data Preparation, Chip Encoding, Key Management System, Document Production and Secure PIN Manager for personalization of tachograph cards.
- The implemented software solutions are hardware and chip independent.