

DarsGo system

Experience on Toll Violation
Enforcement



DARS



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DARS d.d., Motorway Company in the
Republic of Slovenia

DARS d.d. - Motorway Company in the Republic of Slovenia



- DARS d.d. is the sole motorway Concessionaire, a joint stock company, established by law and 100% owned by the Republic of Slovenia.
- Main areas of operation:
 - Tolling
 - Maintenance
 - Road Management
 - Investments and reconstruction
- The toll is paid directly to the Concessionaire.
- Based on DARS proposals the Government determines toll tariffs.
- Legal documents regulating tolling: <https://www.darsgo.si/portal/en/legislation>

Time Related Tolling for Vehicles < 3.5 T

- Vignette system for vehicles (personal cars, vans, etc.) weighing up to 3500 kg
- After the introduction of the vignette on 1 July 2008, more drivers have started to use the motorway network.
- It has positively affected road safety, the CO₂ emissions and the amount of traffic congestions



One-track motor vehicles



Caravans and two-track motor vehicles

Caravans and two-track motor vehicles whose height above the front axle is up to 1.30 m, and whose maximum permissible weight does not exceed 3,500 kg, with or without a trailer.



Two-track motor vehicles

Two-track motor vehicles whose height above the front axle is 1.30 m or more, and whose maximum permissible weight exceeds 3,500 kg, with or without a trailer.

DarsGo Tolling System for Vehicles >3.5 T

- Electronic tolling system in multilane free flow DSRC System for vehicles weighing over 3500 kg
- Brand Name: **DarsGo**



DarsGo System



- Open Tolling System
- Multi-Lane Free Flow
- Motorway Network:
 - Entire Slovenian Motorway Network - 623 km
 - One tolling Gantry in each section of the Slovenian motorway network
 - 128 Sections/gantries (15 out of them enforcement gantries)
- Mandatory use of an on board unit (DarsGo Unit)
- DSRC CEN TC 278 Tolling System, compliant with Directive 2004/52/EC according to EN15509
- Tolloed Vehicles: vehicles > 3.5 T maximum permissible weight
- Start of Operation:
 - 1st April 2018

Enforcement

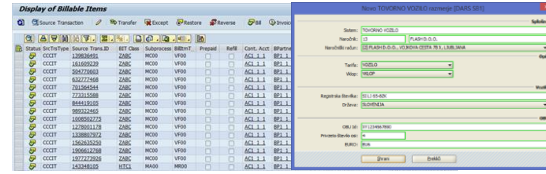
- Enforcement is an essential part of tolling and one of the most important ways for a toll charger to assure the revenue.
- The objective is that users expect roadside enforcement and that there is a high probability that in the event of non-payment of tolls, violators will be detected and penalized.
- Due to geographical location, Slovenia has a lot of transit traffic, occasional users and foreign vehicles.
- Enforcement must be quick and efficient. Violators has to be stopped before they exit the country.



DarsGo System



Enforcement portal



Billing, CRM, DMS



DarsGo service



Central system



Web portal



Tolling portal



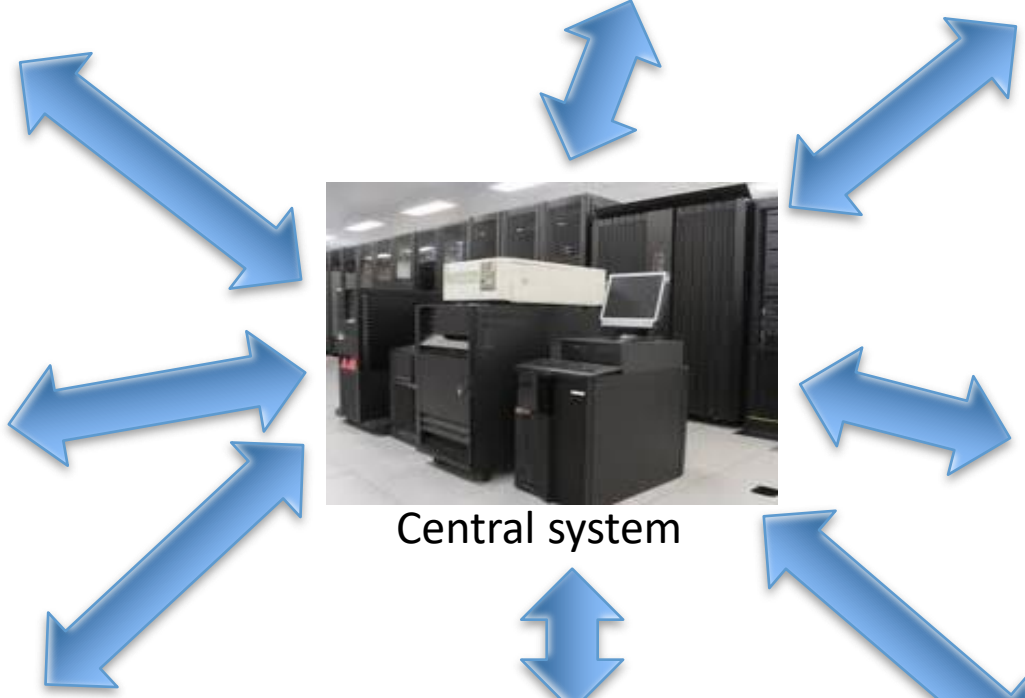
Call center



Mobile enforcement



Enforcement back office



DarsGo: Enforcement for Vehicles > 3.5 T

DARS

- The enforcement process encompasses detection and prosecution;
 - Detection → Fixed installations, i.e. gantries (15), classifications system, cameras, mobile enforcement vehicles (27);
 - Prosecution → Back office, mobile enforcement units.
- The most common violations:
 - wrongly declared number of axes (R3 pays 48% less than R4)
 - prepaid account has a negative balance
 - a vehicle without OBU (DarsGo Unit)
 - OBU from a different vehicle
 - wrongly declared EURO emission class (EURO 6 pays 40% less than EURO 0)
- Aprox. 9.000 penalties issued for HGV (April 2018 - April 2019)



Enforcement for Vehicles < 3,5 T

- The enforcement process encompasses detection and prosecution;
- The most common violations:
 - w/o a vignette
 - wrong use of the vignette
- Aprox. 28.000 penalties issued for vignette vehicles in 2018



Enforcement: Real-Life Examples

- 3 countries – the same licence plate number



- Vans <3,5T or >3,5



- Angry drivers



link to the license: [CC BY-NC-ND](https://creativecommons.org/licenses/by-nc-nd/4.0/)

- Campers



Cross-Border Enforcement

- Directive 2019/520
 - Set conditions for interoperability of electronic toll road systems („EETS“, Art 3 – 22)
 - **Facilitate cross-border exchange of vehicle registration data (Art 23 - 27)**
- Cross-border enforcement for failure to pay toll has to be efficient and executed in „normal“ time.
- Exchange of information about the violators has to be quick and easy for all stake holders.
- Focus on data protection requirements.
- It is important for successful implementation of EETS.



Future Plans

- EETS implementation - work in progress
 - A need for near real time enforcement data exchange

- Karavanke tunel ALPR for vignette users

- Paper sticker vignette -> e-Vignette (ALPNR)
 - e-Vignette enforcement

- Cross-border exchange of vehicle and driver data



An aerial, high-angle photograph of a modern, multi-lane highway bridge. The bridge is supported by several tall, white, rectangular concrete pillars. The road surface is grey with white lane markings. Three cars are visible on the bridge: a red car in the top lane, a white car in the middle lane, and a dark car in the bottom lane. The surrounding landscape is green and hilly.

Thank you
for your attention.

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