Electronic Toll Collection in Poland – achievements and perspectives

EUROPEAN TRANSPORT TRENDS: TOLL SYSTEMS IN EUROPE

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Agenda

- **viaTOLL - achievements**
  - Facts and numbers

- **viaTOLL – perspectives**
  - Unification of tolling systems in Poland
  - Multi Lane Free Flow
  - EETS and interoperability
  - National Road Management System
viaTOLL - achievements
ETC in Poland - three years of successful operation

- Currently collecting tolls (both manually and electronically) on over **2,600 km** of national roads, expressways, and highways run by Polish road operator GGDKiA (extension envisaged)
- Put in operation in July 2011 after **set up in a record time of eight month**
- Generated revenue since then: **EUR 718 million**
- More than **760,000 vehicles** (over 3.5 tons) currently registered
- Approximately **1.5 million viaBOXes** handed out
- **50 million operations** registered each month
- System implementation costs **recouped in 18 months**
The **toll rate** depending on vehicle Euro class, vehicle category (MPW) and road category

KTS responsibility for manual tolling for light vehicles and motorbikes (at state governed motorway sections) also

**217 distribution points** in Poland

Post-pay (21,2%) Pre-pay (68,8%) accounts

Mandatory Onboard Unit

Technology **DSRC** (selected by Contractor)

**viaAUTO (C-Tag)** service for passenger vehicles
HGV ETC Tolled Road Network – First Three Years of Development

Initial (July 2011) – 1543 km

Current (Jan. 2014) – 2653 km

Efficiency of the tolling system – over 99.95%
viaTOLL in numbers

State budget income 2.947 billion zloty

Daily income - approx 3,5 milion zloty
50 mln transactions per month
Over 760 000 registered vehicles, 428 000 users and more than 1 550 000 OBU delivered
Over 7100 C-Tags sold and 1200 handed out to the emergency services units
viaTOLL - perspectives
Unification of tolling systems in Poland

- 4 different tolling system operators in Poland:
  - viaTOLL system (ETC + MTC)
  - 3 manual tolling introduced by concessionaires (motorways: A1, A2 and A4 sections)

- The issue is to **unify motorway tolling** under one system (different rates, categorization, accounting, taxes) – to assure internal interoperability

- EETS requirements
Multi Lane Free Flow

According to the report of consulting company - expertising in economy and transport:

- estimated overall costs of manual tolling system in Poland - **15 billion zloty** between 2016 and 2025

- time spent each year in Poland at tolling plazas - **8 million hours**

- estimated amount of **carbon dioxide** which is emitted unnecessarily by vehicles when jammed at toll plazas – **11 500 tonnes**
Multi Lane Free Flow

- There is a **political will** to implement Multi Lane Free Flow tolling system for light vehicles by 2016
- MLFF can be introduced **at least 1 year earlier** than manual tolling (as planned)
- From technical point of view **Kapsch is ready** for this operation
MLFF – characteristics

✓ No barriers
✓ Passing the tolling points at the normal highway speed
✓ Significant savings in infrastructure investments
✓ No jams caused by tolling barriers
✓ Road safety improvement

✓ Much faster introduction of LV tolling
✓ Enabling the unification of all tolling systems in Poland
✓ Usage of transactional data for traffic management, control authorities etc.
EETS (European Electronic Toll Service) – Main Characteristics

**User’s Point of View**
- “free flow”
- “single continuous service”
- “single OBU”
- “single contract”

**Provider’s Point of View**
- Technical interoperability
- Procedural interoperability
- Service level agreements
- Data privacy and security
ETC and EETS in Poland - what has been done

EETS-compatibility of the Polisch ETC system

- Definition of EETS interfaces
- Definition and Application of EETS architecture
- Implementation of new Transaction
- Implementation of Backoffice Interface
ETC and EETS in Poland – what has been done

EETS-compatibility of the Polisch ETC system

- Upgraded Operational System
- Upgraded Commercial System
- Operations
- Security Settings
- Acceptance Testing
EETS and interoperability

- May 2013: Kapsch completed first successful trial of EETS
- Proofing the technical feasibility of EETS in the real-time environment of the Polish ETC system viaTOLL
- **First time** that all EETS standards implemented seamlessly in a single system
- Since **May 2013 viaTOLL ready** for European interoperability
National ITS

- Ordering party: General Directorate for National Roads and Motorways (GDDKiA)

- Overall objectives of NITS:
  - raising the level of road traffic safety,
  - time loss reduction,
  - optimization of road maintenance management,
  - increase in the travelling comfort.

- NITS will cover the entire national road system managed by the GDDKiA – 19 000 km

- viaTOLL data and infrastructure to be used as the backbone of NITS
Summary

- **viaTOLL - achievements**
  - ETC – fully successful project for Polish government

- **viaTOLL – perspectives**
  - Unification of tolling systems in Poland – viaTOLL as the possible reference system
  - Multi Lane Free Flow – technical ability of viaTOLL
  - EETS and interoperability – certified ability of viaTOLL
  - National Road Management System – viaTOLL as the infrastructural basis
Thank you

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