

**TEMPLATE OF THE NATIONAL REPORT
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Kapsch Telematic Services, Czech Republic

GENERAL REPORT

PREAMBLE

The Consortium Kapsch is the General Supplier of the Toll Collection System on Roads and Provider of Services Related to the Operation of the Toll Collection System.

The Road and Motorway Directorate of the Czech Republic is the Operator of Toll Collection System on Roads. RMD is the organizational organ of the Ministry of Transport of the Czech Republic.

Introduction

The Czech Government discussed the introduction of the road toll shortly after the country joined the European Union (EU) in 2004. The primary reasons for this were:

- Change of time-based taxation to a more just performance-based charging where a user pays for the number of kilometres travelled
- Increase of funds flowing into road management;
- Attempt to balance the conditions for road and railroad transport as well as the related eventual reduction of increased truck traffic in the Czech Republic;
- Possibility to introduce telematic services.

The EU membership of the Czech Republic and the related expectations of highly increased transit truck traffic resulted in a demand for specifying an electronic toll collection system that would offer maximum user comfort.

The considered systems should not discriminate international carriers who occasionally use the chargeable road network in the country compared to the domestic carriers, who use it frequently. This is the reason why the competitors in the tendering process for the toll only included those who offered a system based on the microwave (DSRC) communication. One of the benefits of the microwave toll system is the use of low-cost and easy-to install on board units (OBU), which can be very easily distributed, installed and uninstalled into a vehicle. That this requirement was justified and confirmed by the experience from the first months of the system operation, primarily by the continuously growing number of active OBUs. If we compare this system with the satellite-based one, there is no doubt that the acquisition costs of the first one are higher. However the savings on acquiring more affordable low-cost and easy-to install OBUs have entirely eliminated the extra cost by now. They have proven to be the right decision.

The Czech Government decided to cover the costs for upgrading and maintenance of the transport infrastructure by introducing a distance-based truck toll. This road toll applies to Czech and foreign road users alike. On

January 1, 2007, the Czech nationwide electronic toll collection system for heavy vehicles with a maximum permissible laden weight of 12 tons and above started commercial operation. As mentioned above, the system is fully electronic, using DSRC technology to achieve multilane free flow toll collection.

Within nine months from the date of contract signature, Kapsch, as the chosen supplier, was able to design, develop, manufacture, erect, integrate and implement this complex toll collection system, including setting up a nationwide distribution network for OBUs with pre-pay and post-pay capabilities, as well as establish multilingual services and a support network to enable technical and commercial operation of the system.

Since the year 2007, when the electronic tolling system started, several changes and adjustments have been brought into operation in the Czech electronic tolling system.

Since 1st January 2010 the tolling system was extended for vehicles over 3,5 tons within the nationwide tolled road network.

In August 2011 a new category "Bus" was introduced and deployed into the system, providing discounted tariffs for the carriers operating public passenger service.

The increase of road transport led to implementation of toll Discount System in year 2012, which was destined for big vehicle operators with a high amount of paid electronic toll. Some vehicles may achieve up to 13% discount from the whole sum of paid toll per year.

The Czech government has decided about increasing the toll rates since 1st January 2015 and about implementing a new emission category Euro 6. The best toll rate was applied onto the new category Euro 6 as a preference of vehicles with emission level EEV and Euro 6. This should have a big ecological effect, influence on decreasing of the environmental contamination and on air pollution - through higher toll rates for old vehicles which goes hand in hand with renewal of vehicle fleet.

The efficiency of the toll collection -which is measured by an independent auditor - is long-standing on a high grade, in the past year it was 99,6 %.

Network length

The length of the Czech tolled network has increased from 1429,2 (as for 1.1.2015) up to 1433,3 km (as for 1.1.2016). The total length of all roads in the Czech Republic comes up to 55.747,6 km (as for 1.1.2016)

Since 1st January 2016 expressways turned into motorways, which mean that in Czech Republic we have now only motorways and selected segments of state roads (1st class roads) tolled in comparison to the previous years.

Also roads and motorways have been re-measured in the year 2015 and due to this some of tolled sections are shorter than indicated before.

The most motorways in Czech Republic are 2x2 lanes, the type of lane 3x2 were put to use only in case of big traffic nodes of national importance and big cities. From overall length 1433,3 km of motorways are 40,8 km of them built as 3x2 lanes.

In year 2015 in Czech Republic the overall length of bridges was 402 km and we had 33 tunnels in operation.

-  Sections free of charge
-  Sections tolled – motorways
-  Sections tolled – 1st class roads



Electronic toll (distance-based fee)

January 2016



-  Sections free of charge
-  Sections subject to fee



Coupons (time-based fee)

January 2016



Openings in 2016

In the year 2016 several sections are foreseen to be newly opened. On 1st January 2016 the first section D6 Lubenec-Bošov (3,8 km) was opened, since 1st February the section D3 Čekanice-Měšice (2,9 km) was brought to operation.

In the end of year tolled section D8 Bílinka - Řehlovice (11,6 km) is planned to be finished.

Investments

The total amount of investments spent on modernization, road construction and maintenance of in year 2015 was more than 635 Million €.

In this year it is assumed, that the amount of money investments increases with more than 25 % to the sum of 856 Million €, thereof more than 516 Mil € will be used on new toll roads.

The rest of the investments will be used for example on the project of « Modernization of D1 », which is still in progress. (The motorway D1 as the longest and main arterial motorway in Czech republic is step by step being modernized. Nowadays we have 3 sections in overall length of 15,3 km on the motorway D1 which are under reconstruction.), or on the Crocodile project, etc.

Financing

As of 11 July 2007, after only 6 months of operation the total amount of the tolls collected reached the total capital expenditure. This excellent indicator is in addition amplified by the fact that the system was built using the contractor's method, meaning that the general contractor bears the initial costs related to the construction – which is a type of PPP project. The state reimburses the general contractor for those costs gradually within a horizon of 30 months after the launch of the system.

Traffic

As an universal indicator of traffic of vehicles over 3,5 tons in Czech republic we consider the traffic volume (average daily vehicles which means the result of the ratio between the summation of vehicles-km and the summation of the lengths of the motorways axis as for the year 2015) which makes 4.466.

In comparison to previous years, we can observe an increasing tendency of the traffic volume. In year 2014 the average traffic of vehicles was 4.166, one year before the average daily traffic got through the limit 4000, so we can see a perceptible progress the last few years.

The information about traffic volume for vehicles under 3,5 tons isn't available.

Tolling system and tolling technologies used

This is a multi-lane free flow system which uses antennas mounted on gantries above the highway which communicate with OBUs installed on the windscreen of passing trucks. Changing lanes while passing beneath the gantries does not influence the tolling transaction. The tolling process is fully automatic and requires no intervention on the part of the driver. Technology used: DSRC 5.8 GHz microwave technology and DSRC-MLFF technology. In horizon of few years there is no change in this domain expected.

Toll rates

Electronic toll rates haven't changed during the whole year 2015 and it isn't expected any price increase for this year in the moment. The main vehicle categories over 3,5 tons are:

Category M: motor vehicles, which have at least four wheels and are used for transport of persons. (category BUS)

Category N: motor vehicles, which have at least four wheels and are used for transport of goods. (category TRUCK)

Toll rates as for 01/01/2016

Emission class	EURO 0-II			EURO III-IV			EURO V			<i>tarif Euro6</i> EURO VI, EEV		
	2	3	4+	2	3	4+	2	3	4+	2	3	4+
Highways and motorways	3,34	5,70	8,24	2,82	4,81	6,97	1,83	3,13	4,52	1,67	2,85	4,12
-- Friday 15-20 h	4,24	8,10	11,76	3,58	6,87	9,94	2,33	4,46	6,46	2,12	4,05	5,88
1st class roads	1,58	2,74	3,92	1,33	2,31	3,31	0,87	1,50	2,15	0,79	1,37	1,96
-- Friday 15-20 h	2,00	3,92	5,60	1,69	3,31	4,74	1,10	2,15	3,07	1,00	1,96	2,80
Busses	1,38			1,15			1,04			0,80		

Time-based toll charge (vignette)

The fees for 2015 for the use of motorways and expressways by road motor vehicles of total weight under 3,5 tons (motorbikes are free of charge) were set by Government Directive No. 354/2011 Coll., which came into effect on 1st December 2011 (there is no change since the year 2012).

Time/Period	Within 3,5t
10 days	11EUR
One month	16EUR
One year	54EUR

Revenues

The year 2015 was the most successful year for the Czech electronic tolling system since the beginning of operation in sight of toll revenues.

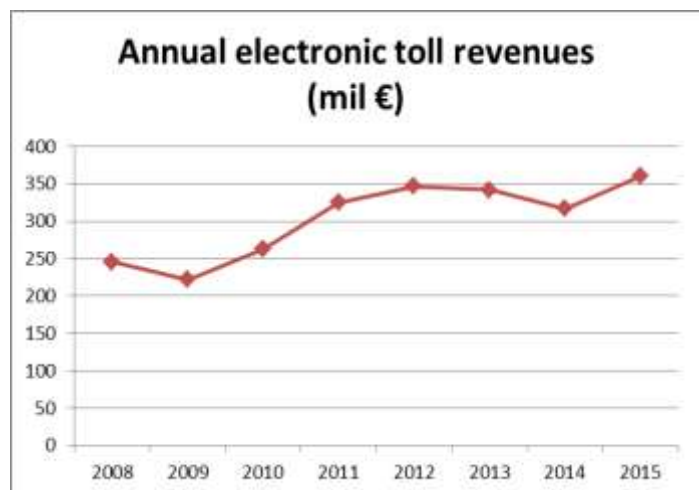
More than 9 732 mil CZK (360,18 mil €) paid vehicles over 3,5 tons past year. That means increase of electronic toll revenues of more than 43,5 mil €. The exchange rate with Euro is 1€ = 27,02 CZK.

In November 2013, the Czech National Bank decided to use the czech koruna (CZK) exchange rate as an additional instrument for easing the monetary conditions. – the ČNB (Czech national bank) since then keeps ČNB the exchange rate close to CZK 27 to the Euro.

Annual toll revenues (million EUR)

2008 – 245,4
 2009 – 221,7
 2010 – 262,8
 2011 – 325
 2012 – 346,5
 2013 – 342,2
 2014 – 316,6
 2015 - 360,18

The exchange rate with Euro:
 1€ = 27,02 CZK



The annual toll revenue in year 2015 increased by 12 %.

This annual increase was caused by the January increase in toll tariffs and especially by the economic boom in our country and in neighbouring countries in Europe.

Safety

	Definition and method of calculation	In number for one billion kilometres travelled in 2015	Variation in % in 2014/2015
Personal injury rate	Number people with injured persons on highways	N/A	2015: 643 + 10 %
Fatal accident rate	Number of accidents with fatalities (deaths) on highways	N/A	2015: 25 + 16 %
Rate of dead	Number of deaths on highways	N/A	2015: 30 + 16,7 %

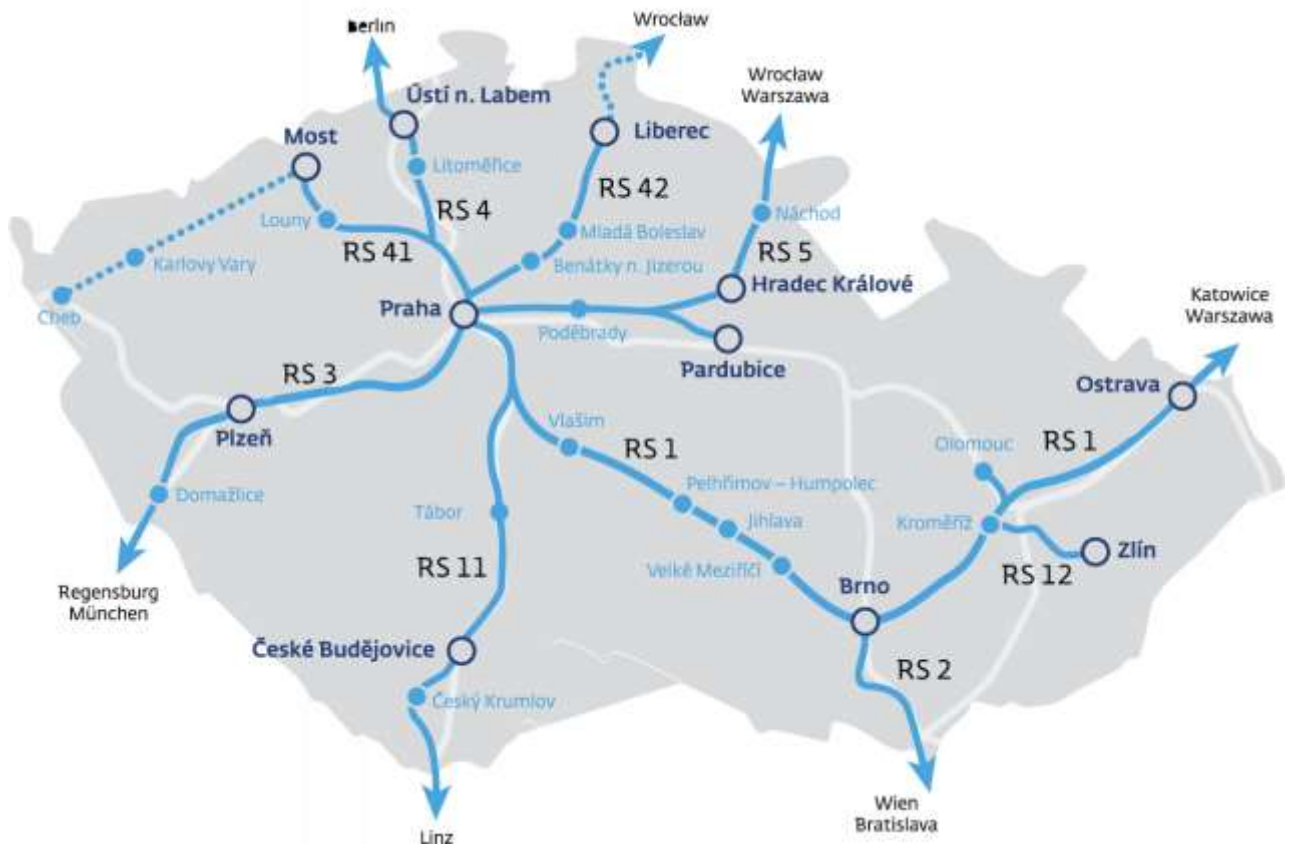
Long-term forecasts and tendencies

As we can see in next two pictures, the main tendency is to develop a complete network of motorways which will connect the main big cities and to allow the transit of vehicles through Czech Republic to other countries of European Union.

The high-speed railway network (forecast for the next year you can see in the second map) is tracing the main motorway network to disburden the motorway transport.



Long-term forecast development of the tolled and non-tolled network in Czech Republic.



Long-Term forecast for the development of high-speed railways in Czech Republic

Significant actions already started (and/or to be achieved in 2015) and foreseen for 2016.

The year 2015 brought into the system one significant change, which the operators with low emission fleet will benefit of. Since January 2015 are toll tariffs adjusted by the Government Regulation no. 240/2014 Sb. about the amount of time charges, toll rates, discounts on tolls. Slightly increase of tariffs for emission categories EURO 0-II, EURO II-IV and EURO V, covers the inflation rate from previous years, when rates were frozen. As compensation was introduced new tariff group for vehicles with emissions class EURO VI and EEV, for which is now valid the level of rates for EURO V+ from the year 2014. It is supposed, that this implementation should have large influence also on the environment.

Besides this a new adjustment of Czech truck tolling system software was implemented in connection with the Amendment of Road traffic Act No. 268/2015 Coll. - Since 1st January 2016 expressways turned into motorways, which mean that in Czech Republic we have now only motorways and selected segments of state roads (1st class roads) tolled in comparison to the previous years.

MAIN ASECAP KEY FIGURES

Country: Czech republic	Indicate below how you calculate each figure provided in the “2015” column	2015 Figure
Network length (Km).....		1433,3 km
2 x 2 lanes (Km).....		1392,5 km
2 x 3 lanes (Km).....		40,8 km
2 x 4 lanes (Km).....		0 km
Number of km in construction	motorways	20,6 km
Forecasts of opening motorways section		19
Annual toll revenues* (in millions of Euros)		360,18
VAT % (Indicate the VAT % percentage to the toll revenues)	Electronic Toll is a type of tax	0%
Permanent staff		109
Average daily traffic (light vehicles)		N/A
Average daily traffic (heavy vehicles)		4.466
Average daily traffic (total = light + heavy vehicles)		N/A
Total number of accidents	motorways	2.683
Number of personal injury accidents	motorways	643
Number of dead	motorways	30
Fatality rate		N/A
Kilometres travelled (10 ⁶ x km)		N/A

	Indicate below how you calculate each figure provided in the “2015” column	2015
Number of toll transactions (Total)		N/A
Number of toll transactions (light vehicles):		N/A
Number of toll transactions (heavy vehicles):	vehicles over 3,5 t	412 065 048
Number of toll stations		527
Number of toll lanes		2-3
Number of ETC lanes		2-3
Number of ETC subscribers (Total):		805.732
Number of ETC subscribers (light vehicles):		0
Number of ETC subscribers (heavy vehicles):		805.732
Number of service areas (equipped with petrol stations)		117
Number of rest areas		128
Number of restaurants		101
Number of hotels		9

*please provide the figure VAT and other taxes excluded.