Analysis Study for Advanced Fare Collection for Dopravní podnik hl m. Prahy

December 2013


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OV Chipkaart
ov-chipkaart
GVB
GVB

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Summary

The question

This study provides an analysis of the current situation of the entrance and ticketing systems of DPP in comparison with foreign advanced Check in/out Processing Systems experiences.

The goals

Based on Zwitch's experiences with Advanced Fare Collection Systems (AFC) we consider the main goals for DPP to be:

1. reducing fare evasion,
2. increasing social safety and
3. establishing honest pricing,

within a reasonable short payback period and
with the possibility to integrate the actual initiatives like SMS-ticketing and the Opencard.

The Comparison

From the many AFC implementations throughout the world, we consider a comparison with the experiences from the city of Amsterdam of particular interest for DPP. Since, except for the numbers of travelers (which is relatively high in Prague), the transport stuctures are similar. The Amsterdam operator (GVB) has successfully implemented an AFC. Travelers use the 'OV-chipkaart' on all modes of transport: metro lines, trams and buses. Paper tickets are abandoned.

GVB offers a wide variety of e-tickets, like there are: pay-per-kilometer, region, zonal, monthly, yearly and always-discount pass, the bike supplement, a day-fare, 1/2/3-day tourist card (includes entrances to a museum) and so on. Even, single trip e-tickets are provided. Local theaters provide paper tickets with an embedded chip facilitating both entrance to the theater and public transport.

The results

In Amsterdam, fare evasion in the metro has dramatically been reduced from around 20% to ca 1,5 - 2%, creating a revenue increase of 18% every year, in comparison with the period before the smart card. Social safety has, particularly in the metro substantially been improved. Above all, travelers perceive the 'OV-chipkaart' system as easy and convenient.

e-Architecture: creating scalability

The AFC in Amsterdam is an integrated multi-operator, multi-mode, multi product AFC system, acting within a nationwide e-Scheme. GVB has introduced the system gradually: line per line, station by station and gate by gate over a period of roughly 2 years. The organizational e-Scheme and technological e-Architecture are based on international normative standards. This ensures an 'open' system without getting lock-in by one or two suppliers. The system offers flexibility and gradual growth. GVB can introduce new types of fare products or can even exchange suppliers without any disruption. And, new RFID devices (like NFC-smart phones or tokens) may enter the system.

Think Big, Act Small

Working towards a horizon of an e-Scheme and e-Architecture (Think Big), we suggest taking a first step by introducing an AFC for DPP only (Act Small). We presume to embrace SMS Ticketing and Opencard as well. If we only take the reduction of fare evasion into account in metro, the payback period is short: only around 4 years. Zwitch is able the set the horizon and help DPP towards a successful AFC, taking the first step and preparing a Tender process, inviting AFC vendors for implementation.

Picture from DPP Annual Report 2012.

The Company

This study has been performed by Zwitch commissioned by DPP Prague. Zwitch is an independent niche player consulting company, specializing in e-ticketing and gating (check-in/ check-out) implementations, working for governmental authorities and public transport organizations.

zwitch

Zwitch consult on and organize marketing and communication, training for staff, specifying fulfillment processes, working procedures for front and back office staff and processes, specifying interfaces for operational systems and processes (financial, administrative and operational planning). We help authorities on defining specifications, setting up an open architecture and supports with procurements processes.

Zwitch is a network organization, working with selected independent freelance senior professionals and associated with Zwitch BV. We work on every aspect of AFC systems, from level 1 and 2 (equipment in vehicles, depots/ garages, gates and stations), level 3 (operator level) and on level 4 (multi-operator, clearing & settlement, managing the scheme).

Zwitch's professionals are handson experienced, working for Public Transport organizations and Authorities like Dutch Railways (NS), Rotterdam RET, Amsterdam GVB, Amsterdam Municipality, Trans Link Systems BV, Ministery/Department of Infrastructure (transport) on behalf of Dutch Railways, Mobility Commerce Services BV, Regisseur Student Reisrecht BV, Computer Centrum Van der Velden BV.

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