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Working Paper

E-Ticketing in Public Transport

Adopted at the 42nd meeting, 4-5 September 2007, Berlin

1. Technological evolution in smart cards and the search for increased efficiency and cost-effectiveness in managing public transport services – as provided via integrated railway, subway and surface transport services – have resulted in the growing use of innovative e-ticketing systems.
Such systems work by means of electronic cards, usually personalised, that are predominantly used for transport services but may increasingly be used to purchase related services (e.g. to pay commuter parking fees).¹
2. Smart cards contain a chip to store information, including personal information (which may include a chip identifier, the number of the user's subscription contract as well as time, date and code number of the card validation device); in some cases they operate via RFID/Near Field Communication (NFC) technology.
The use of such cards therefore entails the processing of several items of directly and/or indirectly identifiable personal information :
 - at the time the cards are issued to users;
 - each time the cards are used, thanks to the identifiers that are associated with every subscriber and collected by the validation devices to be subsequently stored (possibly in real time) in the databases of transport companies.Special attention should be paid in this context to the information related to the so-called validation data, whose processing – in particular the storage of the time and place of validation – allows tracking the individual users' movements and whereabouts.
3. The information processed by public transport companies in providing their services, including the information that is stored at the time a card is validated, may be processed for diverse purposes – such as, in particular,
 - to provide the transportation service;
 - to fight fraud in e-ticketing (if a smart card is lost, stolen or duplicated without authorisation);
 - to carry out marketing activities;

¹ Other ways to pay may include, cash, mobile phones, etc.

- to allocate revenues among several entities, if the public transportation services are provided jointly by several transportation companies;
- to analyse aggregate data on traffic flows in order to enhance effectiveness of the services provided.

Recommendations

The Working Group recommends that:

Privacy Impact Assessment

The information systems of transport companies should be designed and implemented by taking into account the customers' right to protection of their personal data; generally speaking, they should reconcile the right to free movement of individuals with the requirements of effective public transportation.

Anonymity

The Public Transport Authority (PTA) or transport company should provide alternative ways for customers to travel anonymously (without undue obstacles), e.g. cash or an anonymous e-ticket.

Where anonymity cannot be offered for technical reasons, the following recommendations have to be observed:

Privacy Policy and Transparency

PTAs or transport companies using e-ticketing systems should provide data subjects with unambiguous information on the processing of personal data which they carry out. Data subjects should be in a position to easily understand all the specific purposes sought by the companies, what items of personal information concerning them are collected and stored, and how such information is used.

Data Minimization and Retention Period

As regards, in particular, processing of the data concerning users' movements, the information systems of transport companies should be designed and implemented by prioritizing the use of anonymous data. If (directly or indirectly) identifiable information is used, this information should be stored for the shortest possible period (and erased automatically thereafter), and account should be taken of the lawful purposes to be achieved via the processing – as a rule, the information in question should not be retained for longer than a few days after being stored.

Security

Security for accessing personal data should include an audit system to prohibit the misuse of information. Transport companies should ensure that the privacy of registered users is guaranteed when making their databases accessible to partners or even their own employees.

Marketing

A PTA or transport company should obtain the free and informed prior consent of customers for the use of personal data for its own marketing purposes or associated partner's usage of information for unsolicited marketing towards the traveller. This consent should be distinct from the acceptance of the general contractual obligations.

Proof of Payment

As far as proof of payment for individual journeys is required e.g. for refunds or tax allowances, privacy-friendly solutions should be offered.

Code of Conduct

The adoption of a privacy code of conduct should be encouraged. As regards, in particular, processing of the data concerning users' movements, the information systems of transportation companies should be designed and implemented by prioritizing the use of anonymous data.

System Design

System design should be such as to separate the personal information from travel information (two-component model). Central storage should be reserved for aggregate data and/or anonymous transactions. The Cardholder should be able to control information concerning his use of the card.