

In my pocket - e-ticketing in Norway

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Agenda

1. New technologies offer new possibilities. Contactless smartcards and mobile phones have been integrated with public transit.
2. What kind of technical and business opportunities are we embracing and where are we going?



2004 – the vision

- In 1998, the first vision of E-ticketing was formulated in the first edition of «Handbook 206 – Electronic Ticketing».
- 1. With the second edition, from 2004, the vision was made more specific, concentrating on the technical specifications for interoperability. The vision was this:
 - The introduction of electronic ticketing systems can help reducing barriers, making it easier for customers to use the entire transportation system.
 - This makes it easier to combine travel by boat, bus and rail, thereby strengthening public transport competitiveness.
 - An important prerequisite for the success of electronic ticketing is that tariff systems are harmonized, simplified and adapted to electronic ticketing



2013 – 9 years later. What have we achieved?



- E-ticketing based on Handbook 206 and Smart Cards was introduced for Norwegian public transport customers in Oslo / Akershus in 2005 / 2006. Three different implementations of the standard were used (NSB's from ACS, SL's from ERG and Oslo Sporveier's from Thales).
- The projects – like almost all other E-ticketing projects – had a hard time getting off the ground, with cost overruns, delays and lots of critical press coverage. Once the systems were in place, however, lots of customers made the transition from paper-based ticketing to Smart Card ticketing, and today more than 750 000 Smart Cards are in use in this area.
- Despite the negative feedback on the Smartcard projects (or maybe because of it?), the introduction of smartphone-based ticketing has been a huge success, and today almost all tickets sold in the Oslo area are electronic .
- The massive acceptance of E-ticketing (and other self-service sales channels) has decreased sales and distribution costs by a large percentage, and has made it feasible to avoid cash handling on board in the near future – decreasing risk for drivers and conductors.

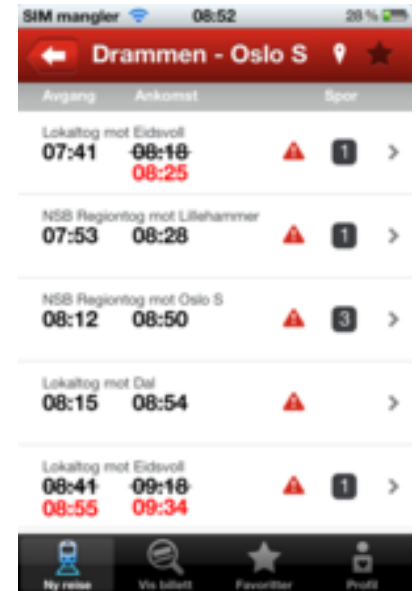
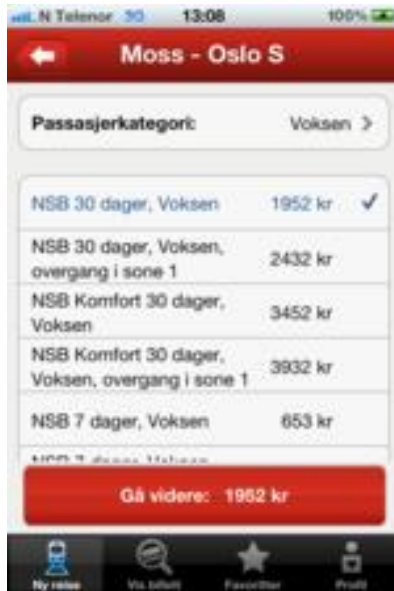
New sales and distribution channels – new possibilities



- The Smartcard paved the way – but now the *SmartPhone* is leading!
 - Apps – a huge success both at NSB and Ruter
 - Uptake: NSB's app has seen more than 500 000 downloads since its introduction – and Ruter is facing a similar number of downloads for their app
- What about the Smartcards (and the paper tickets)?
 - Since not even every Norwegian at all ages have a smartphone yet, the Smartcard is still necessary
 - Paper tickets are still used (not all NSB's areas have a well-developed E-ticketing infrastructure, and there are still some people who prefer paper) – but the use is dwindling and will disappear within a relatively short time (given that they have been around for 150 years...)



Why do the customers love the App?



1. You always have your phone with you (but will easily forget your smartcard...)
2. You can buy your ticket when you want to (not when you're at the station)
3. You can see what tickets you have, and how long they will last
4. You can combine the ticket purchase with online travel planning, deviation information and destination planning

Why do the Public Transport actors love the App?



1. Much simpler for the customer (They will not love you, but they will hate you a little less...)
2. The infrastructure is simpler and less expensive
3. The App is much easier to update and renew
4. Much richer set of possibilities

Is the massive investment in smartcard-based infrastructure wasted?



- A flexible and agile infrastructure will make it possible to develop and deploy new channel technologies without the need to throw away the smartcard technology or the infrastructure
 - Smartphone apps
 - Mobile websites based on HTML5 (with local ticket storage)
 - Home print (paper-based)
 - NFC-technology
 - For Smart Card emulation
 - For reading and updating smartcards
 - A central order database («NOD») can be used to centralize services for “unintelligent” (non-smartphone) channels
- These technologies can utilize a common underlying infrastructure, given
 - Channel-independent APIs
 - Available media-independent solutions for common tasks like authentication and key distributions
 - The existence of a common shared customer / card database



At least keeping up with customer expectations!



- Based on a firm established technological infrastructure, with technical interoperability between regions part of the foundation, E-ticketing can offer our customers added incentives for using public transport:
 - «Seamless travel» within or between regions.
 - Access to updated information on changes, deviations, schedules and locations will remove some of the fear many people have on leaving their car
 - New ways of calculating cost, based on «Best pricing» and «Pay-as-you-go» will remove the risks of buying too much or too little upfront from the customer, and actually work as an added incentive: Once you have passed the limit of a period ticket, travel for the rest of that period is «free» (no further cost added).
- The agile app / smartphone channel will make it possible to enhance the customer experience in many ways – from clever use of social media and chatting with the public transit company to real time information and advanced guiding.
- Failure to develop the new facilities, resting on our laurels and using E-ticketing as a simpler way of selling our traditional tickets is really «paving the cow paths». Most of the effect of the massive E-ticketing investment will give much less payback than the inherent possibility!



Have we achieved the vision?



- Not yet, unfortunately. But we are well on the way to achieving it!
- The main challenges are no longer technological. All the Norwegian counties have E-ticketing solutions based on the common specification, and full technical interoperability is just around the corner.
- The barriers preventing E-ticketing from achieving its optimal benefits are non-technical:
 - Our companies' ability to use the technology to keep giving our customers a better experience
 - To avoid letting barriers between the different players stand in the way of achieving seamless services
 - To gather relevant time table and online information, to share it openly between the different companies, and to distribute that information to our customers using modern and flexible channels
 - To discover and develop new channels and facilities as the technology develops, and not cling to outdated or expensive solutions «just because we have it» – let the smartphones rule the field when the time comes, and let the smartcards disappear when their time is up!

The future of E-ticketing – and the challenges



- The common driving force must be the willingness to let the customer – or prospective customer – be the one to set the agenda. We must never let our own goals diminish the concern for our customers! Customer satisfaction with our planning, ticketing and information channels will be a major part of establishing and maintaining a good customer base. And this in turn is the only way to deliver sustainable transport services in the future!
- The infrastructure, standardization and skills built during the first phase of E-ticketing in Norway has provided a solid platform for establishing our long term goals. As important players on this field it is our duty to follow up and deliver on this potential!

