



Ruter Dialogue Conference

*Tor Rune Skoglund, CEO
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FourC AS

- Founded late 2013
- 11 employees in Trondheim, Gloucestershire og Tromsø
- +40 years experience from ICT solutions for public transport



Project OpenSP

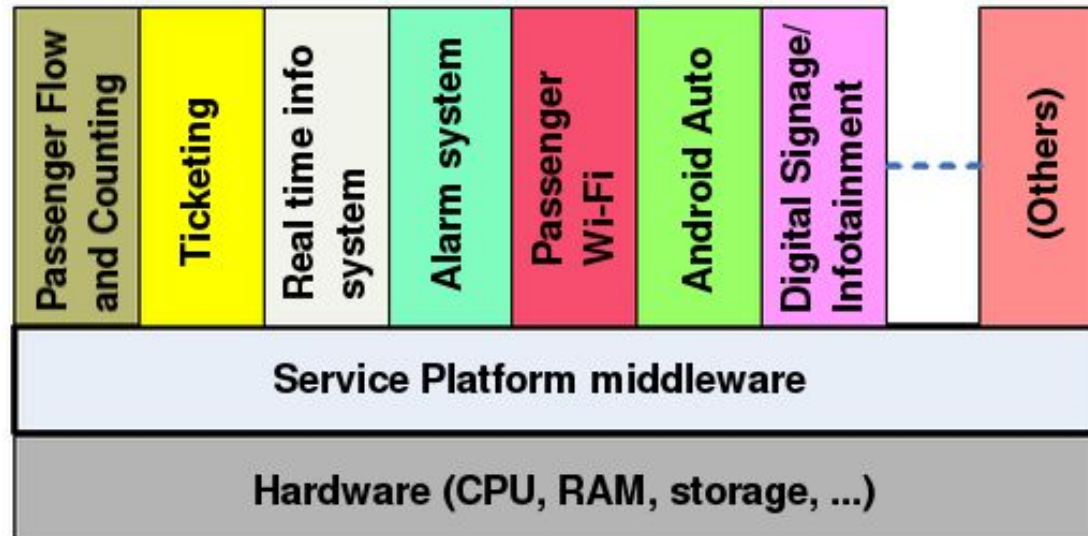
“Open Service Platform for Public Transport”

Main objectives:

- Introduce *smarter* ways to do ICT system deliveries to public transport using the “software-as-a-service” model for in-vehicle applications
- Move away from vendor lock-in
- Drive innovation by making it cheaper and easier to test and evaluate new solutions
- Create real supplier competition

Open Service Platform for ITS and PT applications

~~“one computer for each in-vehicle function...”~~



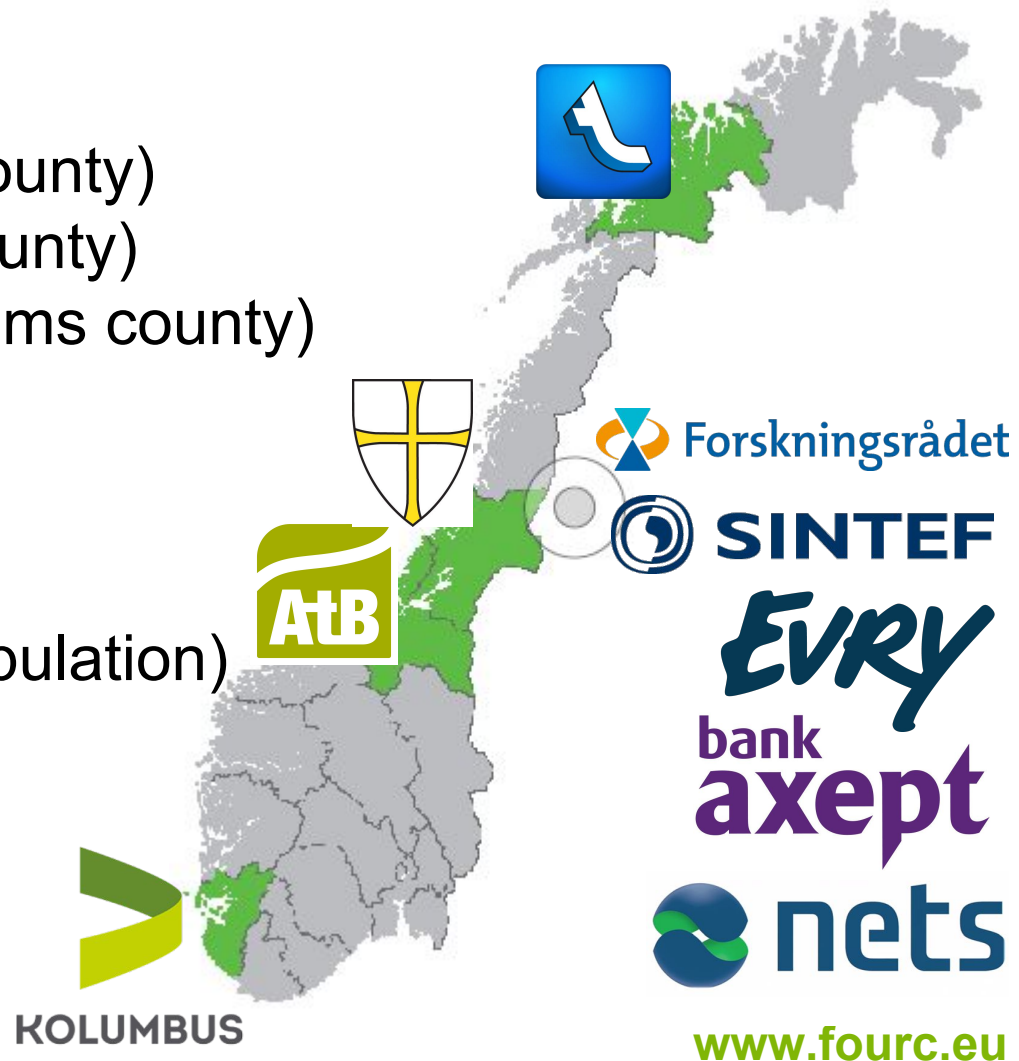
- Several suppliers of a range of services
- PTAs can change service provider instantly with the click of a button

OpenSP - factsheet

4 counties and PTAs:

- AtB (South Trøndelag county)
- Kolumbus (Rogaland county)
- Troms Fylkestrafikk (Troms county)
- North Trøndelag county

- Covers 1.1M people (>20% of Norwegian population)
- Pilot testing has started
- Project web page: www.opensp.eu



The Beacon Master service

This service creates up to several beacons using standard hardware equipment:

- Several SW-controlled beacons in the vehicle using std hardware
- No batteries that run out
- Beacon monitoring
- Several beacons targeted towards several types of apps
- Change beacons signal, even automatically and scheduled
- Security in various ways since beacon is programmable

So with that in place, there is no additional installation of custom hardware beacons in vehicles. Any app provider can instantly team up with the PTA directly.

The Future Ticketing service

- ID- and account-based ticketing based on CEN TC278 backend and open source
- Move away from closed-loop vendor lock-in
- No specialized hardware for ticketing
- Support various types of identifiers/“ticket media”:
 - Mobile phone apps (user-ID or QR)
 - BankAxept and EMV cards
 - Paper tickets with code
 - Mifare (however now superfluous)
 - ... whatever comes in some years ahead...!
- App use: E.g. beacon triggered app
- Upcoming pilot using BankAxept and QR codes as identifiers to start with



The BiBo Ticketing application

- R&D project, not using beacons
- Fully hands-free BiBo ticketing
- Keep phone in pocket
- No user interaction needed if pre-registered

Some corner cases need to be solved satisfactorily before release



Thank you

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