

PRESS RELEASE

Stockholm, 2008-02-21

Latest technology for wireless connection tested in Stockholm's public transit

Capgemini Sweden, Intel, Nomad Digital, MobileCity, Pilotfish and Solutrea to deliver innovation in connected transit applications for the Stockholm public transit authority.

Public transit passengers have today been given a look at the possibilities for being connected to real-time travel information, breaking video news, and the internet during their journeys. In a pilot deployment commissioned by Storstockholms Lokaltrafik (SL), the city public transit authority, passengers of their one-hour Stockholm-to-Norrtälje route 676 commuter bus have been offered a number of connected transit applications never before brought all together and in real-time during their journey. In addition to free broadband WiFi connectivity covering the full 676 bus route, passengers, SL and the environment all benefit from the following:

- News and weather video clips from Swedish national broadcaster SVT shown on LCD screens installed on the buses. Videos are uploaded over the broadband link as soon as they are released by SVT. Subtitling is used without sound to keep a quiet bus environment.
- Real-time journey information is also displayed on LCD screens – the number of minutes to the next bus stop and time to destination are constantly updated. All possible connections between route 676 bus stops and other SL metro and bus services are monitored from SL's database and changes are displayed on-screen. Roadworks that may affect passenger journeys are also published. Bus drivers have a touchscreen interface to the live information to better answer passenger queries.
- Depot staff can monitor the pressure on all tires while the bus is in service, and at the bus depot from handheld devices, improving bus maintenance turnaround times.
- Driver performance is monitored in real-time by an Eco-driving application. Feedback can be given to drivers to fine-tune their braking and accelerating to reduce vehicle wear, fuel consumption and environmental impact. SL is given a live display of CO2 emissions-per-passenger as an output from the application.
- Ability to view CCTV cameras on buses and trains remotely and securely in real-time. Silent alarm button functionality for the driver can make public transit safer for passengers and staff. A real-time view of the location of all buses is provided through a web-based Fleetmanager application, adding to the usefulness of live remote CCTV monitoring.

SL will conduct passenger surveys during the pilot period to plan the next phase of deployment across their network.

About the parties:

Capgemini has been responsible for designing the end-to-end solution architecture, project managing all teams in a distributed virtual delivery environment, solution quality assurance as well as securing engagement within SL and its traffic entrepreneur Busslink.

Intel is a leader in driving the development and deployment of WiMAX, a wireless broadband technology that delivers "broadband on the go". In the pilot project Intel has been an advisor on the use of WiMAX and PDAs with wireless access. The initial tests have shown bandwidths of up to 10 Mbit/s on the bus making it easy for the passengers to access the Internet and use services such as IP telephony on board.

Nomad Digital: Nomad provides high speed wireless data communications systems and applications to moving vehicles. Nomad's intelligent network switching approach ensures seamless connectivity across the entire route even though there are coverage gaps in any individual network. Nomad's platform also provides WiFi connectivity to passengers. For the SL pilot Nomad also provides its schedule monitoring tool to give passengers real-time information on time to next stops during their journey. Nomad's platform delivers a seamless, secure broadband IP connection to other devices and services placed on the bus by the various partners. Nomad's web-based Fleetmanager application gives SL a real-time aggregated view of all the applications delivered in the pilot.

MobileCity has delivered a WiMAX solution that demonstrates how WiMAX (802.16-2004) can ensure high capacity and reliable data transfer to both buses included in the test. In addition, two WiMAX base stations have been placed along the bus route providing good coverage at both the bus depot in Norrtälje and the terminal at Tekniska Högskolan. Due to the fact that data transfer can commence prior to the bus arriving (and continue an equal time after the bus leaves the terminal) good conditions for high data transfer have been created. Please see www.mobilecity.se for more information regarding current WiMAX projects.

Solutrea provides a multi-channel infrastructure areas on the bus for consumer interaction by combining Digital Signage display messaging with laptop and mobile Wifi access screens, Bluetooth and cell-phone display channels. Solutrea's more than 100 centrally located "hot spots" will provide Internet access to the passengers during the pilot.

Pilotfish offers systems and services that support the implementation of efficient, sustainable, and environmentally friendly applications to fleet operators. In this case it continuously monitors the environmental aspects of the driving performance and the positive environmental effects - especially CO2 savings - effect of bus travelling is calculated in real-time. The application enables traffic planning to monitor and further improve the environmental effects.

Fore more information:

Erik Nordenfelt, CEO, Pilotfish Networks AB, tel. +46733-712162