

November 2, 2004

Nokia, Philips and German Public Transport Network Operator RMV trial NFC for ticketing

Eindhoven, The Netherlands, November 2, 2004 – Nokia, Royal Philips Electronics (NYSE: PHG, AEX: PHI) together with Rhein-Main Verkehrsverbund (RMV), public transport authority for Frankfurt's greater area, today announced a joint project to trial a Near Field Communication (NFC) ticketing solution that uses mobile phones to access an existing contactless smart card ticketing infrastructure. The trial, which starts early 2005, will enable RMV's current customers to use Nokia 3220 phones equipped by tailored Nokia NFC shell covers to gain access to a local bus network in Hanau, a city near Frankfurt. As a result, travelers can enjoy a convenient and secure solution designed around their needs to buy, store and use tickets with their Nokia 3220 mobile phones. The ticketing solution will be demonstrated at the CARTES IT & SECURITY trade show in Paris (2-4 November).

As the first live NFC-based ticketing application of its kind, the trial will use Nokia 3220 mobile phones with a contactless NFC solution, based on the Nokia NFC shell – the mobile phone's outside cover. The RMV electronic ticketing application will be securely stored on an integrated smart card controller in the phone, and is fully compatible with today's smart card-based ticketing products. Users will simply need to touch their phones against the contactless reader as they get on and off the bus to register their journey. This trial will provide the partners with practical experience of NFC-enabled mobile ticketing on a check-in/check-out basis, paving the way for broad adoption of the technology.

The mobile phone offers customers a quick and convenient way to use the public transport network, and RMV is at the forefront of understanding how customers will approach the technology. As an integrated device, the mobile phone can also be used as a resource for transport information, such as timetables, as well as being a terminal for ticketing. For RMV an important feature of the project is that the Nokia NFC shells are compatible with the contactless smart card infrastructure already installed in Hanau.

"Nokia is taking a leading role in bringing easy and convenient touch-based interactions to the market. Local ticketing is a great example of how mobility can bring completely new value to consumers and companies that serve them. This ticketing trial will provide us with valuable experience to meet requirements from mobile operators, transport operators and end-users going forward." said Jarkko Sairanen, Vice President, Strategy and Planning, at Nokia Technology Platforms.

"With NFC we are delivering on our promise of providing simple and easy-to-use solutions to complex problems," commented Reinhard Kalla, Vice President and General Manager of Identification at Philips Semiconductors. "Together with Nokia and RMV, we have developed the first ticketing application for NFC technology, providing an example of how an intuitive, touch-based solution can simplify the daily lives of users."

About the solution

Jointly developed by Philips and Sony, NFC enables touch-based interactions in consumer electronics, mobile devices, PCs, smart objects and for payment purposes. Consumers are seeking easier ways to interact with their immediate environment and want to experience easy communication between their electronic devices and gain fast access to services. An intuitive technology, NFC bridges that connectivity gap and allows the connected consumer to interact with their environment.

The trial implementation is in line with the Association of German transport operators (Verein Deutscher Verkehrsbetriebe ,VDV), specification that has been developed for a country wide electronic ticketing core



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application (VDV Kernapplikation). NFC is compatible with Sony's FeliCa™ card and the broadly established contactless smart card infrastructure based on ISO 14443 A, which is used in Philips' MIFARE® technology.

Further information can be found at www.rmv-get-in.de

About Royal Philips Electronics

Royal Philips Electronics of the Netherlands (NYSE: PHG, AEX: PHI) is one of the world's biggest electronics companies and Europe's largest, with sales of EUR 29 billion in 2003. With activities in the three interlocking domains of healthcare, lifestyle and technology and 165,600 employees in more than 60 countries, it has market leadership positions in medical diagnostic imaging and patient monitoring, color television sets, electric shavers, lighting and silicon system solutions. News from Philips is located at www.semiconductors.philips.com.

About Nokia

Nokia is a world leader in mobile communications, driving the growth and sustainability of the broader mobility industry. Nokia connects people to each other and the information that matters to them with easy-to-use and innovative products like mobile phones, devices and solutions for imaging, games, media and businesses. Nokia provides equipment, solutions and services for network operators and corporations. www.nokia.com.

About RMV

RMV is one of the largest regional public transport authorities in Europe, providing its services to the five million inhabitants in the state of Hessen, Germany. RMV is responsible for organization and co-ordination of the regional rail services as well as for integrating long distance, regional and suburban rail services in to an overall mass transit system. Incorporating 147 public transport companies, RMV also combines the complete rail system with the regional and local bus systems, taxi services and other modes of transportation. The integration includes public transport planning, traffic management systems, tariffs & ticketing, promotional strategies and programs, financial controlling and administration, training and other operational aspects in the context of public transport.

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