

Near Field Communication at WIMA 2007

Technology Sports Significant Benefits for Healthcare Sector

In mid-April, 400 participants came to Monaco to gather information and exchange experiences at the second WIMA - the conference and exhibition for users and decision makers with an interest in the field of multimedia wireless services and applications. Current innovations and breakthroughs in this field as well as the most recent services and developments in NFC (Near Field Communication), WiFi, WiMAX, and Meshed Networks, Mobile TV and communicating vehicles were on the agenda. What is the relevance of these technologies for the healthcare sector?

Focus On NFC

This radio frequency technology provides very short range two-way wireless connectivity. It allows a reader to read small amounts of data from devices or tags when brought closely next to each other, with one of the devices frequently an NFC-enabled mobile phone - a device perfectly suited because of its ubiquity and, in some projects, because of its multimedia potential.

About "Touching the Future" and NFC Technology

The "Touching the Future" competition was founded by Nokia in partnership with the SmartTouch project, and is sponsored by the NFC Forum. Additional sponsors include Innovision Research & Technology plc, NXP Semiconductors and VTT Technical Research Centre of Finland. Based on a short-range wireless connectivity, NFC technology provides intuitive, simple and secure interaction between electronic devices. NFC technology is enabled simply by bringing two NFC-compatible devices within a few centimetres of one another, or by allowing the two devices literally to touch. NFC technology changes the way consumers interact with electronic devices and with their environment, enabling a truly mobile lifestyle with access to content and services.

At the Grimaldi Forum, WIMA's Managing Director Laurent Puons was particularly proud of hosting the first-ever European Summit of NFC technology Developers. The NFC "Touching the Future" Awards, part of the Summit, rewarded the most impressive development projects focused around this new technology. Puons: „We have now entered an era where a mobile phone's function is no longer to simply make calls, but also to touch." Award winners included NFC applications with obvious benefits for the healthcare sector.

Winners - announced by the non-profit industry association NFC Forum (www.nfc-forum.org) and the SmartTouch project (www.smarttouch.org) - were selected for their focus on the innovation, commercial potential, and usability of their proposed applications, as well as the quality of their design and implementation of NFC technology. The competition had been organized in two tracks: Track A for NFC services already implemented in Europe, either as full deployments or pilots, with a focus on the criteria of demonstrated process and service improvements as well as cost savings. Track B was for proposals for future services, with judgements based on creativity, innovation, and business potential.

Optimizing Documentation in Ambulatory Care

This huge business harbours extreme challenges, in the Netherlands like anywhere else: 250,000 nurses work with 500,000 patients, on a total budget of €18.5 billion annually; with 30 million events per week, about 250,000 hours per week are spent on detailed timesheets, tracking provided care - and an enormous amount of money is wasted due to missed, incorrect, or lost records entered on paper until recently. At WIMA, a solution was presented: Nedap NV Healthcare, The Netherlands, won the First Prize of Track A for "IO Concept: Simple Solution to a Complex Problem", represented by team member Rob Schuurman. The solution "iO TouchPro", part of this concept, automates the process of recording and transmitting patient services provided by homecare workers using an NFC-enabled Nokia 3220 mobile phone and Nedap's iO software. Upon arrival at a patient's home, the homecare worker simply touches the iO TouchPro phone to a patient smartcard

to register the arrival time and receive patient care information from the central iO software. After treatment, the care worker holds the phone to the patient card again and the treatment actions are automatically recorded. "By eliminating all administrative work and data entry by the homecare worker, the Nedap solution saves

In addition to this powerful productivity tool, Nedap showed "iO Open" - this solution uses NFC to allow for controlled and documented access to homes of ambulatory care clients which, up to now, was a serious challenge to care workers due to clients' impaired hearing and other problems.



Representatives from NFC award winning organizations explaining their technology to the Hospital Post Journalist (left): (l. to r.) Tapio Matinmikko and Dr. Tua Huomo from VTT, Pauli Tossavainen from ToP Tunniste, and Rob Schuurman from Nedap.

time and money, ensures greater accuracy and allows more time for patient care", Schuurman explained. iO TouchPro was first introduced in late 2005, and approximately 6,000 European homecare workers are currently using the system.

About SmartTouch

SmartTouch is an ITEA/Eureka project that emphasizes NFC technology use in practical applications. The project consists of 21 partners from eight European countries: Alcatel-Lucent, Buscom, City of Oulu, Dan Company, ENSICAEN, Gemalto, Idesco, IDesia, Innovision Research and Technology, K.U. Leuven, MedicTouch, Nokia, Nordea, Philips CE, the Innovation Lab, Rhein-Main-Verkehrsverbund, Robotiker, Telefónica Investigación y Desarrollo S.A., Unipersonal, TeliaSonera, Telvent Tráfico y Transporte, S.A., ToP Tunniste, and VTT Technical Research Centre of Finland.

www.smarttouch.org

Information Provided Instantly by Voice

The first place winner in Track B, "Most Innovative NFC Proposal of the Year 2007," is the Technical Research Center of Finland VTT for its "Seeingeyephone." The first-place team members were Tapio Matinmikko, Sonja Leskinen, and Vili Törmänen. "Seeingeyephone" is a proposed application designed to assist visually-impaired consumers while shopping in grocery stores - a concept for information and guidance of this target group which may also find applications in healthcare. Applied to the shopping environment, a ToPaz NFC tag, produced by Innovision Research & Technology plc, and containing information on each product - such as price, nutritional information, use-by date and special sales offers - is attached to the store shelf next to the product. The visually-impaired consumer holds an NFC-enabled phone to the tag and the phone reads the information aloud to the consumer using a voice synthesizer.

Further Promising NFC Solutions

Among other presenters at Monaco of relevance to the healthcare sector, "Pill-Toucher" by MedicTouch - again using NFC-enabled mobile phones held next to

About The NFC Forum

The NFC Forum was launched as a non-profit industry association in 2004 by leading mobile communications, semiconductor, and consumer electronics companies. The Forum's mission is to advance the use of Near Field Communication technology by developing specifications, ensuring interoperability among devices and services, and educating the market about NFC technology. The Forum's 110 member companies are developing specifications for a modular NFC device architecture, and protocols for interoperable data exchange and device-independent service delivery, device discovery, and device capability. The NFC Forum's Sponsor Members, which hold seats on the Board of Directors, include leading players in key industries around the world. The Sponsor Members are: HP, MasterCard International, Microsoft Corp., Nokia, NEC, NXP Semiconductors, Panasonic, Renesas Technology, Samsung, Sony Corporation and Visa International.

www.nfc-forum.org

tags - brings multiple benefits to patients requiring medication: it is based on information about what medication should be taken when, made available in tags affixed to pill containers; it provides mobile reminders, checks correctness of medication to be taken at a given time with a warning where appropriate, and gives an alert when taken too late. - ToP Tunniste from Finland showed the "ToP Trainer", a device which automatically records fitness gym activities, helping citizens keep track of their health exercise.

WIMA 2008 - 28 to 30 April - is your next opportunity to find out about these new technologies geared to optimize processes in healthcare and other sectors (www.wima.mc).

Michael Reiter