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Nokia introduces Wibree technology as open industry initiative
A unique radio technology extending local connectivity to small devices

HELSINKI, Finland – October 3, 2006 — Nokia today introduced Wibree technology as an open industry initiative extending local connectivity to small devices. This new radio technology developed by Nokia Research Center complements other local connectivity technologies, consuming only a fraction of the power compared to other such radio technologies, enabling smaller and less costly implementations and being easy to integrate with Bluetooth solutions. Wibree is the first open technology offering connectivity between mobile devices or Personal Computers, and small, button cell battery power devices such as watches, wireless keyboards, toys and sports sensors. By extending the role mobile devices can play in consumers' lives, this technology increases the growth potential in these market segments.

The goal being to have the new technogy available to the market as fast as possible, Nokia is defining the Wibree interoperability specification together with a group of leading companies representing semiconductor manufacturers, device vendors and qualification service providers. The technology will be made broadly available to the industry through an open and preferably existing forum enabling wide adoption of the technology. The forum solution is under evaluation and will be defined by the time the specification is finalized. According to the current estimate the first commercial version of the interoperability specification will be available during second quarter of 2007.

The current members of the group defining the specification are: Broadcom Corporation, CSR, Epson and Nordic Semiconductor having licensed the Wibree technology for commercial chip implementation and Suunto and Taiyo Yuden, contributing to the interoperability specification in their respective areas of expertise.

"Wibree technology is an important development that opens up new market opportunities and a whole new range of possibilities for mobile users," says Dr. Bob Iannucci, head of Nokia Research Center. "Our aim is to establish an industry standard faster than ever before by offering an interoperable solution that can be commercialized and incorporated into products quickly."

Technical details:
Wibree technology complements close range communication with Bluetooth like performance within 0-10 m range and data rate of 1 Mbps. Wibree is optimized for applications requiring extremely low power consumption, small size and low cost. Wibree is implemented either as stand-alone chip or as Bluetooth-Wibree dual-mode chip. The small devices like watches and sports sensors will be based on stand-alone chip whereas Bluetooth devices will take benefit of the dual-mode solution, extending Bluetooth device connectivity to new range of smallest devices.

For more information on Wibree see the website www.wibree.com

About Nokia Research Center
Interacting closely with all Nokia business groups and Technology Platforms, Nokia Research Center is responsible for the strategic and long-term research in Nokia. Looking beyond current product development, the Research Center challenges current strategies and drives Nokia's renewal through long-term technology exploration. Nokia Research Center participates in the standardization work and various international R&D projects in cooperation with universities

and research institutes. Nokia Research Center employs about 1,100 people and has activities in Finland, USA, Germany, Hungary, China and Japan.

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.

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Quotation sheet

Scott Bibaud, Vice President and General Manager of Broadcom's Personal Area Networking business unit."As a leading supplier of multiple communications technologies, Broadcom recognizes the unique market segment that Wibree occupies, enabling connectivity in a whole new range of electronics devices. We look forward to continuing our contribution to Wibree's success."

Glenn Collinson, Senior Vice President Convergence Business Unit at CSR commented, "Wibree will enable new market opportunities for low power embedded wireless applications not currently served effectively by other radio technologies - especially in mobile phone applications in which CSR already has a successful track record." Collinson continued "It is complementary to Bluetooth where CSR remains committed to working with the SIG on the development of the standard. We are joining the Wibree initiative and will be working with the other members to bring this technology to the market as quickly as possible. Wibree will broaden CSR's portfolio of wireless technologies including Bluetooth, WiFi and UWB."

Manfred Wittmeir, Senior Marketing Manager at Epson Europe Electronics, endorsed the potential of Wibree. "Our biggest motivation for Wibree is to utilize our low-power technology in applications for sports, mobile phones, PCs, toys and watches, to mention a few".

Svenn-Tore Larsen, CEO of Nordic Semiconductor, expressed his excitement about Wibree: "Consumers don't like wires and they love compact, portable electronics devices that they can carry with them everywhere without fear of running short on battery power. The mobile phone is the perfect example. But to extend its functionality and allow it to interface wirelessly to a huge range of peripherals the technical challenge is to ensure minimal power consumption under heavy, daily usage. This is Wibree and it is what consumers have been crying out for. This is also why Nordic Semiconductor is a totally committed partner to enabling this new exciting market for wireless communication and will be ready to ship Wibree chips by the second half of 2007 to help play its part in making Wibree happen."

Eero Punkka, Technology Director at Suunto Oy, "Suunto, as a leading sports instrument designer and manufacturer, welcomes the new Wibree technology because it finally enables a standardized wireless connection between sports electronic devices and mobile internet devices. Up to the present, solutions based on Bluetooth connectivity only have been too costly and power consuming for our applications." www.suunto.com

Hirokazu Chazono, Senior Operating Officer at Taiyo Yuden Co., Ltd. "We are excited to be a part of the Wibree initiative and we are ready to provide a complete Ecosystem around Wibree including test and measurement for certification program based on our experience in delivering qualifiction test solutions. We believe Wibree is complementing Bluetooth perfectly in integrated solutions."