**Wibree**

**Abstract**

Now a days the wireless technologies are more in use and are widely evolving. Some of the technologies now in use are Wi-Fi, Wi-max, Zigbee, and Bluetooth……. Out of which Bluetooth is most popular. These technologies are widely used to connect the large devices like mobile phones or personal computers. No other existing wireless technologies will connect with small button cell battery devices so effectively. So the Nokia introduced the new radio technology called Wibree. New radio technology for ultra-low power.

Wibree is a new radio technology developed by Nokia. It consumes only a fraction of the power compared to other such radio technologies, enabling smaller and less costly implementations and it is easy to integrate with Bluetooth solutions.Open industry initiative

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 & health care sensors.

Ultra low power cannot be achieved with existing open standards currently available standardized local connectivity technologies are not optimized for ultra-low power applications.

**Wibree implementations:**

There will be two types of Wibree implementations-

Wibree stand-alone chip:

The Wibree stand-alone chip is designed for use with applications which require extremely low power consumption, small size, low cost and where only small quantities of data are transferred.

It's an ideal solution for small devices (like heart-rate monitors) that use only short data messages and must have long battery life.

Examples of devices that would benefit from the Bluetooth-Wibree dual-mode chip are mobile phones and personal computers. Bluetooth is a great technology and brand, adopted worldwide. Bluetooth is widely used in mobile devices like PC’s and phones, as well as in wireless headsets. However, other products relying on button cell batteries as a source of power, e.g. watches, toys and human interface devices, are not served effectively by Bluetooth.

Wibree-Bluetooth dual-mode chip:

**Similarities:**
Wibree and Bluetooth use the 2.45 GHz band to transfer data and have a 1 Mbps transfer rate and a rage of about 10 meters (m). In Wibree-Bluetooth dual-mode they share the components like antenna.

Wibree is ultra-low power technology

The maximum transmitted output power of Bluetooth class 2 is 4dBm, (~ 2.5 mW). The total power consumption is much higher. The output power of Wibree standard will be around -6dBm. Each manufacturer will determine its own transmit power.

**Fast availability of new technology:**

In order to ensure fast availability of the new technology, Nokia is defining the Wibree interoperability specification together with a group of leading companies representing semiconductor manufacturers, device vendors and qualification service providers. The first commercial version of the specification is expected to be available by 1st quarter 2009.