

CRFS to undertake first ever UK-wide radio spectrum monitoring for Ofcom

Submitted by: Martin Brooke Associates

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- Project will enable Ofcom to begin to build a detailed picture of radio spectrum use - worth £37bn or 3% of UK GDP - in key frequency bands across the UK

- CRFS will use its technically-advanced RFeye™ spectrum monitoring system to gather data and populate the UK-wide spectrum usage database

- RFeye™ system makes UK-wide monitoring of spectrum economically viable and could unleash a new wave of communications innovation worth billions of pounds in the UK alone

CAMBRIDGE, England, June 26, 2008 - CRFS (Cambridge Radio Frequency Services), a developer and manufacturer of innovative real-time spectral analysis tools, has been selected by Ofcom, the UK communications regulator, to undertake one of the most detailed spectrum mapping projects ever conducted in the UK.

The project will enable Ofcom to begin to build a detailed picture of radio spectrum use - worth £37bn or 3% of UK GDP - in key frequency bands (100MHz to 5GHz) across the UK.

CRFS will use its purpose-built and technically-advanced RFeye™ real-time spectrum monitoring system to gather the radio spectrum data. The raw data will be collected by a small fleet of car-mounted RFeye nodes over a number of months to further populate the CRFS UK-wide spectrum utilisation database. Phase one is scheduled for completion by 31 December 2008.

CRFS will also provide sophisticated data analysis tools as part of the project and will host an industry day to get feedback from other stakeholders - mobile phone operators, broadcasters, wireless broadband providers, government agencies etc. - ahead of developing a business case for the continued deployment of the spectrum monitoring system.

Gary Clemo, R&D manager at Ofcom, said: "Ofcom's objective is to promote the most efficient use of the UK's valuable spectrum resource, benefiting consumers by providing access to new services, greater choice and competition. However, it is difficult to be sure that we are optimising the use of the spectrum without information on its usage and quality in different parts of the country and across different frequency bands. Information from the CRFS system should help us with our plans to introduce market mechanisms in spectrum management and in releasing the commercial value of spectrum in the future."

According to David Clevely, chairman and co-founder of CRFS, today's spectrum management systems rely mainly on rules of thumb and theoretical modelling, which is a bit like driving a car with no speedometer, milometer or fuel gauge. "Our RFeye system will enable Ofcom and other spectrum managers, such as the MOD and mobile phone operators, to fully exploit this valuable economic resource.

"Interference is one the biggest drains on the profitability of mobile phone operators as it stops a

large amount of calls from being terminated,” added David Cleevly. “With access to UK-wide spectrum monitoring data, operators could tune their networks and save literally millions of pounds each year. What’s more, by providing this in-depth knowledge of the spectrum environment, we believe that this could unleash a new wave of communications innovation worth billions of pounds in the UK alone.”

RFeye is a distributed, GPS-based interference measurement system that can survey radio spectrum. Each RFeye node is a robust, real-time spectrum analyser, and in combination with contextual information and backhaul provides a service beyond what is currently available or achievable with existing equipment. Applications for RFeye include frequency interference detection, spectrum usage database, license enforcement, spectrum release and liberalisation, cell planning, RF environment check and remote site monitoring.

Alistair Massarella, CEO of CRFS, said: “Our RFeye system is significantly less expensive than existing specialised monitoring systems and provides considerable improvement in quality and functionality when compared to similar products. We are delighted to be working in partnership with Ofcom on this project and believe that our solution will be of interest to telecommunications regulators, operators and equipment manufacturers the world over.”

Professor Martin Cave, author of two UK Government reports on spectrum management, said: “Radio spectrum is an asset of large and growing importance, crucial to the success of many industries, such as communications, which have a major bearing on the UK’s future prosperity. The CRFS system will provide Ofcom, and other government agencies such as the MOD, who are the current gatekeepers of the spectrum in the UK, with the opportunity to exploit this valuable resource and to stimulate new and exciting market opportunities.”

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About Ofcom (www.ofcom.org.uk)

Ofcom is the independent regulator and competition authority for the UK communications industries, with responsibilities across television, radio, telecommunications and wireless communications services.

About CRFS (www.crfs.com)

CRFS (Cambridge Radio Frequency Services) is a Cambridge-based developer and manufacturer of innovative real-time spectral analysis tools for the planning, monitoring, and licensing of wireless networks. Founded in 2007 by Alistair Massarella and David Cleevly, the company’s first product is a distributed GPS-based interference measurement system that can survey radio spectrum. RFeye™ enables telecommunications regulators, operators, equipment manufacturers, and third parties to survey, investigate, monitor and regulate the RF spectrum. CRFS is headquartered on the IQ Cambridge, Cambridge, UK.

About RFeye™

RFeye™ is a distributed, GPS-based interference measurement system that can survey radio spectrum. Each

RFeye node is a robust, real-time spectrum analyser, and in combination with contextual information and backhaul provides a service beyond what is currently available or achievable with existing equipment.

Each RFeye node, which can be tuned to a frequency between 10MHz and 6GHz and detect frequency data in real time, has a fully programmable embedded Linux processing platform with high-speed digital signal processing acceleration support in the form of a field programmable gate array. RFeye boasts multiple power options and secure backhaul over TCP/IP using WiFi, DSL, Ethernet and local bulk storage with USB or solid RAM states. These features allow the RFeye nodes to be used in a variety of environments from isolated fixed outdoor installations to in-vehicle mobile applications.

CRFS has also developed a range of sophisticated data analysis tools for visualising and analysing RFeye data. RFeyeView allows a user to investigate all of the data in the RFeye spectral database and to build a picture of the spectral domain. This includes spectral occupancy, transient interference characteristics, and legal or rogue transmitter location.

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