Sprint Nextel Response to Ofcom Consultation on Award of Available Spectrum: 2500-2690 MHz, 2010-2025 MHz, and 2290-2300 MHz
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Introduction

Sprint Nextel Corporation ("Sprint Nextel") welcomes the opportunity to comment on Ofcom's proposal to award spectrum in the 2500-2690 MHz, 2010-2025 MHz, and 2290-2300 MHz spectrum bands.

By way of background, Sprint Nextel offers a comprehensive range of communications services bringing mobility to consumer, business and government customers. Sprint Nextel is widely recognized for developing, engineering and deploying innovative technologies, including two robust wireless networks serving 53.1 million customers at the end of 2006; industry-leading mobile data services; instant national and international walkie-talkie capabilities; and an award-winning and global Tier 1 Internet backbone.

In August 2006, Sprint Nextel announced its plans to develop and deploy the first fourth generation (4G) nationwide broadband mobile network in the United States. The 4G wireless broadband network will use the mobile WiMAX (Worldwide Interoperability for Microwave Access) IEEE 802.16e-2005 technology standard. Working together with Intel, Motorola, Samsung, and Nokia, Sprint Nextel will develop a nationwide network infrastructure as well as mobile WiMAX-enabled chipsets that will support advanced wireless broadband services for computing, portable multimedia, interactive and other consumer electronic devices. These efforts are intended to allow Sprint Nextel customers to experience a nationwide mobile data network that is designed to offer faster speeds, lower cost, and greater convenience and enhanced multimedia quality.

The Sprint Nextel 4G mobility network will use the company's extensive 2500-2690 MHz (referred to herein as 2.6 GHz) spectrum holdings. To access that network, Sprint Nextel will work with Intel, Motorola, Samsung and Nokia to incorporate WiMAX technology for advanced wireless communications and help make chipsets widely available for new consumer electronics devices, connecting consumers to the Internet and to each other while providing them with the flexibility to do what they want or need to do regardless of time or place.

As a holder of 2.6 GHz spectrum poised to bring next generation technology to market, Sprint Nextel has a keen interest in this proceeding and offers the following responses to Ofcom's consultation questions. Please note Sprint Nextel responds to the following questions based on its experience and substantial investment in WiMAX in the United States. Where it has not responded, it has no comment.

Question 1: Do you agree with these proposals for the awards of the three bands or have any other comments on the contents of this document?

Under Section 3 of the Communications Act 2003, Ofcom's principal objective in awarding spectrum is to optimize spectrum use in the interests of citizens and consumers. As discussed in greater detail in the responses below, Sprint Nextel believes Ofcom's market-based spectrum licensing proposals help achieve that objective. Specifically, its licensing proposals give operators the regulatory tools to maximize the value of this finite resource in

a way that will make a wide array of innovative technologies and applications available to citizens and consumers.

Question 3: Do you agree that Ofcom should authorize use of the spectrum bands 2500-2690 MHz, 2010-2025 MHz, and 2290-2300 MHz?

Sprint Nextel agrees the 2500-2690 MHz, 2010-2025 MHz, and 2290-2300 MHz spectrum bands, which are free or will soon be free of incumbent users, should be made available for use as soon as practicable. Spectrum is essential to fuel the rapid growth of wireless technologies and services, but it is a scarce resource. Given its limited supply, but high demand, it is an incredibly valuable asset, not just for operators, but for citizens, consumers and the UK economy as a whole. Accordingly, any free spectrum should not lie dormant, but should be made available promptly to stimulate new opportunities for increased investment, competition and innovation.

In particular, it is vital that Ofcom authorize the use of the 2.6 GHz band in an expedient manner. As evidenced by Sprint Nextel's investment of significant resources to develop and deploy its 4G network using 2.6 GHz frequencies within the United States, opening up this band should attract considerable investment and innovation. There are a number of innovative applications made possible by mobile WiMAX technology, and carriers should be afforded the opportunity to make these applications available to consumers on a more global basis. Global availability of the 2.6 GHz spectrum band for such advanced technology creates the opportunity for economies of scale savings, which translate into lower costs for consumers. In addition, by making the 2.6 GHz band available and fostering the growth of a global communications marketplace, consumers within the UK can enjoy the benefits of increased competition.

Question 4: Do you agree that awarding licences by auction would be the appropriate mechanism for authorizing spectrum bands 2500-2690 MHz, 2010-2025 MHz, and 2290-2300 MHz?

Yes. Competitive bidding is an appropriate means for ensuring that spectrum is allocated for its highest and best use.

Question 5: Do you agree it is likely to be in the interests of citizens and consumers to proceed with an award of the 2.6 GHz and 2010 MHz bands as soon as practicable, rather than to delay the award pending reduction in uncertainty relating to other bands?

Given the significant demand for spectrum in the 2.6 GHz and 2010 MHz bands and the potential benefits that will flow to citizens and consumers from its use, Ofcom should proceed to award this spectrum as soon as possible. The sooner the spectrum can be released and advanced wireless technologies can be deployed, the sooner such benefits can be realized.

Sprint Nextel agrees that Ofcom should disclose as much information as it can about other potential substitute bands to help operators make informed decisions about their participation in this spectrum award and update that information on an ongoing basis. Ofcom, however, will never be able to eliminate all regulatory uncertainty surrounding other bands given the constantly evolving nature of communications market. As long as the potential benefit of awarding the spectrum as soon as practicable outweighs any measurable risk of uncertainty, Ofcom should award the spectrum in the 2.6 GHz and 2010 MHz bands without delay.

Question 6: Do you agree Ofcom should aim to award the bands 2500-2690 MHz, 2010-2025 MHz and 2290-2302 MHz by the end of 2007, while keeping the position on the 2.6 GHz and 2010 MHz bands under review in the light of possible developments in the European regulatory fora?

Ofcom's own assessment has determined that it is highly unlikely that European Union (EU) regulatory developments would be materially inconsistent with the market-based approach Ofcom proposes to adopt. In addition, as Ofcom points out, the EU Radio Spectrum Committee (RSC) does not currently have a 2.6 GHz proposal on the table and may never issue a binding decision if EU-wide consensus is not reached. Therefore, since the possibility that any EU-level development would directly conflict with Ofcom's proposed approach appears remote, Ofcom should not delay the release of spectrum in these bands.

Question 7: Do you agree with Ofcom's proposals for licence conditions (technology neutrality, tradability, conditions of tenure and absence of roll-out obligations)?

Sprint Nextel supports spectrum licence conditions that give licence holders maximum flexibility to use their spectrum with the minimum restrictions necessary to ensure they all can take full advantage of their spectrum rights. Ofcom's proposals for technology and service neutrality, spectrum trading rights, licence terms and other non-technical conditions generally strike the right balance between flexibility and regulation to optimize spectrum use.

- **Technology and Service Neutrality:** A technology and service neutral approach allows market forces, rather than the government, to determine the optimal use of spectrum. The market is better positioned to assess the appropriate technology and services based on cost, efficiency, demand and a host of other factors. In addition, technology is not static, but continuously evolving. Not locking operators into a particular technology or service allows them to adopt cheaper, more advanced systems and applications as they become available, without unnecessary delay.

  Technology and service neutrality also serves as a catalyst for competition and investment in new technology. Removing the regulatory advantage one technology or service has over another levels the playing field for new entrants. Moreover, if the technology for a particular band has not been pre-determined, innovators are more apt to develop more advanced and cost-efficient technologies, because they know more operators will have the flexibility to adopt their technology.

- **Spectrum Trading**: Access to sufficient spectrum is an essential input to wireless communications service deployment. Under traditional spectrum management approaches, the only way an operator could obtain spectrum would be by purchasing it directly from the government (through auctions, beauty contests, lotteries, etc.) or by purchasing a spectrum holder. Spectrum trading, however, which permits spectrum holders to buy or sell the right to use certain frequencies, gives operators faster and easier access to this limited resource.

  Spectrum trading optimizes spectrum use because it assigns spectrum resources to their highest use. It gives a licencee with excess spectrum a financial incentive to sell or lease its unused or underutilized spectrum to the operator that values it the most and will fully utilize it. Accelerated access to spectrum shortens the time it takes for operators to bring new services and technologies to market.

Moreover, spectrum trading allows for fluctuations in spectrum needs over time. Operators can aggregate additional spectrum where they need it most and obtain sufficient amounts of spectrum to offer new services requiring greater bandwidth. Spectrum trading also affords operators the opportunity to acquire spectrum to satisfy short-term capacity needs quickly.

- **Technical Conditions:** While spectrum flexibility is critically important to the development and deployment of next generation wireless technologies and services, Ofcom still must play a vital role. It must establish certain baseline measures to ensure spectrum operators do not impede other licencees' enjoyment of their spectrum rights. Minimum technical and operational requirements should be established to ensure that licencees are able to benefit from the full value of their spectrum. For example, regulatory parameters that minimize the risk of harmful interference are necessary to preserve the value of spectrum and ensure its efficient use.

- **Conditions of Tenure:** Sprint Nextel supports a licence term of 20 years, followed by an indefinite term. As Ofcom correctly identifies, licencees must have a sufficient opportunity to recover their investment and the presence of other incentives – such as spectrum trading – will ensure that the spectrum is utilized where market conditions support its use.

  Sprint Nextel disagrees with Ofcom's proposed "safeguard" to minimize inefficient spectrum usage through Ofcom's right to revoke a licence for "spectrum management reasons," including the existence of "a compelling case and evidence of market failure." While Sprint Nextel supports Ofcom's interest in ensuring that spectrum is available for new uses or new users, particularly in the event of a market failure, such ambiguous licence revocation authority will create uncertainty and potentially deter investment in the 2.6 GHz band. If Ofcom must retain a right of revocation, for the purpose of ensuring the fulfillment its statutory duties, Ofcom should enumerate more precisely the circumstances where it may invoke this right of revocation so that potential licencees may appropriately assess the risk of market entry. In addition, Sprint Nextel would support a provision that Ofcom will identify suitable replacement spectrum, so that service to consumers is not disrupted and licencees who are utilizing this spectrum are not unfairly penalized for investing in the 2.6 GHz band. Ofcom should also incorporate a suitable advance notification period, so that licencees may take steps to transition consumers as appropriate and ensure that consumers receive continued quality of service.

  Sprint Nextel also proposes that Ofcom include a substantial service requirement for 2.6 GHz licencees, as explained in greater detail below. This substantial service requirement will serve as another safeguard against the warehousing of spectrum, such that a right of revocation may be significantly curtailed.

- **Other Non-technical Licence Conditions:** Sprint Nextel agrees that "use it or lose it" roll-out obligations are unnecessary and that licencees must have sufficient flexibility to use their spectrum efficiently. Sprint Nextel also appreciates Ofcom's concern that the imposition of roll-out obligations could distort an award and potentially exclude some potential users. On the other hand, however, licencees should be required to demonstrate that they are capable of utilizing their 2.6 GHz spectrum and provide some degree of service by the conclusion of their initial twenty-year term. Sprint Nextel proposes that licencees be required to provide

"substantial service" after ten years. This is a flexible, market-oriented standard that allows licencees sufficient latitude to select the type of service it will provide, as well as what geographic area and population to cover.

Ofcom should, however, establish "safe harbors" that, if met, will be deemed to satisfy the substantial service standard. Licencees who value certainty can then have the option of satisfying one of the construction "safe harbors" and thereby assuring themselves of satisfying the substantial service standard. In adopting safe harbors for the 2.6 GHz band, Sprint Nextel recommends that Ofcom look to the safe harbors adopted by the U.S. Federal Communications Commission ("FCC") for the deployment of wireless services. Similar to the FCC's safe harbors, it is important that Ofcom adopt a range of safe harbors that can accommodate licencees' different business plans and needs.

Question 9: Do you agree with Ofcom's proposal to package spectrum as lots of 2x5MHz for paired use and 5MHz lots for unpaired spectrum and to allow the aggregation of lots by bidders?

Sprint Nextel does not support Ofcom's proposal to licence spectrum in 5 MHz increments. In order to ensure that licencees have sufficient bandwidth to provide advanced wireless services, Ofcom should package spectrum in lots of 2 x 10 MHz for paired use, as well as 10 MHz lots of unpaired spectrum. Upon conclusion of the auction, licencees should be permitted to partition, disaggregate or aggregate spectrum freely as their spectrum and business needs dictate. By affording licencees with maximum flexibility (such as by providing them with the option of purchasing paired or unpaired spectrum), licencees can bid for the spectrum package that best addresses its business model and selected technologies. Furthermore, flexible policies regarding partitioning and disaggregation will enable licencees, *ex post*, to correct any spectrum deficiencies or otherwise ensure efficient and optimal spectrum usage as needs evolve.