

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	ET Docket No. 00-258
Amendment of Part 2 of the Commission's)	
Rules to Allocate Spectrum Below 3 GHz for)	
Mobile and Fixed Services to Support the)	
Introduction of New Advanced Wireless)	
Services, including Third Generation Wireless)	
Systems)	
)	
Petition for Rulemaking of the Cellular)	RM-9920
Telecommunications Industry Association)	
Concerning Implementation of WRC-2000:)	
Review of Spectrum and Regulatory)	
Requirements for IMT-2000)	
)	
)	
)	
)	

REPLY COMMENTS OF NORTEL NETWORKS INC.

Nortel Networks Inc. (“Nortel Networks”) briefly replies to the comments filed in response to the Commission’s Notice of Proposed Rulemaking concerning the allocation of spectrum that could be used for Third Generation wireless systems.¹ In its initial comments, Nortel Networks advocated a phased approach to the allocation of additional spectrum for 3G

¹ *Amendment of Part 2 of the Commission’s Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems et al.*, ET Docket No. 00-258, FCC 00-455, released January 5, 2001 (“3G NPRM”).

services. In particular, for the first phase Nortel Networks urged the Commission to allocate the 1710-1755 MHz and 1805-1850 MHz bands for 3G services. Such an allocation would be superior to an allocation of 1710-1755 MHz and 2110-2150 MHz, since that latter pairing could very well create a U.S. unique band plan resulting in a “cul-de-sac” that eliminates any possibility of some level of harmonizing U.S. usage with the rest of the world. In addition, Nortel Networks explained why it would disserve the public interest to allocate spectrum from the 2.5 GHz band for 3G services, in light of the significant work and investment that has already been undertaken to provide broadband fixed services in those frequencies.²

Nortel Networks reiterates its concerns regarding any reallocation of spectrum currently being used by MMDS and ITFS licensees in the 2.1 and 2.5 GHz bands. While it is important to make additional spectrum available for 3G services, that spectrum should not be allocated at the expense of the incumbents in the MMDS/ITFS bands, who are presently providing competitive broadband services. In particular, Nortel reiterates the following points, initially made in its November 9, 2000 letter to the Chief of the Wireless Telecommunications Bureau:³

- The MMDS/ITFS spectrum is highly valuable for fixed wireless broadband access, especially in smaller markets which remain either unserved or underserved by other broadband technologies;
- The potential market for fixed wireless broadband access is significant;

² See Comments of Nortel Networks, filed February 22, 2001, at pp. 6-7.

³ See Letter from Raymond L. Strassburger, Nortel Networks, to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, FCC (Nov. 9, 2000). (Attached hereto as Attachment 1).

- Other countries in the Americas region are moving forward with MMDS in the 2.5 GHz band;
- The use of the 2.5 GHz band for 3G services would not promote global roaming or spectrum harmonization; and
- The 1.7 GHz band has significant technical and practical advantages over the 2.5 GHz band for 3G services, and can be shared with incumbent users by protecting them from harmful interference.

Many of these observations have been confirmed by other commenters in this proceeding, including other wireless network equipment manufacturers.⁴ For example, Lucent Technologies, Inc. (“Lucent”) expresses its strong preference for allocating new 3G spectrum from within the 1710-1850 MHz band in order to benefit from increased possibilities for global roaming and global manufacturing economies of scale.⁵ In addition, Lucent observed that there were a number of technical objections to use of the 2.5 GHz band: there are no current mobile operations in this band, so there is no base of technology on which to build; and multi-band operations with PCS and DCS 1800 would be more difficult because of spacing.⁶

⁴ See, e.g., Comments of Wireless One of North Carolina, filed February 22, 2001; Comments of the ITFS Spectrum Development Alliance, filed February 22, 2001; Comments of Cisco Systems, Inc., filed February 22, 2001; Joint Comments of ITFS Parties, filed February 22, 2001; Comments of Lucent Technologies, Inc, filed February 22, 2001; Comments of WorldCom, Inc., filed February 22, 2001; Comments of the Wireless Communications Association International, Inc.; filed February 22, 2001; Comments of Sprint Corporation, filed February 22, 2001; Comments of Nucentrix Broadband Networks, Inc., filed February 22, 2001; Comments of Petroleum Communications, Inc., filed February 22, 2001.

⁵ See Comments of Lucent Technologies, at pp. 8-9. Lucent also notes the potential difficulties that could arise – e.g., the use of multiple antennas – if duplex spacing were overly broad, and thereby providing a large separation between uplink and downlink transmission paths. *Id.*

⁶ Comments of Lucent Technologies, at p. 9. Moreover, as Lucent observes, use of the 2.5 GHz band at this time would neither promote global roaming nor create global economies of scale.

Of equally critical importance to the continued viability of broadband fixed wireless providers is access to and use of the 2150-2162 MHz band. Any reallocation or elimination of the MMDS channels in this band would cause a significant increase in the cost of equipment. Even a small upward shift of this spectrum within the 2.1 GHz band would cause lengthy service disruptions and increased costs as manufacturers would need to redesign their network and customer premises equipment.

In light of the record developed in this proceeding, Nortel Networks urges the Commission to move ahead quickly with additional allocations in the 1710-1755 MHz and 1805-1850 MHz bands for 3G services, and not by reallocating any spectrum currently allocated to MMDS or ITFS. Nortel Networks believes that such action will best serve the public interest.

Respectfully submitted,

/s/

Stephen L. Goodman
Halprin, Temple, Goodman & Maher
555 12th Street, N.W.
Suite 950, North Tower
Washington, D.C. 20004
(202) 371-9100

Attorneys for Nortel Networks, Inc.

Of Counsel:

John G. Lamb, Jr.
Nortel Networks Inc.
2100 Lakeside Boulevard
Richardson, Texas 75081-1599

Dated: March 9, 2001



801 Pennsylvania Avenue, N.W., Suite 700
Washington, D.C. 20004
Tel 202.508.3605
Fax 202.508.3612

www.nortelnetworks.com

Vice President,
Global Government Relations-
Telecom, Internet and Advanced
Technology Policy

November 9, 2000

Mr. Thomas J. Sugrue
Chief, Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, -SW Room 3-C252
Washington, DC 20554

Re: Spectrum for Third Generation Wireless

I. DEAR TOM:

As you begin the process for determining the appropriate spectrum to be made available in the U.S. for third generation wireless, please consider the following views of Nortel Networks outlined below. In addition, I would very

much like to arrange a meeting with you early next week to discuss these views when our company's expert on spectrum matters will be in Washington.

As a global supplier of wireless solutions to industry and government, Nortel Networks has a very strong interest in the worldwide success of third generation wireless. Nortel Networks has been a consistently active and contributing player in international fora dealing with third generation spectrum issues ever since the concept originated in ITU-R in 1985. Nortel Networks is a wireless solutions provider across the spectrum. It is in this context that Nortel Networks offers the following observations, which we urge the Commission to keep in mind as it begins consideration of the important and difficult task of allocating the appropriate quantity and location of spectrum to be used for third generation services in the United States in accordance with the recent WRC-2000:

- The MMDS/ITFS spectrum is highly valuable for fixed wireless broadband access, especially in second and third tier U.S. markets which remain either unserved or underserved.
- Nortel Networks manufactures MMDS equipment used in the 2.5 GHz band and considers the potential market for fixed wireless broadband access to be significant.
- Mexico, Canada and Brazil, among others, are moving forward with the 2.5 GHz band for MMDS.
- Current auctions in Europe for 3G spectrum (1885-2025, 2110-2290) have generated large revenue. Further auctions in the near term are not likely.
- The use of the 2.5 GHz band would not promote roaming. European administrations have openly stated that they will not consider 2.5 GHz for use until the 2010 – 2015 time frame. Those administrations also cite the WRC-2000 mandated sharing studies on the impact of the MS on the BSS in that band. Unfavorable results will limit the usefulness of 2.5 GHz for 3G.
- Moreover, other bands under consideration have technical and practical advantages over the 2.5 GHz band. The following facts demonstrate those advantages:
 1. CITELE Administrations are moving toward identifying the 1.7 GHz band for 3G. At the [Extraordinary Meeting of Working Group on Terrestrial Fixed and Mobile Radio communications Services], 3 October 2000, in Rio de Janeiro, Brazil, five Administrations identified and generated a joint recommendation for use of the 1.7 GHz band.
 2. European Administrations are currently using the 1.7 GHz band for GSM 1800. Global use of the 1.7 GHz band would increase pressure on European Administrations to allow present GSM 1800 systems to evolve to 3G, creating increased market opportunities for U.S. manufacturers. That evolution, along with a similar use in the Americas, would go a long way towards spectrum harmonization. A similar situation exists in the Americas in the 1.9 GHz band as PCS systems evolve to 3G, and the use of that band becomes more harmonized with the recently auctioned 3G European licenses.

3. Global use of the 1.7 GHz band would be consistent with the WRC-2000 recommendation of "flexibility" to enable all systems in the identified bands to evolve to 3G.
4. The 1.7 GHz band can be shared by DOD and 3G systems. Clearing the band is not necessary. DOD operations, in our view, can be protected from interference. In reality many of the DoD systems (i.e. MSE) are already sharing that band in Europe.

Thank you for considering the foregoing. I hope we can arrange a meeting to further discuss these issues in the very near future.

Sincerely,

/s/

Raymond L. Strassburger

Vice President, Global Government Relations

Telecom, Internet and Advanced Technology Policy

RLS/kc