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**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)
)
Amendment of the Commission's Rules) GN Docket No. 96-228
to Establish Part 27, the Wireless)
Communications Service ("WCS"))

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COMMENTS

Pursuant to Section 1.415 of the Commission's Rules,¹ Alcatel Network Systems, Inc. ("ANS"),² by its attorney, hereby comments on the Commission's above-captioned Notice of Proposed Rule Making ("NPRM"). In this NPRM, the Commission proposes the establishment of a new Wireless Communications Service ("WCS") in the 2305-2320 and 2345-2360 MHz bands. Under the Commission's proposal, WCS licenses would be auctioned. A WCS licensee would be permitted to provide any fixed, mobile, radiolocation or satellite Digital Audio Radio service provided it is consistent with applicable international regulations.³

¹47 C.F.R. §1.415 (1996).

²ANS is a wholly-owned subsidiary of Alcatel Alsthom ("Alcatel"), one of the world's largest corporations (with annual sales in excess of \$30 billion) and the world's largest manufacturer and supplier of telecommunications equipment. In particular, Alcatel is the world's largest independent manufacturer and supplier of microwave radios. Formerly Collins Radio and Rockwell International, ANS, with close to \$1 billion in annual sales, is a world leader in manufacturing microwave and light wave transmission systems. ANS' equipment is used for a wide range of services, including short, medium and long-haul voice, video and data transmission. Its microwave customers include all the Bell Operating Companies, most major independent telephone companies, cellular operators, power and other utility companies, oil companies, railroads, industrial companies, and state and local government agencies.

³NPRM at ¶1.

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ANS strongly opposes the Commission's approach to the new WCS. As demonstrated herein, this approach, which would open the 2.3 GHz band to co-primary use by fixed, mobile and other services, is fundamentally flawed:

- Service in these bands would be a "free-for-all" because technical and operating rules are not proposed. Reliance upon market negotiations instead of on industry-developed, service-specific technical standards, would be disastrous. Chaos would result.
- WCS licensees would not be assured protection against harmful interference from non-compatible adjacent or co-channel licensees. Benign band-sharing by disparate users would be difficult and costly to achieve. Product costs would skyrocket.
- Radio development and production for these bands would be stifled as manufacturers will not know how they will be occupied. Research and development costs would increase because of manufacturers' doubts over how the bands would be used; their need to overcompensate in designing interference protection standards, in an uncontrolled environment, to address all such possible uses; and their uncertainty over potential market demand and related production and performance requirements.
- Interoperability of devices domestically and internationally would be threatened.
- Using auction results to determine how radio frequencies are used impermissibly would substitute the marketplace for the Commission's independent statutory obligation under Section 303 of the Communications Act of 1934, as amended (the "Act"), to make specific allocations.⁴

In comments to be filed contemporaneously herewith, the Telecommunications Industry Association's Fixed Point-to-Point Communications Section, Network Equipment Division, and Mobile and Personal Communications Division ("TIA"), also oppose the NPRM. TIA expresses serious concern with the NPRM because the proposed "open use" approach: (i) exceeds the Commission's statutory authority to allocate radio spectrum in the public interest; (ii) conflicts with well-established and appropriate frequency coordination, service implementation and equipment

⁴47 U.S.C. §303 (1996).

deployment standards; and (iii) threatens essential public safety and other fixed point-to-point microwave services ("FS"). For the reasons set forth herein, ANS agrees with TIA.

SPECIFIC ALLOCATION AND OPERATING STANDARDS MUST BE DEVELOPED

Even though the Commission would permit open access to the 2.3 GHz band by any combination of fixed, mobile or other radio service providers, it only proposes minimal interference protection standards to ensure that these services could co-exist.⁵ Regrettably, this proposal is a prescription for disaster.

At a minimum, FS and mobile users cannot be co-primary because of their radically different operating characteristics. Allowing such incompatible technologies to share the 2.3 GHz band thus would minimize channel availability for both FS and mobile users and would deprive the public of essential public safety, information and other services.

ANS and other radio equipment manufacturers are very interested in developing products for the 2.3 GHz band. The sheer number of potential users that could be unleashed as the result of the Commission's proposed open market approach would deter these manufacturers from making any large capital investment because there will be no rules restricting the potential for inter-user interference.

Manufacturers must evaluate the development and retail cost of products. Such costs will depend on the other users of the frequency band. Because product development takes several years and millions of dollars, product designers likely would take a "wait-and-see" position to make sure there is a market before making that kind of investment. The Commission's proposal does not offer such necessary guidance.

⁵Specifically, the Commission limits its interference protection standards to prescribing out-of-band emission limits. NPRM at ¶¶33-35.

The cost of products also would increase due to the cost of interference-compensation components made necessary under the Commission's proposal. Spectrum interference is one of the primary considerations the Commission should consider in allocating spectrum.⁶ Interference among various users is uncertain in the rule-free bands the Commission proposes, so products must be designed for a wide variety of environments.

The number of units each manufacturer will be able to sell is a major factor to be considered before making a large research-and-development investment. Uncertainty over how a band will be allocated, which would result under the Commission's proposal, handicaps a manufacturer's ability to estimate production requirements. This inability to project market demand likely would drive developers out of the marketplace, hindering, rather than advancing, technological advances.

Performance of devices could be another casualty if the NPRM is adopted. Eliminating specific technical standards would make it difficult, if not impossible, for a prior user to prevent the merchandising of a later, higher-power device.

At a minimum, the Commission's proposal will paralyze manufacturers. They would be forced to defer product development to the last minute -- until the actual use of the band is determined -- which would delay implementation of service significantly. Manufacturers also could delay finalizing and filing necessary applications for required Commission equipment authorization.

Inter-operability of devices in a national and worldwide marketplace will suffer under the Commission's proposal. Many developers look to national and international markets to recover their development expenses. With different areas of the spectrum available in different markets, devices must be built to survive under any condition, in any electromagnetic environment. Devices sold to new markets may be inoperable in those locations. Since many other countries use Commission

⁶See 47 U.S.C. Section 151 (1996).

regulations as a model for their own technical and operating requirements, the international market for devices operating in the 2.3 GHz band would be just as chaotic as it would be domestically.

THE COMMISSION CANNOT USE AUCTIONS TO ALLOCATE SPECTRUM

Congress did not give the Commission unlimited authority to auction spectrum. Instead, Congress specified clear guidelines for how auctions could be used and when they could be implemented.⁷ Spectrum allocation and frequency assignment are not among the permitted uses for competitive bidding.⁸

Under Section 309 of the Act, the Commission is prohibited from assigning a band of frequencies for licensed operations "on the expectation of Federal revenues from the use of a system of competitive bidding"⁹ Moreover, the use of competitive bidding cannot substitute for the Commission's "obligation in the public interest to continue to use engineering solutions, negotiation, threshold qualifications, service regulations, and other means" to assign how specific frequencies are to be used.¹⁰ In the NPRM, the Commission unjustifiably ignores this statutory authority.

If the NPRM is adopted, the licensees will take over the Commission's responsibility of determining what services should be made available over specific bands, how those services would be provided, and what technical standards, if any, would be enforced. Thus, by delegating these responsibilities to the licensees and by foregoing a proper assessment of the relative value of the different radio services that might be established on the bands under consideration, the Commission

⁷47 U.S.C. Section 309(j)(6) (1996).

⁸47 U.S.C. Section 309(j) (1996).

⁹47 U.S.C. Section 309(j)(7)(A) (1996).

¹⁰47 U.S.C. Section 309(j)(6)(E) (1996).

would abdicate its responsibility under the Act to allocate the use of the radio spectrum as required by the public interest, convenience, and necessity.

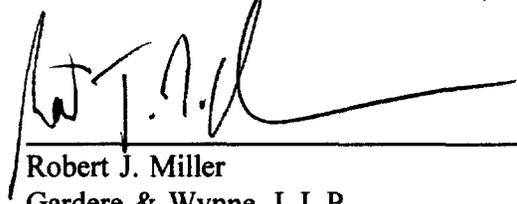
CONCLUSION

Regulation is indispensable to orderly and efficient spectrum use. With decreasing spectrum available for new services, the Commission cannot risk opening the 2.3 GHz band to incompatible users without adequate restrictions. Given the essential services provided by public safety and other FS users, the Commission's proposal to make them share with mobile and other licensees is totally unjustified.

As TIA demonstrates in its comments, the Commission's proposals in the NPRM fail totally to meet its statutory requirements to specify uses of the spectrum that have been proven to serve the public interest. Thus, ANS joins with TIA in opposing adoption of the NPRM.

Respectfully submitted,

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