Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of () Additional Spectrum for Unlicensed Devices () Below 900 MHz and in the 3 GHz Band ()

ET Docket No. 02-380

COMMENTS OF AT&T CORP.

AT&T Corp. ("AT&T") submits these comments in response to the Notice of Inquiry ("NOI") in the above-entitled proceeding released December 20, 2002.

As a competitive local exchange company, a provider of broadband services, a communications networking company, and an entity seeking to develop alternatives to the existing Bell monopolies in order to reach and serve customers, AT&T agrees with the Commission that "there could be significant benefits to the economy, businesses and the general public in making additional spectrum available for unlicensed transmitters." NOI, ¶ 7. Indeed, AT&T is a principal investor in Cometa Networks, which seeks to deploy "hot spots" utilizing 802.11 – based technology ("WiFi") throughout the United States, and whose "goal is to become the leading wholesaler of secure, carrier-grade, nationwide wireless Internet access."¹ AT&T accordingly commends the Commission on its efforts to develop alternative means of accessing customers, for both narrowband and broadband services, and supports the Commission's proposed opening of spectrum for use by unlicensed devices, provided that means are established to prevent harmful interference to AT&T's C-Band satellite earth stations.

¹ Cometa Networks home page, http://www.cometanetworks.com

I. ALLOCATING ADDITIONAL SPECTRUM FOR UNLICENSED DEVICES WILL BENEFIT CUSTOMERS.

As the Commission has recognized, the deployment of broadband capabilities has been uneven across the United States. Only 58% of zip codes in the United States have access to multiple broadband providers,² and in many places residential consumers have access only to Bell-company provided DSL services. For example, the State of California has noted that "[f]orty-five percent of Californians that live in cities with broadband service have DSL service as their only broadband option."³ And, in the small business market segment, the Bells overwhelmingly dominate the market with their DSL and other offerings.⁴ Cable facilities pass at most only 24% of small and medium business,⁵ and, for those small businesses with fewer than 100 employees, DSL accounts for more than 70% of commercial grade service.⁶ The Bells' dominance is even greater for slightly larger small businesses, *i.e.*, those with 100 to 999 employees. In this market segment, DSL accounts for 98% of broadband subscribers in main offices and 92% of broadband subscribers in branch offices.⁷

⁷ *Id.* at 24-25.

² Inquiry Concerning the Deployment of Advanced Telecommunications Capability, Third Report, FCC 02-33, CC Docket No. 98-146 (rel. Feb. 6, 2002) ¶ 29.

³ Comments of the People of the State of California and the California Public Utilities Commission, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, CC Docket No. 02-33 (filed May 3, 2002) at 28.

⁴ See Letter dated February 4, 2003, from David L. Lawson, on behalf of AT&T, to Marlene H. Dortch, FCC, in CC Docket Nos. 01-338 and 02-33.

⁵ Letter dated January 15, 2003 from Edward Shakin, Verizon, to Marlene H. Dortch, FCC, in CC Docket No. 02-33, at 3.

⁶ In-Stat/MDR, *The Data Nation: Demand for Broadband and Data Services in the Small Business Market* (Oct. 2002) at 23. This 70% share does not take into account the Bells' T1 and other broadband offerings to small businesses.

Even where cable providers offer a broadband alternative to the Bells, the resulting duopoly does not result in a competitive marketplace. As Chairman Powell has observed, limitation of competition to a duopoly "would decrease incentives to reduce prices, increase the risk of collusion, and inevitably result in less innovation and fewer benefits to consumers."⁸ Moreover, the Bells have skewed incentives that limit their desire to roll out broadband services that would cannibalize their profitable second line and legacy "broadband" services, such as T1 service.

Based on the success reflected to date in the adoption of WiFi, AT&T believes that authorizing use of additional spectrum for unlicensed transmitters should lead to increased innovation, more choices, and greater benefits to consumers. AT&T therefore supports the Commission's efforts to develop alternatives to the Bell last mile bottleneck, and to promote alternative broadband paths to customers, provided that measures are implemented to avoid harmful interference to use of the spectrum by existing licensees.

II. EXISTING LICENSEES MUST BE PROTECTED FROM HARMFUL INTERFERENCE.

As the Commission has previously acknowledged, new users of previously allocated spectrum must not cause harmful interference to existing licensees. When the Commission permitted fixed terrestrial service in the Extended-C spectrum, it thus declined to permit mobile station operations in this band because of its concern that such use might interfere with existing FSS earth stations. *Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band*, First Report and

⁸ Application of EchoStar Communications Corp., et al., Hearing Designation Order, FCC 02-284, CS No. 01-348, Statement of Chairman Powell (rel. Oct. 18, 2002).

Order, FCC 00-363, ET Docket No. 98-237 (2000) ("*Extended-C FRO*"), ¶ 16. With regard to permitted fixed terrestrial service, the Commission required coordination zones for terrestrial service operators within range of grandfathered FSS sites (*id.*, ¶ 103), and required terrestrial users to ensure that their proposed operations would not cause interference (*id.*, ¶ 104). In the *NOI*, the Commission similarly recognizes that technical requirements will be necessary "to avoid interference to licensed and incumbent services." NOI, ¶ 1. *Accord*, ¶ 20.

AT&T operates international satellite C-band earth stations grandfathered to use Extended-C spectrum that could experience harmful interference if the Commission were to permit the use of unlicensed transmitters in the 3650-3700 MHz band.⁹ These earth stations receive signals in the Extended-C spectrum and are very sensitive to interference. However, because these earth stations generally are located in remote locations, AT&T believes that mitigation measures, such as geographic limitations, power limitations, frequency hopping, and/or use of "smart" devices, can be implemented to permit deployment of unlicensed devices in this spectrum, while still protecting these earth stations from harmful interference. AT&T looks forward to reviewing interference mitigation measures proposed by those seeking to use such spectrum.

AT&T also operates other C-band earth stations that could be adversely affected by unlicensed devices in the Extended-C spectrum unless mitigation measures are implemented. Although these earth stations are not licensed to receive signals in the

⁹ These earth stations are located at: Jamesburg (Carmel Valley), California; Salt Creek, California; Triunfo Pass (Malibu), California; Roaring Creek, Pennsylvania; Etam, West Virginia; and Lenox, West Virginia.

Extended-C spectrum band, they are authorized to receive signals in the adjacent C-band (3.7 to 4.2 GHz). Moreover, their antennae actually receive and amplify signals in both the Extended-C and C bands, although only the licensed C-band signals are processed. If interfering uses are permitted in the adjacent Extended-C band, the interference potentially could "overdrive" the earth stations' low noise amplifiers into their nonlinear operating range and degrade C-band signals, thereby disrupting communications received at these earth stations – and those of other C-band earth station operators. ¹⁰ AT&T nevertheless believes the interference caused by unlicensed devices could be effectively mitigated through geographic limitations, power limitations, frequency hopping, and/or use of "smart" devices.

CONCLUSION

For all of the reasons set forth above, AT&T supports the Commission's proposed opening of spectrum for use by unlicensed devices, provided that means are established to prevent harmful interference to AT&T's C-band satellite earth stations.

Respectfully submitted,

AT&T CORP.

By: <u>/s/ Stephen C. Garavito</u> Mark C. Rosenblum Lawrence J. Lafaro Stephen C. Garavito Its Attorneys One AT&T Way - Room 3A250 Bedminster, NJ 07921 (908) 532-1844

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¹⁰ AT&T believes that other operators of C-band earth stations would face the same problem.