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

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
Inquiry Concerning the Deployment of )  
Advanced Telecommunications )  
Capability to All Americans in a )  
Reasonable and Timely Fashion, and )  
Possible Steps to Accelerate Such )  
Deployment Pursuant to Section 706 of )  
the Telecommunications Act of 1996 )

CC Docket No. 98-146

**COMMENTS OF THE WIRELESS COMMUNICATIONS  
ASSOCIATION INTERNATIONAL, INC.**

The Wireless Communications Association International, Inc. ("WCA"), by its attorneys, hereby submits its comments in response to the Commission's *Third Notice of Inquiry* (hereinafter cited as the "*Third NOP*") in the above-referenced proceeding.<sup>1</sup>

All available evidence confirms that many areas of the United States still have little or no broadband service, and that certain spectrum policies, combined with network survivability standards, are needed to correct these problems. Just one year ago, the National Telecommunications and Information Administration ("NTIA")

<sup>1</sup> FCC 01-223 (rel. Aug. 10, 2001). WCA's membership includes a wide variety of Commission licensees, wireless broadband system operators, equipment manufacturers and consultants interested in the deployment of licensed and unlicensed spectrum for wireless broadband service in, *inter alia*, the 2.1 GHz, 2.3 GHz, 2.4 GHz, 2.5 GHz, 5 GHz, 18 GHz, 24 GHz, 28 GHz, 31 GHz and 38 GHz bands. WCA thus has a direct and substantial interest in the Commission's inquiry as to the state of broadband deployment in the United States, and the extent to which wireless providers are contributing to the Commission's broader effort to ensure that broadband is made available to all Americans "on a reasonable and timely basis."

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found that broadband deployment “has only just begun,”<sup>2</sup> and it has become evident that cable modem and DSL services cannot or will not by themselves meet the demand for broadband in rural and smaller markets. Indeed, according to a recent joint report prepared by NTIA and the Rural Utilities Service, “providers with both rural and non-rural service areas will likely bring broadband to their larger, urban and more lucrative markets first.”<sup>3</sup> The Commission’s 2001 *High-Speed Internet Access Report* confirms as much: substantial portions of states having significant non-urban populations still have no high-speed Internet access service, as defined by the Commission.<sup>4</sup>

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<sup>2</sup> “Falling Through The Net: Toward Digital Inclusion,” NTIA White Paper, <http://search.ntia.doc.gov/pdf/fttn00.pdf>, at 24 (October 2000).

<sup>3</sup> “Advanced Telecommunications in Rural America: The Challenge of Bringing Broadband Service to All Americans,” NTIA and U.S. Dept. of Agric., at 17 (April 2000). For example, the report states that while less than five percent of towns of 10,000 or less have cable modem service, more than 65 percent of all cities with populations over 250,000 have some access to such service. *Id.* at (ii). The report also states that “the Regional Bell Operating Companies (RBOCs) are providing DSL service primarily in cities with populations above 25,000 according to public RBOC data. While more than 56 percent of all cities with populations exceeding 100,000 had DSL available, less than five percent of cities with populations less than 10,000 had such service. Deployment of both cable modems and DSL service in remote rural areas is far lower.” *Id.*

<sup>4</sup> “High-Speed Services for Internet Access: Subscribership as of December 31, 2000,” Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, Table 9 (August 2001) (stating that no high-speed Internet access lines are in service in 59% of the zip codes in Arkansas – percentages for additional states are as follows: Alaska (78%), North Dakota (60%), Kentucky (50%), Montana (51%), South Dakota (49%), Nebraska (49%), Iowa (48%), Oklahoma (48%), Missouri (47%), Kansas (41%), Mississippi (37%), Louisiana (36%), New Mexico (34%)) [hereinafter cited as the “2001 *High-Speed Internet Access Report*”]. For purposes of the 2001 *High-Speed Internet Access Report*, the Commission defines “high-speed” access as that which provides a subscriber with transmissions at a speed in excess of 200 kilobits per second (kbps) in at least one direction. *Id.* at 1 n.1. “Advanced services” are defined as those that provide a subscriber with transmission speeds in excess of 200 kpbs in each direction. *Id.*

The scenario is equally troublesome in larger urban markets, where wireline incumbents remain by far the dominant providers of broadband service and remain free of significant competition from non-wireline technologies and competitive wireline carriers (e.g., CLECs, cable overbuilders). Indeed, last year NTIA found that over 95% of broadband households subscribed to cable modem (50.8%), DSL (33.7%) or ISDN (10.9%) service.<sup>5</sup> The Commission's *2001 High-Speed Internet Access Report* confirms that incumbent wireline services, where they are available, continue to control the broadband marketplace.<sup>6</sup> Moreover, due to technical issues that limit the reach of cable modem and DSL service, many consumers have access to only one or the other.<sup>7</sup> Not surprisingly, as a result of the paucity of competition between cable modems and DSL, some cable providers and ILECs have increased the price for residential broadband services since the recent demise of many competitive DSL providers.<sup>8</sup> As noted by one

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The *Report* does not include any statistics as to what percentage of zip codes in each state do not have access to "advanced services."

<sup>5</sup> "Falling Through The Net: Toward Digital Inclusion," NTIA White Paper, <http://search.ntia.doc.gov/pdf/fttn00.pdf>, at 23 (October 2000).

<sup>6</sup> See *2001 High-Speed Internet Access Report*, Table 4 (stating that RBOCs provide 86.3% of all ADSL lines).

<sup>7</sup> See *id.*, Table 1 (stating that high-speed lines provided via cable modem service outnumber ADSL lines by nearly two to one); *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner, Inc. and America Online, Inc., Transferors, to AOL Time Warner, Inc., Transferee*, 16 FCC Rcd 6547, 6584 (2001) ("[T]he record in this proceeding demonstrates that the availability of DSL in Time Warner service areas may not be sufficiently widespread to constrain the merged firm in the market for residential high-speed Internet access services, at least in the short term").

<sup>8</sup> See Stern, "Comcast to Raise Internet Service Fees," *The Washington Post*, at E11 (Sept. 19, 2001) (discussing Comcast's cable modem service fee increase from \$32.95 to \$39.95 per month); Young, "Choose a Cable Modem or DSL?," at <http://interactive.wsj.com/archive> (Sept.

broadband analyst, “[m]ore is made of cable versus DSL than there needs to be. Because if you are able to choose between cable and DSL, you are one of the chosen few.”<sup>9</sup>

Clearly, then, the Commission must encourage the development of wireless alternatives if it is to satisfy its statutory mandate to promote rapid deployment of broadband service to all Americans, not just to those who live in the largest population centers.<sup>10</sup> Indeed, the Commission has already found that MDS/ITFS operators in the 2150-2162 MHz and 2500-2690 MHz bands (the “2.1 GHz” and “2.5 GHz” bands) may be the sole providers of broadband service in rural or otherwise underserved markets,<sup>11</sup> and that MDS/ITFS broadband systems “will provide a significant opportunity for further competition with cable and digital subscriber line (DSL) services in the provision of

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10, 2001) (“[A] meltdown among DSL competitors to the regional Bell giants has killed off much of the competition in DSL services. The collapse has driven many would-be customers away from start-ups for fear they might go out of business overnight – and played into the hands of the dominant cable and phone companies. . . . Broadband providers have been quick to take advantage of the situation. . . . On average, rates have gone up about \$10 per month.”); Plosinka and Coffield, “Top-Dollar DSL,” *Interactive Week*, at 14-15 (Feb. 19, 2001) (reporting that SBC Communications “is first out of the chute, quietly boosting standard residential [DSL] packages that sold for \$40 per month last fall to \$50,” and attributing this development to the fact that “[I]n the last six months, many competitive residential DSL providers have gone bankrupt, leaving consumers in many U.S. regions a single choice for DSL service: the local phone company.”).

<sup>9</sup> Brown, “Broadband Battle” (Sept. 2000) at <http://www.broadbandweek.com/news>.

<sup>10</sup> See, e.g., Statement of Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, before the Subcommittee on Telecommunications, Trade and Consumer Protection, United States House of Representatives, Re: Access to Buildings and Facilities by Telecommunications Providers (delivered May 13, 1999) (“Because their technology enables them to avoid the installation of new wireline networks, wireless service providers may be among those with the greatest potential quickly and efficiently to offer widespread competitive facilities-based services to end-users.”).

<sup>11</sup> “Interim Report – Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems,” ET Docket No. 00-232, *FCC Staff Report*, at 22 (Nov. 15, 2000) [hereinafter cited as “*Interim Report*”].

broadband services in urban areas.”<sup>12</sup> Sprint, for example, is already offering MDS/ITFS broadband service in 14 markets across the country.<sup>13</sup> WorldCom too has made a significant investment in providing MDS/ITFS broadband service throughout the United States, including many small and mid-sized markets. It currently holds MDS licenses covering more than 31 million households in over 100 markets, and is already providing MDS/ITFS broadband service in Bakersfield, CA; Baton Rouge, LA; Chattanooga, TN; Jackson, MS; and Memphis, TN. Nucentrix Broadband Networks, Inc. (“Nucentrix”) holds MDS channel rights covering an estimated 9 million households throughout Texas and the Midwest; significantly, approximately two-thirds of Nucentrix’s markets have fewer than 100,000 households.<sup>14</sup> The company already offers MDS/ITFS broadband service in Austin and Sherman-Denison, Texas, and has initiated a trial of the service in Amarillo, TX.<sup>15</sup> Also, the Commission has recognized that there are a number of smaller, independent MDS/ITFS operators that are or will soon be offering broadband service in rural and smaller markets in, *inter alia*, Alabama, Alaska, Arizona, California, Colorado,

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<sup>12</sup> “Final Report – Spectrum Study of the 2500-2690 MHz Band: The Potential for Accommodating Third Generation Mobile Systems,” ET Docket No. 00-258, *FCC Staff Report*, at 13 (Mar. 30, 2001).

<sup>13</sup> See Keynote Address of Len J. Lauer, President – Sprint Global Markets Group, to The Wireless Communications Association International, Inc.’s 2001 Annual Convention, Boston, MA (June 26, 2001)

<sup>14</sup> See Ex Parte Letter of Nucentrix Broadband Networks, Inc. *et al.*, ET Docket No. 00-258 (July 19, 2001).

<sup>15</sup> See Ex Parte Letter of Nucentrix Broadband Networks, Inc., ET Docket No. 00-258 (June 6, 2001). Presently, Nucentrix’s broadband customers primarily are medium-sized and small business, small offices/home offices and telecommuters. The company’s broadband service offerings include Internet access from 128 Kbps to 1.54 Mbps, or up to 50 times faster than service provided via conventional dial-up service.

Florida, Iowa, Idaho, Louisiana, Maine, Michigan, Montana, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Virginia, and Wyoming.<sup>16</sup>

Moreover, “millimeter wave” service providers (*i.e.*, 24 GHz, 28 GHz, 31 GHz, 38.6-40.0 GHz) have invested billions of dollars to give business customers and government entities a wireless alternative for broadband service. For example, Winstar Communications, Inc. (“Winstar”) services business customers in many urban areas, and is the most successful awardee in the nation for General Services Administration Metropolitan Area Acquisition (MAA) contracts, winning thirteen contracts since the program began.<sup>17</sup> Moreover, millimeter wave providers provide critical facilities-bases primary and redundant communications infrastructure. In the wake of the tragic events of September 11 in New York City and Washington, D.C., Winstar created voice and data network access to three emergency relief centers, the Department of Justice, the Federal Bureau of Investigation, Federal Courts, the Federal Emergency Management Agency and other facilities in lower Manhattan, and also installed communications services for the Pentagon, providing that facility with access to a nearby cellular network via Winstar’s radio equipment. In Philadelphia, Winstar assisted the American Red Cross by doubling its phone line capacity in just a few hours, enabling it to handle over 500 calls an hour from those wanting to donate blood or provide other aid. Winstar is also using its WirelessFiber technology to support many users and other major interexchange carriers.

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<sup>16</sup> *Interim Report*, Appendix 3.3 at A42-A43.

<sup>17</sup> GSA MAA Award Press Releases: [http://www.fts.gsa.gov/news\\_room/press\\_releases/press.htm](http://www.fts.gsa.gov/news_room/press_releases/press.htm)

These examples confirm recent media reports on the pressing need for physically diverse facilities based networks as a means of ensuring network security in emergency situations and preserving the national communications infrastructure.<sup>18</sup> It therefore is imperative that the Commission preserve and protect fixed wireless service in *all* frequency bands to the fullest extent possible, so that physically diverse, facilities based alternatives remain readily available to serve the public and its institutions. The Commission needs to directly advise Congress and the Executive Branch that emergency restoration and network survivability plans require that all government buildings and key commercial

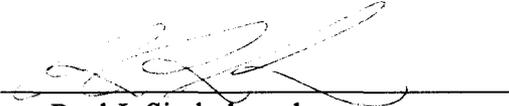
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<sup>18</sup> See Guernsey, “An Unimaginable Emergency Put Communications to the Test,” *The New York Times*, at <http://www.nytimes.com/2001/09/20/technology/circuits/20INFR.html> (Sept. 20, 2001) (“As planned, the telecommunications system also relied heavily on built-in redundancies. Many companies, for example, have more than one line from their offices to high-speed access points. But the disaster did expose some of those contingency plans. Some of those multiple lines travel the same conduits to the same routing centers. If something happens to those conduits or routing centers – as did in many cases on Tuesday – all the redundancy in the world doesn’t help: all the cables would be damaged . . . . Roy A. Maxion, director of the dependable-systems laboratory at Carnegie Mellon University in Pittsburgh, preached the value of physical diversity in networks. ‘I wouldn’t want to be alarmist about this,’ he said, ‘but what I think is interesting is how the system is not set up. A lot of these contingency plans are not in place.’ He added that, ‘as a nation we are dangerously vulnerable.’”).

businesses (for example, those buildings housing institutions that support the financial markets, etc.) must install and maintain physically diverse facilities based systems.

Respectfully submitted,

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