Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

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The Commission's Consultative Role In the	)	
Broadband Provisions of the Recovery Act	)	GN Docket No. 09-40
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COMMENTS OF MOTOROLA, INC.

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I. INTRODUCTION AND SUMMARY

Motorola, Inc. ("Motorola") respectfully submits these comments in response to the Commission's request for comments on its consultative role in the broadband provisions of the American Recovery and Reinvestment Act of 2009 ("ARRA" or "Recovery Act").[1] As a global communications leader focused on broadband access solutions for consumers, government and public safety first responders, commercial and industrial enterprises, and commercial operators, Motorola is uniquely situated to provide information critical to the Commission fulfilling its consultative role under the Recovery Act.

The broadband funding programs under the Recovery Act give the United States an important opportunity to further promote broadband deployment and adoption. But in order to take full advantage of this opportunity, the Commission should assist the National Telecommunications and Information Administration, U.S. Department of Commerce ("NTIA"), and the Rural Utilities Service, U.S. Department of Agriculture ("RUS") in defining properly the parameters of these programs.

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[1] *See Comment Procedures Established Regarding the Commission's Consultative Role in the Broadband Provisions of the Recovery Act*, Public Notice, DA 09-668 (rel. Mar. 24, 2009).

First, the Commission should advise NTIA and RUS to define "broadband" based on the FCC's existing framework and to utilize the same general, well considered definition of "unserved" that already is in place at RUS and in states such as California with experience in implementing broadband initiatives. Taking this approach would ensure consistency across regulatory regimes and expedite the processing of applications and deployments of broadband. It also would facilitate the reporting and monitoring of broadband deployment by NTIA, RUS, and the FCC and would promote a meaningful assessment of whether the Recovery Act's broadband initiatives are working.

Second, in order to ensure that the goals of the Recovery Act are met, the Commission should advise NTIA to define the nondiscrimination and interconnection obligations that will be contractual conditions of broadband grants consistent with the legal requirements that currently exist or that the FCC may establish in the future. No constructive purpose would be served by burdening the Commission or NTIA with the task of creating additional regulatory requirements at this juncture, particularly when doing so could jeopardize the very broadband investment that the Recovery Act is intended to promote.

Furthermore, from an institutional perspective and an experience standpoint, the Commission is better suited to determine whether changes in the current regulatory regime are warranted. In fact, less than a week ago, the Commission launched a broad and thoughtful inquiry into the market as a critical step in the development of a national broadband plan.[2] The Commission's advising NTIA to impose or its acquiescence to NTIA's imposition of additional regulatory obligations on grant recipients would undermine the Commission's efforts to develop

[2] *A National Broadband Plan for Our Future*, Notice of Inquiry, FCC 09-31 (rel. April 8, 2009) ("*Broadband NOI*").

a comprehensive broadband plan and would represent an abdication of the Commission's responsibility to establish national broadband policy.

II. THE COMMISSION SHOULD ADVISE NTIA AND RUS TO DEFINE "BROADBAND" CONSISTENT WITH THE COMMISSION'S DEFINITION OF THE TERM.

As Congress recognized, the Commission is the expert agency on broadband matters, and the Commission should ensure that it properly guides NTIA's and RUS's implementation of the broadband grant programs.[3] Nowhere is the Commssion's expertise more evident that in properly defining the term "broadband." For a decade, the Commission has grappled with the correct formulation of the term, as technology and consumer needs have evolved.[4] Consistent with its current framework, the FCC should advise both NTIA and RUS to utilize the FCC's definition of "basic broadband tier 1" for purposes of the broadband funding programs. Specifically, NTIA and RUS should define "broadband" as a service that offers, in either the downstream or upstream directions, a target speed of 768 kbps or higher in the fastest direction.[5]

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[3] *See* H. Report No. 111-16, at 776 (stating that NTIA should "coordinate its understanding of [the term broadband] with the FCC, so that NTIA may benefit from the FCC's considerable expertise in these matters").

[4] *See 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*, Report, 14 FCC Rcd 2398, ¶ 20 (1999) (defining "broadband" "as having the capability of supporting, in both the provider-to-consumer (downstream) and the consumer-to-provider (upstream) directions, a speed (in technical terms, 'bandwidth') in excess of 200 kilobits per second (kbps) in the last mile"); *see also 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*, Third Report, 17 FCC Rcd 2844, ¶¶ 8-9 (2002)

[5] *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership*, Report and Order and Further Notice of Proposed Rulemaking, 23 FCC

To be sure, RUS's existing rules define "broadband" as a service with minimum data rate transmission of 200 kbps both upstream and downstream. 7 C.F.R. § 1739.3. However, this definition, which RUS adopted in 2005, represents the FCC's historical view of broadband service.[6] That view has since evolved, and the FCC currently considers 200 kbps service as only "first generation data."[7]

A broadband definition based on service offering a speed of at least 768 kbps also would facilitate the reporting and monitoring of broadband deployment by NTIA, RUS, and the Commission. The Commission has concluded in its expert judgment that 768 kbps represents the minimum data speed for "basic broadband." This conclusion should guide NTIA and RUS in implementing the Recovery Act. Once the stimulus funds have been spent, matching investments have been made, and broadband services have been deployed, NTIA and RUS can only effectively assess whether their efforts have been successful if they use a common broadband definition.

Defining "broadband" as a service that offers, in either the downstream or upstream directions, a target speed of at least 768 kbps in the fastest direction appropriately balances the

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Rcd 9691, at ¶ 20 n.66 (2008) ("*Broadband Data Order*"). The FCC's definition of "basic broadband tier 1" includes an upper limit of 1.5 mbps in the faster direction. This upper limit may be appropriate for reporting purposes but is unnecessary in defining "broadband" for funding purposes.

[6] Federal Register: March 4, 2005 (Volume 70, Number 42) Page 10595-10596; *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*, Report, 14 FCC Rcd 2398, ¶ 20 (1999); *see also 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*, Third Report, 17 FCC Rcd 2844, ¶¶ 8-9 (2002).

[7] *Broadband Data Order*, 23 FCC Rcd 9691, ¶ 20.

competing interests at stake. This definition does not represent an end game, and increased broadband speeds should be encouraged. The Commission undoubtedly will include in its national broadband plan appropriate measures to promote the network investments and demand-side initiatives necessary to realize increased data speeds. In addition, in awarding grants, NTIA and RUS should give priority to those projects that deploy service at greater speeds to unserved and underserved areas.

But defining "broadband" for purposes of stimulus funding based upon aspirational speed thresholds (such as 1.5 mbps, 3.0 mbps, or even higher as some have proposed) would be counterproductive. First, defining "broadband" in this manner and using this definition to identify "unserved" and "underserved" areas would disserve consumers who would stand to benefit most from broadband stimulus funding. While increasing speeds beyond basic levels is highly desirable, a priority must be placed on customers who only have dial up or only can enjoy speeds of 200 kbps are missing out on the benefits of broadband. Second, including aspirational speed thresholds in the "broadband" definition could disqualify certain technologies currently incapable of achieving such speeds from receiving broadband stimulus funding. Such a result could undermine efforts to deploy broadband to remote rural areas.

However, regardless of the data speed used to define "broadband," flexibility is required with any data speed standard. The FCC consistently has recognized the difficulty of measuring the actual speed delivered to consumers through a broadband network.[8] The broadband speeds

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[8] *See, e.g.*, *Local Competition and Broadband Reporting*, Report and Order, 19 FCC Rcd 22340, ¶ 27 (2004) (declining to require the reporting of actual broadband speeds because "[t]he record of this proceeding does not identify a methodology or practice that currently could be applied, consistently and by all types of broadband filers, to measure the information rates actually observed by end users"); *see also Broadband Data Order*, 23 FCC Rcd 9691, ¶ 36 (observing that "factors beyond the control of service providers may compromise" their ability to measure and report actual broadband speeds delivered to a consumer).

actually experienced by a consumer can be affected by numerous factors beyond the control of the broadband provider, including the wiring in the person's home and the equipment being used; the applications in use at any given time; and server performance related to the activities being conducted by the end-user. Similarly, each different type of broadband network faces technological challenges in measuring broadband speed delivered to consumers in a holistic manner. Wireless networks speeds (particularly in mobile networks) can fluctuate based on the distance a user is from the wireless base station, the battery power of the device accessing the network, signal interference, and other factors. Wireline and wireless network speeds can be impacted by the level of upstream and downstream traffic on the network at a given time. Therefore, the Commission should recommend that NTIA and RUS clarify that a minimum speed threshold of 768 kbps in the faster direction is a flexible standard that will accommodate the various factors that affect the actual speeds experienced by consumers.[9]

III. THE COMMISSION SHOULD ADVISE NTIA AND RUS TO DEFINE "UNSERVED" CONSISTENT WITH EXISTING FRAMEWORKS.

The Commission should recommend to NTIA and RUS that an area should be defined as "unserved" where "broadband service": (1) is not being provided to residential customers in the applicant's proposed service area, and no entity has committed to providing broadband service during the grant program (*i.e.*, September 30, 2010); (2) is not being provided in the applicant's proposed service area at rates comparable to those of similar services in neighboring urban and suburban areas; or (3) consists only of satellite service.

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[9] Data rates for public safety systems may necessarily vary from this target rate. Public safety operations normally require guaranteed higher levels of reliability and greater coverage than those that apply to broadband service to the general public. Since there is a tradeoff among these three factors – that is, guaranteed reliability, data rates, and coverage – greater flexibility will be needed in any data rates applicable to grants for public safety broadband initiatives.

This definition generally embodies the approach currently followed by RUS in defining an "unserved" area for purposes of its existing broadband infrastructure loan program. *See, e.g.*, 7 C.F.R. § 1738.11(b). It also is consistent with the definition of "unserved" utilized by states such as California that currently are implementing broadband deployment initiatives. For example, the California Advanced Services Fund program defines an unserved area as "an area that is not served by any form of facilities-based broadband, or where Internet connectivity is available only through dial-up service or satellite."[10]

This definition of "unserved" also would be administratively workable. It relies upon information that is publicly available or to which an applicant can reasonably be expected to certify. The same cannot be said about some proposed approaches to the concept of "unserved" that either rely upon data that do not exist or that would be unduly complicated to implement.[11]

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[10] *Approval of the California Advanced Services Fund (CASF) Application Requirements and Scoring Criteria for Awarding CASF Funds*, Resolution T-17143, at 6 (June 12, 2008). That an any area may be "unserved" despite the presence of satellite broadband service is not meant to suggest that satellite providers should be ineligible for broadband grants from either NTIA or RUS; rather it recognizes the reality that satellite broadband service is nearly ubiquitous but may nevertheless not meet consumers' broadband needs. As satellite technology continues to evolve, satellite providers may be able to offer dynamic broadband service that would be particularly well suited for certain remote rural areas, and Congress was clear that satellite providers should be considered entities eligible for receiving a broadband grant, provided they otherwise meet applicable grant requirements. *See* H. Rep. No. 111-15, at 775 ("It is the intent of the Conferees that, consistent with the public interest and purposes of this section, as many entities as possible be eligible to apply for a competitive grant, including ... satellite carriers ...").

[11] *See, e.g.*, Ex Parte Letter from Stephen E. Coran, Counsel to the Wireless Internet Service Providers Association, to Marlene Dortch, Secretary, FCC (April 6, 2009) (proposing three levels of "unserved" based on varying percentages of "occupied residential or commercial properties" that have access to "low-latency (capable of less than 100 milliseconds) non-dial-up Internet access service") ("WISPA Ex Parte"); Ex Parte Letter from Michele C. Farquhar, Counsel to LEMKO Corporation, to Marlene Dortch, Secretary, FCC (April 3, 2009) (proposing to define "unserved" as "an area where mobile broadband service covers less than 20% of the defined geographic area").

IV. THE FCC SHOULD ADVISE NTIA TO DEFINE NONDISCRIMINATION AND INTERCONNECTION OBLIGATIONS CONSISTENT WITH EXISTING OR FUTURE REQUIREMENTS OF THE COMMISSION.

The Recovery Act requires that "NTIA shall, in coordination with the FCC, publish nondiscrimination and network interconnection obligations that shall be contractual conditions of grant awards, including, at a minimum, adherence to the principles contained in the FCC's broadband policy statement."[12] The FCC should advise NTIA to define the nondiscrimination and network interconnection obligations that will be contractual conditions of broadband grants consistent with legal requirements that currently exist or that the Commission may establish in the future.[13]

The existing regulatory framework will adequately ensure that the purposes of the ARRA are met without creating new regulatory burdens that will deter broadband investment. Under Title II of the Communications Act, common carriers are prohibited from engaging in unreasonable discrimination, and an interconnection obligation exists for all telecommunications carriers.[14] Additionally, the FCC's *Broadband Policy Statement* – which applies to broadband

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[12] ARRA § 6001(j); *see Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Policy Statement, 20 FCC Rcd 14986 (2005) ("*Broadband Policy Statement*").

[13] In addressing existing interconnection and nondiscrimination obligations to the extent embodied in Title II of the Communications Act or the *Broadband Policy Statement*, the Commission should endeavor to ensure that NTIA appropriately distinguishes between those entities that are currently subject to such obligations – *i.e.*, carriers and broadband Internet access providers – and those that are not. For example, under the current regulatory regime, operators of public safety networks are not subject to existing interconnection and nondiscrimination requirements, and imposing such requirements as a condition to a broadband grant would be contrary to operational and security needs.

[14] *See* 47 U.S.C. §§ 202(a), 251(c).

Internet access service providers – sets forth principles that "preserve and promote the vibrant and open character of the Internet."[15]

The existing framework has been tested and is working. The FCC has required that carriers interconnect in order to facilitate the use of broadband applications such as VoIP and has taken action to prevent conduct by network providers that it believes runs afoul of the *Broadband Policy Statement*.[16] To the extent the FCC modifies its interconnection and nondiscrimination obligations in the future, compliance with those modified obligations could be made an ongoing condition to a grant award.

The Commission should ignore the clamoring of those who advocate that the FCC use this proceeding to recommend that NTIA impose new regulatory obligations on recipients of broadband grants awarded under the Recovery Act.[17] The purpose of this proceeding is to

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[15] *Broadband Policy Statement* ¶ 5. The *Broadband Policy Statement* outlines the following four principles: 1) consumers are entitled to access the lawful Internet content of their choice; 2) consumers are entitled to run applications and services of their choice, subject to the needs of law enforcement; 3) consumers are entitled to connect their choice of legal devices that do not harm the network; and 4) consumers are entitled to competition among network providers, application and service, and content providers. All of these principles are subject to reasonable network management practices.

[16] *See Time Warner Cable Request for Declaratory Ruling that Competitive Local Exchange Carriers May Obtain Interconnection under Section 251 of the Communications Act of 1934, as Amended, to Provide Telecommunications Service to VoIP Providers*, Memorandum Opinion and Order, 22 FCC Rcd 3513 (2007) (finding that wholesale VoIP providers are entitled to interconnect with local exchange carriers); *see also Madison River Communications, LLC and Affiliated Companies*, 20 FCC Rcd 4295 (2005) (halting provider's practice of blocking users' access to VoIP); *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd 13028 (2008) (finding that Comcast's practices do not constitute "reasonable network management") *appeal pending Comcast Corp. v. FCC*, No. 08-1291 (D.C. Circuit filed Sep. 4, 2008).

[17] *See, e.g.*, Ex Parte Letter from John Windhausen and Wendy Wigen, EDUCAUSE, to Marlene Dortch, Secretary, FCC (April 6, 2009) (supporting "adding a fifth principle" that would prohibit "prioritization or discrimination"); WISPA Ex Parte, at 3 (recommending that "the 'nondiscrimination' obligation [under the ARRA] should prevent grant recipients from

facilitate the flow of much needed funding from NTIA (and RUS) in order to achieve Congress's goals of increasing broadband deployment, promoting network investment, and creating jobs. This is simply not the proper forum in which to decide whether to expand existing interconnection and nondiscrimination obligations.

Indeed, the Commission already has launched a comprehensive examination of the broadband market with the release of its *Broadband NOI*. This examination will include a review of the *Broadband Policy Statement*, including whether the four principles embodied therein should apply "more broadly" or should be expanded to include a so-called "fifth principle" concerning nondiscrimination.[18] As the Commission correctly recognized, these are complex issues that require the balancing of numerous considerations, such as "the impact on investment, innovation, and entrepreneurship, content, competition, and the affordability of broadband, among others."[19] That balancing should take place in the Commission's consideration of information obtained in response to the *Broadband NOI* and in the development of a national broadband plan, not in the context of establishing conditions for broadband grants.

If the Commission were to advise NTIA to impose or were to acquiesce to NTIA's imposition of additional regulatory obligations on grant recipients, it would prejudge the very issues currently pending in the *Broadband NOI*. The Commission's formulation of broadband policy should be the result of thoughtful and deliberate consideration of competing interests and objectives -- a process embodied in the *Broadband NOI*. It should not be the result of rash action taken to meet funding deadlines under the Recovery Act.

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prioritizing, discriminating or impairing the content that it providers to a user, subject to reasonable network management techniques and practices …").

[18] *Broadband NOI*, at ¶¶ 24 & 48.

[19] *Id.* at ¶ 48.

V. CONCLUSION

In fulfilling its consultative role in the broadband provisions of the Recovery Act, the Commission should recommend that NTIA and RUS adhere to existing definitions of "broadband" and "unserved" and that NTIA apply existing nondiscrimination and interconnection obligations as conditions to applicable broadband grants. This approach properly balances the role and expertise of the respective agencies, ensures consistency between the agencies, and fulfills Congress's objectives under the Recovery Act.

Respectfully submitted,

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