

Vincent Watts of the Greater Stark County Urban League	Vincent Watts
Voice on the Net Coalition	VON Coalition
Vonage Holdings Corp.	Vonage
Voto Latino	Voto Latino
Washington State Grange	Washington State Grange
Wayne Brough, James Gattuso, Hance Haney, Ryan Radia, and James Lakely	Wayne Brough et al.
Wireless Communications Association International, Inc.	WCAI
Wireless Internet Service Providers Association	WISPA
Writers Guild of America, East AFL-CIO	WGAE
XO Communications, LLC	XO
YWCA of St. Joseph County	St. Joseph YWCA

NPRM Reply Comments

Reply Commenter	Abbreviation
Aircell LLC	Aircell
Akamai Technologies, Inc.	Akamai
Alarm Industry Communications Committee	AICC
Alcatel-Lucent	ALU
Alliance for Digital Equality	ADE
American Association of Independent Music	A2IM
American Cable Association	ACA
American Homeowners Grassroots Alliance	AHGA
American Legislative Exchange Council	ALEC
American Federation of Television & Radio Artists, Directors Guild of America, International Alliance of Theatrical Stage Employees, Screen Actors Guild	AFTRA et al.
Americans for Tax Reform Digital Liberty Project	ATR Digital Liberty Project
AOL Inc.	AOL
Association for Competitive Technology	ACT
AT&T Inc.	AT&T
Black Leadership Forum, Inc.	BLF
Bret Swanson, President, Entropy Economics LLC	Bret Swanson
Bright House Networks, LLC	Bright House
Broadband Institute of California and Broadband Regulatory Clinic	BBIC & BRC
Broadcast Music, Inc. et al.	BMI et al.
Cablevision Systems Corporation	Cablevision
California Consumers for Net Neutrality	CCNN
California Public Utilities Commission	CPUC
Carbon Disclosure Project	CDP
Center for Democracy & Technology	CDT

Center for Individual Freedom	CFIF
Center for Media Justice, Consumers Union, Media Access Project, and New America	Center for Media Justice et al.
Charter Communications	Charter
ColorOfChange.org (filed by James Rucker)	ColorOfChange.org
Comcast Corporation	Comcast
Communications Workers of America	CWA
Communications Workers of America—District 2 in West Virginia	CWA: D2WV
Communications Workers of America—Local 3806	CWA: 3806
Communications Workers of America—Local 4900	CWA: 4900
COMPTEL	COMPTEL
Computer & Communications Industry Association	CCIA
CREDO Action	CREDO
CTIA—The Wireless Association	CTIA
Daniel Lyons, Professor, Boston College Law School	Lyons
Digital Entrepreneurs	Digital Entrepreneurs
Digital Society	Digital Society
DISH Network L.L.C.	DISH
EarthLink, Inc.	EarthLink
Electronic Frontier Foundation	EFF
Free Press	Free Press
Future of Privacy Forum	FPF
George Ou	George Ou
Google Inc.	Google
The Greenlining Institute	Greenlining
GSM Association	GSM
Hance Haney	Hance Haney
The Heartland Institute	Heartland Institute
Independent Telephone & Telecommunications Alliance	ITTA
Information Technology and Innovation Foundation	ITIF
Information Technology Industry Council	ITIC
Institute for Liberty	IFL
Institute for Policy Integrity	IPI
Intellectual Property and Communications Law Program at Michigan State University College of Law, filed by Daniel John McCartney, Fellow	MSU IPCLP
International Documentary Association, Film Independent, and others	International Documentary Association et al.
Internet Freedom Coalition	Internet Freedom Coalition
Internet Innovation Alliance	IIA
Joint Center for Political and Economic Studies	Joint Center
Karen Kerrigan, President & CEO, Small Business & Entrepreneurship Council	SBE Council
Labor Council for Latin American Advancement	LCLAA
Latinos in Information Sciences & Technology Association	LISTA
Laurence Brett Glass, d/b/a LARIAT	LARIAT

Lawrence E. Denney, Speaker of the House, State of Idaho	Representative Denney
League of United Latin American Citizens	League of United Latin American Citizens
Leap Wireless International, Inc. and Cricket Communications, Inc.	Leap
Maneesh Pangasa	Maneesh Pangasa
Media Action Grassroots Network, ColorOfChange.org, Presente.org, Applied Research Center, Afro-Netizen, National Association of Hispanic Journalists, Native Public Media, and Rural Broadband Policy Group	MAG-Net et al.
Microsoft Corp.	Microsoft
Ministerial Alliance Against the Digital Divide	MAADD
Mobile Future	Mobile Future
Mobile Internet Content Coalition	MICC
Motion Picture Association of America, Inc.	MPAA
National Association for the Advancement of Colored People	NAACP
National Association of Manufacturers	NAM
National Association of State Utility Consumer Advocates	NASUCA
National Cable & Telecommunications Association	NCTA
National Farmers Union	NFU
National Hispanic Caucus of State Legislators (filed by Jason Llorenz)	NHCSL
National Hispanic Media Coalition	NHMC
National Organizations	National Organizations
National Organization of Black Elected Legislative Women et al. (filed by Alma Morales Rojas, MANA—A National Latina Organization)	NOBELW et al.
National Taxpayers Union	NTU
National Telecommunications Cooperative Association	NTCA
Nicholas Bramble, Information Society Project at Yale Law School	Nicholas Bramble
Office of the Attorney General of Virginia	Virginia Attorney General
Open Internet Coalition	OIC
PAETEC Holding Corp.	PAETEC
Performing Arts Alliance	Performing Arts Alliance
Phil Kerpen, Vice President, Americans for Prosperity	Phil Kerpen
Professor Barbara A. Cherry, Indiana University	Prof. Barbara A. Cherry
Professor Catherine Sandoval and Broadband Institute of California	Prof. Catherine Sandoval
Professor Christopher S. Yoo, Professor and Founding Director, Center for Technology, Innovation, and Competition, University of Pennsylvania	Yoo
Public Knowledge	Public Knowledge

Qwest Communications International, Inc.	Qwest
Recording Industry Association of America	RIAA
Rural Cellular Association	RCA
Sandvine Inc.	Sandvine
SavetheInternet.com	SavetheInternet.com
Sean Kraft	Sean Kraft
Skype Communications S.A.R.L.	Skype
Songwriters Guild of America	SGA
Sony Electronics Inc.	Sony
Sprint Nextel Corp.	Sprint
Stephen Beck, Professor of music technology and digital media at Louisiana State University	Stephen Beck
stic.man of Dead Prez	stic.man of Dead Prez
TDS Telecommunications Corp.	TDS Telecom
Tech Council of Maryland	TCM
TechAmerica	TechAmerica
Telecom Manufacturer Coalition	Telecom Manufacturer Coalition
Telecommunications Industry Association	TIA
Thomas W. Hazlett, Professor at George Mason University	Thomas W. Hazlett
Time Warner Cable Inc.	TWC
T-Mobile USA, Inc.	T-Mobile
tw telecom, inc.	TWTC
U.S. Chamber of Commerce	U.S. Chamber
United States Hispanic Chamber of Commerce	USHCC
United States Telecom Association	USTelecom
Verizon and Verizon Wireless	Verizon
Via Christi Health System eCare-ICU, filed by Elizabeth Cowboy on March 9, 2010	Via Christi
Vonage Holdings Corp.	Vonage
Winston-Salem Urban League	Winston-Salem Urban League
Writers Guild of America, West, Inc.	WGAW
World Institute on Disability et al. (filed by The Advanced Communications Law & Policy Institute at New York Law School)	World Institute on Disability et al.
XO Communications, LLC	XO

Public Notice Comments

Commenter	Abbreviation
4G Americas, LLC	4G
ADTRAN, Inc.	ADTRAN
Alarm Industry Communications Committee	AICC
Alcatel-Lucent	ALU
American Association of Independent Music	A2IM
American Consumer Institute CCR	ACI
American Federation of Television & Radio Artists, Directors Guild of America, International Alliance of Theatrical Stage Employees, Screen Actors Guild	AFTRA et al.
American Library Association, Association of Research Libraries, EDUCAUSE	ALA et al.
Americans for Tax Reform Digital Liberty Project	ATR Digital Liberty Project
Association for Competitive Technology	ACT
AT&T Inc.	AT&T
Bright House Networks, LLC	Bright House
BT Americas Inc.	BT Americas
CDMA Development Group, Inc.	CDG
Center for Democracy & Technology	CDT
Center for Individual Freedom	CFIF
Center for Social Media, filed by Jessica Clark	Center for Social Media
CenturyLink	CenturyLink
Charter Communications	Charter
Clearwire Corporation	Clearwire
Communications Workers of America	CWA
Competitive Enterprise Institute	CEI
Computer & Communications Industry Association	CCIA
Cricket Communications, Inc.	Cricket
CTIA—The Wireless Association	CTIA
DISH Network L.L.C.	DISH
Ericsson Inc.	Ericsson
Fiber-to-the-Home Council	FTTH Council
Free Press	Free Press
The Free State Foundation	Free State Foundation
Frontier Communications	Frontier
Future of Music Coalition	FMC
G. Baeslack	G. Baeslack
GSM Association	GSM
Hance Haney	Hance Haney
Hispanic Technology & Telecommunications Partnership (filed by Jason Llorenz)	HTTP
Hughes Network Systems, LLC	Hughes
Independent Film & Television Alliance	IFTA
Information Technology Industry Council	ITIC
Information Technology and Innovation Foundation	ITIF

Internet Innovation Alliance	IIA
Ionary Consulting	Ionary
Karen Kerrigan, President & CEO, Small Business & Entrepreneurship Council	SBE Council
Latinos for Internet Freedom and Media Action Grassroots Network	Latinos for Internet Freedom
M3X Media, Inc.	M3X Media
Mabuhay Alliance	Mabuhay Alliance
MetroPCS Communications, Inc.	MetroPCS
Mike Riley	Mike Riley
Mobile Future	Mobile Future
Mobile Internet Content Coalition	MICC
National Cable & Telecommunications Association	NCTA
National Coalition on Black Civic Participation	NCBCP
National Organizations	National Organizations
National Exchange Carrier Association, Inc., National Telecommunications Cooperative Association, Organization for the Promotion & Advancement of Small Telecommunication Companies, Eastern Rural Telecom Association, Western Telecommunications Alliance	NECA et al.
Netflix, Inc	Netflix
Open Internet Coalition	OIC
PAETEC Holding Corp.	PAETEC
Professor Scott Jordan	Professor Scott Jordan
Public Interest Commenters (filed by Benton Foundation et al.)	PIC
QUALCOMM Incorporated	Qualcomm
Qwest Communications International Inc.	Qwest
Smartcomm, LLC	Smartcomm
Southern Company Services, Inc.	Southern
Sprint Nextel Corporation	Sprint
SureWest Communications	SureWest
Telecommunications Industry Association	TIA
Time Warner Cable Inc.	TWC
T-Mobile USA, Inc.	T-Mobile
tw telecom inc.	TWTC
United States Telecom Association	USTelecom
Verizon and Verizon Wireless	Verizon
Vonage Holdings Corp.	Vonage
Wireless Communications Association International, Inc.	WCAI
Windstream Communications, Inc.	Windstream
Writers Guild of America, East AFL-CIO	WGAE
Writers Guild of America, West, Inc.	WGAW

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Akamai Technologies, Inc.	Akamai
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American Cable Association	ACA
American Library Association	ALA
Americans for Tax Reform Digital Liberty Project	ATR Digital Liberty Project
Association for Competitive Technology	ACT
Association of Research Libraries	ARL
AT&T Inc.	AT&T
California Consumers for Net Neutrality	CCNN
CenturyLink	CenturyLink
Computer & Communications Industry Association	CCIA
CONNECT	CONNECT
Cricket Communications, Inc.	Cricket
CTIA - The Wireless Association	CTIA
DISH Network L.L.C.	DISH
Free Press	Free Press
General Communication, Inc.	GCI
Harris Corporation	Harris
Institute for Policy Integrity	Institute for Policy Integrity
Information Technology and Innovation Foundation	ITIF
Internet Innovation Alliance	IIA
MegaPath, Inc. and Covad Communications Company	MegaPath/Covad
Mobile Future	Mobile Future
Motion Picture Association of America, Inc.	MPAA
National Association of State Utility Consumer Advocates	NASUCA
National Cable & Telecommunications Association	NCTA
National Medical Association	NMA
Nicholas Bramble, Information Society Project at Yale Law School	Nicholas Bramble
Open Internet Coalition	OIC
John Palfrey	Palfrey
Public Knowledge	Public Knowledge
Public Interest Commenters (filed by Public Knowledge et al.)	PIC
Qwest Communications International Inc.	Qwest
Skype Communications S.A.R.L.	Skype
Susan Jacobi	Susan Jacobi
TDS Telecommunications Corp.	TDS Telecom
TechAmerica	TechAmerica
Time Warner Cable Inc.	Time Warner

T-Mobile USA, Inc.	T-Mobile
Various Advocates for the Open Internet	Various Advocates for the Open Internet
Verizon and Verizon Wireless	Verizon
Vonage Holdings Corp.	Vonage
Christopher S. Yoo	Yoo

APPENDIX D
Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ an Initial Regulatory Flexibility Analysis (IRFA) was included in the *Open Internet NPRM* in GN Docket No. 09-191 and WC Docket No. 07-52.² The Commission sought written public comment on the proposals in these dockets, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Rules

2. Today the Commission takes an important step to preserve the Internet as an open platform for innovation, investment, job creation, economic growth, competition, and free expression. To provide greater clarity and certainty regarding the continued freedom and openness of the Internet, we adopt three basic rules that are grounded in broadly accepted Internet norms, as well as our own prior decisions:

- i. **Transparency.** Fixed and mobile broadband providers must disclose the network management practices, performance characteristics, and terms and conditions of their broadband services;
- ii. **No blocking.** Fixed broadband providers may not block lawful content, applications, services, or non-harmful devices; mobile broadband providers may not block lawful websites, or block applications that compete with their voice or video telephony services; and
- iii. **No unreasonable discrimination.** Fixed broadband providers may not unreasonably discriminate in transmitting lawful network traffic.

We believe these rules, applied with the complementary principle of reasonable network management, will empower and protect consumers and innovators while helping ensure that the Internet continues to flourish, with robust private investment and rapid innovation at both the core and the edge of the network. This is consistent with the National Broadband Plan goal of broadband access that is ubiquitous and fast, promoting the global competitiveness of the United States.⁴

3. Just over a year ago, we launched a public process to determine whether and what actions might be necessary to preserve the characteristics that have allowed the Internet to grow into an indispensable platform supporting our nation's economy and civic life, and to foster continued investment in the physical networks that enable the Internet. Since then, more than 100,000 commenters have provided written input. Commission staff held several public workshops and convened a Technological Advisory Process with experts from industry,

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. §§ 601–12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See *Preserving the Open Internet; Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064, 13136–52 (2009) (*Open Internet Notice*).

³ See 5 U.S.C. § 604.

⁴ National Broadband Plan at xi, 3–5.

academia, and consumer advocacy groups to collect their views regarding key technical issues related to Internet openness.

4. This process has made clear that the Internet has thrived because of its freedom and openness—the absence of any gatekeeper blocking lawful uses of the network or picking winners and losers online. Consumers and innovators do not have to seek permission before they use the Internet to launch new technologies, start businesses, connect with friends, or share their views. The Internet is a level playing field. Consumers can make their own choices about what applications and services to use and are free to decide what content they want to access, create, or share with others. This openness promotes competition. It also enables a self-reinforcing cycle of investment and innovation in which new uses of the network lead to increased adoption of broadband, which drives investment and improvements in the network itself, which in turn lead to further innovative uses of the network and further investment in content, applications, services, and devices. A core goal of this Order is to foster and accelerate this cycle of investment and innovation.

5. The record and our economic analysis demonstrate, however, that the openness of the Internet cannot be taken for granted, and that it faces real threats. Indeed, we have seen broadband providers endanger the Internet's openness by blocking or degrading content and applications without disclosing their practices to end users and edge providers, notwithstanding the Commission's adoption of open Internet principles in 2005. In light of these considerations, as well as the limited choices most consumers have for broadband service, broadband providers' financial interests in telephony and pay television services that may compete with online content and services, and the economic and civic benefits of maintaining an open and competitive platform for innovation and communication, the Commission has long recognized that certain basic standards for broadband provider conduct are necessary to ensure the Internet's continued openness. The record also establishes the widespread benefits of providing greater clarity in this area—clarity that the Internet's openness will continue; that there is a forum and procedure for resolving alleged open Internet violations; and that broadband providers may reasonably manage their networks and innovate with respect to network technologies and business models. We expect the costs of compliance with our prophylactic rules to be small, as they incorporate longstanding openness principles that are generally in line with current practices and with norms endorsed by many broadband providers. Conversely, the harms of open Internet violations may be substantial, costly, and in some cases potentially irreversible.

6. The rules we proposed in the *Open Internet NPRM* and those we adopt today follow directly from the Commission's bipartisan *Internet Policy Statement*, adopted unanimously in 2005 and made temporarily enforceable for certain providers in 2005 and 2006;⁵ openness protections the Commission established in 2007 for users of certain wireless spectrum;⁶ and a notice of inquiry in 2007 that asked, among other things, whether the Commission should

⁵ See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, Policy Statement, 20 FCC Rcd 14986 (2005) (*Internet Policy Statement*); *SBC Commc'ns, Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18290, 18392, para. 211 (2005); *Verizon Commc'ns Inc. and MCI, Inc. Applications for Approval of Transfer of Control*, Memorandum Opinion and Order, 20 FCC Rcd 18433, 18537, para. 221 (2005); *AT&T Inc. and BellSouth Corp. Application for Transfer of Control*, Memorandum Opinion and Order, 22 FCC Rcd 5662, 5663, para. 2 (2007).

⁶ *Service Rules for the 698–746, 747–762 and 777–792 MHz Bands et al.*, Second Report and Order, 22 FCC Rcd 15289 (2007) (*700 MHz Second Report and Order*); 47 C.F.R. § 27.16.

add a principle of nondiscrimination to the *Internet Policy Statement*.⁷ Our rules build upon these actions, first and foremost by requiring broadband providers to be transparent in their network management practices, so that end users can make informed choices and innovators can develop, market, and maintain Internet-based offerings. The rules also prevent certain forms of blocking and discrimination with respect to content, applications, services, and devices that depend on or connect to the Internet.

7. An open, robust, and well-functioning Internet requires that broadband providers have the flexibility to reasonably manage their networks. Network management practices are reasonable if they are appropriate and tailored to achieving a legitimate network management purpose. Transparency and end-user control are touchstones of reasonableness.

8. We recognize that broadband providers may offer other services over the same last-mile connections used to provide broadband service. These “specialized services” can benefit end users and spur investment, but they may also present risks to the open Internet. We will closely monitor specialized services and their effects on broadband service to ensure, through all available mechanisms, that they supplement but do not supplant the open Internet.

9. Mobile broadband is at an earlier stage in its development than fixed broadband and is evolving rapidly. For that and other reasons discussed below, we conclude that it is appropriate at this time to take measured steps in this area. Accordingly, we require mobile providers to comply with the transparency rule, which includes enforceable disclosure obligations regarding device and application certification and approval processes; we prohibit providers from blocking lawful websites; and we prohibit providers from blocking applications that compete with providers’ voice and video telephony services. We will closely monitor the development of the mobile broadband market and will adjust the framework we adopt today as appropriate.

10. These rules are within our jurisdiction over interstate and foreign communications by wire and radio. Further, they implement specific statutory mandates in the Communications Act (“Act”) and the Telecommunications Act of 1996 (“1996 Act”), including provisions that direct the Commission to promote Internet investment and to protect and promote voice, video, and audio communications services.

11. The framework we adopt today aims to ensure the Internet remains an open platform—one characterized by free markets and free speech—that enables consumer choice, end-user control, competition through low barriers to entry, and the freedom to innovate without permission. The framework does so by protecting openness through high-level rules, while maintaining broadband providers’ and the Commission’s flexibility to adapt to changes in the market and in technology as the Internet continues to evolve.

B. Summary of the Significant Issues Raised by the Public Comments in Response to the IRFA and Summary of the Assessment of the Agency of Such Issues

12. A few commenters discussed the IRFA from the *Open Internet NPRM*. The Center for Regulatory Effectiveness (CRE) argued that the *Open Internet NPRM*’s IRFA was defective because it ineffectively followed 5 U.S.C. §§ 603(a) (“Such analysis shall describe the impact of the proposed rule on small entities.”) and 603(c) (“Each initial regulatory flexibility analysis shall also contain a description of any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant

⁷ *Broadband Industry Practices*, Notice of Inquiry, 22 FCC Rcd 7894, 7896, para. 8 (2007).

economic impact of the proposed rule on small entities.”⁸ CRE does not provide any case law to support its interpretation that the Commission is in violation of these aspects of the statute, nor does CRE attempt to argue that SBEs have actually or theoretically been harmed.⁹ Rather, CRE is concerned that by not following its reading of these parts of the law, the Commission is being hypocritical by not being transparent enough. CRE recommends that the Commission publish a revised IRFA for public comment.¹⁰ We disagree: we believe that the IRFA was adequate and that the opportunity for SBEs to comment in a publicly accessible docket should remove any potential harm to openness that CRE is concerned with,¹¹ as well as any harms to SBEs that could occur by not following CRE’s interpretation of the law.

13. The Smithville Telephone Company (Smithville) notes that many ILECs have vastly fewer employees than the 1500 or less that is required to be recognized as a small business under the SBA. For instance, Smithville states that it has seven employees.¹² Smithville also observes that some other small ILECs in Mississippi have staffs of 8, 4, 2, 3, and 21. Smithville argues that companies of this size do not have the resources to fully analyze issues and participate in Commission proceedings. Smithville would like the Commission to use the data that it regularly receives from carriers to set a carrier size where exemptions from proposed rules and less complex reporting requirements can be set. In the present case, however, we determine that this is not necessary. We expect the costs of compliance with these rules to be small, as the high-level rules incorporate longstanding openness principles that appear to be generally in line with most broadband providers’ current practices. We note that Smithville does not cite any particular source of increased costs, or attempt to estimate costs of compliance.¹³ Nonetheless, the Commission attempts to ease any burden that the transparency rule may cause by only requiring disclosure on a website and at the point of sale, making the transparency rule flexible. In addition, by setting the effective date of these rules 60 days after notice in the Federal Register announcing the decision of the Office of Management and Budget regarding approval of the information collection requirements contained in the rules, the Order gives broadband providers adequate time to develop cost-effective methods of compliance. Finally, to the extent that the transparency rule imposes a new obligation on small businesses, we find that the flexibility built into the rule addresses any compliance concerns.¹⁴

14. The American Cable Association (ACA) notes that the Commission has an obligation to “include in the FRFA a comprehensive discussion of the economic impact its actions will have on small cable operators.”¹⁵ The ACA cites its other comments, which ask the

⁸ Center for Regulatory Effectiveness Jan. 8, 2010 Comments, filed by Jim Tozzi, GN Docket No. 09-191, at 7.

⁹ See Center for Regulatory Effectiveness Jan. 8, 2010 Comments, filed by Jim Tozzi, GN Docket No. 09-191, at 7–8.

¹⁰ Center for Regulatory Effectiveness Jan. 8, 2010 Comments, filed by Jim Tozzi, GN Docket No. 09-191, at 8.

¹¹ We also note that we are not sure how openness is improved by guessing at the number of burden hours that a small entity could incur from our rules, without receiving comments from small entities first. We would argue that such systematic guessing would not be regulatorily effective.

¹² Smithville Telephone Company Jan. 14, 2010 Comments, GN Docket No. 09-191.

¹³ See, e.g., NTCA Comments at 9, 43–44; US Telecom Comments at 52; ADTRAN Comments at i, 9, 11; TPPF Foundation Comments at 99; TIA Comments at 32.

¹⁴ See *infra* para. 56.

¹⁵ ACA Jan. 14, 2010 IRFA Comments, GN Docket No. 09-191, WC Docket No. 07-52, at 4.

Commission to clarify that the codified principles would not obligate broadband service providers to (1) “employ specific network management practices,” (2) “impose affirmative obligations dealing with unlawful content or the unlawful transfer of content,” (3) “accommodate lawful devices that are not supported by a broadband provider’s network,” and (4) “provide information regarding a company’s network management practices through any reporting, recordkeeping, or means other than through a company’s website or webpage.”¹⁶ Addressing ACA’s arguments with regard to cable operators, and fixed broadband providers in particular, (1), the Commission is not requiring specific network management practices. The Commission only requires that any network management be reasonable; the Commission does not require that any specific practice be employed. Regarding (2), the rules do not impose affirmative obligations dealing with unlawful content or the unlawful transfer of content. We state that the “no blocking” rule does not prevent or restrict a broadband provider from refusing to transmit material such as child pornography. In response to (3), the Order clarifies that the “no blocking” rule protects only devices that do not harm the network and only requires fixed broadband service providers to allow devices that conform to publicly available industry standards applicable to the providers’ services. Directly addressing ACA’s concern, the Order notes that a DOCSIS-based provider is not required to support a DSL modem. In response to (4), the disclosure requirement in today’s Order does not require additional forms of disclosure, other than, at a minimum, requiring broadband providers to prominently display or provide links to disclosures on a publicly available, easily accessible website that is available to current and prospective end users and edge providers as well as to the Commission, and disclosing relevant information at the point of sale.

C. Description and Estimate of the Number of Small Entities to Which the Rules Apply

15. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein.¹⁷ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹⁸ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.¹⁹ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).²⁰

1. Total Small Entities

¹⁶ ACA Jan. 14, 2010 IRFA Comments, GN Docket No. 09-191, WC Docket No. 07-52, at 2–3; ACA Jan. 14, 2010 Comments, GN Docket No. 09-191, WC Docket No. 07-52, at 10–14 (asking the Commission to “make clear the regulations do not impose” various obligations).

¹⁷ 5 U.S.C. § 604(a)(3).

¹⁸ 5 U.S.C. § 601(6).

¹⁹ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

²⁰ 15 U.S.C. § 632.

16. Our action may, over time, affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three comprehensive, statutory small entity size standards.²¹ First, nationwide, there are a total of approximately 27.2 million small businesses, according to the SBA.²² In addition, a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”²³ Nationwide, as of 2002, there were approximately 1.6 million small organizations.²⁴ Finally, the term “small governmental jurisdiction” is defined generally as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”²⁵ Census Bureau data for 2002 indicate that there were 87,525 local governmental jurisdictions in the United States.²⁶ We estimate that, of this total, 84,377 entities were “small governmental jurisdictions.”²⁷ Thus, we estimate that most governmental jurisdictions are small.

2. Internet Access Service Providers

17. *Internet Service Providers.* The 2007 Economic Census places these firms, whose services might include voice over Internet Protocol (VoIP), in either of two categories, depending on whether the service is provided over the provider’s own telecommunications facilities (e.g., cable and DSL ISPs), or over client-supplied telecommunications connections (e.g., dial-up ISPs). The former are within the category of Wired Telecommunications Carriers,²⁸ which has an SBA small business size standard of 1,500 or fewer employees.²⁹ These are also labeled “broadband.” The latter are within the category of All Other Telecommunications,³⁰ which has a size standard of annual receipts of \$25 million or less.³¹ These are labeled non-broadband. The most current Economic Census data for all such firms are 2007 data, which are detailed specifically for ISPs within the categories above. For the first category, the data show that 396 firms operated for the entire year, of which 159 had nine or fewer employees.³² For the

²¹ See 5 U.S.C. §§ 601(3)–(6).

²² See SBA, Office of Advocacy, “Frequently Asked Questions,” web.sba.gov/faqs.

²³ 5 U.S.C. § 601(4).

²⁴ INDEPENDENT SECTOR, THE NEW NONPROFIT ALMANAC & DESK REFERENCE (2002).

²⁵ 5 U.S.C. § 601(5).

²⁶ U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2006, Section 8, page 272, tbl. 415.

²⁷ We assume that the villages, school districts, and special districts are small, and total 48,558. See U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2006, section 8, page 273, tbl. 417. For 2002, Census Bureau data indicate that the total number of county, municipal, and township governments nationwide was 38,967, of which 35,819 were small. *Id.*

²⁸ U.S. Census Bureau, 2007 NAICS Definitions, “517110 Wired Telecommunications Carriers,” www.census.gov/naics/2007/def/ND517110.HTM#N517110.

²⁹ 13 C.F.R. § 121.201, NAICS code 517110.

³⁰ U.S. Census Bureau, 2007 NAICS Definitions, “517919 All Other Telecommunications,” www.census.gov/naics/2007/def/ND517919.HTM#N517919.

³¹ 13 C.F.R. § 121.201, NAICS code 517919 (updated for inflation in 2008).

³² U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 5171103 (released Nov. 19, 2010) (employment size). The data show only two categories within the whole: the categories for 1-4 employees and for 5-9 employees.

second category, the data show that 1,682 firms operated for the entire year.³³ Of those, 1,675 had annual receipts below \$25 million per year, and an additional two had receipts of between \$25 million and \$ 49,999,999. Consequently, we estimate that the majority of ISP firms are small entities.

18. The ISP industry has changed since 2007. The 2007 data cited above may therefore include entities that no longer provide Internet access service and may exclude entities that now provide such service. To ensure that this FRFA describes the universe of small entities that our action might affect, we discuss in turn several different types of entities that might be providing Internet access service.

3. Wireline Providers

19. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.³⁴ According to Commission data,³⁵ 1,311 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,311 carriers, an estimated 1,024 have 1,500 or fewer employees and 287 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our proposed action.

20. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.³⁶ According to Commission data,³⁷ 1005 carriers have reported that they are engaged in the provision of either competitive access provider services or competitive local exchange carrier services. Of these 1005 carriers, an estimated 918 have 1,500 or fewer employees and 87 have more than 1,500 employees. In addition, 16 carriers have reported that they are “Shared-Tenant Service Providers,” and all 16 are estimated to have 1,500 or fewer employees. In addition, 89 carriers have reported that they are “Other Local Service Providers.” Of the 89, all have 1,500 or fewer employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities that may be affected by our action.

21. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and

³³ U.S. Census Bureau, 2007 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 5179191 (released Nov. 19, 2010) (receipts size).

³⁴ 13 C.F.R. § 121.201, NAICS code 517110.

³⁵ FCC, WIRELINE COMPETITION BUREAU, INDUSTRY ANALYSIS AND TECHNOLOGY DIVISION, TRENDS IN TELEPHONE SERVICE, tbl. 5.3, Page 5-5 (Aug. 2008) (TRENDS IN TELEPHONE SERVICE). This source uses data that are current as of November 1, 2006.

³⁶ 13 C.F.R. § 121.201, NAICS code 517110.

³⁷ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

“is not dominant in its field of operation.”³⁸ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.³⁹ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

22. *Interexchange Carriers*. Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁰ According to Commission data,⁴¹ 300 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 268 have 1,500 or fewer employees and 32 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities that may be affected by our action.

23. *Operator Service Providers (OSPs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴² According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and 2 has more than 1,500 employees.⁴³ Consequently, the Commission estimates that the majority of OSPs are small entities that may be affected by our proposed action.

4. **Wireless Providers – Fixed and Mobile**

24. For reasons discussed above in the text of the Order, the Commission has distinguished wireless fixed broadband Internet access service from wireless mobile broadband Internet access service. Specifically, the Commission decided that fixed broadband Internet access service providers, whether wireline or wireless, must disclose their network management practices and the performance characteristics and commercial terms of their broadband services; may not block lawful content, applications, services or non-harmful devices; and may not unreasonably discriminate in transmitting lawful network traffic. Also for the reasons discussed above, the Commission decided that wireless mobile broadband Internet access service providers must disclose their network management practices and performance characteristics and commercial terms of their broadband service and may not block lawful websites or block applications that compete with their voice or video telephony service. Thus, to the extent the wireless services listed below are used by wireless firms for fixed and mobile broadband Internet access services, today’s actions may have an impact on those small businesses as set forth above

³⁸ 5 U.S.C. § 601(3).

³⁹ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b).

⁴⁰ 13 C.F.R. § 121.201, NAICS code 517110.

⁴¹ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

⁴² 13 C.F.R. § 121.201, NAICS code 517110.

⁴³ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

25. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁴⁴ Prior to that time, such firms were within the now-superseded categories of “Paging” and “Cellular and Other Wireless Telecommunications.”⁴⁵ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁴⁶ For the category of Wireless Telecommunications Carriers (except Satellite), preliminary data for 2007 show that there were 11,927 firms operating that year.⁴⁷ While the Census Bureau has not released data on the establishments broken down by number of employees, we note that the Census Bureau lists total employment for all firms in that sector at 281,262.⁴⁸ Since all firms with fewer than 1,500 employees are considered small, given the total employment in the sector, we estimate that the vast majority of wireless firms are small.

26. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined “small business” for the wireless communications services (WCS) auction as an entity with average gross revenues of \$40 million for each of the three preceding years, and a “very small business” as an entity with average gross revenues of \$15 million for each of the three preceding years.⁴⁹ The SBA has approved these definitions.⁵⁰ The Commission auctioned geographic area licenses in the WCS service. In the auction, which commenced on April 15, 1997 and closed on April 25, 1997, seven bidders won 31 licenses that qualified as very small business entities, and one bidder won one license that qualified as a small business entity.

27. *1670–1675 MHz Services*. This service can be used for fixed and mobile uses, except aeronautical mobile.⁵¹ An auction for one license in the 1670–1675 MHz band commenced on

⁴⁴ U.S. Census Bureau, 2007 NAICS Definitions, “517210 Wireless Telecommunications Categories (Except Satellite),” www.census.gov/naics/2007/def/ND517210.HTM#N517210.

⁴⁵ U.S. Census Bureau, 2002 NAICS Definitions, “517211 Paging”; www.census.gov/epcd/naics02/def/NDEF517.HTM; U.S. Census Bureau, 2002 NAICS Definitions, “517212 Cellular and Other Wireless Telecommunications,” www.census.gov/epcd/naics02/def/NDEF517.HTM.

⁴⁶ 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

⁴⁷ U.S. Census Bureau, 2007 Economic Census, Sector 51, EC075111 Information: Industry Series: Preliminary Summary Statistics for the United States: 2007, NAICS code 517210 (issued Oct. 20, 2009), factfinder.census.gov/servlet/IBQTable?_fds_name=EC0700A1&_clearIBQ=Y&-ds_name=EC075111&-NAICS2007=51721.

⁴⁸ *Id.*

⁴⁹ *Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (WCS)*, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

⁵⁰ See Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (filed Dec. 2, 1998) (*Alvarez Letter 1998*).

⁵¹ 47 C.F.R. § 2.106; see generally 47 C.F.R. §§ 27.1–70.

April 30, 2003 and closed the same day. One license was awarded. The winning bidder was not a small entity.

28. *Wireless Telephony.* Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. As noted, the SBA has developed a small business size standard for Wireless Telecommunications Carriers (except Satellite).⁵² Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.⁵³ According to *Trends in Telephone Service* data, 413 carriers reported that they were engaged in wireless telephony.⁵⁴ Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.⁵⁵ Therefore, more than half of these entities can be considered small.

29. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a "small business" for C- and F-Block licenses as an entity that has average gross revenues of \$40 million or less in the three previous calendar years.⁵⁶ For F-Block licenses, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.⁵⁷ These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.⁵⁸ No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.⁵⁹ On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.⁶⁰ Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

30. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29

⁵² 13 C.F.R. § 121.201, NAICS code 517210.

⁵³ *Id.*

⁵⁴ TRENDS IN TELEPHONE SERVICE, tbl. 5.3.

⁵⁵ *Id.*

⁵⁶ See *Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap et al.*, Report and Order, 11 FCC Rcd 7824, 7850–52, paras. 57–60 (1996) ("*PCS Report and Order*"); see also 47 C.F.R. § 24.720(b).

⁵⁷ See *PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

⁵⁸ See *Alvarez Letter 1998*.

⁵⁹ See *Broadband PCS, D, E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

⁶⁰ See *C, D, E, and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

claimed small business status.⁶¹ Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.⁶² On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.⁶³ Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.⁶⁴ On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.⁶⁵ Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.⁶⁶

31. *Specialized Mobile Radio Licenses.* The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.⁶⁷ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.⁶⁸ The SBA has approved these small business size standards for the 900 MHz Service.⁶⁹ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.⁷⁰ A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.⁷¹

⁶¹ See *C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

⁶² See *Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

⁶³ See *Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

⁶⁴ *Id.*

⁶⁵ See *Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

⁶⁶ *Id.*

⁶⁷ 47 C.F.R. § 90.814(b)(1).

⁶⁸ 47 C.F.R. § 90.814(b)(1).

⁶⁹ See Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, FCC (filed Aug. 10, 1999) (*Alvarez Letter 1999*).

⁷⁰ See *Correction to Public Notice DA 96-586 “FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,”* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

⁷¹ See *Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

32. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the \$15 million size standard.⁷² In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.⁷³ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

33. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.⁷⁴ We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

34. *Lower 700 MHz Band Licenses.* The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.⁷⁵ The Commission defined a “small business” as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁷⁶ A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁷⁷ Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—“entrepreneur”—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.⁷⁸ The SBA approved these small size standards.⁷⁹ An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.⁸⁰ A second auction commenced on May 28,

⁷² See *800 MHz Specialized Mobile Radio (SMR) Service General Category (851–854 MHz) and Upper Band (861–865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

⁷³ See *800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

⁷⁴ See generally 13 C.F.R. § 121.201, NAICS code 517210.

⁷⁵ See *Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59)*, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

⁷⁶ See *Channels 52–59 Report and Order*, 17 FCC Rcd at 1087–88, para. 172.

⁷⁷ See *id.*

⁷⁸ See *id.*, 17 FCC Rcd at 1088, para. 173.

⁷⁹ See *Alvarez Letter 1999*.

⁸⁰ See *Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.⁸¹ Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.⁸² On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

35. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.⁸³ An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.⁸⁴ Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) won 325 licenses.

36. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.⁸⁵ On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.⁸⁶ The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years) and winning five licenses.

37. *700 MHz Guard Band Licensees*. In 2000, in the *700 MHz Guard Band Order*, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.⁸⁷ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.⁸⁸ Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.⁸⁹ SBA approval of these definitions is not required.⁹⁰ An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on

⁸¹ See *Lower 700 MHz Band Auction Closes*, Public Notice, 18 FCC Rcd 11873 (WTB 2003).

⁸² See *id.*

⁸³ *700 MHz Second Report and Order*, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007).

⁸⁴ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

⁸⁵ *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

⁸⁶ See *Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

⁸⁷ See *Service Rules for the 746–764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, Second Report and Order, 15 FCC Rcd 5299 (2000) (*746–764 MHz Band Second Report and Order*).

⁸⁸ See *746–764 MHz Band Second Report and Order*, 15 FCC Rcd at 5343, para. 108.

⁸⁹ See *id.*

⁹⁰ See *id.* at 5343, para. 108 n.246 (for the 746–764 MHz and 776–794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

September 21, 2000.⁹¹ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.⁹²

38. *Air-Ground Radiotelephone Service.* The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), *i.e.*, an entity employing no more than 1,500 persons.⁹³ There are fewer than 10 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$40 million.⁹⁴ A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.⁹⁵ These definitions were approved by the SBA.⁹⁶ In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

39. *AWS Services (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)).* For the AWS-1 bands, the Commission has defined a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a "very small business" as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million.⁹⁷ For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to

⁹¹ See *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

⁹² See *700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

⁹³ 13 C.F.R. § 121.201, NAICS codes 517210.

⁹⁴ *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services et al.*, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28–42 (2005).

⁹⁵ *Id.*

⁹⁶ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, FCC (filed Sept. 19, 2005).

⁹⁷ See *Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, Report and Order, 18 FCC Rcd 25162, App. B (2003), *modified by Service Rules for Advanced Wireless Services In the 1.7 GHz and 2.1 GHz Bands*, Order on Reconsideration, 20 FCC Rcd 14058, App. C (2005).

the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.⁹⁸

40. *3650–3700 MHz band.* In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (*i.e.*, 3650–3700 MHz).⁹⁹ As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

41. *Fixed Microwave Services.* Microwave services include common carrier,¹⁰⁰ private-operational fixed,¹⁰¹ and broadcast auxiliary radio services.¹⁰² They also include the Local Multipoint Distribution Service (LMDS),¹⁰³ the Digital Electronic Message Service (DEMS),¹⁰⁴ and the 24 GHz Service,¹⁰⁵ where licensees can choose between common carrier and non-common carrier status.¹⁰⁶ At present, there are approximately 31,428 common carrier fixed licensees and 79,732 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 120 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. For purposes of the IRFA, we will use the SBA's definition applicable to Wireless Telecommunications Carriers (except satellite)—*i.e.*, an entity with no more than 1,500 persons.¹⁰⁷ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.¹⁰⁸ For the category of Wireless Telecommunications Carriers (except Satellite), preliminary data for 2007 show that there were 11,927 firms operating

⁹⁸ *Service Rules for Advanced Wireless Services in the 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz Bands et al.*, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, App. B (2005); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, App. (2007); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, Further Notice of Proposed Rulemaking, 23 FCC Rcd 9859, App. B (2008).

⁹⁹ The service is defined in section 90.1301 *et seq.* of the Commission's Rules, 47 C.F.R. § 90.1301 *et seq.*

¹⁰⁰ See 47 C.F.R. Part 101, Subparts C and I.

¹⁰¹ See 47 C.F.R. Part 101, Subparts C and H.

¹⁰² Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. See 47 C.F.R. Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

¹⁰³ See 47 C.F.R. Part 101, Subpart L.

¹⁰⁴ See 47 C.F.R. Part 101, Subpart G.

¹⁰⁵ See *id.*

¹⁰⁶ See 47 C.F.R. §§ 101.533, 101.1017.

¹⁰⁷ 13 C.F.R. § 121.201, NAICS code 517210.

¹⁰⁸ 13 C.F.R. § 121.201, NAICS code 517210 (2007 NAICS). The now-superseded, pre-2007 C.F.R. citations were 13 C.F.R. § 121.201, NAICS codes 517211 and 517212 (referring to the 2002 NAICS).

that year.¹⁰⁹ While the Census Bureau has not released data on the establishments broken down by number of employees, we note that the Census Bureau lists total employment for all firms in that sector at 281,262.¹¹⁰ Since all firms with fewer than 1,500 employees are considered small, given the total employment in the sector, we estimate that the vast majority of firms using microwave services are small. We note that the number of firms does not necessarily track the number of licensees. We estimate that virtually all of the Fixed Microwave licensees (excluding broadcast auxiliary licensees) would qualify as small entities under the SBA definition.

42. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).¹¹¹ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.¹¹² The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.¹¹³ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.¹¹⁴ The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years (small business) will receive a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed \$3 million and do not exceed \$15 million for the preceding three years (very small business) will receive a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed \$3 million for

¹⁰⁹ U.S. Census Bureau, 2007 Economic Census, Sector 51, EC0751I1 Information: Industry Series: Preliminary Summary Statistics for the United States: 2007, NAICS code 517210 (rel. Oct. 20, 2009), factfinder.census.gov/servlet/IBQTable?_bm=y&-fds_name=EC0700A1&-clearIBQ=Y&-ds_name=EC0751I1&-NAICS2007=51721&-lang=en.

¹¹⁰ *Id.*

¹¹¹ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, MM Docket No. 94-131, PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

¹¹² 47 C.F.R. § 21.961(b)(1).

¹¹³ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard of 1500 or fewer employees.

¹¹⁴ *Auction of Broadband Radio Service (BRS) Licenses, Scheduled for October 27, 2009, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

the preceding three years (entrepreneur) will receive a 35 percent discount on its winning bid.¹¹⁵ Auction 86 concluded in 2009 with the sale of 61 licenses.¹¹⁶ Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

43. In addition, the SBA's Cable Television Distribution Services small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.¹¹⁷ Thus, we estimate that at least 1,932 licensees are small businesses. Since 2007, Cable Television Distribution Services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."¹¹⁸ The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. To gauge small business prevalence for these cable services we must, however, use the most current census data that are based on the previous category of Cable and Other Program Distribution and its associated size standard; that size standard was: all such firms having \$13.5 million or less in annual receipts.¹¹⁹ According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year.¹²⁰ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.¹²¹ Thus, the majority of these firms can be considered small.

5. Satellite Service Providers

44. *Satellite Telecommunications Providers.* Two economic census categories address the satellite industry. The first category has a small business size standard of \$15 million or less in average annual receipts, under SBA rules.¹²² The second has a size standard of \$25 million or less in annual receipts.¹²³ The most current Census Bureau data in this context, however, are

¹¹⁵ *Id.* at 8296.

¹¹⁶ *Auction of Broadband Radio Service Licenses Closes, Winning Bidders Announced for Auction 86, Down Payments Due November 23, 2009, Final Payments Due December 8, 2009, Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

¹¹⁷ The term "small entity" within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

¹¹⁸ U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers," (partial definition), www.census.gov/naics/2007/def/ND517110.HTM#N517110.

¹¹⁹ 13 C.F.R. § 121.201, NAICS code 517110.

¹²⁰ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, tbl. 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510 (rel. November 2005).

¹²¹ *Id.* An additional 61 firms had annual receipts of \$25 million or more.

¹²² 13 C.F.R. § 121.201, NAICS code 517410.

¹²³ 13 C.F.R. § 121.201, NAICS code 517919.

from the (last) economic census of 2002, and we will use those figures to gauge the prevalence of small businesses in these categories.¹²⁴

45. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”¹²⁵ For this category, Census Bureau data for 2002 show that there were a total of 371 firms that operated for the entire year.¹²⁶ Of this total, 307 firms had annual receipts of under \$10 million, and 26 firms had receipts of \$10 million to \$24,999,999.¹²⁷ Consequently, we estimate that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

46. The second category of All Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.”¹²⁸ For this category, Census Bureau data for 2002 show that there were a total of 332 firms that operated for the entire year.¹²⁹ Of this total, 303 firms had annual receipts of under \$10 million and 15 firms had annual receipts of \$10 million to \$24,999,999.¹³⁰ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

6. Cable Service Providers

47. Because section 706 requires us to monitor the deployment of broadband regardless of technology or transmission media employed, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

48. *Cable and Other Program Distributors.* Since 2007, these services have been defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: “This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a

¹²⁴ 13 C.F.R. § 121.201, NAICS codes 517410 and 517910 (2002).

¹²⁵ U.S. Census Bureau, 2007 NAICS Definitions, “517410 Satellite Telecommunications,” www.census.gov/naics/2007/def/ND517410.HTM.

¹²⁶ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” tbl. 4, NAICS code 517410 (rel. Nov. 2005).

¹²⁷ *Id.* An additional 38 firms had annual receipts of \$25 million or more.

¹²⁸ U.S. Census Bureau, 2007 NAICS Definitions, “517919 All Other Telecommunications,” www.census.gov/naics/2007/def/ND517919.HTM#N517919.

¹²⁹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization),” tbl. 4, NAICS code 517910 (issued Nov. 2005).

¹³⁰ *Id.* An additional 14 firms had annual receipts of \$25 million or more.