make available, so far as possible, to all the people of the United States, . . . Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."[90] Section 2 grants the Commission jurisdiction over "all interstate and foreign communication by wire or radio,"[91] and section 4(i) authorizes the Commission to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions."[92] When the Commission created the high-cost universal service program in 1984,[93] it relied upon these provisions in Title I, and its decision was affirmed by the D.C. Circuit.[94] More recently, however, in *Comcast Corp. v. FCC*, the D.C. Circuit concluded that its prior decision rested not on Title I alone, but *sub silentio* "on the fact that creation of the [pre-1996 Act] Universal Service Fund was ancillary to the Commission's Title II responsibility to set reasonable interstate rates."[95]

69. We seek comment on whether the Commission could rely on its ancillary authority to support broadband information services. Would providing support for broadband be reasonably ancillary to the Commission's statutory responsibilities under section 254(b), which imposes "a mandatory duty on the FCC"[96] to base universal service policies on promotion of access to advanced telecommunications and information services throughout the nation?[97] Similarly, would supporting broadband be reasonably ancillary to section 706 as a "specific delegation of legislative authority"[98] to encourage deployment of advanced telecommunications capability to all Americans?[99] We seek comment on whether these provisions or others provide a sufficient statutory basis for exercising ancillary authority. As with other theories described above, we also seek comment on what criteria should be used to designate eligible recipients, and on who should perform the designations. We also seek comment on whether adopting the competitive bidding process in the first phase of the CAF and permanent CAF programs pursuant to our ancillary authority would be consistent with federal appropriations laws.[100] We invite comment on these and any other relevant issues.

4. Conditional Support

70. We believe the Commission also has authority to direct high-cost or CAF support toward broadband-capable networks by conditioning awards of universal service support on a recipient's commitment to offer broadband service alongside supported voice services. Under the "no barriers" policy, the Commission has long authorized rural carriers receiving high-cost loop support "to invest in infrastructure capable of providing access to advanced services" as well as supported voice services.[101] "[R]ecogniz[ing] that the network is an integrated facility that may be used to provide both supported and

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[90] 47 U.S.C. § 151.

[91] *Id.* § 152(a).

[92] *Id.* § 154(i).

[93] *Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, Decision and Order*, CC Docket No. 80-286, Decision and Order, 96 FCC 2d 781, 795 (1984).

[94] *Rural Tel. Coalition v. FCC*, 838 F.2d 1307, 1315 (D.C. Cir. 1988).

[95] *Comcast Corp. v. FCC*, 600 F.3d 642, 656 (D.C. Cir. 2010).

[96] *Qwest I*, 258 F.3d at 1200.

[97] 47 U.S.C. § 254(b)(2), (3). *See also AT&T USF White Paper* at 5-13; *AT&T USF/Comcast Letter* at 1-3.

[98] *Preserving the Open Internet Order*, FCC 10-201, at para. 122.

[99] 47 U.S.C. § 706(a), (b).

[100] *See supra* note 77 (discussing federal appropriations law).

[101] *Rural Task Force Order*, 16 FCC Rcd at 11322, para. 200 (2001).

non-supported services," we have concluded that the no barriers policy furthers "the Congressional goal of ensuring access to advanced telecommunications and information services throughout the nation."[102]

71. We believe requiring carriers receiving high-cost or CAF support to invest in modern broadband-capable networks would be a logical extension of this policy. Nothing in section 254 prohibits the Commission from conditioning the receipt of support, and the Commission has imposed conditions in the past.[103] Similarly, both the states and the Commission may impose eligibility conditions as part of the ETC designation process under section 214(e).[104] Today, we require telecommunications carriers seeking ETC designation from the Commission to demonstrate not only compliance with the requirements of section 214(e)(1), but also, among other things, that they have the ability to remain functional in emergency situations and that they will satisfy consumer protection and service quality standards.[105] Requiring recipients of support to offer broadband service would be fully consistent with and promote Congress's overall objectives as stated in sections 254(b) and 706.[106] We see no reason why conditioning the receipt of support on offering broadband is not permissible under the Commission's general authority to promulgate general rules related to universal service. We invite comment on this approach.

5. Other Approaches

72. *Forbearance.* Section 10 of the Communications Act provides that the Commission "shall forbear from applying any regulation or provision of this Act to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services," if enforcement of the provision is not necessary to protect consumers or to ensure that telecommunications carriers' charges and practices are just and reasonable, and forbearance is in the public interest.[107] We seek comment on whether we should exercise our forbearance authority, alone or in combination with any of the theories described above, to facilitate use of funding to support broadband information services. For example, could we forbear from applying section 254(c)(1), which defines universal service as an evolving level of telecommunications services? Could we likewise forbear from applying sections 254(e) and 214(e), which restrict universal service support to ETCs? Are the statutory criteria for forbearance from these provisions met? Are there any other provisions from which we should forbear? If we grant forbearance, may we adopt rules that are broader than the statutory provisions? We seek comment on these issues.

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[102] *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Order and Order on Reconsideration, 18 FCC Rcd 15090, 15095-15096, para. 13 (2003).

[103] For example, the Commission requires ETCs to certify that universal service support will be used only for the facilities and services for which the support is intended as a condition of receiving support. 47 C.F.R. §§ 54.313(a)-(b), 54.314(a)-(b) (federal high-cost support "shall only be provided to the extent" the requisite certification is provided). Also, the Commission previously considered imposing service quality and technical conditions on the receipt of high cost support, but concluded that the conditions were not warranted at that time. *See Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8831, para. 98 (1997) (*Universal Service First Report and Order*) (subsequent history omitted).

[104] *See Texas Office of Public Utility Counsel v. FCC*, 183 F.3d 393, 417-18 (5th Cir. 1999) (*TOPUC*) (states may impose additional eligibility requirements on a carrier seeking support); *Federal-State Joint Board on Universal Service*, CC Docket No. 96-46, Report and Order, 20 FCC Rcd 6371 (2005) (*ETC Designation Report and Order*); *see also Federal-State Joint Board on Universal Service, Virginia Cellular LLC*, CC Docket No. 96-45, Memorandum Opinion and Order, 19 FCC Rcd 1563, 1584 n.141 (2004) ("nothing in section 214(e)(6) prohibits the Commission from imposing additional conditions on ETCs when such designations fall under our jurisdiction").

[105] *ETC Designation Report and Order*, 20 FCC Rcd at 6372, para. 2

[106] 47 U.S.C. §§ 254(b)(2)-(3), 1302(a).

[107] 47 U.S.C. § 160(a). In making its public interest determination, the Commission must also consider whether forbearance from enforcing a provision will promote competitive market conditions. *Id.* § 160(b).

73. *Classifying Interconnected VoIP.* We also invite comment on whether we should consider classifying interconnected voice over Internet protocol as a telecommunications service or an information service. If the Commission were to classify interconnected VoIP as a telecommunications service, this would enable the Commission to support networks used to provide interconnected VoIP, including broadband networks. To date, the Commission has not classified interconnected VoIP service as either an information service or a telecommunications service. The Commission has, however, extended certain obligations to providers of such service, including local number portability,[108] 911 emergency calling capability,[109] universal service contribution,[110] CPNI protection,[111] disability access and TRS contribution requirements,[112] and section 214 discontinuance obligations.[113] We seek comment on this issue. Does interconnected VoIP have characteristics that warrant classifying it as a telecommunications service or an information service?[114] If the Commission classified interconnected VoIP as a telecommunications service, should we forbear from applying any provisions in Title II to the service? We request comment.

74. We invite parties to comment on these and any other legal theories that they believe will provide a sound legal basis for providing universal service support for broadband.

V. SETTING AMERICA ON A PATH OF REFORM

75. As a critical first step for reform, we propose strategic priorities for the program. In light of changes in technology and the marketplace, we also propose to re-examine the requirements for eligible telecommunications carriers and to update and modernize the public interest obligations of fund recipients.

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[108] *Telephone Number Requirements for IP-Enabled Service Providers,* WC Docket Nos. 07-243 & 244, Report and Order, Declaratory Ruling, Order on Remand, and NPRM, 22 FCC Rcd 19531 (2007).

[109] *IP-Enabled Services*, WC Docket Nos. 04-36 & 05-196, First Report and Order and NPRM, 20 FCC Rcd 10245 (2005), *aff'd sub nom. Nuvio Corp. v. FCC*, 473 F.3d 302 (D.C. Cir. 2007).

[110] *Universal Service Contribution Methodology*, WC Docket No. 06-122, Report and Order and NPRM, 21 FCC Rcd 7518 (2006), *pet. for review granted in part and denied in part sub nom. Vonage Holdings Corp. v. FCC*, 489 F.3d 1232 (D.C. Cir. 2007).

[111] *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information*, CC Docket No. 96-115, WC Docket No. 04-36, Report and Order and FNPRM, 22 FCC Rcd 6927 (2007), *aff'd sub nom. Nat'l Cable & Telecomms. Ass'n v. FCC*, 555 F.3d 996 (D.C. Cir. 2009).

[112] *IP-Enabled Services, Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as enacted by the Telecommunications Act of 1996*, WC Docket No. 04-36, Report and Order, 22 FCC Rcd 11275 (2007).

[113] *IP-Enabled Services*, WC Docket No. 04-36, Report and Order, 24 FCC Rcd 6039 (2009).

[114] *See, e.g.*, NARUC 2008 ICC/USF FNPRM Comments at 13-16 (arguing for a "telecommunications service" classification); NECA 2008 ICC/USF FNPRM Comments at 29-37 (same); CTIA 2008 ICC/USF FNPRM Comments at 23-24 (arguing for an "information service" classification); Global Crossing 2008 ICC/USF FNPRM Comments at 6-8 (same); USTelecom 2008 ICC/USF FNPRM Comments at 8 (same). *See also IP Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, 4886, para. 35 (2004) (seeking comment on what regulatory scheme the Commission should apply to IP-enabled services). A "telecommunications service" is "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used." 47 U.S.C. § 153(53). An "information service" is "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service." *Id.* § 153(24).

A. National Goals and Priorities for Universal Service

76. As we embark on a path to modernize USF, we seek comment on national goals and priorities for the high-cost program, consistent with our key statutory obligations and recommendations of the Joint Board.

77. We are guided in the first instance by the Act. As described in the legal authority discussion above, section 254(b) of the Act sets forth principles that the Commission must follow in creating policies to preserve and advance universal service. The principles that are directly relevant to the operation and size of the high-cost program are found in section 254(b)(1)-(3) and (b)(5).[115] Section 254(b)(1) specifies that services "be available at just, reasonable, and affordable rates."[116] Section 254(b)(2) specifies that "[a]ccess to advanced telecommunications services and information services should be provided in all regions of the Nation." Section 254(b)(3) specifies that "[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, that are reasonably comparable to those services provided in urban areas" and "at rates that are reasonably comparable to rates charged for similar services in urban areas."[117] And section 254(b)(5) specifies that federal and state mechanisms "should be specific, predictable and sufficient . . . to preserve and advance universal service."[118]

78. We recognize that service providers commonly pass through universal service contribution costs to their customers, and that providing support for broadband may therefore implicate the principle in section 254(b)(1) that services should be affordable.[119] We note that federal courts have held that the Commission has broad discretion in balancing the principles in section 254(b),[120] and have specifically upheld prior Commission decisions adopting cost control mechanisms.[121] We propose below various cost control mechanisms that are designed to minimize the burden on consumers. We seek comment on whether our proposals strike the right balance between the imperatives to promote access to broadband services in all areas and to maintain affordable rates for services.

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[115] As we discussed in the *Qwest II Remand Order*, the Commission has never "attempt[ed] to fully address each universal service principle in section 254(b) through each support mechanism. Nor is there any indication that Congress intended each principle to be fully addressed by each separate support mechanism. The Commission believes that any determination about whether the Commission has adequately implemented section 254 must look at the cumulative effect of the four support programs, acting together." *High-Cost Universal Service Support Federal-State Joint Board on Universal Service*, WC Docket No. 05-337, *Joint Petition of the Wyoming Public Service Commission and the Wyoming Office of Consumer Advocate for Supplemental Federal Universal Service Funds for Customers of Wyoming's Non-Rural Incumbent Local Exchange Carrier*, CC Docket No. 96-45, Order on Remand and Memorandum Opinion and Order, 25 FCC Rcd 4072, 4086, para. 26 (2010) (*Qwest II Remand Order*).

[116] 47 U.S.C. § 254(b)(1).

[117] 47 U.S.C. § 254(b)(3).

[118] 47 U.S.C. § 254(b)(5).

[119] *See Qwest Communications Int'l Inc. v. FCC*, 398 F.3d 1222, 1234 (10th Cir. 2005) (*Qwest II*) ("excessive subsidization arguably may affect the affordability of telecommunications services"); *Alenco*, 201 F.3d at 620 ("excess subsidization in some cases may detract from universal service by causing rates unnecessarily to rise, thereby pricing some consumers out of the market").

[120] *See Rural Cellular*, 588 F.3d at 1103 ("The Commission enjoys broad discretion when conducting exactly this type of balancing."); *TOPUC*, 183 F.3d at 434 (noting the Commission's "considerable amount of discretion" in balancing "the competing concerns set forth in § 254(b)").

[121] *See Rural Cellular*, 588 F.3d at 1108; *Alenco*, 201 F.3d at 620-21.

79. As noted above, the Joint Board has proposed that USF support broadband and mobile services.[122] In 2007, the Joint Board recommended that the Commission add broadband and mobility to the list of services supported by federal universal service, and recommended that the Commission create both a broadband fund and a mobility fund. At that time and more recently, however, the Joint Board also has expressed concern about the size of the Fund.[123] Other commenters have suggested that we cap or reduce the size of the Fund.[124]

80. Consistent with the statute and the Joint Board recommendations, we propose four specific priorities for the federal universal service high-cost program. *First*, the program must preserve and advance voice service. Even as we refocus USF to support broadband, we are committed to ensuring that Americans have access to voice service, while recognizing that over time, such voice service could be provided over broadband networks, both fixed and mobile. *Second*, we seek to ensure universal deployment of modern networks capable of supporting necessary broadband applications as well as voice service. This priority is directly tied to high-level goals for universal service reform—to ensure that all Americans in all parts of the nation, including those in rural, insular, and high-cost areas, have access to modern communications networks capable of supporting the necessary applications that empower them to learn, work, prosper and innovate. These modern networks could employ both fixed and mobile technologies. With respect to improving mobile coverage, we recognize the important role that mobility can play in improving everyday lives of Americans as well as contributing to our public safety, national economy and competitiveness. *Third*, the program must ensure that rates for broadband service are reasonably comparable in all regions of the nation, and rates for voice service are reasonably comparable in all regions of the nation. Availability of broadband and voice service by itself is not a sufficient goal. We must also make sure that rates are reasonably comparable so that consumers have meaningful access to these services. *Fourth*, we seek to limit the contribution burden on households. As we have recognized in the past, "if the universal service fund grows too large, it will jeopardize other statutory mandates, such as ensuring affordable rates in all parts of the country, and ensuring that contributions from carriers are fair and equitable."[125]

81. We ask that commenters consider the reform proposals that follow in light of these priorities. Are there additional or alternative priorities that we should consider? Should advancing the deployment of mobile networks be its own independent priority? To the extent these four priorities, or any others the Commission may adopt, may be in tension with each other, commenters should suggest how we should prioritize them. We note that if additional funding were to be made available for

[122] *See Joint 2010 Board Recommended Decision*, 25 FCC Rcd at 15625, para. 75 (stating that the Joint Board believes it is appropriate for the USF to support networks that provide broadband service, in addition to voice service); *Joint Board 2007 Recommended Decision*, 22 FCC Rcd at 20482, para. 12, 20483, para. 16 (proposing funds to support broadband and mobile wireless services).

[123] *Joint Board 2010 Recommended Decision*, 25 FCC Rcd at 15628, at paras. 84-85; *Joint Board 2007 Recommended Decision*, 22 FCC Rcd at 20484-85, paras. 24-26 (recommending an overall cap of $4.5 billion on high cost funding).

[124] *See, e.g.*, Comments of American Cable Assoc., WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 3 (filed July 12, 2010); Comments of Comcast Corp., WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 3-4 (filed July 12, 2010); Comments of the Five MACRUC States of the Mid-Atlantic Conference of Regulatory Utility Commissioners, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 3-4 (filed July 12, 2010); Comments of National Cable & Telecommunications Assoc. (NCTA), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 7-8 (filed July 12, 2010); NBP Comments at 6; Comments of the Public Utilities Commission of Ohio (Ohio PUC), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 24 (filed July 14, 2010); Comments of Verizon and Verizon Wireless (Verizon), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 3, 10-11 (filed July 12, 2010); Comments of Vonage Holding Corp. (Vonage), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 3 (filed July 12, 2010); Comments of Windstream Communications, Inc. (Windstream), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 24 (July 12, 2010) (all supporting capping the high-cost fund).

[125] *Qwest II Remand Order*, 25 FCC Rcd at 4087, para. 28.

advanced networks in rural America, that could accelerate reform and help ease potential tension among these priorities.

82. We also request comment on how we should weigh other section 254(b) principles, including the principle that universal service support should be competitively neutral,[126] which the Commission adopted pursuant to section 254(b)(7).[127] We believe our proposal to support broadband is competitively neutral because it will not unfairly advantage one provider over another or one technology over another.[128] We invite comment on whether our proposals are technology neutral. We also seek comment on whether our proposed reforms are consistent with the directive in section 254(b)(5) that support "should be specific, predictable, and sufficient."[129]

83. We propose to periodically review whether we are making progress in addressing these goals by measuring specific outcomes, as discussed in the Performance Goals section, below.[130] If we are not, the Commission would consider corrective actions in future rulemakings so that we better achieve our intended purposes.

B. Encouraging State Action To Advance Universal Service

84. As we undertake reform, we are mindful of the longstanding federal-state partnership for universal service. We seek comment generally on the role of the states in preserving and advancing universal service as we transition from the current programs to the Connect America Fund, and we seek comment more specifically in the sections that follow on the role of states in advancing universal service consistent with a national framework. We welcome the input of the state members of the Joint Board on these and other important questions.

85. In section 254(f), Congress expressly permitted states to take action to preserve and advance universal service, so long as not inconsistent with the Commission's universal service rules.[131] Federal law recognizes that individual states and territories play an important role in accomplishing universal service goals.[132] Federal law charges states with the designation of carriers as ETCs,[133] and it authorizes states to maintain their own universal service funds.[134] Additionally, section 706 of the 1996 Act directs "[t]he Commission and each State commission with regulatory jurisdiction over telecommunications services" to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."[135] The Commission has understood section

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[126] *Universal Service First Report and Order*, 12 FCC Rcd at 8801, para. 47.

[127] Section 254(b)(7) requires the Commission to base universal service on "[s]uch other principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act." 47 U.S.C. § 254(b)(7).

[128] *See Universal Service First Report and Order*, 12 FCC Rcd at 8801, para. 47; *see also Rural Cellular*, 588 F.3d at 1104 (competitive neutrality principle "only prohibits the Commission from treating competitors differently in 'unfair' ways").

[129] 47 U.S.C. § 254(b)(5); *see also id.* § 254 (e) ("support should be explicit and sufficient to achieve the purposes of this section").

[130] *See infra* Section IX (proposing to establish performance goals and measures for USF).

[131] 47 U.S.C. § 254(k)

[132] *See* 47 U.S.C. § 1301(4) ("The Federal Government should also recognize and encourage complementary State efforts to improve the quality and usefulness of broadband data and should encourage and support the partnership of the public and private sectors in the continued growth of broadband services and information technology for the residents and businesses of the Nation.").

[133] *See* 47 U.S.C. §214(e).

[134] *See* 47 U.S.C. §254(f).

[135] 47 U.S.C. § 1302.

706(a) to authorize the Commission and state commissions to take actions, within their subject matter jurisdiction and not inconsistent with other provisions of law, that encourage the deployment of advanced telecommunications capability by any of the means listed in the provision.[136] The Commission also has recognized the important role of the states.[137] Courts have also previously said that the Act "plainly contemplates a partnership between the federal and state governments to support universal service,"[138] and that "it is appropriate—even necessary—for the FCC to rely on state action."[139]

86. In its 2007 Recommended Decision, the Federal-State Joint Board on Universal Service highlighted the roles and responsibilities of states. The Joint Board, among other things, recommended that "the Commission adopt policies that encourage states to provide matching funds" for a proposed Broadband Fund and Mobility Fund.[140] We seek comment on what level of financial commitment should be expected from the states and territories to advance broadband. How should we address states that are disproportionately rural and generally lack a sizeable population to support service in rural areas? How should we address the various efforts of states and territories to contribute to preserving and advancing universal service—both in deployment and adoption?

87. Many states have state universal service funds to support voice service,[141] while some states, such as California and New York, have established broadband grant programs.[142] More than 40

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[136] 47 U.S.C. § 1302(a); *Deployment of Wireline Servs. Offering Advanced Telecomms. Capability et al.*, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24046, para. 74 (1998) (*Advanced Services Order*); *Preserving the Open Internet Order*, FCC 10-201, paras. 117-123. We note that our mandate under section 706(a) must be read consistently with sections 1 and 2 of the Act, which define the Commission's subject matter jurisdiction over "interstate and foreign commerce in communication by wire and radio." 47 U.S.C. §§ 151, 152. The Commission historically has recognized that services carrying Internet traffic are jurisdictionally mixed, but generally subject to federal regulation. *See, e.g., Nat'l Ass'n of Regulatory Util. Comm'rs Petition for Clarification or Declaratory Ruling that No FCC Order or Rule Limits State Authority to Collect Broadband Data*, Memorandum Opinion and Order, 25 FCC Rcd 5051, 5054, paras. 8–9 & n.24 (2010). Where, as here, "it is not possible to separate the interstate and intrastate aspects of the service," the Commission may preempt state regulation where "federal regulation is necessary to further a valid federal regulatory objective, i.e., state regulation would conflict with federal regulatory policies." *Minn. Pub. Utils. Comm'n v. FCC*, 483 F.3d 570, 578 (8th Cir. 2007); *see also La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 375 n.4 (1986). Except to the extent a state requirement conflicts on its face with a Commission decision herein, the Commission will evaluate preemption in light of the fact-specific nature of the relevant inquiry, on a case-by-case basis. We recognize, for example, that states play a vital role in protecting end users from fraud, enforcing fair business practices, and responding to consumer inquiries and complaints. *See, e.g., Vonage Order*, 19 FCC Rcd at 22404–05, para. 1. We have no intention of impairing states' or local governments' ability to carry out these duties unless we find that specific measures conflict with federal law or policy. In determining whether state or local regulations frustrate federal policies, we will, among other things, be guided by the overarching congressional policies described in section 230 of the Act and section 706 of the 1996 Act. 47 U.S.C. §§ 230, 1302.

[137] *Federal-State Joint Board on Universal Service*, Order on Remand, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, 18 FCC Rcd 22559, 22568 para. 17 (2003) ("The Act makes clear that preserving and advancing universal service is a shared federal and state responsibility.").

[138] *Qwest I*, 258 F.3d at 1203; *Qwest II*, 398 F.3d at 1232.

[139] *Qwest I*, at 1203.

[140] *Joint Board 2007 Recommended Decision*, 22 FCC Rcd at 20489, paras. 50-52.

[141] *See* Peter Bluhm, et al., *State High Cost Funds: Purposes, Design, and Evaluation* (Nat'l Regulatory Res. Inst. (NRRI), Working Paper No. 10-04 (2010), *available at* http://www.nrri.org/pubs/telecommunications/NRRI_state_high_cost_funds_jan10-04.pdf. According to the NRRI, as of 2010, the following 21 states have state high-cost funds: Alaska, Arizona, Arkansas, California, Colorado, Idaho, Illinois, Indiana, Kansas, Maine, Nebraska, Nevada, New Mexico, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Wisconsin, and Wyoming.

states have established their own low-income universal service support programs to help eligible low-income customers afford voice service.[143] Others support statewide health care networks, such as Nebraska, or more general statewide networks, such as Kansas.[144] Many states have reformed intrastate access charges and rebalanced local rates, and many have adopted a state universal service fund to offset reduced revenues due to access charge reform.[145] We seek comment on how to encourage or require additional commitments to support universal service by states in partnership with the federal government.[146]

C. Eligible Telecommunications Carrier Requirements

88. Section 254(e) of the Act limits high-cost universal service support to telecommunications carriers that have been designated as ETCs.[147] Under section 214 of the Act, states have the responsibility for designating ETCs within their states, except in those cases where they lack jurisdiction.[148] In instances where a state lacks jurisdiction to designate an ETC, the Commission determines whether to designate an ETC.[149] When designating an ETC, the state (or the Commission) defines the ETC's service area.[150] The statute also provides that if no common carrier will provide the supported services to any unserved community or any portion thereof, the Commission, with respect to interstate services and areas served by carriers over which the state lacks jurisdiction, shall determine

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[142] On December 20, 2007, the California Public Utilities Commission created funding to encourage deployment of broadband facilities for use in provisioning advanced telecommunications service in unserved and underserved areas of California. *Order Instituting Rulemaking into the Review of the California High Cost Fund B Program, Interim Opinion Implementing California Advanced Services Fund*, Rulemaking 06-06-028 (CA PUC rel. Dec. 20, 2007). On December 20, 2007, the New York State Office of the Chief Information Officer and Office of Technology adopted a comprehensive approach to providing affordable universal broadband access to its residents and businesses. *Universal Broadband Access Grant Program*, 2007-08 Request for Proposals, RFP CIO/OFT 001-2007 (CIO/OFT rel. December 20, 2007).

[143] *See Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, *Lifeline and Link Up*, WC Docket No. 03-109, Order, 25 FCC Rcd 5079, 5080, para. 3 (2010).

[144] The Nebraska Public Service Commission, through the Nebraska Universal Service Fund, provides annual support for the Nebraska Statewide Telehealth Network. *See* Nebraska PSC Press Release (March 20, 2008), *available at* http://www.psc.state.ne.us/home/NPSC/news_releases/news_releases.htm. Another example is Kansas KanEd, a middle-mile network connecting community anchor institutions with support from Kansas' state universal service fund. *See* Kan-ed, http://www.kan-ed.org/ (last visited Feb. 9, 2011).

[145] AT&T Oct. 24, 2010 *Ex Parte* Letter, at 1, Attach. 2 (providing information on access reform in the states and noting that while many states had some access reform in the last six years and several others have open proceedings, only a few states have moved to complete parity between intrastate and interstate switched access rates and structures); *see also infra* para. 543 (describing states that have undertaken intrastate access charge reform measures).

[146] *See infra* para. 296 (seeking comment on whether and how the Commission could use the first phase of CAF support to create incentives for states to take action that will advance our mutual goals).

[147] 47 U.S.C. § 254(e). Section 214(e) further requires that ETCs be common carriers. *Id.* at § 214(e).

[148] 47 U.S.C. § 214(e)(2).

[149] 47 U.S.C. § 214(e)(6). In the *ETC Designation Reprot and Order*, the Commission adopted additional requirements for federally designated ETCs. *ETC Designation Report and Order*, 20 FCC Rcd at 6380, para. 20. The Commission requires that applicants seeking ETC designation demonstrate the following: (1) a commitment and ability to provide services, including providing service to all customers within its proposed service area; (2) that the applicant will remain functional in emergency situations; (3) that it will satisfy consumer protection and service quality standards; (4) that it offers local usage comparable to that offered by the incumbent LEC; and (5) the applicant's acknowledgement that it may be required to provide equal access if all other ETCs in the designated service area relinquish their designations pursuant to section 214(e)(4). *Id.*; 47 U.S.C. § 214(e)(4).

[150] 47 U.S.C. § 214(e)(5).

which common carrier or carriers are best able to provide service to the requesting unserved community and shall order such carrier or carriers to provide such service.[151] Once designated, ETCs are required to offer and advertise supported services "throughout the service area for which the designation is received."[152] Those obligations apply regardless of whether support is actually provided to ETCs operating within the designated service area.

89. We seek comment on how the Commission can best interpret these existing requirements to achieve our goals for reform. We also seek comment on whether (and if so how) we should modify the ETC requirements as we proceed with reforms. How would we provide incentives for state commissions to apply any Commission-adopted requirements to ETCs designated by the states? Alternatively, we seek comment on whether the Commission could or should forbear from requiring that recipients of universal service support be designated as ETCs at all.[153] Commenters asserting that the Commission has the authority to forbear from imposing this requirement should address the scope of the Commission's authority under section 10 and in particular should address whether the Commission could forbear from applying section 254(e) to entities that are not telecommunications carriers to allow their receipt of universal service support to serve rural, insular and high-cost areas under the Act.[154] If we do forbear from this requirement, what if any requirements should replace it? How should we transition from existing to any new requirements? How should existing ETCs be treated during such a transition? We also seek comment on additional, more discrete ETC-related issues raised by our proposals in the sections that follow.

D. Public Interest Obligations of Fund Recipients

90. Universal service support is a public-private partnership that is made to preserve and advance access to modern communications networks. Providers that benefit from public investment in their networks should be subject to clearly defined obligations associated with the use of such funding. This ensures that providers know how they are expected to use the funding and that the public will receive specific benefits from its investment.

91. Current high-cost funding recipients are subject to certain statutory public interest obligations because they are ETCs.[155] In addition, states and the Commission have authority to impose (and have imposed) additional obligations on the ETCs they designate.[156] Incumbent carrier ETCs also typically are required to comply with state-mandated carrier of last resort obligations, which may include a duty to serve all customers in the geographic region, to extend lines upon request, to provide service until the state grants permission to exit the market, and other obligations.[157]

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[151] 47 U.S.C. § 214(e)(3). As a practical matter, the Commission has not had the occasion to interpret this provision to date, because at the time of the 1996 Act, virtually all communities were served by voice telephony.

[152] 47 U.S.C. § 214(e)(1). "Service area" is defined in 47 U.S.C. § 214(e)(5). *See also* 47 C.F.R. § 54.207.

[153] *See* 47 U.S.C. § 160(a).

[154] 47 U.S.C. §§ 10, 254(e).

[155] Specifically, ETCs are required to provide supported services throughout the service area and advertise the availability of such services. 47 U.S.C. § 214(e)(1).

[156] 47 U.S.C. § 214(e)(6).

[157] Carrier of last resort obligations for incumbent LECs are a matter of state law and vary from state to state. State COLR obligations derive from state statutes, state regulations, certificates of public convenience and necessity, and administrative practice. *See generally* Peter Bluhm and Phyllis Bernt, *Carriers of Last Resort: Updating a Traditional Doctrine*, at 9 (NRRI July 2009), *available at* http://www.nrri.org/pubs/telecommunications/COLR_july09-10.pdf.

92. We seek comment on what public interest obligations should apply to ETCs going forward, as we reform and modernize the existing high-cost program to advance broadband.[158] First, we seek comment on the characteristics of voice service and associated voice obligations. Then, we seek comment on the characteristics of broadband service and associated broadband obligations. In responding to these questions, we ask commenters to address whether the public interest obligations for recipients should vary, depending on whether broadband is a supported service, or alternatively, if support is provided to voice recipients conditioned on their deployment of broadband-capable facilities.

93. As a general matter, we propose that all recipients be required to meet public interest obligations tied to the provision of voice and/or broadband services. These obligations would apply to all funding recipients going forward, whether already designated as ETCs by states or the Commission or designated in the future, as a condition of receiving support from the existing high-cost program or the Connect America Fund. The public interest obligations that we propose are intended to be technology-neutral, where possible. With respect to the provision of voice service, we propose that recipients continue to be subject to any existing state or federal requirements for providers of voice service. With regard to the provision of broadband, we propose that recipients be subject to broadband deployment, infrastructure build out, pricing, and other requirements described below. We seek comment on this proposal generally, as well as on the specific components identified below.

94. Although we propose that public interest obligations apply generally to all funding recipients, to what extent, if any, should the obligations proposed in this section vary for recipients under the current high-cost funding programs, recipients of funding in the first phase of the CAF, and CAF recipients over the longer term?[159] We ask commenters to consider and explain whether (and if so how) each of the obligations discussed below should apply under what circumstances, recognizing that it may be appropriate to tailor obligations to avoid creating unfunded mandates. We also ask commenters to address specifically whether the duties and responsibilities of ETCs should differ depending on whether they are also the state-mandated carrier of last resort in a particular area. Finally, we recognize that there may be costs and burden for the Commission and recipients associated with the monitoring of, enforcement of, and compliance with the proposed public interest obligations. We acknowledge the risk of discouraging participation in these programs or reducing the impact of USF support because of the costs associated with public interest obligations. We seek comment on how best to balance these costs

[158] Commenters generally supported imposing obligations on recipients of universal service funding. *See, e.g.*, Five MACRUC States Comments at 9 (recommending a broadband, voice, and wireless provider-of-last resort obligation as a condition of competitive bidding); Joint Comments of the National Exchange Carrier Assoc., Inc., National Telecommunications Cooperative Assoc., Organization for the Promotion and Advancement of Small Telecommunications Companies, Western Telecommunications Alliance, and the Rural Alliance (NECA, *et al.*), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 32 (filed July 12, 2010) ("[U]niversal service requires the presence of a clearly identified carrier in each service area that is ready, willing and able to serve the most expensive, least profitable or otherwise less desirable customers therein."); NCTA Comments at 11 (recipients should include state COLR costs when demonstrating the minimum necessary support for area); Comments of Qwest Communications International Inc., WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 12-13 (filed July 12, 2010) (the Commission should require "the company that has chosen to receive support [to] provide supported broadband and voice services throughout the supported geographic territory"); Reply Comments of AT&T, Inc. (AT&T), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 6 (filed Aug. 11, 2010); Comments of Cox Communications, Inc., GN Docket Nos. 09-51, 09-47, 09-137, in re NBP PN #19, at 10 (filed Dec. 7, 2009) ("[M]onopoly providers subject to COLR obligations should be required to meet service quality standards and reporting and oversight obligations to guarantee that they provide reasonable service in areas where customers have no competitive choice."); Comments of the National Assoc. of State Utility Consumer Advocates (NASUCA), GN Docket Nos. 09-51, 09-47, 09-137, in re NBP PN #19, at 22 (filed Dec. 7, 2009).

[159] Below, we propose to conduct a reverse auction to distribute a non-recurring amount of support to extend broadband in unserved areas, during the first phase of the CAF. We propose public interest obligations specific to recipients of funding during this first phase of the CAF. *See infra* para. 309 *et seq.*

with our proposed principles of fiscal responsibility and accountability and our goal of rapidly increasing broadband deployment in unserved areas.

1. Characteristics of Voice Service

95. Section 214(e) of the Act requires an ETC to offer and advertise the services that are supported by federal universal service support using its own facilities or a combination of its own facilities and resale of another carrier's services throughout its designated service area.[160] In 1997, the Commission defined the services to be supported in functional terms as: voice grade access to the public switched network; local usage; dual tone multi-frequency (DTMF) signaling or its functional equivalent; single-party service or its functional equivalent; access to emergency services; access to operator services; access to interexchange service; access to directory assistance; and toll limitation to qualifying low-income consumers.[161] The Commission chose to define the supported services in functional terms, rather than as tariffed services, in order to promote competitive neutrality and provide greater flexibility.

96. We now propose to simplify how we describe these core functionalities into one term: "voice telephony service."[162] The existing rules, as formulated, suggest that ETCs must advertise specific components of voice service (e.g., operator services, DTMF), even though such terminology may not be familiar to the average American consumer. In practice, carriers likely advertise the supported services using much more generic language. We seek comment on this proposal to simplify how we define supported "voice telephony service."[163]

97. With respect to the performance characteristics for "voice telephony service," we note that "voice grade access" to the public switched network is defined in section 54.101 of the Commission's rules as "a functionality that enables a user of telecommunications services to transmit voice communications, including signaling the network that the caller wishes to place a call, and to receive voice communications, including receiving a signal indicating there is an incoming call. For the purposes of this part, bandwidth for voice grade access should be, at a minimum, 300 to 3,000 Hertz."[164] Should we preserve this definition, modify this definition, or adopt a new definition? Is DTMF still relevant in today's networks? Is the 300 to 3,000 Hertz bandwidth requirement appropriate for mobile or satellite voice technologies? Should providers still be required to provide access to operator services and directory assistance? Parties that support a different definition should provide analysis and data supporting such a definition. Parties also should explain whether such a definition would be technology-neutral and if not, the basis for adopting a definition that is not technology-neutral.

2. Voice Obligations

98. We propose that recipients must provide "voice telephony service" throughout their designated service areas.[165] We propose that recipients be permitted to partner with another voice provider, in part, to provide voice capability that meets the definition of "voice telephony service."[166] For example, a recipient could partner with a satellite voice provider to provide "voice telephony service" in

[160] 47 U.S.C. § 214(e).

[161] 47 C.F.R. § 54.101(a)(1)-(9); *see also Federal-State Joint Board on Universal Service*, 12 FCC Rcd at 8810, para. 61 (defining supported services).

[162] Letter from Henry Hultquist, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 09-51, WC Docket Nos. 10-90, 05-337, CC Docket Nos. 01-91, 80-286 (filed Dec. 6, 2010) (AT&T Dec. 6, 2010 *Ex Parte* Letter).

[163] Because we are merely proposing to consolidate all currently supported services for high cost under one new term, "voice telephony service," we need not consider whether these consolidated services should be part of the definition of supported services. 47 U.S.C. § 254(c)(1)(A)-(D).

[164] 47 C.F.R. § 54.101(a)(1).

[165] *See supra* para. 95 *et seq.* (Characteristics of Voice Service).

[166] *See id.*

areas where the recipient has not yet built out its network. We propose that the voice telephony service provided by a recipient (or its partner if we allow such an arrangement) may be provided via any technology (wireline, terrestrial wireless, satellite or VoIP) that meets or exceeds the universal service definition of "voice telephony service." We seek comment on whether the "partnering" is sufficient to satisfy the facilities requirement of section 214(e)(1)(A).[167] We propose that recipients be responsible for ensuring compliance with these requirements, regardless of whether they are themselves or their partner is providing the service. We seek comment on these proposals.

99. We further propose that recipients be required to offer voice telephony service as a standalone service. We seek comment on this proposal, including whether we should adopt the requirement that such a standalone voice service be offered at an affordable rate.[168] If we adopt such a requirement, what should be deemed an affordable rate for voice service? Alternatively, if the recipient provides broadband, is it sufficient that a customer could subscribe to an over-the-top VoIP service for voice service?

100. In addition, we propose that recipients continue to be subject to any applicable baseline state or federal requirements for the provision of voice service by ETCs. We seek comment on these proposals. To the extent that such requirements overlap with the requirements we are proposing herein, we seek comment on how to harmonize the requirements or transition to new requirements. Are there existing requirements that are duplicative of requirements we are proposing herein?

101. How can we create incentives for states to re-evaluate and harmonize the requirements they impose on the ETCs that they designate to be consistent with any new federal requirements? We also seek comment on whether the Commission could or should adopt any measures to provide incentives to states to eliminate state COLR obligations for any company that relinquishes its ETC designation or no longer receives universal service support.[169] Should there be any additional obligations imposed on recipients serving areas in which the telephone penetration rate historically has been substantially lower than the national average (e.g., on Tribal lands and in Native communities)?

102. For the near term, we envision that the existing state-federal roles with respect to existing ETCs would remain the same, but over the longer term, that could change as carriers migrate to all-IP networks, and voice is available as an application on such networks. Given that we envision a transition to an integrated voice-broadband network in the future, how should voice universal service public interest obligations change over time? In the future, will there be a need for separate voice and broadband public interest obligations?

3. Characteristics of Broadband Service

103. For purposes of universal service funding, we propose to adopt metrics for broadband using specific performance characteristics.[170] These metrics would apply to the CAF and also to the

[167] 47 U.S.C. § 214(e)(1)(A).

[168] *See infra* para. 137 (proposing that recipients must offer voice and broadband (individually and together) in rural areas at rates that are affordable and reasonably comparable to rates in urban areas).

[169] *See, e.g.*, Comments of AT&T, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 17-18 (filed July 12, 2010); Comments of CenturyLink, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 14 (filed July 12, 2010); Comments of the Pennsylvania Public Utility Commission, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 36 (filed July 12, 2010) (explaining that "the traditional concepts for the duties and/or responsibilities of COLRs need to be jointly re-examined in a coordinated fashion by both the FCC and the state utility regulatory commissions"); Comments of the United States Telecom Assoc. (USTA), WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 7 (filed July 12, 2010) ("If a provider is serving an area in which it is not the supported entity, it should be relieved of ETC, [COLR] and dominant carrier obligations for voice and broadband in the supported area."); Windstream July 12, 2010 Comments at 16.

[170] For purposes of its *Fourteenth Mobile Wireless Competition Report*, the Commission used "mobile broadband" to refer to mobile Internet access and other data services provided using Third Generation (3G) and Fourth (continued....)

existing high-cost program, until it is transitioned into the CAF.[171] We reserve the right to specify different metrics for other purposes, including other universal service programs.[172] We also propose to re-evaluate the specified metrics on a regular basis to ensure that these metrics remain useful and up-to-date as broadband networks and the applications running over them evolve.

104. First, we propose to characterize broadband without reference to any particular technology, so that current high-cost and future CAF recipients would be permitted to use any technology platform, or combination of technology platforms, that satisfies the specified metrics. We envision that recipients will choose a range of technologies, including wireline technologies, fixed and mobile terrestrial wireless technologies, and fixed and mobile satellite technologies in any combination. Although this proposal would not require that recipients employ any particular type of technology, we seek comment on whether there are reasons to adopt technology-specific minimum standards that would depend on the technology deployed, given that there are trade-offs among the different types of technologies. For instance, should specific but not identical standards be adopted for wireline versus wireless, fixed versus mobile, or terrestrial versus satellite technologies, given the attributes and challenges of these different networks?

105. We seek comment on the key attributes of broadband that will be supported as we reform the current high-cost program and create the CAF. In particular, we seek comment on whether we should characterize broadband by its speed, functional attributes, or in some other way. We note that speed is only one measure of broadband performance. Commenters should discuss additional ways of measuring the broadband services provided to consumers, such as throughput, latency, jitter, or packet loss, for purposes of establishing performance requirements for recipients of universal service funding.[173] Some applications, like e-mail or text-based Web surfing, may be less sensitive to these other measures of network performance, but for other applications, such as videoconferencing, these other, non-speed-related measures may be important.[174]

106. Based on results of a Pew Research Center broadband user survey and additional analysis by the Commission, the National Broadband Plan categorized U.S. consumers into four distinct broadband-use profiles, based on usage characteristics and speed demands:[175] (1) Advanced: consumers who use large amounts of data and tend to use the highest quality voice, video, and other cutting-edge applications; (2) Full media: consumers who are moderately heavy users of broadband and mobile

(Continued from previous page)
Generation (4G) mobile network technologies, CDMA EV-DO, WCDMA/HSPA, and WiMAX, even though these do not necessarily meet the 4/1 Mbps speed threshold as discussed herein. *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 09-66, Fourteenth Report, 25 FCC Rcd 11407, 11413 n.7 (2010) (*Fourteenth Mobile Wireless Competition Report*).

[171] As the existing high-cost program is currently administered, if broadband is a supported service, recipients are statutorily required to provide broadband as defined by the Commission. 47 U.S.C. § 214(e)(1)(A). Alternatively, if funding is conditioned on the provision of broadband, then recipients still must provide broadband as defined by the Commission.

[172] *See* Letter from Daniel Mitchell, Vice President, NTCA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 09-51, WC Docket Nos. 96-45, 01-92, CC Docket No. 96-45 (filed May 20, 2010) (enclosing *Providing World-Class Broadband: The Future of Wireless and Wireline Broadband Technologies,* Rural Telecom Educational Series, at 3). In particular, we expressly reserve the right to choose a different speed for any future expansion of the Low-Income universal service support mechanism to include support of broadband.

[173] *See id.*

[174] *See* Omnibus Broadband Initiative, *Broadband Performance: OBI Technical Paper No. 4*, at 8, Ex. 10 (OBI, Broadband Performance).

[175] *See id.* at 7; *see also* John B. Horrigan, Pew Internet & American Life Project, "The Mobile Difference" (2009), *available at* http://www.pewinternet.org/~/media//Files/Reports/2009/The_Mobile_Difference.pdf.

applications, seeking to access high-quality voice, data, graphics, and video communications but, typically not in the most cutting-edge forms; (3) Emerging multimedia: consumers who utilize some video and graphical content but still see the Internet primarily as a way to communicate and access news and entertainment in a richer format than found in offline content; and (4) Utility: consumers who are largely content to access the Internet for basic news, communication, and basic entertainment. Each use profile has a "basket of applications" that reflect typical uses of the Internet for that set of users.[176]

107. The basic utility user requires actual download speeds of approximately 500 kbps, while emerging multimedia and full media users require actual download speeds of 1–4 Mbps, depending on the quality demands of particular applications they might use. Data indicate that 80% of broadband users today fall into these first three use cases.[177] Advanced users accessing applications such as enhanced two-way videoconferencing and high-definition video streaming could require actual symmetric (i.e., upload and download) speeds of 5 Mbps or more and significant quality of service performance (e.g., low latency) from the network.[178] Users' speed and performance demands may change over time as applications become more data-intensive and the "common basket" of applications in each use profile evolves.[179]

108. Recently, the Commission relied on reported 3 megabits per second (Mbps) downstream and 768 kilobytes per second (kbps) upstream speeds for purposes of its annual inquiry into whether broadband is being deployed to all Americans in a reasonable and timely fashion pursuant to section 706 of the Telecommunications Act of 1996, as amended.[180] For purposes of that inquiry, the Commission benchmarked broadband as "a transmission service that actually enables an end user to download content from the Internet at 4 Mbps and to upload such content at 1 Mbps over the broadband provider's network."[181] However, broadband providers already report the number of their subscribers at several levels of speed, including at the 3 Mbps/768 kbps level.[182] We note that the Commission's most recent *Internet Access Services Report* found that, as of December 2009, only about 32% of reportable Internet access service subscriptions would meet the broadband availability benchmark adopted in the *Sixth Broadband Deployment Report*.[183]

109. The National Broadband Plan recommended that the Commission set an initial target of 4 Mbps actual download/1 Mbps actual upload for universal service.[184] We seek comment on that recommendation. If we adopt a specific threshold speed requirement as a proxy for the capabilities that consumers should be able to access with broadband, what would be the impact on the universal service

[176] The "basket of applications" approach builds on numerous comments filed in response to National Broadband Plan Public Notice #1. *Comment Sought on Defining "Broadband"*, Public Notice, 24 FCC Rcd 10897 (2009) (NBP PN #1); *see, e.g.*, Comments of Sprint Nextel Corp. in re *NBP PN #1*, at 2 (filed Aug. 31, 2009); Comments of AT&T in re *NBP PN #1*, at 4-5 (filed Aug. 31, 2009); Comments of Kodiak Kenai Cable Company, LLC in re *NBP PN #1*, at 4 (filed Aug. 31, 2009).

[177] *See* OBI Broadband Performance at 10.

[178] *See id.*, Ex. 11.

[179] *See infra* para. 119 (seeking comment on how often we should re-evaluate requirements for broadband).

[180] *Sixth Broadband Deployment Report*, 25 FCC Rcd at 9568-69, para. 20; *see also* 47 U.S.C. § 1302(b).

[181] *Sixth Broadband Deployment Report*, 25 FCC Rcd at 9568-69, para. 20.

[182] *See* Form 477 Resources for Filers, http://www.fcc.gov/form477/ (last visited Feb. 9, 2011). At present, the Commission categorizes connections reported through its FCC Form 477 at 72 speed tiers defined by eight ranges of downstream speed and nine ranges of upstream speed.

[183] Industry Analysis and Technology Division, Wireline Competiton Bureau, *Internet Access Services: Status as of December 31, 2009*, at 6 (Dec. 2010) (Internet Access Services Report); *Sixth Broadband Deployment Report*, 25 FCC Rcd at 9574, para. 28 (citing 47 U.S.C. § 1302(b)).

[184] National Broadband Plan at 135.

funding levels of choosing a different threshold for download and upload speeds than 4 Mbps/1 Mbps? Should any speed ultimately adopted be the minimum that a funding recipient is required to provide, while recognizing that recipients can and will provide higher speeds as the marketplace and technology evolves?

110. What would be the impact, for instance, of setting the initial threshold for broadband to be networks capable of delivering at least 3 Mbps of actual download speed and 768 kbps of actual upload speed? Several commenters support a 768 kbps upload speed threshold, which current technologies could deliver with significantly lower deployment costs.[185] Would adopting a slightly lower threshold than proposed in the National Broadband Plan lessen the financial impact on USF? In the near term, given our current Form 477 reporting requirements, would it be administratively simpler for the Commission to verify that fund recipients are offering their subscribers 3 Mbps/768 kbps?

111. On the other hand, we note that other commenters assert that the speed threshold proposed in the National Broadband Plan is too low.[186] These commenters argue that a 4 Mbps down/1 Mbps upstream definition would create a permanent rural/urban digital divide, would be obsolete by the time funding is disbursed, and would halt the deployment of fiber optic facilities and other long-term broadband solutions.[187] We seek comment on how we should balance such considerations, taking into account the competing national priorities for the use of universal service funding and our proposed goal of controlling the size of the universal service fund.[188]

112. We invite commenters that support a different speed requirement to provide specific analysis and evidence addressing the following questions: What additional features or applications could be provided at, or above, such a threshold? What percentage of consumers today use such features or applications? What would be the estimated additional cost to fund higher speeds?

113. We propose that the speed be "actual" speed rather than the "advertised" or "up to" speed, which may be different from the actual speed an end-user experiences. We seek comment on these proposals including how to define "actual" speed.

114. Are there other metrics we should consider that are unrelated to speed or service quality, such as mobility? As we are considering broadband performance characteristics, how should we think

[185] *See* CenturyLink July 12, 2010 Comments at 19, n.54 (arguing that current technologies may not be able to deliver 1 Mbps upload speeds without significant effect on download speeds and/or increased deployment costs); Qwest Comments at 11 (arguing that 1 Mbps upload speed requirement would eliminate DSL-based technologies that could help accomplish universal broadband at lower costs in many rural areas); Windstream July 12, 2010 Comments at 10 (arguing the incremental benefit of a ubiquitous 1 Mbps upload speed threshold outweighs the incremental additional deployment cost incurred when exceeding a more universally accepted upload speed of 768 Kbps); AT&T Dec. 6, 2010 *Ex Parte* Letter at 1 (arguing that changing the upload target to 768 Kbps could materially reduce the amount of funding needed).

[186] Dec. 2010 Internet Access Services Report, at 6.

[187] *See, e.g.,* Comments of Blooston Rural Carriers, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 8 (filed July 12, 2010) (expressing concern that target speed is too low and will create a digital divide between rural and urban areas); Comments of Home Telephone Company, Inc., WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 4-5 (filed July 12, 2010); Comments of the Texas and Oklahoma Small Company Group, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 11-12 (filed July 12, 2010) (arguing that services will require bandwidth far in excess of the 4 Mbps); Comments of Nebraska Rural Independent Companies, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 52-55 (filed July 12, 2010) (arguing that 4/1 Mbps is likely to be outmoded by the end of 2010); Comments of Nebraska Telecommunications Association, WC Docket Nos. 10-90, 05-337, GN Docket No. 09-51, at 1 (filed July 12, 2010) (cautioning that subjecting rural customers to speeds lower than those generally available to many urban customers "could relegate much of the nation's rural consumers to substandard broadband if never improved upon"); NECA *et al.* July 12, 2010 Comments at 15-18.

[188] *See supra* Section V.A (National Goals and Priorities for Universal Service).

about the migration of networks to Internet Protocol version 6 (IPv6)? Should we adopt more stringent performance metrics, even if it means excluding specific technologies that are unable to meet that standard? How would a requirement that excludes certain technologies comport with the technology neutral principle proposed above? Or, should we adopt more inclusive performance metrics, even if most technologies are capable of better performance?

115. *Measuring the Attributes of Broadband.* We note that the Commission is in the process of working in partnership with a third-party measurement company, SamKnows, to test actual consumer broadband speeds, in order to inform the Commission and other government consumer disclosure initiatives, and to make data publicly available for better understanding of broadband speed and performance.[189] The SamKnows process is providing the Commission with more detailed data on the actual performance characteristics of the nation's broadband networks, including recommendations on definitions of actual speed, key performance metrics and measurement points associated with those metrics. In addition, in March 2010, the Commission released a mobile data consumer test application for iPhone and Android devices which collects and reports data rates, latency, and user location when initiated on the mobile device.[190] The Commission is also considering a mobile broadband measurement partnership with a third-party company.[191] We look forward to the data that results from these tests, and seek comment on whether it should be incorporated, as it becomes available in a reliable and uniform manner, into the metrics we ultimately adopt for defining broadband for purposes of universal service funding.

116. We propose that recipients test their broadband networks for compliance with whatever metrics ultimately are adopted and report the results to the Universal Service Administrative Company (USAC) on a quarterly basis,[192] and that these results be subject to audit. We seek comment on whether the benefits of such a requirement would outweigh the burdens. Are there alternatives that could ease burdens on recipients? Alternatively, should we instead require that recipients provide a specific speed (e.g., 4/1 Mbps) at a "reasonable service quality," and rely on customer complaints regarding the quality of their broadband as a means of enforcing service quality?

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[189] *Comment Sought on Residential Fixed Broadband Services Testing and Measurement Solution*, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36, Public Notice, 25 FCC Rcd 3836 (2010).

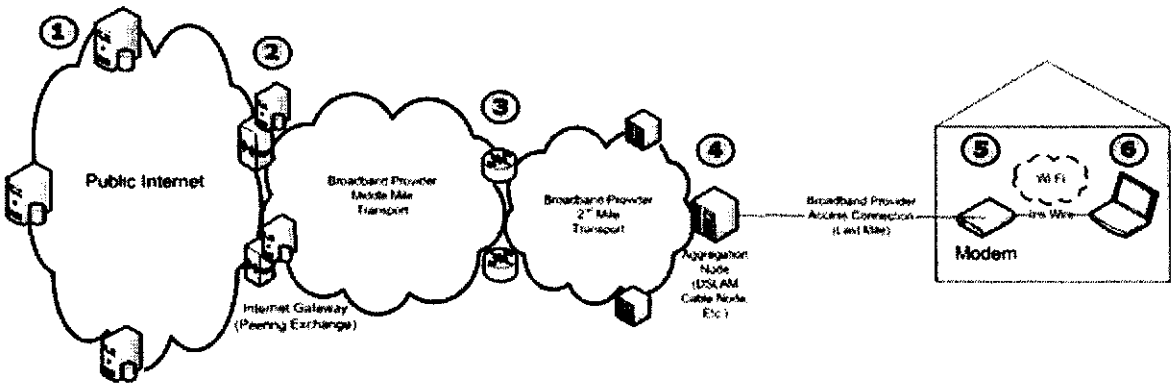
[190] The mobile application is available for download for the iPhone App Store or Android Market. As of December 2010, about 100,000 unique users have installed the Commission's mobile application, collectively taking over 1 million tests. The Commission also released a fixed consumer broadband test which collects street address and broadband performance data, which has been accessed about 1 million times. The fixed application is accessible at www.broadband.gov/qualitytest (last visited Feb. 9, 2011).

[191] *See Comment Sought on Measurement of Mobile Broadband Network Performance and Coverage*, CG Docket No. 09-158, CC Docket No. 98-170, WC Docket No. 04-36, Public Notice, 25 FCC Rcd 7069 (2010).

[192] The Universal Service Administrative Company (USAC), a subsidiary of the National Exchange Carrier Association (NECA), is the private not-for-profit corporation created to serve as the Administrator of the Fund under the Commission's direction. *See* Changes to the Board of Directors of the National Exchange Carrier Association, *Third Report and Order* in CC Docket No. 97-21, *Fourth Order on Reconsideration* in CC Docket No. 97-21 and *Eighth Order on Reconsideration* in CC Docket No. 96-45, 13 FCC Rcd 25,058, 25,063-66, paras. 10-14 (1998); 47 C.F.R. § 54.701(a). The Commission appointed USAC the permanent Administrator of all of the federal universal service support mechanisms. *See* 47 C.F.R. §§ 54.702(b)-(m), 54.711, 54.715. USAC administers the Fund in accordance with the Commission's rules and orders. The Commission provides USAC with oral and written guidance, as well as regulation through its rulemaking process. USAC plays a critical role as day-to-day Administrator in collecting necessary information that enables the Commission to oversee the entire universal service fund. *See, e.g.*, Memorandum of Understanding Between the Federal Communications Commission and the Universal Service Administrative Company (Sept. 9, 2008) (*2008 FCC-USAC MOU*), *available at* http://www.fcc.gov/omd/usac-mou.pdf.

117. To the extent the Commission measures broadband by specific attributes such as speed, we seek comment on where in the network these attributes should be measured – whether it should be just the access network or the end-to-end speed – and how they should be measured. We propose that the attributes be measured on each broadband provider's access network from the end-user interface to the nearest (logical) Internet access point.[193] In Figures 4 and 5 below, the two end-points would be the Internet gateway (2), the closest peering point between the broadband provider and the public Internet for a given consumer connection, and the modem (for a wireline network and some wireless networks) or the consumer mobile device (for some wireless networks) (5), the customer premise equipment typically managed by a broadband provider as the last connection point to the managed network. We seek comment on this proposed approach, and any alternatives that commenters believe would be more accurate. Specifically, we seek comment about how to measure speeds for networks that provide mobile services, where capacity per user changes over time as the number of users in a given sector increases and decreases.

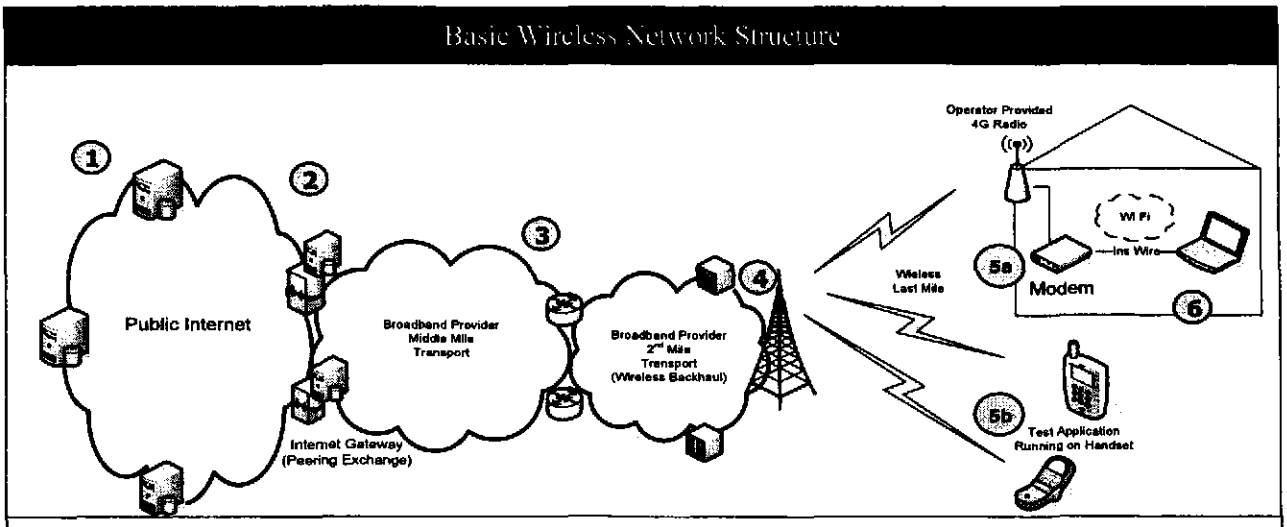
Basic Wireline Network Structure



(1) Public Internet content: Public Internet content that is hosted by multiple service providers, content providers and other entities in a geographically diverse (worldwide) manner.
(2) Internet gateway: Closest peering point between broadband provider and public Internet for a given consumer connection.
(3) Link between second mile and middle mile: Broadband provider managed interconnection between middle mile and last mile
(4) Aggregation Node: First aggregation point for broadband provider (e.g., DSLAM, cable node, satellite, etc.)
(5) Modem: Customer premise equipment (CPE) typically managed by a broadband provider as the last connection point to the managed network (e.g., DSL modem, cable modem, satellite modem, optical networking terminal (ONT), etc.)
(6) Consumer device: Consumer device connected to modem through internal wire or Wi-Fi (home networking), including hardware and software used to access the Internet and process content (customer managed)

Figure 4

[193] The SamKnows tests will use these parameters.



(1) Public Internet content: Public Internet content that is hosted by multiple service providers, content providers and other entities in a geographically diverse (worldwide) manner.
(2) Internet gateway: Closest peering point between broadband provider and public Internet for a given consumer connection.
(3) Link between second mile and middle mile: Broadband provider managed interconnection between middle mile and last mile
(4) Aggregation Node: First aggregation point for broadband provider (e.g., DSLAM, tower site, cable node, satellite, etc.)
(5)(a) Household fixed modem/receiver: Customer premise equipment (CPE) typically managed by a broadband provider as the last connection point to the managed network (e.g., DSL modem, cable modem, satellite modem, optical networking terminal (ONT), wireless modem, etc.)
5(b) Consumer Device: Consumer mobile device (smartphone, laptop, etc.) wireless connected to provider network
(6) Consumer device: Consumer device connected to modem through internal wire or Wi-Fi (home networking), including hardware and software used to access the Internet and process content (customer managed)

Figure 5

118. One alternative would be to measure end-to-end speeds with the idea that these speeds would be more representative of the end-user experience. This is the approach taken implicitly by many software-based speed tests. However, this approach has several drawbacks. First, where the "other end" (the end away from the end user) is located could have a significant impact on measurements. Those who take measurements at a local server will get far different results from those who take measurements from a server located across the country or around the world. Second, many potential choke points on the network are outside of the broadband provider's control—meaning that such measurements would not highlight either the cause of any problems or present any solutions. These choke points include everything from customer equipment (including computers and routers at the end-user premises) to server-side congestion and traffic on the Internet itself. We do not believe that end-to-end measurement is

an ideal tool to measure speed or other network performance metrics for the purpose of measuring compliance with a broadband performance metric requirement.[194]

119. *Evolution.* We acknowledge that broadband performance is constantly evolving, and propose that the broadband metrics we adopt for purposes of universal service funding should evolve as well. We seek comment on how often we should re-evaluate our requirements for broadband capability for universal service purposes. Historical speed growth indicates a doubling of speed roughly every four years for broadband technologies.[195] Therefore, should we re-evaluate the definition every four years? Should we re-evaluate more frequently; for example, every year? Every time the median speed subscribed to in the U.S. increases by more than a certain percentage (e.g., 20 percent)?

120. We also seek comment on what procedural vehicle would be appropriate for re-evaluating broadband metrics. Under section 706 of the Telecommunications Act of 1996, as amended, the Commission must conduct an annual inquiry into whether broadband is being deployed to all Americans in a reasonable and timely fashion.[196] Could the broadband deployment and inquiry proceeding be used to re-evaluate the broadband speed goal in those years that we have determined to re-evaluate the metrics of broadband? Alternatively, should the Commission conduct a separate inquiry for purposes of defining minimum attributes of broadband performance for purposes of universal service funding?

4. Broadband Obligations

121. As noted above, some incumbent telephone companies are using existing high-cost support to extend modern networks capable of delivering both high-speed Internet access and voice. We propose that all existing high-cost funding recipients going forward and all future CAF recipients must offer broadband service that meets or exceeds the minimum metrics prescribed by the Commission, assuming they receive funding for that purpose.[197] Below, we propose specific obligations that recipients must meet in providing broadband service in the areas for which they receive support. We ask parties to explain their reasoning to the extent they believe that different requirements should apply in different circumstances. We ask parties to comment on how best to balance the costs associated with public interest obligations so that we do not discourage participation in any programs we may adopt to advance broadband deployment, such as reverse auctions, or reduce the impact of CAF support, while balancing our proposed principles of fiscal responsibility and accountability and our goal of rapidly increasing broadband deployment in unserved areas. We recognize that, should recipients be required to provide broadband service, they may need a transition period to comply with the broadband obligations proposed below, and thus, we propose a process for seeking waivers during the transition period.[198]

122. We propose that all recipients should be subject to an annual certification regarding compliance with any obligations that we ultimately adopt for the provision of USF-supported broadband services. Should recipients file certifications with state regulators or with USAC? How should compliance with the metrics and the certifications be monitored and enforced?

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[194] While one could argue that speed and other performance characteristics on the Internet are at least partially in control of the broadband provider through commercial agreements, end-user equipment is not something the broadband provider can control, so the problems of identifying the root cause of performance problems remain.

[195] OBI Broadband Performance at 11.

[196] 47 U.S.C. § 1301 et seq.

[197] *See supra* para. 103 *et seq.* (Characteristics of Broadband Service).

[198] *See infra* para. 154 (Waiver Process).

123. We also seek comment on whether there are lessons learned or best practices we should consider from other federal and state broadband programs and, if so, whether and how to incorporate those here.[199]

a. Service, Coverage, and Deployment

124. We seek to ensure that customers have meaningful access to broadband. To this end, we seek comment on whether to impose a service requirement on recipients, or a service requirement *and* a coverage requirement on recipients. A service requirement, at a high level, would specify that a recipient must provide service upon request within a reasonable period of time. To satisfy a service requirement, a recipient would need to have built facilities close enough to potential subscribers so that it is able to serve them upon request. Relative to a coverage requirement (e.g., recipients must cover 99 percent of all housing units in an area), a service requirement could result in lower costs to the Fund, because a recipient would not necessarily need to extend its facilities as far. On the other hand, addition of a coverage requirement would help guarantee timely access to broadband by ensuring that facilities are present whether or not consumers in the area have previously requested service. Below we seek comment on these two types of requirements.

125. *Service Requirement.* We note that an applicant seeking ETC designation from the Commission currently must commit to provide service throughout the proposed designated service area to all customers making a reasonable request for service, and must certify that it will: (1) provide service on a timely basis to requesting customers within the applicant's service area where the applicant's network already passes the potential customer's premises; and (2) provide service within a reasonable period of time, if the potential customer is within the applicant's licensed service area but outside its existing network coverage, if service can be provided at reasonable cost.[200] We seek comment on whether states that designate ETCs impose similar requirements. We also seek comment on whether Commission and state requirements have been effective in ensuring that requesting customers receive service in a timely basis. If these requirements have not been effective, should we adopt more specific requirements about what we consider a "reasonable period of time" or "reasonable cost"?

126. In instances where customers are not connected to existing plant, at what "standard distance" may a recipient charge the requesting customer to recoup some, or all, of its cost for extending facilities that can deliver broadband as well as voice?[201] For these line extensions, how should a "just and reasonable" charge be calculated? Or should providers be required to fund a specified dollar amount or percentage of the cost of build-out to customers that are not connected to existing plant, and recover the rest from the requesting customer? Should a wireless terrestrial provider be able to charge a customer for the cost of extending its service area to serve that customer? If it would be less costly to use a different technology to reach that customer, such as satellite broadband, should the line extension charge to the customer be capped at the amount it would cost to use that other, cheaper technology?[202] We also seek comment on whether there should be different standards for business and residential consumers.

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[199] *See, e.g.*, American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(k)(2)(D), 123 Stat. 115, 516.

[200] 47 C.F.R. § 54.202(a).

[201] *See* Bluhm & Bernt at 9 (noting that, in New Jersey, no contribution can be required from customer where line extension would be profitable without contribution).

[202] To clarify, in this situation, the customer is responsible for paying the provider to extend service; no federal USF money would pay for the cost of extending service, just as federal USF does not pay to extend, upon customer request, a voice line today. We note that in the *Non-Rural Insular NPRM*, we sought comment on "whether we should provide additional Link-Up support to help offset special construction charges incurred by [eligible consumers in Puerto Rico] when facilities must be built to provide them with access to voice telephone service." *High-Cost Universal Service Support; Federal-State Joint Board on Universal Service; Lifeline and Link-Up*, WC Docket Nos. 05-337, 03-109, CC Docket No. 96-45, Order and Notice of Proposed Rulemaking, 25 FCC Rcd 4136, (continued....)

127. Historically, state commissions have imposed requirements regarding the termination of service for non-payment. We seek comment on whether we should adopt similar requirements in the broadband context. What should be recipients' obligations to serve a customer that is a high credit risk? Is a security deposit requirement a reasonable way for a recipient to ensure the creditworthiness of a customer? Is it sufficient? Are there other types of "reasonable requirements" that should be used to ensure creditworthiness?

128. We also seek comment on whether, separate and apart from the process of relinquishing ETC designation, there is a need to adopt rules relating to exit from the marketplace to ensure that there is a provider willing and able to serve customers in that area.[203] We seek comment on whether to require recipients to comply with Commission rules regarding appropriate notice and approval before discontinuing service.[204] How should the federal obligations deal with any market exit on the part of the recipient?[205] If there is only one supported provider in an area, what happens if the recipient discontinues operations in the supported area? What provider would assume the public interest obligations? Should that determination be made by state regulators or the Commission? Under what statutory authority would a state determine who must assume federal obligations? Additionally, if a recipient subsequently declares bankruptcy, what effect will the declaration of bankruptcy have on its public interest obligations and the subsidy that it receives? Should the public interest obligations the Commission adopts continue to apply to a recipient in bankruptcy proceedings, or should the obligations be transferred to another provider to serve the area? Who should make that determination—the Commission or a state regulator? Do we need to adopt new rules to address this issue?

129. *Coverage Requirement.* We seek comment on whether to adopt a coverage requirement in addition to a service requirement. In the event we choose to adopt a coverage requirement, we seek comment on how we would create the measurement for such a requirement.[206] Should there be a uniform national requirement that recipients must serve a specified percentage of housing units within a given geographic territory with broadband service, such as 99%? We propose to define "housing unit" per the U.S. Census Bureau: "A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall."[207]

130. Alternatively, the Commission could determine the number of housing units in each area that meet selected criteria, such as being located in an area with population density above a specified threshold, or deemed serviceable for less than a particular cost estimated by a model. Should the

(Continued from previous page)
4138, para. 3 (2010). Some commenters argued the proposal would be insufficient given the high cost of special construction charges in Puerto Rico. *See, e.g.*, Comments of Puerto Rico Telephone Company, WC Docket Nos. 05-337, 03-109, CC Docket No. 96-45, at 6 (filed June 7, 2010).

[203] We note that section 214(e)(4) of the Act addresses relinquishment of ETC designation. 47 U.S.C. § 214(e)(4).

[204] 47 C.F.R. § 63.71.

[205] *See* Bluhm & Bernt at 43-45.

[206] Because the specific objective of the first phase of the CAF program is to provide non-recurring support for deployment of networks to provide broadband and voice services in areas unserved by broadband, we seek comment elsewhere on similar alternative coverage requirements to which only recipients of funding in the first phase of the CAF would be subject. *See infra* para. 310.

[207] *See* U.S. Census Bureau, State and County QuickFacts, Housing Units, http://quickfacts.census.gov/qfd/meta/long_HSG010209.htm (last visited Feb. 9, 2011).

Commission adopt, in consultation with Tribal governments, tailored coverage requirements for Tribal lands?[208]

131. Are there scenarios where it would be preferable for recipients themselves to establish the coverage requirement they must meet? For example, in scenarios where parties bid for support, should we require potential recipients to specify the number of housing units that they would pass or cover with broadband infrastructure in the designated area should they win the bidding?[209] Winning bidders would then be required to pass or cover their specified number of housing units.

132. Above, in the context of providing voice telephony service, we proposed that recipients be permitted to partner with another voice provider, such as a satellite or wireless voice provider, to provide "voice telephony service" in areas where the recipient has not yet built out its network.[210] Similarly, we propose that recipients be permitted to partner with another broadband provider, such as a satellite or wireless broadband provider, to provide broadband service in areas where the recipient has not yet built out its network. In such arrangements where a recipient partners with another provider to provide broadband service to a portion of its service area, should customers' voice service be provided by the current voice COLR, or also by the partner?[211] We propose that the primary recipients of funding be responsible for ensuring compliance by themselves and their partner with any broadband obligations ultimately adopted by the Commission, regardless of whether they or their partner physically provides the service.

133. Satellite service is ideally suited for serving housing units that are the most expensive to reach via terrestrial technologies, because there is little marginal cost to add a subscriber, assuming capacity is available.[212] Thus, serving the most expensive locations with satellite would reduce the overall support levels needed, and we would expect recipients to want to partner with satellite providers in the most expensive unserved areas. In order to most efficiently leverage the capacity of satellite throughout the unserved high-cost areas across the nation, should we limit the number of housing units in a given service area that can be served by a partnering arrangement with a satellite provider?[213]

134. Alternatively, we seek comment on whether support recipients should be allowed to carve out from the coverage requirement a small percentage of housing units that may be served by high-speed Internet access service—such as satellite service—that may not meet the minimum performance metrics adopted by the Commission.[214] If we pick a specific percentage (e.g., no more than two to five percent of housing units in a given area), we acknowledge that in some areas, because of terrain or density, recipients may have a higher percentage of housing units that can only be served by broadband with different performance metrics, while in other areas, a recipient may be able to serve all housing units with broadband that meets the Commission-adopted metrics. We seek comment on these issues.

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[208] We note that the Commission has recognized that Tribes are inherently sovereign governments that enjoy a unique relationship with the federal government, and we have reaffirmed our policy to promote a government-to-government relationship between the Commission and federally recognized Indian tribes. *Statement of Policy on Establishing a Government-to-Government Relationship with Indian Tribes*, 16 FCC Rcd 4078, 4079-80 (2000) (*Tribal Policy Statement*).

[209] Although we propose measuring coverage in terms of housing units passed, CAF recipients must serve requesting business customers, too.

[210] *See supra* para. 95.

[211] *See* Windstream July 12, 2010 Comments at 14 n.27 (suggesting the Commission support a satellite provider of last resort for broadband and a terrestrial provider of last resort for telephone service).

[212] *See infra* note 433 (discussing debate over satellite capacity).

[213] *See infra* para. 272.

[214] *See* CenturyLink July 12, 2010 Comments at 15 n.43 (suggesting an exception for hardest-to-reach customers to be served by satellite-delivered broadband services).

135. If we adopt a coverage requirement, we seek comment on whether recipients should be required to complete deployment within a specific timeframe, such as three years.[215] We seek comment on alternative timeframes. We note that, currently, Commission-designated ETCs are not required to be able to serve their entire service area at the time of designation, but must commit only to offering service throughout the service area.[216] However, we propose adopting a specific timeframe so that we can ensure public funds are being used effectively. We seek comment on how recipients should demonstrate compliance with a coverage requirement, and their progress towards meeting it. For example, the Commission proposed requiring Mobility Fund recipients to conduct "drive tests" in order to verify the coverage of their networks built with Mobility Fund support.[217] Given that CAF will be available to both fixed and mobile broadband providers, what sort of verification requirement would be appropriate? Should recipients of support under the existing programs be required to demonstrate the extent broadband coverage is improved through receipt of existing funding, and if so, how would they do so? We propose that recipients be subject to an annual certification regarding compliance with the coverage and deployment requirement. How should compliance with these requirements be monitored and enforced?

136. We seek comment on this proposal, including specific milestones for deployment. What milestone is appropriate for the end of the first year, for instance, recognizing that capital investment projects typically require significant planning, engineering analyses, and issuance of requests for proposal, which can be time consuming? Are there critical factors that should be taken into account in establishing timetables for deployment in different areas? Should there be different timetables on Tribal lands or in insular areas? What additional interim deployment requirements should be imposed on CAF recipients serving Tribal lands, if additional time is required to complete deployment in areas in which population demographics are significantly below national averages, where infrastructure does not currently exist, or where Tribal land use access permitting is required? In the alternative, under what circumstances might deployment schedules on Tribal lands be shortened? Should there be different timetables for carriers that meet the definition of a small entity?[218] We note that recipients deploying new infrastructure also would have to comply with the National Environmental Policy Act and other relevant federal environmental statutes,[219] as well as all local requirements for construction. Are there areas where the projected time needed to comply with those environmental requirements would make it appropriate to adopt alternative deployment schedules, such as weather or construction seasons?

b. Affordable and Reasonably Comparable Rates

137. We propose that recipients must offer voice and broadband (individually and together) in rural areas at rates that are affordable and reasonably comparable to rates in urban areas. As noted above, section 254(b) directs that universal service policies be designed to make services available at "just, reasonable, and affordable" rates,[220] and to make services in rural areas available at rates that are "reasonably comparable" to rates in urban areas.[221] Additionally, the National Broadband Plan recommended that "subsidized providers should be subject to specific service quality and reporting

[215] Recipients of Recovery Act funding were given three years to complete their projects. 74 Fed. Reg. 33104, 33110 (2009).

[216] *See ETC Designation Report and Order*, 20 FCC Rcd at 6380-82, paras. 21-24. ETCs must file a five-year network improvement plan, and then an annual report thereafter, covering build-out progress, outages, service requests, and complaints. 47 C.F.R. § 54.209.

[217] *See Mobility Fund NPRM*, 25 FCC Rcd at 14729-31, paras. 40-44.

[218] *See USF Reform NOI/NPRM*, 25 FCC Rcd at 6685, App. A (Initial Regulatory Flexibility Analysis, defining small entities).

[219] 47 C.F.R. Ch. 1, Subpart I.

[220] 47 U.S.C. § 254(b)(1).

[221] 47 U.S.C. § 254(b)(3).

requirements, including obligations to report on service availability and pricing. Recipients of funding should offer service at rates reasonably comparable to urban rates."[222]

138. If the Commission ultimately makes broadband a supported service, then it is critical the Commission have sufficient information to ensure compliance with the statutory directives. Even if broadband is not designated a supported service, however, we seek comment on whether providers should be required to offer broadband at affordable and reasonably comparable rates as a condition of receiving support. We emphasize that, if such an approach were followed, our intent in these proposals is not to price regulate broadband service; rather, we seek to ensure that we are not using public funding to subsidize recipients more than necessary, taking into account the rates that consumers generally pay when receiving broadband service from unsubsidized providers.

139. We seek comment on how the Commission should obtain data on voice and broadband pricing to develop possible rate benchmarks for supported voice and/or broadband service, in order to satisfy Congress's requirement that universal service ensure that services are available to all regions, "including rural, insular, and high cost areas," at rates that are "affordable" and "reasonably comparable" to those in urban areas.[223] Should the Commission collect pricing data from providers, or are there adequate third-party reports or other means by which to ensure these statutory obligations are met?

140. *Affordable.* Section 254(b) directs that universal service policies be designed to make services available at "affordable" rates.[224] We seek comment on how to assess whether rates for broadband and voice are affordable. With respect to supported voice service, we have explained in the past that affordability should be assessed based on the totality of the Commission's universal service programs, and we have viewed the telephone subscribership penetration rate as strong evidence that our universal service programs as a whole provide sufficient support to ensure that rates are affordable.[225] We have also pointed to data showing that average consumer expenditures on telephone service as a percentage of household expenditures have been relatively stable over time—approximately 2 percent—even while the amount of telephone service consumers are purchasing has increased.[226]

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[222] The National Broadband Plan at 145-46; *see also, e.g.*, AT&T Comments in re NBP PN #19, App. A at 19 (filed Dec. 7, 2009) (arguing that recipients should provide supported services at rates, terms and conditions reasonably comparable to those offered in urban areas); Qwest Comments in re NBP PN #19, at 4 (filed Dec. 7, 2009) (arguing that winning bidders of subsidies to deploy broadband to unserved areas should be limited to charging no more than 125% of the state-wide average for comparable broadband service); OPASTCO Comments in re NBP PN #19, at 21 (filed Dec. 7, 2009) (arguing that ETCs should be required to serve all customers at minimum broadband speeds and maximum rates).

[223] 47 U.S.C. §§ 254(b)(1), (3). One possible approach would be for providers to report the total revenue associated with all delivered products (including voice, video and broadband Internet access services), and identify the attributes associated with that revenue, such as the types of services provide (*e.g.*, voice, video, and broadband) and key descriptors of those services (*e.g.*, basic video, extended video, very high speed Internet access). The Commission could then determine the average effective price for each attribute in a given area by performing statistical analysis on aggregate revenue and attribute data across areas large enough to generate a significant number of measurements. *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10, *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*, WC Docket No. 07-38, *Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering*, WC Docket No. 08-190, *Review of Wireline Competition Bureau Data Practices*, WC Docket No. 10-132, Notice of Proposed Rulemaking, FCC 11-14, at paras. 66-76 (rel. Feb. 8, 2011) (*Broadband Data NPRM*) (seeking comment on whether and how the Commission should collect price data).

[224] *See supra* Section V.A (National Goals and Priorities for Universal Service).

[225] *Qwest II Remand Order*, 25 FCC Rcd at 4080-81, para. 18, 4101-11, para. 54.

[226] *Qwest II Remand Order*, 25 FCC Rcd at 4081, para. 19; *see also* Sept. 2010 Trends in Telephone Service, 3-1; 3-3, Table 3-1 ("About 2% of all consumer expenditures are devoted to telephone service. This percentage has (continued....)