United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued January 8, 2010 Decided April 6, 2010

No. 08-1291

COMCAST CORPORATION,
PETITIONER

v.

FEDERAL COMMUNICATIONS COMMISSION AND UNITED STATES OF AMERICA,
RESPONDENTS

NBC UNIVERSAL, ET AL.,
INTERVENORS

On Petition for Review of an Order
of the Federal Communications Commission

Helgi C. Walker argued the cause for petitioner. With her on the briefs were *Eve Klindera Reed*, *Elbert Lin*, *David P. Murray*, *James L. Casserly*, and *David H. Solomon*.

Howard J. Symons argued the cause for intervenors National Cable & Telecommunications Association and NBC Universal. With him on the briefs were *Neal M. Goldberg*, *Michael S. Schooler*, and *Margaret L. Tobey*. *Richard Cotton* entered an appearance.

Kyle D. Dixon was on the brief for *amici curiae* Professors James B. Speta and Glen O. Robinson and The Progress and Freedom Foundation in support of petitioner.

Austin C. Schlick, General Counsel, Federal Communications Commission, argued the cause for respondents. With him on the brief were *Catherine G. O'Sullivan* and *Nancy C. Garrison*, Attorneys, U.S. Department of Justice, *Joseph R. Palmore*, Deputy General Counsel, Federal Communications Commission, *Richard K. Welch*, Deputy Associate General Counsel, and *Joel Marcus*, Counsel. *Daniel M. Armstrong III*, Associate General Counsel, entered an appearance.

Marvin Ammori argued the cause for intervenors Free Press, et al. in support of respondents. With him on the brief were *Henry Goldberg*, *Harold Feld*, and *Andrew Jay Schwartzman*.

John F. Blevins was on the brief for *amici curiae* Professors Jack M. Balkin, et al. in support of respondents.

Before: SENTELLE, *Chief Judge*, TATEL, *Circuit Judge*, and RANDOLPH, *Senior Circuit Judge*.

Opinion for the Court filed by *Circuit Judge* TATEL.

TATEL, *Circuit Judge*: In this case we must decide whether the Federal Communications Commission has authority to regulate an Internet service provider's network management practices. Acknowledging that it has no express statutory authority over such practices, the Commission relies on section 4(i) of the Communications Act of 1934, which authorizes the Commission to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions." 47 U.S.C. § 154(i). The Commission may exercise this "ancillary" authority only if it demonstrates that its action—here barring Comcast from interfering with its customers' use of peer-to-peer networking applications—is "reasonably ancillary to the . . . effective performance of its statutorily mandated responsibilities." *Am. Library Ass'n v. FCC*, 406 F.3d 689, 692 (D.C. Cir. 2005). The Commission has failed to make that showing. It relies principally on several Congressional statements of policy, but under Supreme Court and D.C. Circuit case law statements of policy, by themselves, do not create "statutorily mandated responsibilities." The Commission also relies on various provisions of the Communications Act that do create such responsibilities, but for a variety of substantive and procedural reasons those provisions cannot support its exercise of ancillary authority over Comcast's network management practices. We therefore grant Comcast's petition for review and vacate the challenged order.

I.

In 2007 several subscribers to Comcast's high-speed Internet service discovered that the company was interfering with their use of peer-to-peer networking applications. *See* Peter Svensson, *Comcast Blocks Some Internet Traffic*, ASSOCIATED PRESS, Oct. 19, 2007. Peer-to-peer programs allow users to share large files directly with one another without going through a central server. Such programs also consume significant amounts of bandwidth.

Challenging Comcast's action, two non-profit advocacy organizations, Free Press and Public Knowledge, filed a complaint with the Federal Communications Commission and, together with a coalition of public interest groups and law professors, a petition for declaratory ruling. Compl. of

Free Press & Public Knowledge Against Comcast Corp., File No. EB-08-IH-1518 (Nov. 1, 2007) ("Compl."); Pet. of Free Press et al. for Decl. Ruling, WC Docket No. 07-52 (Nov. 1, 2007) ("Pet."). Both filings argued that Comcast's actions "violat[ed] the FCC's Internet Policy Statement." Compl. at 1; Pet. at i. Issued two years earlier, that statement "adopt[ed] the . . . principles" that "consumers are entitled to access the lawful Internet content of their choice . . . [and] to run applications and use services of their choice." *In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 F.C.C.R. 14,986, 14,988, ¶ 4 (2005). Comcast defended its interference with peer-to-peer programs as necessary to manage scarce network capacity. Comments of Comcast Corp. at 14, WC Docket No. 07-52 (Feb. 12, 2008).

Following a period of public comment, the Commission issued the order challenged here. *In re Formal Compl. of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 F.C.C.R. 13,028 (2008) (*Order*). The Commission began by concluding not only that it had jurisdiction over Comcast's network management practices, but also that it could resolve the dispute through adjudication rather than through rulemaking. *Id.* at 13,033–50, ¶¶ 12–40. On the merits, the Commission ruled that Comcast had "significantly impeded consumers' ability to access the content and use the applications of their choice," *id.* at 13,054, ¶ 44, and that because Comcast "ha[d] several available options it could use to manage network traffic without discriminating" against peer-to-peer communications, *id.* at 13,057, ¶ 49, its method of bandwidth management "contravene[d] . . . federal policy," *id.* at 13,052, ¶ 43. Because by then Comcast had agreed to adopt a new system for managing bandwidth demand, the Commission simply ordered it to make a set of disclosures describing the details of its new approach and the company's progress toward implementing it. *Id.* at 13,059–60, ¶ 54. The Commission added that an injunction would automatically issue should Comcast either fail to make the required disclosures or renege on its commitment. *Id.* at 13,060, ¶ 55.

Although Comcast complied with the *Order*, it now petitions for review, presenting three objections. First, it contends that the Commission has failed to justify exercising jurisdiction over its network management practices. Second, it argues that the Commission's adjudicatory action was procedurally flawed because it circumvented the rulemaking requirements of the Administrative Procedure Act and violated the notice requirements of the Due Process Clause. Finally, it asserts that parts of the *Order* are so poorly reasoned as to be arbitrary and capricious. We begin—and end—with Comcast's jurisdictional challenge.

II.

Through the Communications Act of 1934, ch. 652, 48 Stat. 1064, as amended over the decades, 47 U.S.C. § 151 *et seq.*, Congress has given the Commission express and expansive authority to regulate common carrier services, including landline telephony, *id.* § 201 *et seq.* (Title II of the Act); radio transmissions, including broadcast television, radio, and cellular telephony, *id.* § 301 *et seq*. (Title III); and "cable services," including cable television, *id.* § 521 *et seq.* (Title VI). In this case, the Commission does not claim that Congress has given it express authority to regulate Comcast's Internet service. Indeed, in its still-binding 2002 *Cable Modem Order*, the Commission ruled that cable Internet service is neither a "telecommunications service" covered by Title II of the Communications Act nor a "cable service" covered by Title VI. *In re High-Speed Access to the Internet Over Cable and Other Facilities*, 17 F.C.C.R. 4798, 4802, ¶ 7

(2002), *aff'd Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967 (2005). The Commission therefore rests its assertion of authority over Comcast's network management practices on the broad language of section 4(i) of the Act: "The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions," 47 U.S.C. § 154(i). *Order*, 23 F.C.C.R. at 13,036, ¶ 15.

Courts have come to call the Commission's section 4(i) power its "ancillary" authority, a label that derives from three foundational Supreme Court decisions: *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968), *United States v. Midwest Video Corp.*, 406 U.S. 649 (1972) (*Midwest Video I*), and *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979) (*Midwest Video II*). All three cases dealt with Commission jurisdiction over early cable systems at a time when, as with the Internet today, the Communications Act gave the Commission no express authority to regulate such systems. (Title VI, which gives the Commission jurisdiction over "cable services," was not added to the statute until 1984. *See* Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779.)

In the first case, *Southwestern Cable*, the Supreme Court considered a challenge to a Commission order restricting the geographic area in which a cable company could operate. 392 U.S. at 160. At that time, cable television, then known as "community antenna television" (CATV), functioned quite differently than it does today. Employing strategically located antennae, these early cable systems simply received over-the-air television broadcasts and retransmitted them by cable to their subscribers. *Id.* at 161–62. Although they rarely produced their own programming, they improved reception and allowed subscribers to receive television programs from distant stations. *Id*. at 162–63. Seeking to protect Commission-licensed local broadcasters, the Commission adopted rules limiting the extent to which cable systems could retransmit distant signals and, in the order at issue in *Southwestern Cable*, applied this policy to a particular company. The Supreme Court sustained that order, explaining that even though the then-existing Communications Act gave the Commission no express authority over cable television, the Commission could nonetheless regulate cable television to the extent "reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting." *Id.* at 178. Four years later, in *Midwest Video I*, the Court again sustained the Commission's use of its ancillary authority, this time to support issuance of a regulation that required cable operators to facilitate the creation of new programs and to transmit them alongside broadcast programs they captured from the air. 406 U.S. at 670. In *Midwest Video II*, the Court rejected the Commission's assertion of ancillary authority, setting aside regulations that required cable systems to make certain channels available for public use. 440 U.S. at 708–09.

We recently distilled the holdings of these three cases into a two-part test. In *American Library Ass'n v. FCC*, we wrote: "The Commission . . . may exercise ancillary jurisdiction only when two conditions are satisfied: (1) the Commission's general jurisdictional grant under Title I [of the Communications Act] covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities." 406 F.3d at 691–92; *see also Order*, 23 F.C.C.R. at 13,035, ¶ 15 n.64 (citing the *American Library* test). Comcast concedes that the Commission's action here satisfies the first requirement because the company's Internet service qualifies as "interstate and foreign communication by wire" within the meaning of Title I of the Communications Act. 47 U.S.C. § 152(a). Whether the Commission's action satisfies *American Library*'s second requirement is the central issue in this case.

III.

Before addressing that issue, however, we must consider two threshold arguments the Commission raises. First, it asserts that given a contrary position Comcast took in a California lawsuit, the company should be judicially estopped from challenging the Commission's jurisdiction over the company's network management practices. Second, the Commission argues that even if Comcast's challenge can proceed, we need not go through our usual ancillary authority analysis because a recent Supreme Court decision, *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 545 U.S. 967, makes clear that the Commission had authority to issue the *Order*.

A.

Courts may invoke judicial estoppel "[w]here a party assumes a certain position in a legal proceeding, . . . succeeds in maintaining that position, . . . [and then,] simply because his interests have changed, assume[s] a contrary position." *New Hampshire v. Maine*, 532 U.S. 742, 749 (2001) (internal quotation marks omitted). For judicial estoppel to apply, however, "a party's later position must be 'clearly inconsistent' with its earlier position." *Id.* at 750 (quoting *United States v. Hook*, 195 F.3d 299, 306 (7th Cir. 1999)). "Doubts about inconsistency often should be resolved by assuming there is no disabling inconsistency, so that the second matter may be resolved on the merits." 18B CHARLES

ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE §4477, at 594 (2d ed. 2002).

The Commission's estoppel argument rests on the position Comcast took while defending against a civil action in a California federal court. In that case, one of Comcast's Internet customers challenged the company's interference with peer-to-peer programs at the same time Free Press and Public Knowledge were pressing their own challenges before the Commission. Comcast responded by moving to stay the litigation pending resolution of the Commission proceedings. In support, it invoked the "primary jurisdiction doctrine," arguing that "a court is 'obliged to defer' to an agency where the 'issue brought before a court is in the process of litigation through procedures originating in the [agency].'" Def.'s Mem. of Law in Supp. of Mot. for J. on Pleadings at 10, *Hart v. Comcast of Alameda, Inc.*, No. 07-6350 (N.D. Cal. 2008) ("Comcast Cal. Mem.") (quoting *Fed. Power Comm'n v. La. Power & Light Co.*, 406 U.S. 621, 647 (1972)). In language the Commission now emphasizes, Comcast continued: "Any inquiry into whether Comcast's [peer-to-peer] management is unlawful falls squarely within the FCC's subject matter jurisdiction." *Id.* Persuaded, the district court granted the requested stay.

According to the Commission, when Comcast argued that the Commission has "subject matter jurisdiction" over its disputed network management practices, it was saying that any action by the Commission to prohibit those practices would satisfy both elements of the *American Library* test and thus lie within the Commission's ancillary authority. "Because Comcast prevailed . . . on [that] theory," the Commission contends, "it should be estopped from arguing the opposite here." Resp't's Br. 30. For its part, Comcast insists it never argued that the Commission could justify exercising ancillary authority over its network management practices. Instead, it claims that in saying that the Commission possesses "subject matter jurisdiction" over those practices, it was arguing no more than what it concedes here, namely that its Internet service constitutes "communication by wire" within the meaning of *American Library*'s first requirement. Interpreted that way, Comcast's California position does not conflict with the argument it makes here, which rests on *American Library*'s second requirement: that the Commission must show that its regulation of Comcast's Internet service is "reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities." 406 F.3d at 692.

Although the parties' competing interpretations of Comcast's California argument are both plausible, Comcast's is more so. For one thing, its interpretation comports with the overall primary jurisdiction argument it advanced in that case. As a leading administrative law treatise explains, "The question of whether an issue is within [an] agency's primary jurisdiction is different from the question of whether the agency actually has exclusive statutory jurisdiction to resolve an issue." 2 RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE § 14.1, at 1162 (5th ed. 2010). Specifically, for an issue to fall within an agency's primary jurisdiction, the agency need not possess definite authority to resolve it; rather, there need only be "sufficient statutory support for administrative authority . . . that the agency should at least be requested to . . . proceed[]" in the first instance. *Ricci v. Chicago Mercantile Exch.*, 409 U.S. 289, 304, 300 (1973) (holding that a dispute fell within the Commodity Exchange Commission's primary jurisdiction where the Commodity Exchange Act "at least arguably protected or prohibited" the conduct at issue). Given this standard, and given that then, as now, the Commission claimed ancillary authority over Comcast's network management practices, the company could plausibly argue in the California case (as it claims it did) that deference to the Commission's primary jurisdiction was appropriate merely because the disputed practices involved "communication by wire"—*American Library*'s first requirement. And as Comcast emphasized in the California case, the Commission was already "actively investigating" the company's network management practices, Comcast Cal. Mem. at 11, increasing the risk that the civil case could disrupt the regulatory process. *See* PIERCE, ADMINISTRATIVE LAW TREATISE § 14.1, at 1162 ("[D]etermination of the agency's primary jurisdiction involves a . . . pragmatic evaluation of the advantages and disadvantages of allowing the agency to resolve an issue in the first instance."). Therefore, the California court could have fairly concluded under the primary jurisdiction doctrine that the Commission should determine in the first instance whether regulating Comcast's network management practices would be "reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities"—*American Library*'s second requirement. 406 F.3d at 692.

Reinforcing Comcast's interpretation, the Commission itself generally uses "subject matter jurisdiction" to refer only to the first part of the *American Library* test rather than the test as a whole. For example, in an earlier Internet-related order (cited by Comcast in its California brief), the Commission wrote that it "may exercise its ancillary jurisdiction when Title I of the Act gives the Commission *subject matter jurisdiction* over the service to be regulated *and* the assertion of jurisdiction is reasonably ancillary to the effective performance of its various responsibilities." *In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities*, 20 F.C.C.R. 14,853, 14,913–14,

¶ 109 (2005) (emphasis added) (internal quotation marks and alteration omitted); *accord In re Consumer Information and Disclosure,* 24 F.C.C.R. 11,380, 11,400, ¶ 62 (2009); *In re IP-Enabled Services*, 24 F.C.C.R. 6039, 6044–45, ¶ 9 (2009); *In re High-Cost Universal Service Support*, 24 F.C.C.R. 6475, 6540, ¶ 101 (2008).

We thus do not interpret Comcast's California argument as "inconsistent" with its argument here, let alone "clearly" so. *New Hampshire*, 532 U.S. at 750 (internal quotation marks omitted). Because Comcast never clearly argued in the California litigation that the Commission's assertion of authority over the company's network management practices would be "reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities" (*American Library*'s second requirement), 406 F.3d at 692, that question remains for us to answer.

B.

The Commission's second threshold argument is that the Supreme Court's decision in *Brand X* "already decided the jurisdictional question here." Resp't's Br. 20. In that case, the Court reviewed the Commission's 2002 *Cable Modem Order*, *supra* at 5–6, which removed cable Internet service from Title II and Title VI oversight by classifying it as an "information service." *See Brand X*, 545 U.S. at 978. Challenging that determination, Brand X argued that cable Internet actually comprises a bundle of two services: an "information service" not subject to Commission regulation and a "telecommunications service" subject to mandatory Title II regulation. *Id.* at 990–91. Brand X pressed this argument because if Title II applied to cable Internet, then, under its view, cable companies would have to unbundle the components of their Internet services, thus allowing Brand X and other independent Internet service providers (ISPs) to use the telecommunications component of those bundles to offer competing Internet service over cable company wires. Brand X Resp'ts' Br. at 10, *Brand X*, 545 U.S. 967 (No. 04-277) ("[I]f the telecommunications component of cable modem service is a 'telecommunications service,' and hence common carriage, . . . [c]ustomers then will be able to choose their provider of Internet services.").

Although the Supreme Court acknowledged that cable Internet service does contain a telecommunications "component," it deferred to the Commission's determination that this component is "functionally integrated" into a single "offering" properly classified as an "information service." 545 U.S. at 991. Using language the Commission now emphasizes, the Court went on to say that "the Commission remains free to impose special regulatory duties on [cable Internet providers] under its Title I ancillary jurisdiction." *Id.* at 996. In particular, the Court suggested that the Commission could likely "require cable companies to allow independent ISPs access to their facilities" pursuant to its ancillary authority, rather than using Title II as Brand X urged. *Id.* at 1002. According to the Commission, this means that "the FCC has authority over [information service providers] under its Title I ancillary jurisdiction." Resp't's Br. 20.

Comcast insists that the references to ancillary jurisdiction in *Brand X* are dicta: "*Brand X* presented the question whether the FCC had permissibly classified cable Internet services as 'information services,' not whether any particular regulation of such services was within the agency's statutory authority." Pet'r's Br. 53. Although Comcast may well be correct, "carefully considered language of the Supreme Court, even if technically dictum, generally must be treated as authoritative." *United States v. Oakar,* 111 F.3d

146, 153 (D.C. Cir. 1997) (internal quotation marks and alteration omitted). In the end, however, we need not decide whether the Court's discussion of ancillary authority in *Brand X* qualifies as "authoritative," for even if it does the Commission stretches the Court's words too far. By leaping from *Brand X*'s observation that the Commission's ancillary authority may allow it to impose *some* kinds of obligations on cable Internet providers to a claim of plenary authority over such providers, the Commission runs afoul of *Southwestern Cable* and *Midwest Video I*.

In *Southwestern Cable*, in which the Court first recognized the Commission's ancillary authority, it expressly reserved for future cases the question whether particular regulations fall within that power. Although the Court upheld the cable television order at issue, it declined "to determine in detail the limits of the Commission's authority to regulate CATV." 392 U.S. at 178. Then in *Midwest Video I*, the Court made clear that the permissibility of each new exercise of ancillary authority must be evaluated on its own terms. That is, the Court asked whether the particular regulation at issue was "reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting." 406 U.S. at 670 (plurality opinion) (internal quotation marks omitted); *see also id.* at 675 (Burger, C.J., concurring). Contrary to the kind of inference the Commission would have us draw from *Brand X*, nothing in *Midwest Video I* even hints that *Southwestern Cable*'s recognition of ancillary authority over one aspect of cable television meant that the Commission had plenary authority over all aspects of cable.

We made just this point in *National Ass'n of Regulatory Utility Commissioners v. FCC*, 533 F.2d 601 (D.C. Cir. 1976) (*NARUC II*). There we reviewed a series of Commission orders that preempted state regulation of non-video uses of cable systems, including precursors to modern cable modem service. *See id.* at 616 ("[T]he point-to-point communications . . . involve one computer talking to another . . . ."). Leaning on its recent victories in *Southwestern Cable* and *Midwest Video I*, the Commission argued—similar to the way it uses *Brand X* here—that the combined force of those two "affirmances of FCC powers over cable must be seen as establishing a jurisdiction over all activities of cable operators." *Id.* at 611. We rejected that argument, explaining that *Southwestern Cable* and *Midwest Video I* foreclosed the Commission's broad view of ancillary authority. We pointed out that in *Southwestern Cable* the Court "stated explicitly that its holding was limited to . . . reasonably ancillary activities, and expressly declined to comment on 'the Commission's authority, if any, to regulate CATV under any other circumstances or for any other purposes.'" *Id.* at 612–13 (quoting *Southwestern Cable*, 392 U.S. at 178). We similarly noted that in *Midwest Video I* the plurality "relied explicitly on the *Southwestern* reasoning, and devoted substantial attention to establishing the requisite 'ancillariness' between the Commission's authority over broadcasting and the particular regulation before the Court." *Id.* at 613. Neither case, we concluded, "recogniz[ed] any sweeping authority over [cable] as a whole." *Id.* at 612. Instead, they "command[ed] that each and every assertion of jurisdiction over cable television must be *independently justified* as reasonably ancillary to the Commission's power over broadcasting." *Id.* (emphasis added).

Echoing this interpretation, the Supreme Court in *Midwest Video II* described *Southwestern Cable* "as conferring on the Commission a circumscribed range of power to regulate cable television," a determination "reaffirmed" in *Midwest Video I*. 440 U.S. at 696. "The question now before us," the Court continued, "is whether the [Communications] Act, as construed in these two cases, authorizes the capacity and access regulations that are here under challenge." *Id.* The Court ultimately concluded that it did not, thus reinforcing the principle that the Commission must defend its exercise of ancillary authority on a case-by-case basis.

To be sure, *Brand X* dealt with the Internet, not cable television. Nothing in *Brand X*, however, suggests that the Court was abandoning the fundamental approach to ancillary authority set forth in *Southwestern Cable*, *Midwest Video I*, and *Midwest Video II.* Accordingly, the Commission cannot justify regulating the network management practices of cable Internet providers simply by citing *Brand X*'s recognition that it may have ancillary authority to require such providers to unbundle the components of their services. These are altogether different regulatory requirements. *Brand X* no more dictates the result of this case than *Southwestern Cable* dictated the results of *Midwest Video I*, *NARUC II*, and *Midwest Video II*. The Commission's exercise of ancillary authority over Comcast's network management practices must, to repeat, "be independently justified." *NARUC II*, 533 F.2d at 612. It is to that issue that we now turn.

IV.

The Commission argues that the *Order* satisfies *American Library*'s second requirement because it is "reasonably ancillary to the Commission's effective performance" of its responsibilities under several provisions of the Communications Act. These provisions fall into two categories: those that the parties agree set forth only congressional policy and those that at least arguably delegate regulatory authority to the Commission. We consider each in turn.

A.

The Commission relies principally on section 230(b), part of a provision entitled "Protection for private blocking and screening of offensive material," 47 U.S.C. § 230, that grants civil immunity for such blocking to providers of interactive computer services, *id.* § 230(c)(2). Setting forth the policies underlying this protection, section 230(b) states, in relevant part, that "[i]t is the policy of the United States . . . to promote the continued development of the Internet and other interactive computer services" and "to encourage the development of technologies which maximize user control over what information is received by individuals, families, and schools who use the Internet." *Id.* § 230(b). In this case the Commission found that Comcast's network management practices frustrated both objectives. *Order*, 23 F.C.C.R. at 13,052–53, ¶ 43.

In addition to section 230(b), the Commission relies on section 1, in which Congress set forth its reasons for creating the Commission in 1934: "For the purpose of regulating interstate and foreign commerce in communication by wire and radio so as to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service . . . at reasonable charges, . . . there is created a commission to be known as the 'Federal Communications Commission' " 47 U.S.C. § 151. The Commission found that "prohibiting unreasonable network discrimination directly furthers the goal of making broadband Internet access service both 'rapid' and 'efficient.'" *Order*, 23 F.C.C.R. at 13,036–37, ¶ 16.

Comcast argues that neither section 230(b) nor section 1 can support the Commission's exercise of ancillary authority because the two provisions amount to nothing more than congressional "statements of policy." Pet'r's Br. 46. Such statements, Comcast contends, "are not an operative part of the statute, and do not enlarge or confer powers on administrative agencies. As such, they necessarily fail to set forth 'statutorily mandated responsibilities'" within the meaning of *American Library*. *Id*. at 47 (citations, internal quotation marks, and alteration omitted).

The Commission acknowledges that section 230(b) and section 1 are statements of policy that themselves delegate no regulatory authority. Still, the Commission maintains that the two provisions, like all provisions of the Communications Act, set forth "statutorily mandated responsibilities" that can anchor the exercise of ancillary authority. "The operative provisions of statutes are those which *declare the legislative will*," the Commission asserts. Resp't's Br. 39 (internal quotation marks and alteration omitted). "Here, the legislative will has been declared by Congress in the form of a policy, along with an express grant of authority to the FCC to perform all actions necessary to execute and enforce all the provisions of the Communications Act." *Id*.

In support of its reliance on congressional statements of policy, the Commission points out that in both *Southwestern Cable* and *Midwest Video I* the Supreme Court linked the challenged Commission actions to the furtherance of various congressional "goals," "objectives," and "policies." *See, e.g.*, *Southwestern Cable*, 392 U.S. at 175; *Midwest Video I*, 406 U.S. at 665, 669 (plurality opinion). In particular, the Commission notes that in *Midwest Video I*, the plurality accepted its argument that the Commission's "concern with CATV carriage of broadcast signals . . . extends . . . to requiring CATV affirmatively to further statutory *policies*." 406 U.S. at 664 (plurality opinion) (emphasis added) (internal quotation marks omitted). According to the Commission, since congressional statements of policy were sufficient to support ancillary authority over cable television, it may likewise rely on such statements—section 230(b) and section 1—to exercise ancillary authority over the network management practices of Internet providers.

We read *Southwestern Cable* and *Midwest Video I* quite differently. In those cases, the Supreme Court relied on policy statements not because, standing alone, they set out "statutorily mandated responsibilities," but rather because they did so in conjunction with an express delegation of authority to the Commission, i.e., Title III's authority to regulate broadcasting. In *Southwestern Cable*, the Commission argued that restricting the geographic reach of cable television was necessary to fulfill its Title III responsibility to foster local broadcast service. The Court agreed, explaining that "Congress has imposed upon the Commission the 'obligation of providing a widely dispersed radio and television service,' with a 'fair, efficient, and equitable distribution' of service among the 'several States and communities.' The Commission has, for this and other purposes, been granted authority to allocate broadcasting zones or areas, and to provide regulations 'as it may deem necessary' to prevent interference among the various stations." 392 U.S. at 173–74 (citation and footnote omitted) (quoting S. REP. NO. 86-923, at 7 (1959), 47 U.S.C. § 307(b), 303(f)). The Court concluded that "the Commission has reasonably found that the successful performance of these duties demands prompt and efficacious regulation of community antenna television systems." *Id.* at 177. Nonetheless, the Court "emphasize[d] that the authority which we recognize today . . . is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities for the *regulation of television broadcasting*." *Id.* at 178 (emphasis added).

In *Midwest Video I*, the Court again made clear that it was sustaining the challenged regulation—requiring cable companies to originate their own programming—only because of its connection to the Commission's Title III authority over broadcasting. A four-Justice plurality agreed with the Commission that the challenged rule would "further the achievement of long-established regulatory goals in the field of television broadcasting by increasing the number of outlets for community self-expression and augmenting the public's choice of programs and types of services." 406 U.S. at 667–68 (plurality opinion) (internal quotation marks omitted). Because the regulation "preserve[d] and enhance[d] the integrity of broadcast signals" it satisfied *Southwestern Cable*, i.e., it was "reasonably ancillary to the effective performance of the Commission's various responsibilities for the *regulation of television broadcasting*." *Id.* at 670 (emphasis added) (internal quotation marks omitted). Chief Justice Burger made the same point in a controlling concurring opinion: "CATV is dependent totally on broadcast signals and is a significant link in the system as a whole and therefore must be seen as within the jurisdiction of the Act." *Id.* at 675 (Burger, C.J., concurring). That said, he warned, "candor requires acknowledgment . . . that the Commission's position strains the outer limits of" its authority. *Id.* at 676.

The Commission exceeded those "outer limits" in both *NARUC II* and *Midwest Video II*. In *NARUC II*, the Commission defended its exercise of ancillary authority over non-video cable communications (as it does here with respect to Comcast's network management practices) on the basis of section 1's "overall statutory mandate to make available, so far as possible, to all the people of the United States a rapid, efficient, [N]ation-wide, and world-wide wire and radio communications service." 533 F.2d at 606 (internal quotation marks and alteration omitted). The Commission "reasoned that this language called for the development of a nationwide broadband communications grid in which cable systems should play an important part." *Id.* (internal quotation marks omitted). We rejected that argument. Relying on *Southwestern Cable* and *Midwest Video I*, we began by explaining that the Commission's ancillary authority "is really incidental to, and contingent upon, *specifically delegated powers under the Act*." *Id.* at 612 (emphasis added). Applying that standard, we found it "difficult to see how any action which the Commission might take concerning two-way cable communications could have as its primary impact the furtherance of any broadcast purpose." *Id.* at 615. Because the regulations had not been "justified as reasonably ancillary to the Commission's power over *broadcasting*," *id.* at 612, we vacated them.

In *Midwest Video II*, the Supreme Court rejected the Commission's assertion of ancillary authority to impose a public access requirement on certain cable channels because doing so would "relegate[] cable systems . . . to common-carrier status." 440 U.S. at 700–01. Pointing out that the Communications Act expressly prohibits common carrier regulation of *broadcasters*, *id.* at 702, the Court held that given the derivative nature of ancillary jurisdiction the same prohibition applied to the Commission's regulation of *cable providers*. The Commission had opposed this logic, arguing that it could regulate "so long as the rules promote statutory objectives." *Id.* The Court rejected that broad claim and, revealing the flaw in the argument the Commission makes here, emphasized that "without reference to the provisions of the Act *directly governing broadcasting*, the Commission's [ancillary] jurisdiction . . . would be unbounded." *Id.* at 706 (emphasis added). "Though afforded wide latitude in its supervision over communication by wire," the Court added, "the Commission was not delegated unrestrained authority." *Id.*

The teaching of *Southwestern Cable*, *Midwest Video I*, *Midwest Video II*, and *NARUC II*—that policy statements alone cannot provide the basis for the Commission's exercise of ancillary authority—derives from the "axiomatic" principle that "administrative agencies may [act] only pursuant to authority delegated to them by Congress." *Am. Library*, 406 F.3d at 691. Policy statements are just that—statements of policy. They are not delegations of regulatory authority. To be sure, statements of congressional policy can help delineate the contours of statutory authority. Consider, for example, the various services over which the Commission enjoys express statutory authority. When exercising its Title II authority to set "just and reasonable" rates for phone service, 47 U.S.C. § 201(b), or its Title III authority to grant broadcasting licenses in the "public convenience, interest, or necessity," *id.* § 307(a), or its Title VI authority to prohibit "unfair methods of competition" by cable operators that limit consumer access to certain types of television programming, *id.* § 548(b), the Commission must bear in mind section 1's objective of "Nation-wide . . . wire and radio communication service . . . at reasonable charges," *id.* § 151. In all three examples, section 1's policy goal undoubtedly illuminates the scope of the "authority delegated to [the Commission] by Congress," *Am. Library*, 406 F.3d at 691—though it is Titles II, III, and VI that do the delegating. So too with respect to the Commission's section 4(i) ancillary authority. Although policy statements may illuminate that authority, it is Title II, III, or VI to which the authority must ultimately be ancillary.

In this case the Commission cites neither section 230(b) nor section 1 to shed light on any express statutory delegation of authority found in Title II, III, VI, or, for that matter, anywhere else. That is, unlike the way it successfully employed policy statements in *Southwestern Cable* and *Midwest Video I*, the Commission does not rely on section 230(b) or section 1 to argue that its regulation of an activity over which it concededly has no express statutory authority (here Comcast's Internet management practices) is necessary to further its regulation of activities over which it does have express statutory authority (here, for example, Comcast's management of its Title VI cable services). In this respect, this case is just like *NARUC II*. On the record before us, we see "no relationship whatever," *NARUC II*, 533 F.2d at 616, between the *Order* and services subject to Commission regulation. Perhaps the Commission could use section 230(b) or section 1 to demonstrate such a connection, but that is not how it employs them here.

Instead, the Commission maintains that congressional policy by itself creates "statutorily mandated responsibilities" sufficient to support the exercise of section 4(i) ancillary authority. Not only is this argument flatly inconsistent with *Southwestern Cable*, *Midwest Video I*, *Midwest Video II*, and *NARUC II*, but if accepted it would virtually free the Commission from its congressional tether. As the Court explained in *Midwest Video II*, "without reference to the provisions of the Act" expressly granting regulatory authority, "the Commission's [ancillary] jurisdiction . . . would be unbounded." 440 U.S. at 706. Indeed, Commission counsel told us at oral argument that just as the *Order* seeks to make Comcast's Internet service more "rapid" and "efficient," *Order*, 23 F.C.C.R. 13,036–37, ¶ 16, the Commission could someday subject Comcast's Internet service to pervasive rate regulation to ensure that the company provides the service at "reasonable charges," 47 U.S.C. § 151. Oral Arg. Tr. 58–59. Were we to accept that theory of ancillary authority, we see no reason why the Commission would have to stop there, for we can think of few examples of regulations that apply to Title II common carrier services, Title III broadcast services, or Title VI cable services that the Commission, relying on the broad policies articulated in section 230(b) and section 1, would be unable to impose upon Internet service providers. If in *Midwest Video I* the Commission "strain[ed] the outer limits of even the open-ended and pervasive jurisdiction that has evolved by decisions of the Commission and the courts," 406 U.S. at 676 (Burger, C.J., concurring), and if in *NARUC II* and *Midwest Video II* it exceeded those limits, then here it seeks to shatter them entirely.

Attempting to avoid this conclusion, the Commission argues that in several more recent cases we upheld its use of ancillary authority on the basis of policy statements alone. In each of those cases, however, we sustained the exercise of ancillary authority because, unlike here, the Commission had linked the cited policies to express delegations of regulatory authority.

The Commission places particular emphasis on *Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982) (*CCIA*). There we considered a challenge to the Commission's landmark 1980 *Computer II Order*, in which the Commission set forth regulatory ground rules for common carriers that provided so-called enhanced services, i.e., precursors to modern information services like cable Internet. *See In re Amend. of § 64.702 of the Comm'n's Rules and Regulations (Second Computer Inquiry),* 77 F.C.C.2d 384, 385–89, ¶¶ 1–13 (1980). The petitioners argued that two aspects of the *Computer II Order* exceeded the Commission's ancillary authority. First, the Commission had ruled that AT&T, then the monopoly telephone provider throughout most of the nation, could offer enhanced services only through a separate subsidiary. *CCIA*, 693 F.2d at 205.

Second, the Commission had mandated that all common carriers unbundle charges for "consumer premises equipment" (CPE)—i.e., telephones, computer terminals, and other similar devices—from their regulated tariffs. *Id.* We sustained both requirements. Emphasizing, as we do here, that *Southwestern Cable* "limited the Commission's jurisdiction to that which is reasonably ancillary to the effective performance of the Commission's various responsibilities," we explained that "[o]ne of those responsibilities is to assure a nationwide system of wire communications services at reasonable prices." *Id.* at 213 (internal quotation marks omitted). According to the Commission, this latter language demonstrates that section 1 describes "statutorily mandated responsibilities." But the Commission reads our statement out of context.

The crux of our decision in *CCIA* was that in its *Computer II Order* the Commission had linked its exercise of ancillary authority to its Title II responsibility over common carrier rates—just the kind of connection to statutory authority missing here. Thus, with respect to the AT&T component of the order, we relied on the Commission's finding that "[r]egulation of enhanced services was . . . necessary to prevent AT&T from burdening its basic transmission service customers with part of the cost of providing competitive enhanced services." *Id.* "Given [the] potentially symbiotic relationship between competitive and monopoly services," we concluded that "the agency charged with ensuring that monopoly rates are just and reasonable can legitimately exercise jurisdiction over the provision of competitive services." *Id*. We made the same point with respect to the order's CPE component: "[E]xercising jurisdiction over CPE was necessary to carry out [the Commission's] duty to assure the availability of transmission services at reasonable rates." *Id*. So, when we wrote that "[o]ne of [the Commission's] responsibilities is to assure a nationwide system of wire communications services at reasonable prices," *id.*, we were using section 1's language in just the way required by *Southwestern Cable*, *Midwest Video I*, *Midwest Video II*, and *NARUC II*: for the light it sheds on the Commission's Title II ratemaking power. In other words, we viewed the Commission's *Computer II Order*—like the Supreme Court had viewed the regulations at issue in *Southwestern Cable*—as regulation of services otherwise beyond the Commission's authority in order to prevent frustration of a regulatory scheme expressly authorized by statute.

The Commission's reliance on *Rural Telephone Coalition v. FCC*, 838 F.2d 1307 (D.C. Cir. 1988), fares no better. There we upheld the Commission's creation of a Universal Service Fund to provide subsidies for telephone service in rural and other high-cost areas. Again borrowing the language of section 1, we held that "[a]s the Universal Service Fund was proposed in order to further the objective of making communication service available to all Americans at reasonable charges, the proposal was within the Commission's statutory authority." *Id.* at 1315. Contrary to the Commission's argument, however, *Rural Telephone*, like *CCIA*, rested not on section 1 alone, but on the fact that creation of the Universal Service Fund was ancillary to the Commission's Title II responsibility to set reasonable interstate telephone rates. True, as the Commission observes, our discussion of ancillary authority never cites Title II. But any such citation would simply have restated the obvious given that the Commission established the Universal Service Fund for the very purpose of "'ensur[ing] that *telephone rates* are within the means of the average subscriber in all areas of the country.'" *Id.* at 1311–12 (emphasis added) (quoting *In re*

Amend. of Pt. 67 of the Comm'n's Rules and Establishment of a Joint Bd., 96 F.C.C.2d 781, 795, ¶ 30 (1984)).

Next the Commission cites *New York State Commission on Cable Television v. FCC*, 749 F.2d 804 (D.C. Cir. 1984), in which we considered a challenge to a Commission order preempting state regulation of early satellite television. Because petitioner there never argued that the Commission's exercise of ancillary authority lacked sufficient grounding in express statutory authority, *New York State Commission* did not address the issue we now face. *See id.* at 808 (describing petitioner's challenge). Still, in sustaining the Commission's action, we noted that "[i]n its preemption order the Commission based its authority over [satellite television] upon the federal interest in 'the unfettered development of interstate transmission of satellite signals.'" *Id.* at 808 (quoting *In re Earth Satellite Commc'ns, Inc.*, 95 F.C.C.2d 1223, 1230, ¶ 16 (1983)). According to the Commission, this language demonstrates that ancillary authority may be grounded in policy alone. Not so. Our statement does nothing more than clearly and accurately describe what the Commission actually did, i.e., supply a policy justification for its decision. Significantly for the issue before us here, the Commission's preemption order also expressly linked its exercise of ancillary authority over satellite television to its Title III authority over users of radio spectrum. The Commission noted that the reception facilities that states sought to regulate (satellite dishes on hotel and apartment building roofs) "initially were subject to Commission licensing," calling these receivers "absolutely essential instrumentalities of radio broadcasting." *Earth Satellite Commc'ns*, 95 F.C.C.2d at 1231, ¶ 17 (internal quotation marks omitted). The Commission also cited section 303, which provides that "the Commission . . . as public convenience, interest, or necessity requires, shall . . .

[c]lassify radio stations; . . . [p]rescribe the nature of the service to be rendered by each class of licensed stations and each station within any class; . . . [a]ssign bands of frequencies to the various classes of stations," and so on. 47 U.S.C. § 303. These express delegations of authority contrast sharply with the general policies set forth in section 230(b) and section 1.

The Commission next relies on *National Ass'n of Regulatory Utility Commissioners v. FCC*, 880 F.2d 422 (D.C. Cir. 1989) (*NARUC III*), in which we considered a challenge to its decision to preempt state regulation of "inside wiring"—"telephone wires within a customer's home or place of business." *Id.* at 425. The Commission had found inside wiring to be beyond the scope of its Title II regulation and simultaneously preempted state regulation of such wiring. We held that the Commission had authority to issue the preemption orders insofar as necessary "to encourage competition in the provision, installation, and maintenance of inside wiring." *Id.* at 429–30. Although we did "agree with the FCC that this policy [was] consistent with the goals of the Act, and that it [had] the authority to implement this policy with respect to interstate communications," *id.* (citation omitted), petitioners in that case had conceded that "inside wiring installation and maintenance . . . are integral to *telephone communication*," *id.* at 427 (emphasis added)—a fact critical to the Commission's exercise of preemption authority. In its orders, the Commission had emphasized that "[o]ur prior preemption decisions have generally been limited to activities that are closely related to the provision of services and which affect the provision of interstate services." *In re Detariffing the Installation and Maintenance of Inside Wiring*, 1 F.C.C.R. 1190, 1192, ¶ 17 (1986). The term "services" referred to "common carrier communication services" within the scope of the Commission's Title II jurisdiction. *Id.* "In short," the Commission explained, "the *interstate telephone network* will not function as efficiently as possible without the preemptive detariffing of inside wiring installation and maintenance." *Id.* (emphasis added). The Commission's preemption of state regulation of inside wiring was thus ancillary to its regulation of interstate phone service, precisely the kind of link to express delegated authority that is absent in this case.

The Commission cites several additional cases, but none support its expansive view of ancillary authority. Two decisions, like the many we have already discussed, upheld the Commission's exercise of ancillary authority because, unlike here, the Commission had linked its action to a statutory delegation of regulatory authority. *See United Video, Inc. v. FCC*, 890 F.2d 1173, 1182–83 (D.C. Cir. 1989) (upholding rules that, like those upheld in *Southwestern Cable*, limited the ability of cable companies to import programming into a broadcaster's market); *GTE Serv. Corp. v. FCC*, 474 F.2d 724, 729–30 (2d Cir. 1973) (upholding Commission regulation of "data processing activities of common carriers" based on the Commission's concern "that the statutory obligation of the communication common carrier to provide adequate and reasonable services could be adversely affected"). In another case, we rejected the Commission's argument, similar to the one it makes here, that it could exercise ancillary authority on the basis of policy alone. *Motion Picture Ass'n of Am. v. FCC*, 309 F.3d 796, 806–07 (D.C. Cir. 2002) (finding the Commission's "argument that [its] video description rules are obviously a valid communications policy goal and in the public interest" insufficient to justify its exercise of ancillary authority (internal quotation marks omitted)). And in two decisions, ancillary authority was either never addressed, *Nat'l Broad. Co. v. United States*, 319 U.S. 190 (1943) (reviewing the

Commission's exercise of its express licensing power over broadcasting stations under section 303, 47 U.S.C. § 303), or addressed only in passing, *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 379–80 (1999) (mentioning the existence of the Commission's ancillary authority in the course of interpreting another provision of the Act).

B.

This brings us to the second category of statutory provisions the Commission relies on to support its exercise of ancillary authority. Unlike section 230(b) and section 1, each of these provisions could at least arguably be read to delegate regulatory authority to the Commission.

We begin with section 706 of the Telecommunications Act of 1996, which provides that "[t]he Commission . . . shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing . . . price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." 47 U.S.C. § 1302(a). As the Commission points out, section 706 does contain a direct mandate—the Commission "shall encourage . . . ." In an earlier, still-binding order, however, the Commission ruled that section 706 "does not constitute an independent grant of authority." *In re Deployment of Wireline Servs. Offering Advanced Telecomms. Capability*, 13 F.C.C.R. 24,012, 24,047, ¶ 77 (1998) (*Wireline Deployment Order*). Instead, the Commission explained, section 706 "directs the Commission to use the authority granted in other provisions . . . to encourage the deployment of advanced services." *Id.* at 24,045, ¶ 69.

The Commission now insists that this language refers only "to whether section 706(a) supported *forbearance* authority," Resp't's Br. 41, i.e., the Commission's authority to free regulated entities from their statutory obligations in certain circumstances, *see* 47 U.S.C. § 160. According to the Commission, it "was not opining more generally on the effect of section 706 on ancillary authority." Resp't's Br. 41. But the order itself says otherwise: "[S]ection 706(a) does not constitute an independent grant of forbearance authority *or of authority to employ other regulating methods*." *Wireline Deployment Order*, 13 F.C.C.R. at 24,044, ¶ 69 (emphasis added). Because the Commission has never questioned, let alone overruled, that understanding of section 706, and because agencies "may not . . . depart from a prior policy *sub silentio*," *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1811 (2009), the Commission remains bound by its earlier conclusion that section 706 grants no regulatory authority.

Implying that this court has done what the Commission has not, the Commission points to a recent decision in which we wrote, "The general and generous phrasing of § 706 means that the FCC possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband." *Ad Hoc Telecomms. Users Comm. v. FCC*, 572 F.3d 903, 906–07 (D.C. Cir. 2009). In that case, however, we cited section 706 merely to support the Commission's choice between regulatory approaches clearly within its statutory authority under other sections of the Act, and upheld the Commission's refusal to forbear from certain regulation of business broadband lines as neither arbitrary nor capricious. Nowhere did we question the Commission's determination that section 706 does not delegate any regulatory authority. The Commission's reliance on section 706 thus fails. As in the case of section 230(b) and section 1, the Commission is seeking to use its ancillary authority to pursue a stand-alone policy objective, rather than to support its exercise of a specifically delegated power.

The Commission's attempt to tether its assertion of ancillary authority to section 256 of the Communications Act suffers from the same flaw. Section 256 directs the Commission to "establish procedures for . . . oversight of coordinated network planning . . . for the effective and efficient interconnection of public telecommunications networks." 47 U.S.C. § 256(b)(1). In language unmentioned by the Commission, however, section 256 goes on to state that "[n]othing in this section shall be construed as expanding . . . any authority that the Commission" otherwise has under law, *id.* § 256(c)—precisely what the Commission seeks to do here.

The Commission next cites section 257. Enacted as part of the Telecommunications Act of 1996, that provision gave the Commission fifteen months to "complete a proceeding for the purpose of identifying and eliminating, by regulations pursuant to its authority under this chapter (other than this section), market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services." 47 U.S.C. § 257(a). Although the section 257 proceeding is now complete, that provision also directs the Commission to report to Congress every three years on any remaining barriers. *See In re § 257 Proceeding to Identify and Eliminate Mkt. Entry Barriers for Small Bus.*, 12 F.C.C.R. 16,802 (1997) (completing original proceeding); 47 U.S.C. § 257(c) (requiring ongoing reports). We readily accept that certain assertions of Commission authority could be "reasonably ancillary" to the Commission's statutory responsibility to issue a report to Congress. For example, the Commission might impose disclosure requirements on regulated entities in order to gather data needed for such a report. But the Commission's attempt to dictate the operation of an otherwise unregulated service based on nothing more than its obligation to issue a report defies any plausible notion of "ancillariness." *See Motion Picture Ass'n of Am.*, 309 F.3d at 801–02 (holding that an order requiring that broadcasters incorporate "video descriptions" into certain television programs fell outside the Commission's ancillary authority even though it had been directed to produce a report on the subject).

Next the Commission argues that its exercise of authority over Comcast's network management practices is ancillary to its section 201 common carrier authority—though the section 201 argument the Commission sets forth in its brief is very different from the one appearing in the *Order*. As indicated above, section 201 provides that "[a]ll charges, practices, classifications, and regulations for and in connection with [common carrier] service shall be just and reasonable." 47 U.S.C. § 201(b). In the *Order*, the Commission found that by blocking certain traffic on Comcast's Internet service, the company had effectively shifted the burden of that traffic to other service providers, some of which were operating their Internet access services on a common carrier basis subject to Title II. *Order*, 23 F.C.C.R. at 13,037–38, ¶ 17. By marginally increasing the variable costs of those providers, the Commission maintained, Comcast's blocking of peer-to-peer transmissions affected common carrier rates. *Id.* Whatever the merits of this position, the Commission has forfeited it by failing to advance it here. *See United States ex rel. Totten v. Bombardier Corp.*, 380 F.3d 488, 497 (D.C. Cir. 2004) ("Ordinarily, arguments that parties do not make on appeal are deemed to have been waived.").

Instead, the Commission now argues that voice over Internet Protocol (VoIP) services—in essence, telephone services using Internet technology—affect the prices and practices of traditional telephony common carriers subject to section 201 regulation. According to the Commission, some VoIP services were disrupted by Comcast's network management practices. We have no need to examine this claim, however, for the Commission must defend its action on the same grounds advanced in the *Order*. *SEC v. Chenery Corp.*, 318 U.S. 80, 87–88 (1943).

The same problem undercuts the Commission's effort to link its regulation of Comcast's network management practices to its Title III authority over broadcasting. The Commission contends that Internet video "has the potential to affect the broadcast industry" by influencing "local origination of programming, diversity of viewpoints, and the desirability of providing service in certain markets." Resp't's Br. 43. But the Commission cites no source for this argument in the *Order*, nor can we find one.

Finally, the Commission argues that the *Order* is ancillary to its section 623 authority over cable rates. 47 U.S.C. § 543. Although the *Order* never mentions section 623, and although, as far as we can tell, no commenter suggested section 623 as a basis for the Commission's exercise of ancillary authority, the Commission argues that its reliance on this provision is implicit in its section 1 finding. That finding included the following explanation:

> [E]xercising jurisdiction over the complaint would promote [section 1's] goal of achieving "reasonable charges." For example, if cable companies such as Comcast are barred from inhibiting consumer access to high-definition on-line video content, then, as

> discussed above, consumers with cable modem service will have available a source of video programming (much of it free) that could rapidly become an alternative to cable television. The competition provided by this alternative should result in downward pressure on cable television prices, which have increased rapidly in recent years.

Order, 23 F.C.C.R. at 13,037, ¶ 16. Laying the foundation for this theory earlier in the *Order*, the Commission found that "video distribution poses a particular competitive threat to Comcast's video-on-demand ('VOD') service. VOD operates much like online video, where Internet users can select and download or stream any available program without a schedule and watch it any time . . . ." *Id.* at 13,030, ¶ 5 (internal quotation marks and alteration omitted).

The Commission's argument that we should read its invocation of section 1 as a reference to its section 623 authority over cable rates fails because, unlike its Title II authority over common carrier rates, its section 623 authority is sharply limited. Indeed, section 623 expressly prohibits the Commission from regulating rates for "video programming offered on a . . . per program basis," i.e., video-on-demand service. 47 U.S.C. § 543(*l*)(2), (a)(1). Although the Commission once enjoyed broader authority over cable rates, *see id.* § 543(c)(4), its current authority is limited to setting standards for and overseeing local regulation of rates for "basic tier" service on certain cable systems. *See id.* § 543(b). In the *Order*, the Commission does not assert ancillary authority based on this narrow grant of regulatory power. Instead, the *Order* rests on the premise that section 1 gives the Commission ancillary authority to ensure reasonable rates for *all* communication services, including those, like video-on-demand, over which it has no express regulatory authority.

As explained above, *Southwestern Cable*, *Midwest Video I*, *Midwest Video II*, and *NARUC II* bar this expansive theory of ancillary authority.

V.

It is true that "Congress gave the [Commission] broad and adaptable jurisdiction so that it can keep pace with rapidly evolving communications technologies." Resp't's Br. 19. It is also true that "[t]he Internet is such a technology," *id.*, indeed, "arguably the most important innovation in communications in a generation," *id.* at 30. Yet notwithstanding the "difficult regulatory problem of rapid technological change" posed by the communications industry, "the allowance of wide latitude in the exercise of delegated powers is not the equivalent of untrammeled freedom to regulate activities over which the statute fails to confer . . . Commission authority." *NARUC II*, 533 F.2d at 618 (internal quotation marks and footnote omitted). Because the Commission has failed to tie its assertion of ancillary authority over Comcast's Internet service to any "statutorily mandated responsibility," *Am. Library*, 406 F.3d at 692, we grant the petition for review and vacate the *Order*.

So ordered.

740 F.3d 623 (2014)

VERIZON, Appellant
v.
FEDERAL COMMUNICATIONS COMMISSION, Appellee.
Independent Telephone & Telecommunications Alliance, et al., Intervenors.

Nos. 11-1355, 11-1356.

United States Court of Appeals, District of Columbia Circuit.

Argued September 9, 2013.
Decided January 14, 2014.

627 *627 Helgi C. Walker argued the cause for appellant/petitioner Verizon. With her on the briefs were Eve Klindera Reed, William S. Consovoy, Brett A. Shumate, Walter E. Dellinger, Anton Metlitsky, Samir C. Jain, Carl W. Northrup, Michael Lazarus, Andrew Morentz, Michael E. Glover, William H. Johnson, Stephen B. Kinnaird, and Mark A. Stachiw. John T. Scott III and Edward Shakin entered appearances.

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John P. Elwood, Sam Kazman, Randolph May, and Ilya Shapiro were on the brief for amici curiae The Competitive Enterprise Institute, et al. in support of appellant/petitioner.

Russell P. Hanser, Bryan N. Tramont, and Quentin Riegel were on the brief for amicus curiae National Association of Manufacturers in support of appellant/petitioner.

Kenneth T. Cuccinelli, II, Attorney General, Office of the Attorney General for the Commonwealth of Virginia, E. Duncan Getchell, Jr., Solicitor General, and Wesley G. Russell, Jr., Deputy Attorney General, were on the brief for amici curiae The Commonwealth of Virginia, et al. in support of appellant/petitioner.

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Sean H. Donahue and David T. Goldberg were on the brief for amici curiae Reed Hundt, et al. in support of appellee/respondent.

628 E. Joshua Rosenkranz, Gabriel M. Ramsey, Thomas J. Gray, and Christina Vonder *628 Ahe were on the brief for amici curiae Venture Capital Investors in support of appellee/respondent.

Andrew Jay Schwartzman was on the brief for amicus curiae Tim Wu in support of appellee/respondent.

John Blevins was on the brief for amici curiae Internet Engineers and Technologists in support of appellee/respondent.

Kevin S. Bankston and Emma J. Llansó were on the brief for amici curiae The Center for Democracy and Technology, et al. in support of appellee/respondent.

Before: ROGERS and TATEL, Circuit Judges, and SILBERMAN, Senior Circuit Judge.

Opinion for the Court filed by Circuit Judge TATEL.

Opinion concurring in part and dissenting in part filed by Senior Circuit Judge SILBERMAN.

TATEL, Circuit Judge.

For the second time in four years, we are confronted with a Federal Communications Commission effort to compel broadband providers to treat all Internet traffic the same regardless of source — or to require, as it is popularly known, "net neutrality." In *Comcast Corp. v. FCC,* 600 F.3d 642 (D.C.Cir.2010), we held that the Commission had failed to cite any statutory authority that would justify its order compelling a broadband provider to adhere to open network management practices. After *Comcast,* the Commission issued the order challenged here — *In re Preserving the Open Internet,* 25 F.C.C.R. 17905 (2010) ("the *Open Internet Order*") — which imposes disclosure, anti-blocking, and anti-discrimination requirements on broadband providers. As we explain in this opinion, the Commission has established that section 706 of the Telecommunications Act of 1996 vests it with affirmative authority to enact measures encouraging the deployment of broadband infrastructure. The Commission, we further hold, has reasonably interpreted section 706 to empower it to promulgate rules governing broadband providers' treatment of Internet traffic, and its justification for the specific rules at issue here — that they will preserve and facilitate the "virtuous circle" of innovation that has driven the explosive growth of the Internet — is reasonable and supported by substantial evidence. That said, even though the Commission has general authority to regulate in this arena, it may not impose requirements that contravene express statutory mandates. Given that the Commission has chosen to classify broadband providers in a manner that exempts them from treatment as common carriers, the Communications Act expressly prohibits the Commission from nonetheless regulating them as such. Because the Commission has failed to establish that the anti-discrimination and anti-blocking rules do not impose *per se* common carrier obligations, we vacate those portions of the *Open Internet Order.*

I.

Understanding this case requires an understanding of the Internet, the Internet marketplace, and the history of the Commission's regulation of that marketplace.

Four major participants in the Internet marketplace are relevant to the issues before us: backbone networks, broadband providers, edge providers, and end users. Backbone networks are interconnected, long-haul fiber-optic links and high-speed routers capable of transmitting vast amounts of data. *See In re Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control,* 20 F.C.C.R. 18433, 18493 ¶ 110 (2005). Internet *629 users generally connect to these networks — and, ultimately, to one another — through local access providers like petitioner Verizon, who operate the "last-mile" transmission lines. *See Open Internet Order,* 25 F.C.C.R. at 17908, 17915 ¶¶ 7, 20. In the Internet's early days, most users connected to the Internet through dial-up connections over local telephone lines. *See In re Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities,* 17 F.C.C.R. 4798, 4802-03 ¶ 9 (2002) ("*Cable Broadband Order*"). Today, access is generally furnished through "broadband," i.e., high-speed communications technologies, such as cable modem service. *See In re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion,* 25 F.C.C.R. 9556, 9557, 9558-59 ¶¶ 1, 4 (2010) ("*Sixth Broadband Deployment Report*"); 47 U.S.C. § 1302(d)(1). Edge providers are those who, like Amazon or Google, provide content, services, and applications over the Internet, while end users are those who consume edge providers' content, services, and applications. *See Open Internet Order,* 25 F.C.C.R. at 17910 ¶ 13. To pull the whole picture together with a slightly oversimplified example: when an edge provider such as YouTube transmits some sort of content — say, a video of a cat — to an end user, that content is broken down into packets of information, which are carried by the edge provider's local access provider to the backbone network, which transmits these packets to the end user's local access provider, which, in turn, transmits the information to the end user, who then views and hopefully enjoys the cat.

These categories of entities are not necessarily mutually exclusive. For example, end users may often act as edge providers by creating and sharing content that is consumed by other end users, for instance by posting photos on Facebook. Similarly, broadband providers may offer content, applications, and services that compete with those furnished by edge providers. *See Open Internet Order,* 25 F.C.C.R. at 17915 ¶ 20.

Proponents of net neutrality — or, to use the Commission's preferred term, "Internet openness" — worry about the relationship between broadband providers and edge providers. They fear that broadband providers might prevent their end-user subscribers from accessing certain edge providers altogether, or might degrade the quality of their end-user subscribers' access to certain edge providers, either as a means of favoring their own competing content or services or to enable them to collect fees from certain edge providers. Thus, for example, a broadband provider like Comcast might limit its end-user subscribers' ability to access the *New York Times* website if it wanted to spike traffic to its own news website, or it might degrade the quality of the connection to a search website like Bing if a competitor like Google paid for prioritized access.

Since the advent of the Internet, the Commission has confronted the questions of whether and how it should regulate this communications network, which, generally speaking, falls comfortably within the Commission's jurisdiction over "all interstate and foreign communications by wire or radio." 47 U.S.C. § 152(a). One of the Commission's early efforts occurred in 1980, when it adopted what is known as the *Computer II* regime. The *Computer II* rules drew a line between "basic" services, which were subject to regulation under Title II of the Communications Act of 1934 as common carrier services, *see* 47 U.S.C. §§ 201 et seq., and "enhanced" services, which were not. *See In re Amendment of Section 64.702 of the*
630 *Commission's Rules and Regulations,* 77 F.C.C.2d *630 384, 387 ¶¶ 5-7 (1980) ("*Second Computer Inquiry*"). What distinguished "enhanced" services from "basic" services was the extent to which they involved the processing of information rather than simply its transmission. *Id.* at 420-21 ¶¶ 96-97. For example, the Commission characterized telephone service as a "basic" service, *see id.* at 419 ¶ 94, because it involved a "pure" transmission that was "virtually transparent in terms of its interaction with customer supplied information," *id.* at 420 ¶ 96. Services that involved "computer processing applications ... used to act on the content, code, protocol, and other aspects of the subscriber's information" — a definition that encompassed the services needed to connect an end user to the Internet — constituted enhanced services. *Id.* at 420 ¶ 97.

By virtue of their designation as common carriers, providers of basic services were subject to the duties that apply to such entities, including that they "furnish... communication service upon reasonable request," 47 U.S.C. § 201(a), engage in no "unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services," *id.* § 202(a), and charge "just and reasonable" rates, *id.* § 201(b). Although the Commission applied no such restrictions to purveyors of enhanced services, it imposed limitations on certain entities, like AT & T, which owned the transmission facilities over which enhanced services would be provided. *Second Computer Inquiry,* 77 F.C.C.2d at 473-74 ¶¶ 228-29. These restrictions included, most significantly, requirements that such entities offer enhanced services only through a completely separate corporate entity and that they offer their transmissions facilities to other enhanced service providers on a common carrier basis. *Id.*

For more than twenty years, the Commission applied some form of the *Computer II* regime to Internet services offered over telephone lines, then the predominant way in which most end users connected to the Internet. *See, e.g., In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities,* 17 F.C.C.R. 3019, 3037-40 ¶¶ 36-42 (2002). Telephone companies that provided the actual wireline facilities over which information was transmitted were limited in the manner in which they could provide the enhanced services necessary to permit end users to access the Internet. *Id.* at 3040 ¶ 42. They were also required to permit third-party Internet Service Providers (ISPs), such as America Online, to access their wireline transmission facilities on a common carrier basis. *Id.*

It was against this background that Congress passed the Telecommunications Act of 1996, Pub.L. No. 104-104, 110 Stat. 56. Tracking the *Computer II* distinction between basic and enhanced services, the Act defines two categories of entities: telecommunications carriers, which provide the equivalent of basic services, and information-service providers, which provide the equivalent of enhanced services. 47 U.S.C. § 153(24), (50), (51), (53); *see National Cable & Telecommunications Ass'n v. Brand X Internet Services,* 545 U.S. 967, 976-77, 125 S.Ct. 2688, 162 L.Ed.2d 820 (2005). The Act subjects telecommunications carriers, but not information-service providers, to Title II common carrier regulation. 47 U.S.C. § 153(53); *Brand X,* 545 U.S. at 975-76, 125 S.Ct. 2688.

Pursuant to the Act, and paralleling its prior practice under the *Computer II* regime, the Commission then classified Digital Subscriber Line (DSL) services — broadband Internet service furnished over telephone lines — as "telecommunications
631 services." *See In re Deployment of Wireline* *631 *Services Offering Advanced Telecommunications Capability,* 13 F.C.C.R. 24012, 24014, 24029-30 ¶¶ 3, 35-36 (1998) ("*Advanced Services Order*"). DSL services, the Commission concluded, involved pure transmission technologies, and so were subject to Title II regulation. *Id.* at 24030-31 ¶ 35. A DSL provider could exempt its Internet access services, but not its transmission facilities themselves, from Title II common carrier restrictions only by operating them through a separate affiliate (i.e., a quasi-independent ISP). *Id.* at 24018 ¶ 13.

Four years later, however, the Commission took a different approach when determining how to regulate broadband service provided by cable companies. Instead of viewing cable broadband providers' transmission and processing of information as distinct services, the Commission determined that cable broadband providers — even those that own and operate the underlying last-mile transmission facilities — provide a "single, integrated information service." *Cable Broadband Order,* 17 F.C.C.R. at 4824 ¶ 41. Because cable broadband providers were thus not telecommunications carriers at all, they were entirely exempt from Title II regulation. *Id.* at 4802 ¶ 7.

In *National Cable & Telecommunications Ass'n v. Brand X Internet Services,* 545 U.S. 967, 125 S.Ct. 2688, 162 L.Ed.2d 820 (2005), the Supreme Court upheld the Commission's classification of cable broadband providers. The Court concluded that the Commission's ruling represented a reasonable interpretation of the 1996 Telecommunications Act's ambiguous provision defining telecommunications service, *see id.* at 991-92, 125 S.Ct. 2688, and that the Commission's determination was entitled to deference notwithstanding its apparent inconsistency with the agency's prior interpretation of that statute, *see id.* at 981, 1000-01, 125 S.Ct. 2688.

Following *Brand X,* the Commission classified other types of broadband providers, such as DSL and wireless, which includes those offering broadband Internet service for cellular telephones, as information service providers exempt from Title II's common carrier requirements. *See In re Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities,* 20 F.C.C.R. 14853, 14862 ¶ 12 (2005) ("*2005 Wireline Broadband Order*"); *In re Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks,* 22 F.C.C.R. 5901, 5901-02 ¶ 1 (2007) ("*Wireless Broadband Order*"); *In re United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service,* 21 F.C.C.R. 13281, 13281 ¶ 1 (2006). Despite calls to revisit these classification orders, *see, e.g., Open Internet Order,* 25 F.C.C.R. at 18046 (concurring statement of Commissioner Copps), the Commission has yet to overrule them.

But even as the Commission exempted broadband providers from Title II common carrier obligations, it left open the possibility that it would nonetheless regulate these entities. In the *Cable Broadband Order,* for example, the Commission sought comment on whether and to what extent it should utilize the powers granted it under Title I of the Communications Act to impose restrictions on cable broadband providers. *Cable Broadband Order,* 17 F.C.C.R. at 4842 ¶ 77. Subsequently, in conjunction with the *2005 Wireline Broadband Order,* the Commission issued a Policy Statement in which it signaled its
632 intention to "preserve and promote the open and interconnected nature of the public Internet." *In re Appropriate* *632 *Framework for Broadband Access to the Internet Over Wireline Facilities,* 20 F.C.C.R. 14986, 14988 ¶ 4 (2005). The Commission announced that should it "see evidence that providers of telecommunications for Internet access or IP-enabled services are violating these principles," it would "not hesitate to take action to address that conduct." *2005 Wireline Broadband Order,* 20 F.C.C.R. at 14904 ¶ 96.

The Commission did just that when, two years later, several subscribers to Comcast's cable broadband service complained that the company had interfered with their use of certain peer-to-peer networking applications. *See In re Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications,* 23 F.C.C.R. 13028 (2008) ("*Comcast Order*"). Finding that Comcast's impairment of these applications had "contravene[d] ... federal policy," *id.* at 13052 ¶ 43, the Commission ordered the company to adhere to a new approach for managing bandwidth demand and to disclose the details of that approach, *id.* at 13059-60 ¶ 54. The Commission justified its order as an exercise of what courts term its "ancillary jurisdiction," *see id.* at 13034-41 ¶¶ 14-22, a power that flows from the broad language of Communications Act section 4(i). *See* 47 U.S.C. § 154(i) ("The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions."); *see generally American Library Ass'n v. FCC,* 406 F.3d 689, 700-03 (D.C.Cir.2005). We have held that the Commission may exercise such ancillary jurisdiction where two conditions are met: "(1) the Commission's general jurisdictional grant under Title I covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities." *American Library Ass'n,* 406 F.3d at 691-92.

In *Comcast,* we vacated the Commission's order, holding that the agency failed to demonstrate that it possessed authority to regulate broadband providers' network management practices. 600 F.3d at 644. Specifically, we held that the Commission had identified no grant of statutory authority to which the *Comcast Order* was reasonably ancillary. *Id.* at 661. The Commission had principally invoked statutory provisions that, though setting forth congressional policy, delegated no actual regulatory authority. *Id.* at 651-58. These provisions, we concluded, were insufficient because permitting the agency to ground its exercise of ancillary jurisdiction in policy statements alone would contravene the "`axiomatic' principle that `administrative agencies may [act] only pursuant to authority delegated to them by Congress.'" *Id.* at 654 (alteration in original) (quoting *American Library Ass'n,* 406 F.3d at 691). We went on to reject the Commission's invocation of a handful of other statutory provisions that, although they could "arguably be read to delegate regulatory authority," *id.* at 658, provided no support for the precise order at issue, *id.* at 658-61.

While the *Comcast* matter was pending, the Commission sought comment on a set of proposed rules that, with some modifications, eventually became the rules at issue here. *See* *In re Preserving the Open Internet,* 24 F.C.C.R. 13064 (2009). In support, it relied on the same theory of ancillary jurisdiction it had asserted in the *Comcast Order. See id.* at 13099 ¶¶ 83-85. But after our decision in *Comcast* undermined that theory, the Commission sought comment on whether and to what
633 extent it should reclassify broadband Internet services as telecommunications services. *See* *633 *In re Framework for Broadband Internet Service,* 25 F.C.C.R. 7866, 7867 ¶ 2 (2010). Ultimately, however, rather than reclassifying broadband, the Commission adopted the *Open Internet Order* that Verizon challenges here. *See* 25 F.C.C.R. 17905.

The *Open Internet Order* establishes two sets of "prophylactic rules" designed to "incorporate longstanding openness principles that are generally in line with current practices." 25 F.C.C.R. at 17907 ¶ 4. One set of rules applies to "fixed" broadband providers — i.e., those furnishing residential broadband service and, more generally, Internet access to end users "primarily at fixed end points using stationary equipment." *Id.* at 17934 ¶ 49. The other set of requirements applies to "mobile" broadband providers — i.e., those "serv[ing] end users primarily using mobile stations," such as smart phones. *Id.*

The *Order* first imposes a transparency requirement on both fixed and mobile broadband providers. *Id.* at 17938 ¶ 56. They must "publicly disclose accurate information regarding the network management practices, performance, and commercial terms of [their] broadband Internet access services." *Id.* at 17937 ¶ 54 (fixed providers); *see also id.* at 17959 ¶ 98 (mobile providers).

Second, the *Order* imposes anti-blocking requirements on both types of broadband providers. It prohibits fixed broadband providers from "block[ing] lawful content, applications, services, or non-harmful devices, subject to reasonable network management." *Id.* at 17942 ¶ 63. Similarly, the *Order* forbids mobile providers from "block[ing] consumers from accessing lawful websites" and from "block[ing] applications that compete with the provider's voice or video telephony services, subject to reasonable network management." *Id.* at 17959 ¶ 99. The *Order* defines "reasonable network management" as practices designed to "ensur[e] network security and integrity," "address[] traffic that is unwanted by end users," "and reduc[e] or mitigat[e] the effects of congestion on the network." *Id.* at 17952 ¶ 82. The anti-blocking rules, the *Order* explains, not only prohibit broadband providers from preventing their end-user subscribers from accessing a particular edge provider altogether, but also prohibit them "from impairing or degrading particular content, applications, services, or non-harmful devices so as to render them effectively unusable." *Id.* at 17943 ¶ 66.

Third, the *Order* imposes an anti-discrimination requirement on fixed broadband providers only. Under this rule, such providers "shall not unreasonably discriminate in transmitting lawful network traffic over a consumer's broadband Internet access service. Reasonable network management shall not constitute unreasonable discrimination." *Id.* at 17944 ¶ 68. The Commission explained that "[u]se-agnostic discrimination" — that is, discrimination based not on the nature of the particular traffic involved, but rather, for example, on network management needs during periods of congestion — would generally comport with this requirement. *Id.* at 17945-46 ¶ 73. Although the Commission never expressly said that the rule forbids broadband providers from granting preferred status or services to edge providers who pay for such benefits, it warned that "as a general matter, it is unlikely that pay for priority would satisfy the `no unreasonable discrimination' standard." *Id.* at 17947 ¶ 76. Declining to impose the same anti-discrimination requirement on mobile providers, the Commission explained that differential treatment of such providers was warranted because the mobile broadband market was more competitive
634 and more rapidly evolving than the fixed broadband market, *634 network speeds and penetration were lower, and operational constraints were higher. *See id.* at 17956-57 ¶¶ 94-95.

As authority for the adoption of these rules, the Commission invoked a plethora of statutory provisions. *See id.* at 17966-81 ¶¶ 115-37. In particular, the Commission relied on section 706 of the 1996 Telecommunications Act, which directs it to encourage the deployment of broadband telecommunications capability. *See* 47 U.S.C. § 1302(a), (b). According to the Commission, the rules furthered this statutory mandate by preserving unhindered the "virtuous circle of innovation" that had long driven the growth of the Internet. *Open Internet Order,* 25 F.C.C.R. at 17910-11 ¶ 14; *see id.* at 17968, 17972 ¶¶ 117, 123. Internet openness, it reasoned, spurs investment and development by edge providers, which leads to increased end-user demand for broadband access, which leads to increased investment in broadband network infrastructure and technologies, which in turn leads to further innovation and development by edge providers. *Id.* at 17910-11 ¶ 14. If, the Commission continued, broadband providers were to disrupt this "virtuous circle" by "[r]estricting edge providers' ability to reach end users, and limiting end users' ability to choose which edge providers to patronize," they would "reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure." *Id.* at 17911 ¶ 14.

Two members of the Commission dissented. As they saw it, the *Open Internet Order* rules not only exceeded the Commission's lawful authority, but would also stifle rather than encourage innovation. *See Open Internet Order,* 25 F.C.C.R. at 18049-81 (Dissenting Statement of Commissioner McDowell); *id.* at 18084-98 (Dissenting Statement of Commissioner Baker).

Verizon filed a petition for review of the *Open Internet Order* pursuant to 47 U.S.C. § 402(a) as well as a notice of appeal pursuant to 47 U.S.C. § 402(b). Because "we plainly have jurisdiction by the one procedural route or the other," "we need not decide which is the more appropriate vehicle for our review." *Cellco Partnership v. FCC,* 700 F.3d 534, 541 (D.C.Cir.2012) (internal quotation marks omitted).

Verizon challenges the *Open Internet Order* on several grounds, including that the Commission lacked affirmative statutory authority to promulgate the rules, that its decision to impose the rules was arbitrary and capricious, and that the rules contravene statutory provisions prohibiting the Commission from treating broadband providers as common carriers. In Part II, we consider Verizon's attacks on the Commission's affirmative statutory authority and its justification for imposing these rules. We consider the common carrier issue in Part III. Given our disposition of the latter issue, we have no need to address Verizon's additional contentions that the *Order* violates the First Amendment and constitutes an uncompensated taking.

Before beginning our analysis, we think it important to emphasize that although the question of net neutrality implicates serious policy questions, which have engaged lawmakers, regulators, businesses, and other members of the public for years, our inquiry here is relatively limited. "Regardless of how serious the problem an administrative agency seeks to address, ... it may not exercise its authority in a manner that is inconsistent with the administrative structure that Congress enacted into law." *Ragsdale v. Wolverine World Wide, Inc.,* 535 U.S. 81, 91, 122 S.Ct. 1155, 152 L.Ed.2d 167 (2002) (internal quotation marks omitted). Accordingly, our task as a reviewing court is not to assess the wisdom of the *Open*
635 *Internet* *635 *Order* regulations, but rather to determine whether the Commission has demonstrated that the regulations fall within the scope of its statutory grant of authority.

II.

The Commission cites numerous statutory provisions it claims grant it the power to promulgate the *Open Internet Order* rules. But we start and end our analysis with section 706 of the 1996 Telecommunications Act, which, as we shall explain, furnishes the Commission with the requisite affirmative authority to adopt the regulations.

Section 706(a) provides:

> The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.

47 U.S.C. § 1302(a). Section 706(b), in turn, requires the Commission to conduct a regular inquiry "concerning the availability of advanced telecommunications capability." *Id.* § 1302(b). It further provides that should the Commission find that "advanced telecommunications capability is [not] being deployed to all Americans in a reasonable and timely fashion," it "shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market." *Id.* The statute defines "advanced telecommunications capability" to include "broadband telecommunications capability." *Id.* § 1302(d)(1).

Verizon contends that neither subsection (a) nor (b) of section 706 confers any regulatory authority on the Commission. As Verizon sees it, the two subsections amount to nothing more than congressional statements of policy. Verizon further contends that even if either provision grants the Commission substantive authority, the scope of that grant is not so expansive as to permit the Commission to regulate broadband providers in the manner that the *Open Internet Order* rules do. In addressing these questions, we apply the familiar two-step analysis of *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). As the Supreme Court has recently made clear, *Chevron* deference is warranted even if the Commission has interpreted a statutory provision that could be said to delineate the scope of the agency's jurisdiction. *See City of Arlington v. FCC,* ___ U.S. ___, 133 S.Ct. 1863, 1874, ___ L.Ed.2d ___ (2013). Thus, if we determine that the Commission's interpretation of section 706 represents a reasonable resolution of a statutory ambiguity, we must defer to that interpretation. *See Chevron,* 467 U.S. at 842-43, 104 S.Ct. 2778. The *Chevron* inquiry overlaps substantially with that required by the Administrative Procedure Act (APA), pursuant to which we must also determine whether the Commission's actions were "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); *see National Ass'n of Regulatory Utility Commissioners v. Interstate Commerce Commission,* 41 F.3d 721, 726-27 (D.C.Cir. 1994).

636 *636 **A.**

This is not the first time the Commission has asserted that section 706(a) grants it authority to regulate broadband providers. Advancing a similar argument in *Comcast,* the Commission contended that section 706(a) provided a statutory hook for its exercise of ancillary jurisdiction. Although we thought that section 706(a) might "arguably be read to delegate regulatory authority to the Commission," we concluded that the Commission could not rely on this provision to justify the *Comcast Order* because it had previously determined, in the still-binding *Advanced Services Order,* that the provision "`does not constitute an independent grant of authority.'" *Comcast,* 600 F.3d at 658 (quoting *Advanced Services Order,* 13 F.C.C.R. at 24047 ¶ 77). We rejected the Commission's claim that the *Advanced Services Order* concluded only that section 706(a) granted it no forbearance authority — authority to relieve regulated entities of statutory obligations to which they would otherwise be subject, *see* 47 U.S.C. § 160 — over and above that given it elsewhere in the Communications Act. *Comcast,* 600 F.3d at 658. Indeed, the *Advanced Services Order* was clearly far broader, explicitly declaring: "section 706(a) does not constitute an independent grant of forbearance authority *or of authority to employ other regulating methods." Advanced Services Order,* 13 F.C.C.R. at 24044 ¶ 69 (emphasis added). Because the Commission had "never questioned, let alone overruled, that understanding of section 706," we held that it "remain[ed] bound" by its prior interpretation. *Comcast,* 600 F.3d at 659.

But the Commission need not remain *forever* bound by the *Advanced Services Order*'s restrictive reading of section 706(a). "An initial agency interpretation is not instantly carved in stone." *Chevron,* 467 U.S. at 863, 104 S.Ct. 2778. The APA's requirement of reasoned decision-making ordinarily demands that an agency acknowledge and explain the reasons for a changed interpretation. *See FCC v. Fox Television Stations, Inc.,* 556 U.S. 502, 515, 129 S.Ct. 1800, 173 L.Ed.2d 738 (2009) ("An agency may not ... depart from a prior policy *sub silentio* or simply disregard rules that are still on the books."); *Brand X,* 545 U.S. at 981, 125 S.Ct. 2688 ("Unexplained inconsistency is, at most, a reason for holding an interpretation to be an arbitrary and capricious change from agency practice under the Administrative Procedure Act."). But so long as an agency "adequately explains the reasons for a reversal of policy," its new interpretation of a statute cannot be rejected simply because it is new. *Brand X,* 545 U.S. at 981, 125 S.Ct. 2688. At the time we issued our *Comcast* opinion, the Commission failed to satisfy this requirement, as its assertion that section 706(a) gave it regulatory authority represented, at that point, an attempt to "`depart from a prior policy *sub silentio.*'" *Comcast,* 600 F.3d at 659 (quoting *Fox,* 556 U.S. at 515, 129 S.Ct. 1800).

In the *Open Internet Order,* however, the Commission has offered a reasoned explanation for its changed understanding of section 706(a). To be sure, the *Open Internet Order* evinces a palpable reluctance to accept this court's interpretation of the *Advanced Services Order,* as the Commission again attempts to reconcile its current understanding of section 706(a) with its prior interpretation. *See Open Internet Order,* 25 F.C.C.R. at 17969 ¶ 119 (characterizing the *Advanced Services Order* as being "consistent with [the Commission's] present understanding"). Of course, such reluctance hardly makes the
637 Commission's decision unreasonable, as it is free to express its disagreement with *637 this court's holdings. After all, even a federal agency is entitled to a little pride. Moreover, although the *Open Internet Order* inaccurately describes the *Advanced Services Order*'s actual conclusion, it does describe what the *Order* likely *should* have concluded. Specifically, the *Advanced Services Order*'s rejection of section 706(a) as a source of substantive authority rested almost entirely on the notion that a contrary interpretation would somehow permit the Commission to evade express statutory commands forbidding it from using its forbearance authority in certain circumstances. *See Advanced Services Order,* 13 F.C.C.R. at 24045-46 ¶¶ 72-73. This makes little sense. By the same reasoning, one might say that Article I of the Constitution gives Congress no substantive authority because Congress might otherwise be able to use that authority in a way that violates the

Ex Post Facto Clause. The *Open Internet Order* characterizes the *Advanced Services Order* as simply "disavowing a reading of Section 706(a) that would allow the agency to trump specific mandates of the Communications Act," thus honoring "the interpretive canon that `[a] specific provision ... controls one[] of more general application.'" *Open Internet Order,* 25 F.C.C.R. at 17969 ¶¶ 118-119 (quoting *Bloate v. United States,* 559 U.S. 196, 207, 130 S.Ct. 1345, 176 L.Ed.2d 54 (2010)). Perhaps the Commission should have more openly acknowledged that it was not actually describing the *Advanced Services Order,* but instead rewriting it in a more logical manner. In this latter task, however, the Commission succeeded: its reinterpretation of the *Advanced Services Order* was more reasonable than the *Advanced Services Order* itself.

In any event — and more important for our purposes — the Commission expressly declared: "To the extent that the *Advanced Services Order* can be construed as having read Section 706(a) differently, we reject that reading of the statute for the reasons discussed in the text." *Open Internet Order,* 25 F.C.C.R. at 17969 ¶ 119 n. 370. Setting forth those "reasons" at some length, the Commission analyzed the statute's text, its legislative history, and the resultant scope of the Commission's authority, concluding that each of these considerations supports the view that section 706(a) constitutes an affirmative grant of regulatory authority. *Id.* at 17969-70 ¶¶ 119-121. In these circumstances, and contrary to Verizon's contentions, we have no basis for saying that the Commission "casually ignored prior policies and interpretations or otherwise failed to provide a reasoned explanation" for its changed interpretation. *Cablevision Systems Corp. v. FCC,* 649 F.3d 695, 710 (D.C.Cir.2011) (internal quotation marks omitted).

The question, then, is this: Does the Commission's current understanding of section 706(a) as a grant of regulatory authority represent a reasonable interpretation of an ambiguous statute? We believe it does.

Recall that the provision directs the Commission to "encourage the deployment... of advanced telecommunications capability... by utilizing ... price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." 47 U.S.C. § 1302(a). As Verizon argues, this language could certainly be read as simply setting forth a statement of congressional policy, directing the Commission to employ "regulating methods" already at the Commission's disposal in order to achieve the stated goal of promoting "advanced telecommunications" technology. But the language can just as easily be read to vest
638 the Commission with actual authority to utilize such "regulating methods" to meet this *638 stated goal. As the Commission put it in the *Open Internet Order,* one might reasonably think that Congress, in directing the Commission to undertake certain acts, "necessarily invested the Commission with the statutory authority to carry out those acts." *Open Internet Order,* 25 F.C.C.R. at 17969 ¶ 120.

Section 706(a)'s reference to state commissions does not foreclose such a reading. Observing that the statute applies to both "[t]he Commission *and* each State commission with regulatory jurisdiction over telecommunications services," 47 U.S.C. § 1302(a) (emphasis added), Verizon contends that Congress would not be expected to grant both the FCC and state commissions the regulatory authority to encourage the deployment of advanced telecommunications capabilities. But Congress has granted regulatory authority to state telecommunications commissions on other occasions, and we see no reason to think that it could not have done the same here. *See, e.g., id.* § 251(f) (granting state commissions the authority to exempt rural local exchange carriers from certain obligations imposed on other incumbents); *id.* § 252(e) (requiring all interconnection agreements between incumbent local exchange carriers and entrant carriers to be approved by a state commission); *see also AT & T Corp. v. Iowa Utilities Board,* 525 U.S. 366, 385-86, 119 S.Ct. 721, 142 L.Ed.2d 835 (1999) (describing the Commission's power and responsibility to dictate the manner in which state commissions exercise such authority). Thus, Congress has not "directly spoken" to the question of whether section 706(a) is a grant of regulatory authority simply by mentioning state commissions in that grant. *Chevron,* 467 U.S. at 842, 104 S.Ct. 2778.

This case, moreover, is a far cry from *FDA v. Brown & Williamson Tobacco Corp.,* 529 U.S. 120, 120 S.Ct. 1291, 146 L.Ed.2d 121 (2000), on which Verizon principally relies. There, the Supreme Court held that "Congress ha[d] clearly precluded the [Food and Drug Administration] from asserting jurisdiction to regulate tobacco products." *Id.* at 126, 120 S.Ct. 1291. The Court emphasized that the FDA had not only completely disclaimed any authority to regulate tobacco products, but had done so for more than eighty years, and that Congress had repeatedly legislated against this background. *See id.* at 143-59, 120 S.Ct. 1291. The Court also observed that the FDA's newly adopted conclusion that it did in fact have authority to regulate this industry would, given its findings regarding the effects of tobacco products and its authorizing statute, logically require the agency to ban such products altogether, a result clearly contrary to congressional policy. *See id.* at 135-43, 120 S.Ct. 1291. Furthermore, the Court reasoned, if Congress had intended to "delegate a decision of such economic and political significance" to the agency, it would have done so far more clearly. *Id.* at 160, 120 S.Ct. 1291.

The circumstances here are entirely different. Although the Commission once disclaimed authority to regulate under section 706(a), it never disclaimed authority to regulate the Internet or Internet providers altogether, nor is there any similar history of congressional reliance on such a disclaimer. To the contrary, as recounted above, *see supra* at 629-31, when Congress passed section 706(a) in 1996, it did so against the backdrop of the Commission's long history of subjecting to common carrier regulation the entities that controlled the last-mile facilities over which end users accessed the Internet. *See, e.g., Second Computer Inquiry,* 77 F.C.C.2d at 473-74 ¶¶ 228-29. Indeed, one might have thought, as the Commission originally
639 concluded, *see Advanced Services Order,* 13 *639 F.C.C.R. at 24029-30 ¶ 35, that Congress clearly contemplated that the Commission would continue regulating Internet providers in the manner it had previously. *Cf. Brand X,* 545 U.S. at 1003, 125 S.Ct. 2688 (Breyer, J., concurring) (concluding that the Commission's decision to exempt cable broadband providers from Title II regulation was "perhaps just barely" within the scope of the agency's "statutorily delegated authority"); *id.* at 1005, 125 S.Ct. 2688 (Scalia, J., dissenting) (arguing that Commission's decision "exceeded the authority given it by Congress"). In fact, section 706(a)'s legislative history suggests that Congress may have, somewhat presciently, viewed that provision as an affirmative grant of authority to the Commission whose existence would become necessary if other contemplated grants of statutory authority were for some reason unavailable. The Senate Report describes section 706 as a "necessary fail-safe" "intended to ensure that one of the primary objectives of the [Act] — to accelerate deployment of advanced telecommunications capability — is achieved." S.Rep. No. 104-23 at 50-51. As the Commission observed in the *Open Internet Order,* it would be "odd ... to characterize Section 706(a) as a `fail-safe' that `ensures' the Commission's ability to promote advanced services if it conferred no actual authority." 25 F.C.C.R. at 17970 ¶ 120.

Verizon directs our attention to a number of bills introduced in Congress subsequent to the passage of the 1996 Act that, if enacted, would have imposed requirements on broadband providers similar to those embodied in the Commission's *Open Internet Order. See, e.g.,* Internet Non-Discrimination Act of 2006, S. 2360, 109th Cong. (2006). Such subsequent legislative history, however, provides "`an unreliable guide to legislative intent.'" *North Broward Hospital District v. Shalala,* 172 F.3d 90, 98 (D.C.Cir.1999) (quoting *Chapman v. United States,* 500 U.S. 453, 464 n. 4, 111 S.Ct. 1919, 114 L.Ed.2d 524 (1991)). Moreover, even assuming that Congress's failure to impose such restrictions would itself cast light on Congress's understanding of the Commission's power to do so, any such inferences would be largely countered by Congress's similar failure to adopt a proposed resolution that would have specifically disapproved of the Commission's promulgation of the *Open Internet Order. See* H.J. Res. 37, 112th Cong. (2011). These conflicting pieces of subsequent failed legislation tell us little if anything about the original meaning of the Telecommunications Act of 1996.

Thus, although regulation of broadband Internet providers certainly involves decisions of great "economic and political significance," *Brown & Williamson,* 529 U.S. at 160, 120 S.Ct. 1291, we have little reason given this history to think that Congress could not have delegated some of these decisions to the Commission. To be sure, Congress does not, as Verizon reminds us, "hide elephants in mouseholes." *Whitman v. American Trucking Ass'ns, Inc.,* 531 U.S. 457, 468, 121 S.Ct. 903, 149 L.Ed.2d 1 (2001). But FCC regulation of broadband providers is no elephant, and section 706(a) is no mousehole.

Of course, we might well hesitate to conclude that Congress intended to grant the Commission substantive authority in section 706(a) if that authority would have no limiting principle. *See Comcast,* 600 F.3d at 655 (rejecting Commission's understanding of its authority that "if accepted... would virtually free the Commission from its congressional tether"); *cf. Whitman,* 531 U.S. at 472-73, 121 S.Ct. 903 (discussing the nondelegation doctrine). But we are satisfied that the scope of
640 authority granted to the Commission by section 706(a) is not so boundless as to *640 compel the conclusion that Congress could never have intended the provision to set forth anything other than a general statement of policy. The Commission has identified at least two limiting principles inherent in section 706(a). *See Open Internet Order,* 25 F.C.C.R. at 17970 ¶ 121. First, the section must be read in conjunction with other provisions of the Communications Act, including, most importantly, those limiting the Commission's subject matter jurisdiction to "interstate and foreign communication by wire and radio." 47 U.S.C. § 152(a). Any regulatory action authorized by section 706(a) would thus have to fall within the Commission's subject matter jurisdiction over such communications — a limitation whose importance this court has recognized in delineating the reach of the Commission's ancillary jurisdiction. *See American Library Ass'n,* 406 F.3d at 703-04. Second, any regulations must be designed to achieve a particular purpose: to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans." 47 U.S.C. § 1302(a). Section 706(a) thus gives the Commission authority to promulgate only those regulations that it establishes will fulfill this specific statutory goal — a burden that, as we trust our searching analysis below will demonstrate, is far from "meaningless." Dissenting Op. at 662.

B.

Section 706(b) has a less tortured history. Until shortly before the Commission issued the *Open Internet Order,* it had never considered whether the provision vested it with any regulatory authority. The Commission had no need to do so because prior to that time it had made no determination that advanced telecommunications technologies, including broadband Internet access, were not "being deployed to all Americans in a reasonable and timely fashion," the prerequisite for any purported invocation of authority to "take immediate action to accelerate deployment of such capability" under section 706(b). 47 U.S.C. § 1302(b).

In July 2010, however, the Commission concluded that "broadband deployment to *all* Americans is not reasonable and timely." *Sixth Broadband Deployment Report,* 25 F.C.C.R. at 9558 ¶ 2. This conclusion, the Commission recognized, represented a deviation from its five prior assessments. *Id.* at 9558 ¶ 2 & n. 8. According to the Commission, the change was driven by its decision to raise the minimum speed threshold qualifying as broadband. *Id.* at 9558 ¶ 4. "Broadband," as defined in the 1996 Telecommunications Act, is Internet service furnished at speeds that "enable[] users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." 47 U.S.C. § 1302(d)(1). In 1999, the Commission found this requirement satisfied by services "having the capability of supporting... a speed ... in excess of 200 kilobits per second (kbps) in the last mile." *In re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion,* 14 F.C.C.R. 2398, 2406 ¶ 20 (1999). The Commission chose this threshold because it was "enough to provide the most popular forms of broadband — to change web pages as fast as one can flip through the pages of a book and to transmit full-motion video." *Id.* That said, the Commission recognized that technological developments might someday require it to reassess the 200 kbps threshold. *Id.* at 2407-08 ¶ 25.

In the *Sixth Broadband Deployment Report,* the Commission decided that day had finally arrived. The Commission
641 explained *641 that consumers now regularly use their Internet connections to access high-quality video and expect to be able at the same time to check their email and browse the web. *Sixth Broadband Deployment Report,* 25 F.C.C.R. at 9562-64 ¶¶ 10-11. Two hundred kbps, the Commission determined, "simply is not enough bandwidth" to permit such uses. *Id.* at 9562 ¶ 10. The Commission thus adopted a new threshold more appropriate to current consumer behavior and expectations: four megabytes per second (mbps) for end users to download content from the Internet — twenty times as fast as the prior threshold — and one mbps for end users to upload content. *Id.* at 9563 ¶ 11.

Applying this new benchmark, the Commission found that "roughly 80 million American adults do not subscribe to broadband at home, and approximately 14 to 24 million Americans do not have access to broadband today." *Sixth Broadband Deployment Report,* 25 F.C.C.R. at 9574 ¶ 28. Given these figures and the "ever-growing importance of broadband to our society," the Commission was unable to find "that broadband is being reasonably and timely deployed" within the meaning of section 706(b). *Id.* This conclusion, it explained, triggered section 706(b)'s mandate that the Commission "take immediate action to accelerate deployment." *Id.* at 9558 ¶ 3 (quoting 47 U.S.C. § 1302(b)) (internal quotation marks omitted).

Subsequently, in the *Open Internet Order* the Commission made clear that this statutory provision does not limit the Commission to using other regulatory authority already at its disposal, but instead grants it the power necessary to fulfill the statute's mandate. *See* Open Internet Order, 25 F.C.C.R. at 17972 ¶ 123. Emphasizing the provision's "shall take immediate action" directive, the Commission concluded that section 706(b) "provides express authority" for the rules it adopted. *Id.*

Contrary to Verizon's arguments, we believe the Commission has reasonably interpreted section 706(b) to empower it to take steps to accelerate broadband deployment if and when it determines that such deployment is not "reasonable and timely." To be sure, as with section 706(a), it is unclear whether section 706(b), in providing that the Commission "shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market," vested the Commission with authority to remove such barriers to infrastructure investment and promote competition. 47 U.S.C. § 1302(b). But the provision may certainly be read to accomplish as much, and given such ambiguity we have no basis for rejecting the Commission's determination that it should be so understood. *See* Chevron, 467 U.S. at 842-43, 104 S.Ct. 2778. Moreover, as discussed above with respect to section 706(a), *see supra* at 638-40, nothing in the regulatory background or the legislative history either before or after passage of the 1996 Telecommunications Act forecloses such an understanding. We think it quite reasonable to believe that Congress contemplated that the Commission would regulate this industry, as the agency had in the past, and the scope of any authority granted to it by section 706(b) — limited, as it is, both by the boundaries of the Commission's subject matter jurisdiction and the requirement that any regulation be tailored to the specific statutory goal of accelerating broadband deployment — is not so broad that we might hesitate to think that Congress could have intended such a delegation.

642 *642 Verizon makes two additional arguments regarding the Commission's interpretation of section 706(b), both of which we can dispose of in relatively short order.

First, Verizon contends that if section 706(b) gives the Commission any regulatory authority, that authority must be understood in conjunction with section 706(c), which directs the Commission to "compile a list of geographical areas that are not served by any provider of advanced telecommunications capability." 47 U.S.C. § 1302(c). Thus, Verizon claims, any regulations that the Commission might adopt pursuant to section 706(b) may not "reach beyond any particular `geographical areas that are not served' by any broadband provider and apply throughout the country." Verizon's Br. 33 (emphasis omitted). By its own terms, however, section 706(c) describes simply "*part* of the inquiry" that section 706(b) requires the Commission to conduct concerning broadband deployment. 47 U.S.C. § 1302(c) (emphasis added). It nowhere purports to delineate all aspects of that inquiry. Nor does it limit the actions that the Commission may take if, in the course of that inquiry, it determines that broadband deployment has not been "reasonable and timely."

Second, Verizon asserts that the *Sixth Broadband Deployment Report*'s finding that triggered section 706(b)'s grant of regulatory authority "arbitrarily contravened five prior agency determinations of reasonable and timely deployment." Verizon's Br. 33. The timing of the Commission's determination is certainly suspicious, coming as it did closely on the heels of our rejection in *Comcast* of the legal theory on which the Commission had until then relied to establish its authority over broadband providers. But questionable timing, by itself, gives us no basis to reject an otherwise reasonable finding. Beyond its general assertion that the Commission's finding was "arbitrar[y]," Verizon offers no specific reason for thinking that the Commission's logical and carefully reasoned determination was illegitimate. We can see none.

C.

This brings us, then, to Verizon's alternative argument that even if, as we have held, sections 706(a) and 706(b) grant the Commission affirmative authority to promulgate rules governing broadband providers, the specific rules imposed by the *Open Internet Order* fall outside the scope of that authority. The Commission's theory, to reiterate, is that its regulations protect and promote edge-provider investment and development, which in turn drives end-user demand for more and better broadband technologies, which in turn stimulates competition among broadband providers to further invest in broadband. *See* *Open Internet Order,* 25 F.C.C.R. at 17910-11, 17970 ¶¶ 14, 120. Thus, the Commission claims, by preventing broadband providers from blocking or discriminating against edge providers, the rules "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans," 47 U.S.C. § 1302(a), and "accelerate deployment of such capability," *id.* § 1302(b), by removing "barriers to infrastructure investment" and promoting "competition," *id.* § 1302(a), (b). *See* *Open Internet Order,* 25 F.C.C.R. at 17968, 17972 ¶¶ 117, 123. That is, contrary to the dissent, *see* Dissenting Op. at 660-62, the Commission made clear — and Verizon appears to recognize — that the Commission found broadband providers' potential disruption of edge-provider traffic to be itself the sort of "barrier" that has
643 "the potential to stifle overall investment in Internet infrastructure," and could "limit competition in telecommunications *643
markets." *Open Internet Order,* 25 F.C.C.R. at 17970 ¶ 120.

Verizon mounts a twofold challenge to this rationale. It argues that the *Open Internet Order* regulations will not, as the Commission claims, meaningfully promote broadband deployment, and that even if they do advance this goal, the manner in which they do so is too attenuated from this statutory purpose to fall within the scope of authority granted by either statutory provision.

We begin with the second, more strictly legal, question of whether, assuming the Commission has accurately predicted the effect of these regulations, it may utilize the authority granted to it in sections 706(a) and 706(b) to impose regulations of this sort on broadband providers. As we have previously acknowledged, "in proscribing... practices with the statutorily identified effect, an agency might stray so far from the paradigm case as to render its interpretation unreasonable, arbitrary, or capricious." *National Cable & Telecommunications Ass'n v. FCC,* 567 F.3d 659, 665 (D.C.Cir.2009). Here, Verizon has given us no reason to conclude that the *Open Internet Order*'s requirements "stray" so far beyond the "paradigm case" that Congress likely contemplated as to render the Commission's understanding of its authority unreasonable. The rules not only apply directly to broadband providers, the precise entities to which section 706 authority to encourage broadband deployment presumably extends, but also seek to promote the very goal that Congress explicitly sought to promote. Because the rules advance this statutory goal of broadband deployment by first promoting edge-provider innovations and end-user demand, Verizon derides the Commission's justification as a "triple-cushion shot." Verizon's Br. 28. In billiards, however, a triple-cushion shot, although perhaps more difficult to complete, counts the same as any other shot. The

Commission could reasonably have thought that its authority to promulgate regulations that promote broadband deployment encompasses the power to regulate broadband providers' economic relationships with edge providers if, in fact, the nature of those relationships influences the rate and extent to which broadband providers develop and expand their services for end users. *See* Cablevision, 649 F.3d at 709 (holding that Commission had not impermissibly "reached beyond the paradigm case" in "interpreting a statute focused on the provision of satellite programming to authorize terrestrial withholding regulations," because cable companies' ability to withhold terrestrial programming would, in turn, discourage potential competitors from entering the market to provide satellite programming) (internal quotation marks omitted).

Whether the Commission's assessment of the likely effects of the *Open Internet Order* deserves credence presents a slightly more complex question. Verizon attacks the reasoning and factual support underlying the Commission's "triple-cushion shot" theory, advancing these arguments both as an attack on the Commission's statutory interpretation and as an APA arbitrary and capricious challenge. Given that these two arguments involve similar considerations, we address them together. In so doing, "we must uphold the Commission's factual determinations if on the record as a whole, there is such relevant evidence as a reasonable mind might accept as adequate to support [the] conclusion." *Secretary of Labor, MSHA v. Federal Mine Safety & Health Review Comm'n,* 111 F.3d 913, 918 (D.C.Cir.1997) (internal quotation marks omitted); *see* 5
644 U.S.C. § 706(2)(E). We evaluate the Commission's reasoning to ensure that it *644 has "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *National Fuel Gas Supply Corp. v. FERC,* 468 F.3d 831, 839 (D.C.Cir.2006) (quoting *Motor Vehicle Manufacturers Ass'n of U.S. v. State Farm Mutual Auto. Insurance Co.,* 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983)) (internal quotation marks omitted). When assessing the reasonableness of the Commission's conclusions, we must be careful not to simply "`substitute [our] judgment for that of the agency,'" especially when the "agency's predictive judgments about the likely economic effects of a rule" are at issue. *National Telephone Cooperative Ass'n v. FCC,* 563 F.3d 536, 541 (D.C.Cir. 2009) (quoting *State Farm,* 463 U.S. at 43, 103 S.Ct. 2856). Under these standards, the Commission's prediction that the *Open Internet Order* regulations will encourage broadband deployment is, in our view, both rational and supported by substantial evidence.

To begin with, the Commission has more than adequately supported and explained its conclusion that edge-provider innovation leads to the expansion and improvement of broadband infrastructure. The Internet, the Commission observed in the *Open Internet Order,* is, "[l]ike electricity and the computer," a "`general purpose technology' that enables new methods of production that have a major impact on the entire economy." *Open Internet Order,* 25 F.C.C.R. at 17909 ¶ 13. Certain innovations — the lightbulb, for example — create a need for infrastructure investment, such as in power generation facilities and distribution lines, that complement and further drive the development of the initial innovation and ultimately the growth of the economy as a whole. *See* Timothy F. Bresnahan & M. Trajtenberg, *General purpose technologies: `Engines of Growth'?* 65 J. ECONOMETRICS 83, 84 (1995), *cited in* *Open Internet Order,* 25 F.C.C.R. at 17909 ¶ 13 n. 12; *see also* Amicus Br. of Internet Engineers and Technologists 17 (citing *Hearing on Internet Security Before the H. Comm. on Science, Space, and Technology,* 103d Cong. (Mar. 22, 1994) (written testimony of Dr. Vinton G. Cerf)). The rise of streaming online video is perhaps the best and clearest example the Commission used to illustrate that the Internet constitutes one such technology: higher-speed residential Internet connections in the late 1990s "stimulated" the development of streaming video, a service that requires particularly high bandwidth, "which in turn encouraged broadband providers to increase network speeds." *Open Internet Order,* 25 F.C.C.R. at 17911 ¶ 14 n. 23. The Commission's emphasis on this connection between edge-provider innovation and infrastructure development is uncontroversial. Indeed, in its comments to the Commission, Verizon, executing a triple-cushion shot of its own, acknowledged:

> [T]he social and economic fruits of the Internet economy are the result of a virtuous cycle of innovation and growth between that ecosystem and the underlying infrastructure — the infrastructure enabling the development and dissemination of Internet-based services and applications, with the demand and use of those services ... driving improvements in the infrastructure which, in turn, support further innovations in services and applications.

Verizon Comments at 42, Docket No. 09-191 (Jan. 14, 2010) (internal quotation marks omitted).

The Commission's finding that Internet openness fosters the edge-provider innovation that drives this "virtuous cycle" was
645 likewise reasonable and grounded in substantial evidence. Continued innovation at *645 the edge, the Commission explained, "depends upon low barriers to innovation and entry by edge providers," and thus restrictions on edge providers' "ability to reach end users ... reduce the rate of innovation." *Open Internet Order,* 25 F.C.C.R. at 17911 ¶ 14. This conclusion finds ample support in the economic literature on which the Commission relied, *see, e.g.,* Joseph Farrell & Philip J. Weiser,

Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age, 17 HARV. J.L. & TECH. 85, 95 (2003), *cited in* *Open Internet Order,* 25 F.C.C.R. at 17911 ¶ 14 n. 25, as well as in history and the comments of several edge providers. For one prominent illustration of the relationship between openness and innovation, the Commission cited the invention of the World Wide Web itself by Sir Tim Berners-Lee, who, although not working for an entity that operated the underlying network, was able to create and disseminate this enormously successful innovation without needing to make any changes to previously developed Internet protocols or securing "any approval from network operators." *Open Internet Order,* 25 F.C.C.R. at 17910 ¶ 13 (citing, *inter alia,* TIM BERNERS-LEE, WEAVING THE WEB 16 (2000)). It also highlighted the comments of Google and Vonage — both innovative edge providers — who emphasized the importance of the Internet's open design to permitting new content and services to develop at the edge. *Id.* at 17911 ¶ 14 n. 24 & n. 25. The record amassed by the Commission contains many similar examples, and Verizon has given us no basis for questioning the Commission's determination that the preservation of Internet openness is integral to achieving the statutory objectives set forth in Section 706. *See id.* at 17910-11, 17968, 17972 ¶¶ 14, 117, 123.

Equally important, the Commission has adequately supported and explained its conclusion that, absent rules such as those set forth in the *Open Internet Order,* broadband providers represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment. First, nothing in the record gives us any reason to doubt the Commission's determination that broadband providers may be motivated to discriminate against and among edge providers. The Commission observed that broadband providers — often the same entities that furnish end users with telephone and television services — "have incentives to interfere with the operation of third-party Internet-based services that compete with the providers' revenue-generating telephone and/or pay-television services." *Open Internet Order,* 25 F.C.C.R. at 17916 ¶ 22. As the Commission noted, Voice-over-Internet-Protocol (VoIP) services such as Vonage increasingly serve as substitutes for traditional telephone services, *id.,* and broadband providers like AT & T and Time Warner have acknowledged that online video aggregators such as Netflix and Hulu compete directly with their own "core video subscription service," *id.* at 17917 ¶ 22 & n. 54; *see also id.* at 17918 ¶ 23 n. 60 (finding that a study concluding that cable companies had sought to exclude networks that competed with the companies' own affiliated channels, *see* Austan Goolsbee, *Vertical Integration and the Market for Broadcast and Cable Television Programming,* Paper for the Federal Communications Commission 31-32 (Sept. 5, 2007), "provides empirical evidence that cable providers have acted in the past on anticompetitive incentives to foreclose rivals"). Broadband providers also have powerful incentives to accept fees
646 from edge providers, either in return for excluding their competitors or for *646 granting them prioritized access to end users. *See id.* at 17918-19 ¶¶ 23-24. Indeed, at oral argument Verizon's counsel announced that "but for [the *Open Internet Order*] rules we would be exploring those commercial arrangements." Oral Arg. Tr. 31. And although broadband providers might not adopt pay-for-priority agreements or other similar arrangements if, according to the Commission's analysis, such agreements would ultimately lead to a decrease in end-user demand for broadband, the Commission explained that the resultant harms to innovation and demand will largely constitute "negative externalities": any given broadband provider will "receive the benefits of ... fees but [is] unlikely to fully account for the detrimental impact on edge providers' ability and incentive to innovate and invest." *Open Internet Order,* 25 F.C.C.R. at 17919-20 ¶ 25 & n. 68. Although Verizon dismisses the Commission's assertions regarding broadband providers' incentives as "pure speculation," Verizon's Br. 52, *see also* Dissenting Op. at 666-67, those assertions are, at the very least, speculation based firmly in common sense and economic reality.

Moreover, as the Commission found, broadband providers have the technical and economic ability to impose such restrictions. Verizon does not seriously contend otherwise. In fact, there appears little dispute that broadband providers have the technological ability to distinguish between and discriminate against certain types of Internet traffic. *See* *Open Internet Order,* 25 F.C.C.R. at 17923 ¶ 31 (broadband providers possess "increasingly sophisticated network management tools" that enable them to "make fine-grained distinction in their handling of network traffic"). The Commission also convincingly detailed how broadband providers' position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers. Because all end users generally access the Internet through a single broadband provider, that provider functions as a "`terminating monopolist,'" *id.* at 17919 ¶ 24 n. 66, with power to act as a "gatekeeper" with respect to edge providers that might seek to reach its end-user subscribers, *id.* at 17919 ¶ 24. As the Commission reasonably explained, this ability to act as a "gatekeeper" distinguishes broadband providers from other participants in the Internet marketplace — including prominent and potentially powerful edge providers such as Google and Apple — who have no similar "control [over] access to the Internet for their subscribers and for anyone wishing to reach those subscribers." *Id.* at 17935 ¶ 50.

To be sure, if end users could immediately respond to any given broadband provider's attempt to impose restrictions on edge providers by switching broadband providers, this gatekeeper power might well disappear. *Cf. Open Internet Order,* 25 F.C.C.R. at 17935 ¶ 51 (declining to impose similar rules on "dial-up Internet access service because telephone service has historically provided the easy ability to switch among competing dial-up Internet access services"). For example, a broadband provider like Comcast would be unable to threaten Netflix that it would slow Netflix traffic if all Comcast subscribers would then immediately switch to a competing broadband provider. But we see no basis for questioning the Commission's conclusion that end users are unlikely to react in this fashion. According to the Commission, "end users may not know whether charges or service levels their broadband provider is imposing on edge providers vary from those of
647 alternative broadband providers, and even if they do have this information may find it costly to *647 switch." *Id.* at 17921 ¶ 27. As described by numerous commenters, and detailed more thoroughly in a Commission report compiling the results of an extensive consumer survey, the costs of switching include: "early termination fees; the inconvenience of ordering, installation, and set-up, and associated deposits or fees; possible difficulty returning the earlier broadband provider's equipment and the cost of replacing incompatible customer-owned equipment; the risk of temporarily losing service; the risk of problems learning how to use the new service; and the possible loss of a provider-specific email address or website." *Open Internet Order,* 25 F.C.C.R. at 17924-25 ¶ 34 (footnotes omitted) (citing, *inter alia,* Federal Communications Commission, *Broadband Decisions: What Drives Consumers to Switch — Or Stick With — Their Broadband Internet Provider* (FCC Working Paper, Dec. 2010), *available at* hraunfoss.fcc.gov/edocs — public/attachmatch/DOC-303264A1.pdf). Moreover, the Commission emphasized, many end users may have no option to switch, or at least face very limited options: "[a]s of December 2009, nearly 70 percent of households lived in census tracts where only one or two wireline or fixed wireless firms provided" broadband service. *Id.* at 17923 ¶ 32. As the Commission concluded, any market power that such broadband providers might have with respect to end users would only increase their power with respect to edge providers. *Id.*

The dissent focuses on this latter aspect of the Commission's reasoning, arguing at some length that the Commission's failure to expressly find that broadband providers have market power with respect to end users is "fatal to its attempt to regulate." Dissenting Op. at 665. But Verizon has never argued that the Commission's failure to make a market power finding somehow rendered its understanding of its statutory authority unreasonable or its decision arbitrary and capricious. Verizon does fleetingly mention the market power issue once in its opening brief, asserting as part of its First Amendment claim that *Turner Broadcasting System, Inc. v. FCC,* 520 U.S. 180, 117 S.Ct. 1174, 137 L.Ed.2d 369 (1997) — in which the Supreme Court, applying intermediate scrutiny, upheld a congressional statute compelling cable companies to carry local broadcast television stations, *id.* at 185, 117 S.Ct. 1174 — is distinguishable in part because, unlike the Commission here, Congress had found "evidence of `considerable and growing market power.'" Verizon Br. 46 (quoting *Turner,* 520 U.S. at 197, 117 S.Ct. 1174). But to say, as Verizon does, that an allegedly speech-infringing regulation violates the First Amendment because of the absence of a market condition that would increase the need for that regulation is hardly to say that the absence of this market condition renders the regulation wholly irrational. Verizon's bare citation to a Justice Department submission — relied upon by the dissent, *see* Dissenting Op. at 664, 666-67 — is even less on point, as that submission simply advised the Commission to take care to avoid stifling incentives for broadband investment; it never asserted, as the dissent does, that such market power is required for broadband providers to have the economic clout to restrict edge-provider traffic in the first place. *See* Department of Justice Comments at 28, Docket No. 09-51 (Jan. 14, 2010). Indeed, when pressed at oral argument to embrace our dissenting colleague's position, Verizon's counsel failed to do so, stating only that it was "possible" that if the Commission had made a market power finding, the *Order* could be justified.
648 Oral Arg. Tr. 10. As we "do not sit as [a] self-directed board[] of legal inquiry and research," and Verizon "has *648 made no attempt to address the issue," the argument is clearly forfeited. *Carducci v. Regan,* 714 F.2d 171, 177 (D.C.Cir.1983).

In any event, it seems likely that the reason Verizon never advanced this argument is that the Commission's failure to find market power is not "fatal" to its theory. Broadband providers' ability to impose restrictions on edge providers does not depend on their benefiting from the sort of market concentration that would enable them to impose substantial price increases on end users — which is all the Commission said in declining to make a market power finding. *See Open Internet Order,* 25 F.C.C.R. at 17923 ¶ 32 & n. 87; *see also* Department of Justice & Federal Trade Commission, Horizontal Merger Guidelines § 4.1 (2010) (defining product markets and market power in terms of a firm's ability to raise prices for consumers). Rather, broadband providers' ability to impose restrictions on edge providers simply depends on end users not being fully responsive to the imposition of such restrictions. *See supra* at 646. If the dissent believes that broadband providers' ability to restrict edge-provider traffic without having their end users react would itself represent an exercise of market power, then the dissent's dispute with the Commission's reasoning appears to be largely semantic: the Commission expressly found that end users are not responsive in this fashion even if it never used the term "market power" in doing so. *See* Open Internet Order, 25 F.C.C.R. at 17924-25 ¶ 34.

Furthermore, the Commission established that the threat that broadband providers would utilize their gatekeeper ability to restrict edge-provider traffic is not, as the Commission put it, "merely theoretical." *Open Internet Order,* 25 F.C.C.R. at 17925 ¶ 35. In support of its conclusion that broadband providers could and would act to limit Internet openness, the Commission pointed to four prior instances in which they had done just that. These involved a mobile broadband provider blocking online payment services after entering into a contract with a competing service; a mobile broadband provider restricting the availability of competing VoIP and streaming video services; a fixed broadband provider blocking VoIP applications; and, of course, Comcast's impairment of peer-to-peer file sharing that was the subject of the *Comcast Order. See id.* Although some of these incidents may not have involved "adjudicated findings of misconduct," as Verizon asserts, Verizon's Br. 50, that hardly means that no record evidence supports the Commission's conclusion that the incidents had in fact occurred. Likewise, the fact that we vacated the *Comcast Order* — rendering it, according to Verizon, a "legal nullity," Verizon's Br. 51 — did not require the Commission to entirely disregard the underlying conduct that produced that order. In *Comcast,* we held that the Commission had failed to cite any statutory authority that justified its order, not that Comcast had never impaired Internet traffic. *See Comcast,* 600 F.3d at 644. Nor, finally, did the Commission's invocation of these examples demonstrate that it was attempting to "impose an `industry-wide solution for a problem that exists only in isolated pockets.'" Verizon's Br. 51 (quoting *Associated Gas Distributors v. FERC,* 824 F.2d 981, 1019 (D.C.Cir. 1987)). Rather, as the Commission explained, these incidents — which occurred "notwithstanding the Commission's adoption of open Internet principles," Commission enforcement proceedings against those who violated those principles, and specific Commission orders "requir[ing] certain broadband providers to adhere to open Internet obligations," *Open Internet Order,* 25 F.C.C.R. at
649 17926-27 ¶ 37 — buttressed *649 the agency's conclusion that broadband providers' incentives and ability to restrict Internet traffic could produce "[w]idespread interference with the Internet's openness" in the absence of Commission action, *id.* at 17927 ¶ 38. Such a "problem" is doubtless "industry-wide." *Associated Gas Distributors,* 824 F.2d at 1019.

Finally, Verizon argues that the *Open Internet Order* rules will necessarily have the opposite of their intended effect because they will "harm innovation and deter investment by increasing costs, foreclosing potential revenue streams, and restricting providers' ability to meet consumers' evolving needs." Verizon's Br. 52; *see also* Dissenting Op. at 666-67. In essence, Verizon believes that any stimulus to edge-provider innovation, as well as any consequent demand for broadband infrastructure, produced by the *Open Internet Order* will be outweighed by the diminished incentives for broadband infrastructure investment caused by the new limitations on business models broadband providers may employ to reap a return on their investment. As Verizon points out, two members of the Commission agreed that the rules would be counterproductive, and several commenters contended that certain regulations of broadband providers would run the risk of stifling infrastructure investment. *See Open Internet Order,* 25 F.C.C.R. at 18054-56 (Dissenting Statement of Commissioner McDowell); *id.* at 18088-91 (Dissenting Statement of Commissioner Baker); Verizon Comments at 40-86, Docket No. 09-191 (Jan. 14, 2010); MetroPCS Comments at 24-35, Docket No. 09-191 (Jan 14, 2010); *see also* *Open Internet Order,* 25 F.C.C.R. at 17931 ¶ 42 n. 143 (discussing the comments of the Department of Justice and Federal Trade Commission).

The record, however, also contains much evidence supporting the Commission's conclusion that, "[b]y comparison to the benefits of [its] prophylactic measures, the costs associated with the open Internet rules ... are likely small." *Open Internet Order,* 25 F.C.C.R. at 17928 ¶ 39. This is, in other words, one of those cases — quite frequent in this circuit — where "the available data do[] not settle a regulatory issue and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion." *State Farm,* 463 U.S. at 52, 103 S.Ct. 2856. Here the Commission reached its "policy conclusion" by emphasizing, among other things, (1) the absence of evidence that similar restrictions of broadband providers had discouraged infrastructure investment, and (2) the strength of the effect on broadband investment that it anticipated from edge-provider innovation, which would benefit both from the preservation of the "virtuous circle of innovation" created by the Internet's openness and the increased certainty in that openness engendered by the Commission's rules. *Open Internet Order,* at 17928-31 ¶¶ 40-42. In so doing, the Commission has offered "a rational connection between the facts found and the choice made," *State Farm,* 463 U.S. at 52, 103 S.Ct. 2856 (internal quotation marks omitted), and Verizon has given us no persuasive reason to question that judgment.

III.

Even though section 706 grants the Commission authority to promote broadband deployment by regulating how broadband providers treat edge providers, the Commission may not, as it recognizes, utilize that power in a manner that contravenes

any specific prohibition contained in the Communications Act. *See* Open Internet Order, 25 F.C.C.R. at 17969 ¶ 119
650 (reiterating the Commission's disavowal of "a *650 reading of Section 706(a) that would allow the agency to trump specific mandates of the Communications Act"); *see also* *D. Ginsberg & Sons, Inc. v. Popkin,* 285 U.S. 204, 208, 52 S.Ct. 322, 76 L.Ed. 704 (1932) ("General language of a statutory provision, although broad enough to include it, will not be held to apply to a matter specifically dealt with in another part of the same enactment."). According to Verizon, the Commission has done just that because the anti-discrimination and anti-blocking rules "subject[] broadband Internet access service ... to common carriage regulation, a result expressly prohibited by the Act." Verizon's Br. 14.

We think it obvious that the Commission would violate the Communications Act were it to regulate broadband providers as common carriers. Given the Commission's still-binding decision to classify broadband providers not as providers of "telecommunications services" but instead as providers of "information services," *see supra* at 630-31, such treatment would run afoul of section 153(51): "A telecommunications carrier shall be treated as a common carrier under this [Act] only to the extent that it is engaged in providing telecommunications services." 47 U.S.C. § 153(51); *see also* *Wireless Broadband Order,* 22 F.C.C.R. at 5919 ¶ 50 (concluding that a "service provider is to be treated as a common carrier for the telecommunications services it provides, but it cannot be treated as a common carrier with respect to other, non-telecommunications services it may offer, including information services"). Likewise, because the Commission has classified mobile broadband service as a "private" mobile service, and not a "commercial" mobile service, *see* *Wireless Broadband Order,* 22 F.C.C.R. at 5921 ¶ 56, treatment of mobile broadband providers as common carriers would violate section 332: "A person engaged in the provision of a service that is a private mobile service shall not, insofar as such person is so engaged, be treated as a common carrier for any purpose under this [Act]." 47 U.S.C. § 332(c)(2); *see* *Cellco,* 700 F.3d at 538 ("[M]obile-data providers are statutorily immune, perhaps twice over, from treatment as common carriers.").

Insisting it has transgressed neither of these prohibitions, the Commission begins with the rather half-hearted argument that the Act referred to in sections 153(51) and 332 is the Communications Act of 1934, and that when the Commission utilizes the authority granted to it in section 706 — enacted as part of the 1996 Telecommunications Act — it is not acting "under" the 1934 Act, and thus is "not subject to the statutory limitations on common-carrier treatment." Commission's Br. 68. But section 153(51) was also part of the 1996 Telecommunications Act. And regardless, "Congress expressly directed that the 1996 Act ... be inserted into the Communications Act of 1934." *AT & T Corp.,* 525 U.S. at 377, 119 S.Ct. 721 (citing Telecommunications Act of 1996 § 1(b)). The Commission cannot now so easily escape the statutory prohibitions on common carrier treatment.

Thus, we must determine whether the requirements imposed by the *Open Internet Order* subject broadband providers to common carrier treatment. If they do, then given the manner in which the Commission has chosen to classify broadband providers, the regulations cannot stand. We apply *Chevron*'s deferential standard of review to the interpretation and application of the statutory term "common carrier." *See* *Cellco,* 700 F.3d at 544. After first discussing the history and use of that term, we turn to the issue of whether the Commission's interpretation of "common carrier" — and its conclusion that the
651 *Open Internet Order*'s rules do not constitute *651 common carrier obligations — was reasonable.

A.

Offering little guidance as to the meaning of the term "common carrier," the Communications Act defines that phrase, somewhat circularly, as "any person engaged as a common carrier for hire." 47 U.S.C. § 153(11). Courts and the Commission have therefore resorted to the common law to come up with a satisfactory definition. *See* *FCC v. Midwest Video Corp.,* 440 U.S. 689, 701 n. 10, 99 S.Ct. 1435, 59 L.Ed.2d 692 (1979) ("*Midwest Video II*").

In the Nineteenth Century, American courts began imposing certain obligations — conceptually derived from the traditional legal duties of innkeepers, ferrymen, and others who served the public — on companies in the transportation and communications industries. *See* *Cellco,* 700 F.3d at 545. As the Supreme Court explained in *Interstate Commerce Commission v. Baltimore & Ohio Railroad Co.,* 145 U.S. 263, 275, 12 S.Ct. 844, 36 L.Ed. 699 (1892), "the principles of the common law applicable to common carriers... demanded little more than that they should carry for all persons who applied, in the order in which the goods were delivered at the particular station, and that their charges for transportation should be reasonable." Congress subsequently codified these duties, first in the 1887 Interstate Commerce Act, ch. 104, 24 Stat. 379, then the Manns-Elkins Act of 1910, ch. 309, 36 Stat. 539, and, most relevant here, the Communications Act of 1934, ch. 652, 48 Stat. 1064. *See* *Cellco,* 700 F.3d at 545-46.

Although the nature and scope of the duties imposed on common carriers have evolved over the last century, *see, e.g., Orloff v. FCC,* 352 F.3d 415, 418-21 (D.C.Cir.2003) (discussing the implications of the relaxation of the tariff-filing requirement), the core of the common law concept of common carriage has remained intact. In *National Association of Regulatory Utility Commissioners v. FCC,* 525 F.2d 630, 642 (D.C.Cir.1976) ("*NARUC I*"), we identified the basic characteristic that distinguishes common carriers from "private" carriers — i.e., entities that are not common carriers — as "[t]he common law requirement of holding oneself out to serve the public indiscriminately." "[A] carrier will not be a common carrier," we further explained, "where its practice is to make individualized decisions, in particular cases, whether and on what terms to deal." *Id.* at 641. Similarly, in *National Association of Regulatory Utility Commissioners v. FCC,* 533 F.2d 601, 608 (1976) ("*NARUC II*"), we concluded that "the primary *sine qua non* of common carrier status is a quasi-public character, which arises out of the undertaking to carry for all people indifferently." (Internal quotation marks omitted).

For our purposes, perhaps the seminal case applying this notion of common carriage is *Midwest Video II.* At issue in *Midwest Video II* was a set of regulations compelling cable television systems to operate a minimum number of channels and to hold certain channels open for specific users. 440 U.S. at 692-93, 99 S.Ct. 1435. Cable operators were barred from exercising any discretion over who could use those latter channels and what those users could transmit. They were also forbidden from charging users any fee for some of the channels and limited to charging an "appropriate" fee for the remaining channels. *Id.* at 693-94, 99 S.Ct. 1435. Because at that time the Commission had no express statutory authority
652 over cable systems, it sought to justify these rules as *652 ancillary to its authority to regulate broadcasting. *Id.* at 696-99, 99 S.Ct. 1435.

Rejecting this argument, the Supreme Court held that the Commission had no power to regulate cable operators in this fashion. The Court reasoned that if the Commission sought to exercise such ancillary jurisdiction over cable operators on the basis of its authority over broadcasters, it must also respect the specific statutory limits of that authority, as "without reference to the provisions of the Act directly governing broadcasting, the Commission's jurisdiction ... would be unbounded." *Midwest Video II,* 440 U.S. at 706, 99 S.Ct. 1435. Congress had expressly prohibited the Commission from regulating broadcasters as common carriers, a limitation that must then, according to the Court, also extend to cable operators. *Id.* at 707, 99 S.Ct. 1435. And the challenged regulations, the Court held, "plainly impose common-carrier obligations on cable operators." *Id.* at 701, 99 S.Ct. 1435. In explaining this conclusion, the Court largely reiterated the nature of the obligations themselves: "Under the rules, cable systems are required to hold out dedicated channels on a first-come, nondiscriminatory basis. Operators are prohibited from determining or influencing the content of access programming. And the rules delimit what operators may charge for access and use of equipment." *Id.* at 701-02, 99 S.Ct. 1435 (internal citations omitted).

In *Cellco,* we recently confronted the similar question of whether a Commission regulation compelling mobile telephone companies to offer data roaming agreements to one another on "commercially reasonable" terms impermissibly regulated these providers as common carriers. 700 F.3d at 537. From the history and decisions surveyed above, we distilled "several basic principles" that guide our analysis here. *Id.* at 547. First, "[i]f a carrier is forced to offer service indiscriminately and on general terms, then that carrier is being relegated to common carrier status." *Id.* We also clarified, however, that "there is an important distinction between the question whether a given regulatory regime is *consistent* with common carrier or private carrier status, and the *Midwest Video II* question whether that regime *necessarily confers* common carrier status." *Id.* (internal citations omitted). Thus, "common carriage is not all or nothing — there is a gray area in which although a given regulation might be applied to common carriers, the obligations imposed are not common carriage *per se.*" *Id.* In this "space between *per se* common carriage and *per se* private carriage," we continued, "the Commission's determination that a regulation does or does not confer common carrier status warrants deference." *Id.*

Given these principles, we concluded that the data roaming rule imposed no *per se* common carriage requirements because it left "substantial room for individualized bargaining and discrimination in terms." *Cellco,* 700 F.3d at 548. The rule "expressly permit[ted] providers to adapt roaming agreements to `individualized circumstances without having to hold themselves out to serve all comers indiscriminately on the same or standardized terms.'" *Id.* That said, we cautioned that were the Commission to apply the "commercially reasonable" standard in a restrictive manner, essentially elevating it to the traditional common carrier "just and reasonable" standard, *see* 47 U.S.C. § 201(b), the rule might impose obligations that amounted to common carriage *per se,* a claim that could be brought in an "as applied" challenge. *Cellco,* 700 F.3d at 548-49.

B.

653 The Commission's explanation in the *Open Internet Order* for why the regulations *653 do not constitute common carrier obligations and its defense of those regulations here largely rest on its belief that, with respect to edge providers, broadband providers are not "carriers" at all. Stating that an entity is not a common carrier if it may decide on an individualized basis "`whether and on what terms to deal' with potential *customers,*" the Commission asserted in the *Order* that "[t]he customers at issue here are the end users who subscribe to broadband Internet access services." *Open Internet Order,* 25 F.C.C.R. at 17950-51 ¶ 79 (quoting *NARUC I,* 525 F.2d at 641) (emphasis added). It explained that because broadband providers would remain able to make "individualized decisions" in determining on what terms to deal with end users, the *Order* permitted the providers the "flexibility to customize service arrangements for a particular customer [that] is the hallmark of private carriage." *Id.* at 17951 ¶ 79. Here, the Commission reiterates that "as long as [a broadband provider] is not required to serve end users indiscriminately, rules regarding blocking or charging edge providers do not create common carriage." Commission's Br. 61. We disagree.

It is true, generally speaking, that the "customers" of broadband providers are end users. But that hardly means that broadband providers could not also be carriers with respect to edge providers. "Since it is clearly possible for a given entity to carry on many types of activities, it is at least logical to conclude that one may be a common carrier with regard to some activities but not others." *NARUC II,* 533 F.2d at 608. Because broadband providers furnish a service to edge providers, thus undoubtedly functioning as edge providers' "carriers," the obligations that the Commission imposes on broadband providers may well constitute common carriage *per se* regardless of whether edge providers are broadband providers' principal customers. This is true whatever the nature of the preexisting commercial relationship between broadband providers and edge providers. In contending otherwise, the Commission appears to misunderstand the nature of the inquiry in which we must engage. The question is not whether, absent the *Open Internet Order,* broadband providers would or did act as common carriers with respect to edge providers; rather, the question is whether, given the rules imposed by the *Open Internet Order,* broadband providers are *now* obligated to act as common carriers. *See* Midwest Video II, 440 U.S. at 701-02, 99 S.Ct. 1435.

In support of its understanding of common carriage, the Commission first invokes section 201(a), which provides that it is the "duty of every common carrier ... to furnish ... communication service upon reasonable request therefor." 47 U.S.C. § 201(a). No one disputes that a broadband provider's transmission of edge-provider traffic to its end-user subscribers represents a valuable service: an edge provider like Amazon wants and needs a broadband provider like Comcast to permit its subscribers to use Amazon.com. According to the Commission, however, because edge providers generally do not "request" service from broadband providers, and may have no direct relationship with end users' local access providers, broadband providers cannot be common carriers with respect to such edge providers. But section 201(a) describes a "duty" of a common carrier, not a prerequisite for qualifying as a common carrier in the first place. More important, the *Open Internet Order* imposes this very duty on broadband providers: given the *Open Internet Order*'s anti-blocking and anti-discrimination requirements, *if* Amazon were now to make a request for service, Comcast *must* comply. That is, Comcast
654 must now "furnish... communication service upon reasonable *654 request therefor." 47 U.S.C. § 201(a).

Similarly flawed is the Commission's argument that because the Communications Act defines a "common carrier" as a "common carrier *for hire,*" 47 U.S.C. § 153(11) (emphasis added), a common carrier relationship may exist only with respect to those customers who purchase service from the carrier. As Verizon aptly puts it in response, the fact that "broadband providers... generally have not charged edge providers for access or offered them differentiated services ... has no legal significance because the avowed purpose of the rules is to deny providers the discretion to do so now and in the future." Verizon's Reply Br. 5 n. 3. In other words, but for the *Open Internet Order,* broadband providers could freely impose conditions on the nature and quality of the service they furnish edge providers, potentially turning certain edge providers — currently able to "hire" their service for free — into paying customers. The Commission may not claim that the *Open Internet Order* imposes no common carrier obligations simply because it compels an entity to continue furnishing service at no cost.

Likewise, the Commission misses the point when it contends that because the Communications Act "imposes non-discrimination requirements on many entities that are not common carriers," the *Order's* requirements cannot "transform[] providers into common carriers." Commission's Br. 66-67. In support, the Commission cites 47 U.S.C. § 315(b), which requires that broadcasters charge political candidates nondiscriminatory rates if broadcasters permit them to use their stations, as well as 47 U.S.C. § 548(c)(2)(B), which prohibits satellite programming vendors owned in part or in whole by a cable operator from discriminating against other cable operators in the delivery of programming. Commission's Br. 66-67. But Congress has no statutory obligation to avoid imposing common carrier obligations on those who might not otherwise operate as common carriers, and thus the extent to which the cited provisions might regulate those entities as such is irrelevant. The Commission, on the other hand, has such an obligation with respect to entities it has classified as statutorily exempt from common carrier treatment, and the issue here is whether it has nonetheless "relegated [those entities], *pro tanto,* to common-car-rier status." *Midwest Video II,* 440 U.S. at 700-01, 99 S.Ct. 1435.

In these respects, *Midwest Video II* is indistinguishable. The *Midwest Video II* cable operators' primary "customers" were their subscribers, who paid to have programming delivered to them in their homes. There, as here, the Commission's regulations required the regulated entities to carry the content of third parties to these customers — content the entities otherwise could have blocked at their discretion. Moreover, much like the rules at issue here, the *Midwest Video II* regulations compelled the operators to hold open certain channels for use at no cost — thus permitting specified programmers to "hire" the cable operators' services for free. Given that the cable operators in *Midwest Video II* were carriers with respect to these third-party programmers, we see no basis for concluding that broadband providers are not similarly carriers with respect to third-party edge providers.

The Commission advances several grounds for distinguishing *Midwest Video II.* None is convincing.

The Commission asserts that, unlike in *Midwest Video II,* here the content is delivered to end users only when an end user
655 requests it — i.e., by clicking on a link to an edge provider's website. But the same *655 was essentially true in *Midwest Video II:* cable companies' customers would not actually receive the content on the dedicated public access channels unless they chose to watch those channels. The access requested by the programmers in *Midwest Video II,* like the access requested by edge providers here, is the ability to have their communications transmitted to end-user subscribers if those subscribers so desire.

Nor, contrary to the Commission's contention, is it at all relevant that in *Midwest Video II* only a limited number of cable channels were available, while in this case the number of edge providers a broadband provider could serve is unlimited. Whether an entity qualifies as a carrier does not turn on how much content it is able to carry or the extent to which other content might be crowded out. A short train is no more a carrier than a long train, or even a train long enough to serve every possible customer.

Finally, *Midwest Video II* cannot be distinguished on the basis that the Court there emphasized the degree to which the Commission's rules impinged on cable operators' "editorial discretion," and "transferred control" over the content transmitted. Commission's Br. 65. The Court made two related points regarding editorial discretion, neither of which helps the Commission. First, it observed that the need to protect editorial discretion was one reason Congress forbade common carrier treatment of broadcasters in the first place, a rationale that also applied to cable operators, thus confirming the Court's decision to extend that statutory prohibition to the Commission's attempt to exercise its ancillary jurisdiction over such entities. *Midwest Video II,* 440 U.S. at 700, 706-08, 99 S.Ct. 1435. Here, whatever might be the *justifications* for prohibiting common carrier treatment of "information service" providers and "commercial" mobile service providers, such treatment is undoubtedly prohibited. *See* 47 U.S.C. §§ 153(51), 332(c)(2). Second, the Court emphasized that, unlike the regulations approved in *United States v. Midwest Video Corp.,* 406 U.S. 649, 92 S.Ct. 1860, 32 L.Ed.2d 390 (1972) ("*Midwest Video I*") — which required certain cable companies to create their own programming and maintain facilities for local production, *id.* at 653-55, 92 S.Ct. 1860 — the regulations in *Midwest Video II* "transferred control of the content of access cable channels from cable operators to members of the public." *Midwest Video II,* 440 U.S. at 700, 99 S.Ct. 1435. The Court's point was simply that the *Midwest Video I* regulations had created no common carrier obligations because they had imposed no obligation on cable operators to provide carriage to any third party. By giving third parties "control" over the transmissions that cable operators carried, however, the *Midwest Video II* regulations did. The regulations here accomplish the very same sort of transfer of control: whereas previously broadband providers could have blocked or discriminated against the content of certain edge providers, they must now carry the content those edge providers desire to transmit. The only remaining question, then, is whether the *Open Internet Order*'s rules have so limited broadband providers' control over edge providers' transmissions that the regulations constitute common carriage *per se.* It is to that question that we now turn.

C.

We have little hesitation in concluding that the anti-discrimination obligation imposed on fixed broadband providers has "relegated [those providers], *pro tanto,* to common carrier status." *Midwest Video II,* 440 U.S. at 700-01, 99 S.Ct. 1435. In
656 requiring broadband providers to *656 serve all edge providers without "unreasonable discrimination," this rule by its very terms compels those providers to hold themselves out "to serve the public indiscriminately." *NARUC I,* 525 F.2d at 642.

Having relied almost entirely on the flawed argument that broadband providers are not carriers with respect to edge providers, the Commission offers little response on this point. In its briefs, the Commission contends only that if the *Open Internet Order* imposes common carriage requirements, so too would the regulations at issue in *United States v. Southwestern Cable Co.,* 392 U.S. 157, 88 S.Ct. 1994, 20 L.Ed.2d 1001 (1968), which the Supreme Court declined to strike down. *Southwestern Cable* involved a Commission rule that, among other things, compelled cable operators to transmit the signals of local broadcasters when cable operators imported the competing signals of other broadcasters into the local service area. *Id.* at 161, 88 S.Ct. 1994. Such a rule is plainly distinguishable from the *Open Internet Order*'s anti-discrimination rule because the *Southwestern Cable* regulation imposed no obligation on cable operators to hold their facilities open to the public generally, but only to certain specific broadcasters if and when the cable operators acted in ways that might harm those broadcasters. As the Court later explained in *Midwest Video II,* the *Southwestern Cable* rule "was limited to remedying a specific perceived evil," and "did not amount to a duty to hold out facilities indifferently for public use." 440 U.S. at 706 n. 16, 99 S.Ct. 1435. The *Open Internet Order*'s anti-discrimination provision is not so limited, as the compelled carriage obligation applies in all circumstances and with respect to all edge providers.

Significantly for our purposes, the Commission never argues that the *Open Internet Order*'s "no unreasonable discrimination" standard somehow differs from the nondiscrimination standard applied to common carriers generally — the argument that salvaged the data roaming requirements in *Cellco.* In a footnote in the *Order* itself, the Commission suggested that it viewed the rule's allowance for "reasonable network management" as establishing treatment that was somehow inconsistent with *per se* common carriage. *See* *Open Internet Order,* 25 F.C.C.R. at 17951 ¶ 79 n. 251. But the Commission has forfeited this argument by failing to raise it in its briefs here. *See* *Comcast,* 600 F.3d at 660; *Roth v. U.S. DOJ,* 642 F.3d 1161, 1181 (D.C.Cir.2011).

In any event, the argument is without merit. The *Order* defines the "reasonable network management" concept as follows: "A network management practice is reasonable if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service." *Open Internet Order,* 25 F.C.C.R. at 17952 ¶ 82. This provision, the Commission explained, would permit broadband providers to do two things, neither of which conflict with *per se* common carriage. First, "the reasonable network management" exception would permit broadband providers to "address[] traffic that is unwanted by end users ... such as by providing services or capabilities consistent with an end user's choices regarding parental controls or security capabilities." *Id.* Because the relevant service broadband providers furnish to edge providers is the ability to access end users if those end users so desire, a limited exception permitting *end users* to direct broadband providers to block certain traffic by no
657 means detracts from the common carrier nature of the obligations imposed on *657 broadband providers. Second, the *Order* defines "reasonable network management" to include practices designed to protect the network itself by "addressing traffic that is harmful to the network" and "reducing or mitigating the effects of congestion." *Id.* at 17952 ¶ 82. As Verizon correctly points out, however, this allowance "merely preserves a common carrier's traditional right to `turn[] away [business] either because it is not of the type normally accepted or because the carrier's capacity has been exhausted.'" Verizon's Br. 20 (quoting *NARUC I,* 525 F.2d at 641). Railroads have no obligation to allow passengers to carry bombs on board, nor need they permit passengers to stand in the aisles if all seats are taken. It is for this reason that the Communications Act bars common carriers from engaging in "*unjust or unreasonable* discrimination," not *all* discrimination. 47 U.S.C. § 202 (emphasis added).

The Commission has provided no basis for concluding that in permitting "reasonable" network management, and in prohibiting merely "unreasonable" discrimination, the *Order's* standard of "reasonableness" might be more permissive than the quintessential common carrier standard. *See* *Cellco,* 700 F.3d at 548 (characterizing the "just and reasonable" standard as being that "applicable to common carriers"). To the extent any ambiguity exists regarding how the Commission will apply these rules in practice, we think it is best characterized as ambiguity as to *how* the common carrier reasonableness standard applies in this context, not *whether* the standard applied is actually the same as the common carrier standard. Unlike the data roaming requirement at issue in *Cellco,* which set forth a "commercially reasonable" standard, *see id.* at 537, the language of the *Open Internet Order*'s anti-discrimination rule mirrors, almost precisely, section 202's language establishing the basic common carrier obligation not to "make any unjust or unreasonable discrimination." 47 U.S.C. § 202. Indeed, confirming that the two standards are equivalent, the Commission responded to commenters who argued that the "no unreasonable discrimination" requirement was too vague by quoting another commenter who observed that "[s]eventy-five years of experience have shown [the `unreasonable' qualifier in Section 202] to be both administrable and indispensable to the sound administration of the nation's telecommunications laws." *Open Internet Order,* 25 F.C.C.R. at 17949 ¶ 77 n. 240. Moreover, unlike the data roaming rule in *Cellco* — which spelled out "sixteen different factors plus a catchall ... that the Commission must take into account in evaluating whether a proffered roaming agreement is commercially reasonable," thus building into the standard "considerable flexibility," *Cellco,* 700 F.3d at 548 — the *Open Internet Order* makes no attempt to ensure that its reasonableness standard remains flexible. Instead, with respect to broadband providers' potential negotiations with edge providers, the *Order* ominously declares: "it is unlikely that pay for priority would satisfy the `no unreasonable discrimination' standard." *Open Internet Order,* 25 F.C.C.R. at 17947 ¶ 76. If the Commission will likely bar broadband providers from charging edge providers for using their service, thus forcing them to sell this service to all who ask at a price of $0, we see no room at all for "individualized bargaining." *Cellco,* 700 F.3d at 548.

Whether the *Open Internet Order's* anti-blocking rules, applicable to both fixed and mobile broadband providers, likewise
658 establish *per se* common carrier obligations is somewhat less clear. *658 According to Verizon, they do because they deny "broadband providers discretion in deciding which traffic from ... edge providers to carry," and deny them "discretion over carriage terms by setting a uniform price of zero." Verizon's Br. 16-17. This argument has some appeal. The anti-blocking rules establish a minimum level of service that broadband providers must furnish to all edge providers: edge providers' "content, applications [and] services" must be "effectively []usable." *Open Internet Order,* 25 F.C.C.R. at 17943 ¶ 66. The *Order* also expressly prohibits broadband providers from charging edge providers any fees for this minimum level of service. *Id.* at 17943-44 ¶ 67. In requiring that all edge providers receive this minimum level of access for free, these rules would appear on their face to impose *per se* common carrier obligations with respect to that minimum level of service. *See Midwest Video II,* 440 U.S. at 701 n. 9, 99 S.Ct. 1435 (a carrier may "operate as a common carrier with respect to a portion of its service only").

At oral argument, however, Commission counsel asserted that "[i]t's not common carriage to simply have a basic level of required service if you can negotiate different levels with different people." Oral Arg. Tr. 86. This contention rests on the fact that under the anti-blocking rules broadband providers have no obligation to actually provide any edge provider with the minimum service necessary to satisfy the rules. If, for example, all edge providers' "content, applications [and] services" are "effectively usable," *Open Internet Order,* 25 F.C.C.R. at 17943 ¶ 66, at download speeds of, say, three mbps, a broadband provider like Verizon could deliver all edge providers' traffic at speeds of at least four mbps. Viewed this way, the relevant "carriage" broadband providers furnish might be access to end users more generally, not the minimum required service. In delivering this service, so defined, the anti-blocking rules would permit broadband providers to distinguish somewhat among edge providers, just as Commission counsel contended at oral argument. For example, Verizon might, consistent with the antiblocking rule — and again, absent the antidiscrimination rule — charge an edge provider like Netflix for high-speed, priority access while limiting all other edge providers to a more standard service. In theory, moreover, not only could Verizon negotiate separate agreements with each individual edge provider regarding the level of service provided, but it could also charge similarly-situated edge providers completely different prices for the same service. Thus, if the relevant service that broadband providers furnish is access to their subscribers generally, as opposed to access to their subscribers at the specific minimum speed necessary to satisfy the antiblocking rules, then these rules, while perhaps establishing a lower limit on the forms that broadband providers' arrangements with edge providers could take, might nonetheless leave sufficient "room for individualized bargaining and discrimination in terms" so as not to run afoul of the statutory prohibitions on common carrier treatment. *Cellco,* 700 F.3d at 548.

Whatever the merits of this view, the Commission advanced nothing like it either in the underlying *Order* or in its briefs before this court. Instead, it makes no distinction at all between the anti-discrimination and anti-blocking rules, seeking to justify both types of rules with explanations that, as we have explained, are patently insufficient. We are unable to sustain the Commission's action on a ground upon which the agency itself never relied. *Lacson v. Department of Homeland*
659 *Security,* 726 F.3d 170, 177 (D.C.Cir. 2013); *see also United States v. Southerland,* 486 F.3d 1355, 1360 (D.C.Cir.2007) *659 ("argument[s] ... raised for the first time at oral argument [are] forfeited"). Nor may we defer to a reading of a statutory term that the Commission never offered. *Shieldalloy Metallurgical Corp. v. Nuclear Regulatory Comm'n,* 624 F.3d 489, 495 (D.C.Cir.2010).

The disclosure rules are another matter. Verizon does not contend that these rules, on their own, constitute *per se* common carrier obligations, nor do we see any way in which they would. Also, because Verizon does not direct its First Amendment or Takings Clause claims against the disclosure obligations, we have no need to address those contentions here.

Verizon does argue that the disclosure rules are not severable, insisting that if the anti-discrimination and antiblocking rules fall so too must the disclosure requirements. We disagree. "Whether the offending portion of a regulation is severable depends upon the intent of the agency and upon whether the remainder of the regulation could function sensibly without the stricken provision." *MD/DC/DE Broadcasters Ass'n v. FCC,* 236 F.3d 13, 22 (D.C.Cir.2001) (emphasis omitted). At oral argument, Commission counsel explained that the rules function separately, Oral Arg. Tr. 81-82, and we are satisfied that the Commission would have adopted the disclosure rules absent the rules we now vacate, which, we agree, operate independently. *See* *Davis County Solid Waste Management v. EPA,* 108 F.3d 1454, 1457-59 (D.C.Cir.1997) (finding promulgated standard to be severable where EPA asserted in rehearing petition that, contrary to its position at oral argument, the standards could stand alone).

IV.

For the forgoing reasons, although we reject Verizon's challenge to the *Open Internet Order*'s disclosure rules, we vacate both the anti-discrimination and the anti-blocking rules. *See* *Northern Air Cargo v. U.S. Postal Service,* 674 F.3d 852, 860-61 (D.C.Cir.2012) (appropriateness of vacatur dependent on whether "(1) the agency's decision is so deficient as to raise serious doubts whether the agency can adequately justify its decision at all; and (2) vacatur would be seriously disruptive or costly"); *Comcast,* 600 F.3d at 661 (vacating the *Comcast Order*). We remand the case to the Commission for further proceedings consistent with this opinion.

So ordered.

SILBERMAN, Senior Circuit Judge, concurring in part and dissenting in part:

I am in general agreement with the majority's conclusion that the *Open Internet Order* impermissibly subjects broadband providers to treatment as common carriers, but I disagree with the majority's conclusion that § 706 otherwise provides the FCC with affirmative statutory authority to promulgate these rules. I also think the Commission's reasoning violates the Administrative Procedure Act. These differences are important since the majority opinion suggests possible regulatory modifications that might circumvent the prohibition against common carrier treatment.

I.

The Commission's net neutrality regulation is purportedly designed to promote innovation among edge providers who, in turn, provide Internet user experience, thereby increasing user demand for broadband service and, ultimately, encouraging broadband providers to invest in infrastructure development to meet that demand. *Open Internet Order,* 25 F.C.C.R. 17905,
660 17907 ¶ 13 (2010). Verizon describe this theory as a "triple cushion shot." As I will show, whatever its logic, it is based *660
on a faulty factual premise. But my first disagreement with the Commission, and the majority, is to the claimed statutory authority.

I quite agree with the majority that the relevant statutory language is § 706 of the Communications Act. 47 U.S.C. § 1302. Although the FCC purports to rely on a scatter shot of other provisions of the statute, as well as § 706, none of those other provisions truly bear on the issue. "Emanations from the penumbra" may once have served to justify constitutional interpretation, but it hasn't caught on as legitimate statutory interpretation. I also agree with the majority — and disagree with Verizon — that § 706 is a grant of positive regulatory authority, but it doesn't come close to sanctioning the Commission's regulation.

The statute directs the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans... by utilizing ... price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." 47 U.S.C. § 1302(a).[1]

The FCC contends for, and the majority grants, *Chevron* deference as to the interpretation of this language. I don't disagree that *Chevron* is called for, but *Chevron* "is not a wand by which courts can turn an unlawful frog into a legitimate prince." *Associated Gas Distributors v. F.E.R.C.,* 824 F.2d 981, 1001 (D.C.Cir. 1987).

The key words obviously are "measures that promote competition in the local telecommunications market or other regulating methods that remove barriers to infrastructure investment." Those are the words that grant actual authority. Yet the Commission does not ground its regulation on this language. Indeed, both the Commission and the majority conflate these two clauses, though they have distinct functions. "Promoting competition in the telecommunications market" implies a regulation that encourages broadband providers to compete *with each other,* head-to-head, on price and quality. Removing

"barriers to infrastructure investment," on the other hand, does not necessarily require any increased competition in the telecommunications market.[2] For example, if a particular broadband provider were a monopolist, then by regulating its prices, the Commission might encourage it to expand supply to increase profits, rather than artificially restrict supply so as to charge supracompetitive rates. Such a regulation would not increase competition, but it would at least potentially remove a barrier to investment. This is, essentially, the theory that the Commission purportedly relies on: If the Commission theoretically could spur demand for broadband, the Commission would encourage further infrastructure investment
661 regardless of head-to-head competition. Thus, it is on the "removing barriers" clause, primarily,[3] *661 that the *Order* must stand or fall. Yet, the Commission never actually identifies any practices of the broadband providers as "barriers to investment" — not once in over 100 pages — probably because it would be so far fetched an interpretation of those words.

Nor does the Commission state (or argue in its brief), contrary to the majority's opinion, that the "triple cushion shot" — the means by which the Commission hopes to stimulate demand for better broadband — is designed to increase competition in the broadband market. *See* Majority Op. at 642-43 (citing 25 F.C.C.R. at 17910-11, 17970 ¶¶ 14, 120). Paragraph 14 makes no reference to competition,[4] and paragraph 120 does not refer to competition between broadband providers in the *local telecommunications* market — which is the statutory objective. Indeed, paragraph 120 indicates that the Commission's objective is to protect the edge providers (not in the telecommunications market) from content competition with the broadband providers.[5]

Indeed, the Commission frankly admits its purpose is much wider than the statutory objectives. It claims it must regulate broadly, so as to "protect[] consumer choice, free expression, end-user control, and the ability to innovate without
662 permission," 25 F.C.C.R. at 17949 ¶ 78, which *662 certainly indicates a Commission objective that exceeds the statutory authority granted in § 706.

The majority takes the statutory language even further; it states that the Commission's

> authority to promulgate regulations that promote broadband deployment encompasses the power to regulate broadband providers' economic relationships with edge providers if, in fact, the nature of those relationships influences the rate and extent to which broadband providers develop and expand services for end users.

Majority Op. at 643. So much for the terms "promote competition in the local telecommunications market" or "remove barriers to infrastructure investment." Presto, we have a new statute granting the FCC virtually unlimited power to regulate the Internet. This reading of § 706, as we said in *Comcast Corp. v. FCC,* "would virtually free the Commission from its congressional tether." 600 F.3d 642, 655 (D.C.Cir.2010). The limiting principles the majority relies on are illusory.

The majority claims that the Commission cannot exceed its subject-matter jurisdiction over "interstate and foreign communication by wire and radio." 25 F.C.C.R. at 17970 ¶ 121 (citing 47 U.S.C. § 152(a)). This is obviously true, but it is not a limitation on the Commission's interpretation of this specific statutory provision. The question is not whether the statute permits the Commission to do absolutely anything — of course it does not — but, rather, whether § 706 contains any *intrinsic* limitations. If the Commission's subject matter jurisdiction is a "limiting principle," then we might as well call the First Amendment a limiting principle, for surely the Commission could not censor the Internet, even if doing so did somehow increase broadband deployment.

According to the majority, the Commission is also restrained because it may only regulate pursuant to § 706 if it does so to achieve a particular purpose: to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans." 25 F.C.C.R. at 17970 ¶ 121 (citing 47 U.S.C. § 1302(a)). This is an almost meaningless limitation, as demonstrated by the *Open Internet Order* itself. The Commission's theory is that an open Internet will spur demand for broadband infrastructure. *Id.* at 17907 ¶ 3. But any regulation that, in the FCC's judgment might arguably make the Internet "better," could increase demand. I do not see how this "limitation" prevents § 706 from being carte blanche to issue any regulation that the Commission might believe to be in the public interest.

To sum up, § 706 requires the Commission to identify a "barrier[] to infrastructure investment" or a measure that "promote[s] competition" in the *broadband* market — which it has not.

II.

Verizon alternatively argue that, even assuming that § 706 grants the Commission its claimed authority, the regulation is arbitrary and capricious because its findings — such as they are — lack substantial evidence. I agree. Although we are not faced with a formal adjudication which would be judged by substantial evidence on a closed record, factual determinations that underly regulations must still be premised on demonstrated — and reasonable — evidential support. *See Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.,* 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983).

663 The Commission purports to fear that broadband providers might discriminate against, or even block, the Internet traffic *663 of specific edge providers or classes of edge providers, perhaps because broadband providers offer some competing services or because they might charge certain edge providers for premium services. The majority puts it even more starkly, asserting that the Commission "found that broadband providers have the technical and *economic* ability to impose restrictions on edge providers." Majority Op. at 646 (emphasis added). But the Commission never actually made such a finding. Its conclusions are littered with "may," "if," and "might." For example, according to the Commission, a broadband provider:

- "may have economic incentives to block or otherwise disadvantage specific edge providers"
- "might use this power to benefit its own or affiliated offerings at the expense of unaffiliated offerings"
- "may act to benefit edge providers that have paid it to exclude rivals"
- "may have incentives to increase revenues by charging edge providers"[6]
- "might withhold or decline to expand capacity in order to `squeeze' non-prioritized traffic"

25 F.C.C.R. at 17915-22 ¶¶ 21-29. To be sure, the majority correctly observes that we should defer to an agency's "predictive judgments as to the economic effect of a rule," *National Telephone Cooperative Ass'n v. FCC,* 563 F.3d 536, 541 (D.C.Cir. 2009), but deference to such a judgment must be based on some logic and evidence, not sheer speculation. That a party "may" do something is hardly a finding — at least in American law — that a party has done or will do something. Moreover, whether or not the "triple cushion shot" theory is rational economics (and I have my doubts), it rests, as I have noted, on a false factual premise — that the evidence supports a finding that broadband providers across the board, in all markets, enjoy sufficient economic clout to take the above actions.

The Commission asserts — and the majority accepts — that broadband providers act as "gatekeepers" because each one has a so-called "terminating monopoly" over access to particular end users. These are terms, largely invented,[7] the economic significance of which the Commission does not explain. All retail stores, for instance, are "gatekeepers." The term is thus meaningful only insofar as the gatekeeper by means of a powerful economic position vis-a-vis consumers gains
664 leverage over *664 suppliers.[8] The Commission made no effort to construct an analytic framework to measure this supposed gateway advantage — it is a rather slippery concept — nor did it adduce evidence to establish the economic power it would supposedly afford all broadband providers against all edge providers.

Without broadband provider market power, consumers, of course, have options; they can go to another broadband provider if they want to reach particular edge providers or if their connections to particular edge providers have been degraded. The Commission implicitly recognizes this, because it justifies exempting dial-up Internet providers from the *Order* by noting that "telephone service has historically provided the easy ability to switch among competing dial-up Internet access services." 25 F.C.C.R. at 17935 ¶ 51. The Commission also exempts "backbone" Internet providers — which interconnect between broadband providers — obviously for the same reason. On the other hand, the Commission asserts that broadband customers may have few alternatives or they may be locked into long-term contracts with early-termination fees. To be sure, some difficulty switching broadband providers is certainly a factor that might contribute to a firm's having market power, but that itself is not market power. There are many industries in which switching between competitors is not instantly achieved, but those industries may still be heavily disciplined by competitive forces because consumers will switch unless there are real barriers. By pointing to potential difficulties consumers may encounter switching broadband providers, the Commission is simply implying that broadband providers have market power (market power lite?), without actually examining if and where they do.

Although Verizon was reluctant to concede that even if a broadband provider had market power that would authorize the Commission to take action under § 706 — presumably because they challenged any regulatory authority under § 706 — they did bring to our attention a Justice Department submission, discussed *infra,* that emphasized the necessity of the

Commission limiting its regulatory initiatives to the control of broadband market power. *Ex Parte* Submission of the U.S. DOJ at 28, Docket No. 09-51 (Jan. 4, 2010). My discussion of market power reflects my view (and apparently the Justice Department's) of what evidence would be adequate to support the Commission's rule. In any event, Verizon certainly challenged the factual basis of the Commission's "gateway" conclusion, so I don't think the existence *vel non* of market power is really a different consideration. *See* Majority Op. at 647-48.

The majority does contend that four possible instances of broadband providers restricting users' access to certain edge providers are sufficient evidence of broadband providers' "incentives and ability to restrict Internet traffic." Majority Op. at
665 649. That the Commission was able to *665 locate only four potential examples of such conduct is, frankly, astonishing. In such a large industry where, as Verizon notes, billions of connections are formed between users and edge providers each year, one would think there should be ample examples of just about any type of conduct. But even if examples of such conduct were more numerous, it would still not be evidence that broadband providers are economically capable of restricting consumer choice. And, as the Commission noted, there are potentially efficient, pro-consumer reasons that an individual broadband provider might wish to restrict access to some edge providers. *See* 25 F.C.C.R. at 17921 ¶ 28 n. 80 ("Economics literature recognizes that access charges could be harmful under some circumstances and beneficial under others.... [T]he economic literature on two-sided markets is at an early stage of development."). The Commission's anecdotes then do not show that any broadband providers are capable of actually causing the harm about which the Commission is concerned.

My view, then, is that the Commission's failure to conduct a market power analysis is fatal to its attempt to regulate, because it means that there is inadequate evidence to support the lynchpin of the Commission's economic theory. The Commission actually recognized that a finding of market power would enhance its theory. 25 F.C.C.R. at 17923 ¶ 32. Indeed! But such a finding would, of course, have to be made market to market (indeed the statute specifically references *local* telecommunications markets), and if so, it would be a finding of a barrier to broadband investment without the mental gymnastics of the triple cushion shot. If one (or two) broadband providers have market power in any particular market and thereby could raise prices while restricting supply, the Commission could well conclude that was a barrier to broadband investment.

Of course, before the Commission could determine whether a particular broadband provider possesses market power, it would have to first define the relevant market. Instead, the Commission, in this case, simply cited a 2009 study that found that "nearly 70 percent of households lived in census tracts where only one or two wireline or fixed wireless firms provided advertised download speeds of at least 3 Mbps and upload speeds of at least 768 Kbps." 25 F.C.C.R. at 17923 ¶ 32. Why are these speeds relevant? Because the Commission has previously, as part of its statutory duty to assess the state of broadband deployment, defined "broadband" to mean download speeds of at least 4 Mbps and upload speeds of at least 1 Mbps. *Sixth Broadband Deployment Report,* 25 F.C.C.R. 9556, 9559 ¶ 5 (2010). According to the Commission, it is the minimum speed necessary to stream high quality video while simultaneously browsing the Internet and using email. *Id.* I don't dispute the legitimacy of that definition. Yet, while the Commission is free to rely on technical considerations in defining the statutory term "broadband," such considerations are irrelevant when it comes to defining the market in economic terms. A broadband provider offering a 2 Mbps connection is not, according to the FCC, really offering broadband. But it is quite likely that consumers, in deciding which Internet service to purchase, will compare products at varying speeds and price points. Slower service providers can still exert competitive pressure on faster service providers. So, too, can mobile broadband providers. Before the Commission can conclude that a market is concentrated, it must first define that market. It has made no effort to do so.

The Commission, moreover, does not address whether the trend in the broadband market is towards more or less
666 competition. *666 Obviously the deployment of broadband infrastructure is a capital-intensive process, and it should not be surprising if, during a period of expansion, some areas are served by fewer competitors than others. But there is no evidence in the record suggesting that broadband providers are carving up territory or avoiding head-to-head competition. At least anecdotally, the opposite seems to be true. Google has now entered the broadband market as a direct competitor:

> Google's ultra-high-speed Internet service may finally be scaring the big Internet providers into action. Following Google's announcement that it will expand into Austin, Texas, AT & T announced it will offer fiber Internet in the city, and Time Warner Cable announced it would offer citywide wireless Internet service.
>
> But smaller companies are also trying to head off Google before the company even makes an announcement in their communities. This week, for example, the Lawrence, Kansas-based Internet provider Wicked

> Broadband began taking pre-orders for a residential fiber Internet service with speeds to rival Google Fiber's.

Klint Finley, *Google Fiber Spurs Mom-and-Pop Net Providers Too, Wired,* Apr. 26, 2013, http://www.wired.com/wired enterprise/2013/04/google-fiberwicked/.

The Commission apparently wanted to avoid a disciplined inquiry focused on market power, notwithstanding the warning it received from the Justice Department less than a year before the regulation issued — which, as I noted, Verizon cited — a warning that unless the FCC's focus was on market power, any regulation could actually *discourage* broadband development, thus frustrating the statutory objective:

> Although enacting some form of regulation to prevent certain providers from exercising monopoly power may be tempting with regard to ... areas [served by only one or two broadband providers], care must be taken to avoid stifling the infrastructure investments needed to expand broadband access. In particular, price regulation would be appropriate only where necessary to protect consumers from the exercise of monopoly power and where such regulation would not stifle incentives to invest in infrastructure deployment.

Ex Parte Submission of the U.S. DOJ at 28, Docket No. 09-51 (Jan. 4, 2010).

The Commission did postulate one other economic theory supposedly establishing a "barrier to infrastructure investment" that does not depend on the broadband providers possessing market power. It argued, essentially, that innovation among edge providers is a public good in that every broadband provider benefits from an open Internet, but each broadband provider has an individual incentive to charge edge providers for service because, if broadband providers were to forego that revenue stream, they would be unable to internalize all of the supposed benefits to innovation. 25 F.C.C.R. at 17919 ¶ 25. In short, the Commission speculates that the *Open Internet Order* prevents a classic "tragedy of the commons" — a situation in which each economic actor, behaving in his own self-interest, contributes to the destruction of a public good. *See* Garrett Hardin, *The Tragedy of the Commons,* 162 SCIENCE 1243 (1968). In such a situation, each actor would be better off if a central regulator prevented them from doing what would be in their private interest if they were acting unilaterally. Again, however, the Commission fails to make any real economic findings regarding whether these rules are
667 actually necessary to prevent *667 such a situation. As such, it is the sheerest of fanciful speculation.

Indeed, if a tragedy of the commons were likely in the broadband market, then one would expect Verizon and other broadband providers to support the *Open Internet Order,* because such a situation would be economically harmful to them in the long run. By the same token, when firms oppose, on antitrust grounds, the merger of competing firms, it is generally a reliable indicator that the merger is pro-competitive. *See* Frank H. Easterbrook, *The Limits of Antitrust,* 63 TEX. L.REV. 1, 18 (1984) ("When a business rival brings suit, it is often safe to infer that the arrangement is beneficial to consumers."). Firms can generally be relied upon to know their own best interest.

Perhaps most troubling, the Commission fails to appreciate the long-term impact of its own regulations. An unwarranted government interference in a functioning market is likely to persist indefinitely, whereas a failure to intervene, even when regulation would be helpful, is likely to be only temporarily harmful because new innovations are constantly undermining entrenched industrial powers. *See id.* at 3 ("[J]udicial errors that tolerate baleful practices are self-correcting while erroneous condemnations are not."); Tim Wu, THE MASTER SWITCH 11 (2010) ("But as we have said, that which is centralized also eventually becomes a target for assault[.]").

Nevertheless, the Commission justifies its aggressive, prophylactic regulation by asserting that the negative consequences of regulation (preserving the status quo) are likely to be minor, while the consequences of allowing the broadband market to evolve without regulation could be drastic and permanent. 25 F.C.C.R. at 17909 ¶ 12. I think this is quite wrong, but in any event, the agency's judgment about the propriety of leaping before looking cannot displace the judgment of Congress which, in enacting § 706, did not so broadly empower the Commission. Rather, Congress required the agency to identify an actual barrier to infrastructure investment or a threat to competition, and the agency must have evidence that the barrier or threat exists.

III.

Because the *Open Internet Order* obviously imposes common carrier obligations on broadband providers, I join generally the opinion of the Court with respect to Part III. Indeed, even noted proponents of "net neutrality" acknowledge as much: "

[N]et neutrality is the twenty-first century's version of common carriage.... In the case of the Internet, common carriage under the name of net neutrality amounts to an FCC rule that bans any degree of blocking individual sites, [or] transmission of data." Tim Wu, THE MASTER SWITCH 236 (2010).

I have, however, one quibble with the majority's analysis of the anti-blocking rules. Although ultimately concluding that the anti-blocking rules are unlawful, the majority says that whether those rules "likewise establish *per se* common carrier obligations is somewhat less clear." Majority Op. at 657. Although the *Order* states that, under the anti-blocking rules, broadband providers may not degrade content so as to make it "effectively unusable," the majority supposes that a broadband provider might voluntarily choose to offer service that is faster than the anti-blocking rules require, i.e., faster than the minimum speed necessary to make each edge provider effectively usable by consumers. By exceeding the minimum level of service, the majority suggests, the broadband providers would have wide latitude to engage in
668 individualized bargaining, *668 which might take this rule outside of common carriage *per se.* My concern with this hypothesis is that the phrase "effectively unusable" is subject to manipulation. I think it should mean that whatever speed is generally offered to most edge providers is the minimum necessary to be effectively usable. After all, it is artificial to distinguish between what is "effective" and what consumers expect. If a faster speed were to become standard, we would likely consider a slower speed to be effectively unusable. Thus, while there is a possibility that a "fast lane" Internet service might be offered on a non-common carriage basis, the service that most users receive under this rule would still have to be offered as common carriage, at a regulated price of zero. In any event, as the majority recognizes, the Commission did not make this argument, so the anti-blocking rules must fall.[9]

*** * ***

This regulation essentially provides an economic preference to a politically powerful constituency, a constituency that, as is true of typical rent seekers, wishes protection against market forces. The Commission does not have authority to grant such a favor.

[1] Because § 706(b) contains almost the same language, it is unnecessary to discuss these two provisions separately. *See* 47 U.S.C. § 1302(b) (The Commission "shall take immediate action ... by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.").

[2] An example of a paradigmatic barrier to infrastructure investment would be state laws that prohibit municipalities from creating their own broadband infrastructure to compete against private companies. *See* Klint Finley, *Why Your City Should Compete With Google's Super-Speed Internet,* WIRED, May 28, 2013, http://www.wired.com/wiredenterprise/ 2013/05/community-fiber/.

[3] The transparency rules at least have the added benefit of facilitating consumer choice by providing information, which could lead to greater competition in the broadband market.

[4] The Internet's openness is critical to these outcomes, because it enables a virtuous circle of innovation in which new uses of the network — including new content, applications, services, and devices — lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses. Novel, improved, or lower-cost offerings introduced by content, application, service, and device providers spur end-user demand and encourage broadband providers to expand their networks and invest in new broadband technologies. Streaming video and e-commerce applications, for instance, have led to major network improvements such as fiber to the premises, VDSL, and DOCSIS 3.0. These network improvements generate new opportunities for edge providers, spurring them to innovate further. Each round of innovation increases the value of the Internet for broadband providers, edge providers, online businesses, and consumers. Continued operation of this virtuous circle, however, depends upon low barriers to innovation and entry by edge providers, which drive end-user demand. Restricting edge providers' ability to reach end users, and limiting end users' ability to choose which edge providers to patronize, would reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure. Similarly, restricting the ability of broadband providers to put the network to innovative uses may reduce the rate of improvements to network infrastructure.

25 F.C.C.R. at 17910-11 ¶ 14.

[5] In directing the Commission to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans ... by utilizing ... price cap regulation, regulatory forbearance, measures that promote competition in the *local telecommunications market,* or other regulating methods that remove barriers to infrastructure investment," Congress necessarily invested the Commission with the statutory authority to carry out those acts. Indeed, the relevant Senate Report explained that the provisions of Section 706 are "intended to ensure that one of the primary objectives of the [1996 Act] — to accelerate deployment of advanced telecommunications capability — is achieved," and stressed that these provisions are "a necessary fail-safe" to guarantee that Congress's objective is reached. It would be odd indeed to characterize Section 706(a) as a "fail-safe" that "ensures" the Commission's ability to

promote advanced services if it conferred no actual authority. Here, under our reading, Section 706(a) authorizes the Commission to address practices, such as blocking VoIP communications, degrading or raising the cost of online video, or denying end users material information about their broadband service, that have the potential to stifle overall investment in Internet infrastructure and limit competition in telecommunications markets.

25 F.C.C.R. at 17970 ¶ 120 (emphasis added).

[6] In this case, Verizon has indicated it does wish to explore two-sided pricing (charging both edge providers and consumers).

[7] My research has not revealed any use of the phrase "terminating monopoly" outside of the context of these proceedings before the FCC. It does not appear to be an accepted economic term. A "gatekeeper," on the other hand, is an intermediary between a consumer and an upstream seller. And a consumer's willingness to switch to another available supplier depends on the prospective benefit measured against the transaction costs (how many blocks am I willing to walk, or how many phone calls am I willing to make?).

Recent literature suggests that gatekeepers may sometimes exercise market power against upstream suppliers even when the gatekeeper does not have enough market share to exercise downstream market power against consumers. *See, e.g.,* Grimes, Warren S., *Buyer Power and Retail Gatekeeper Power: Protecting Competition and the Atomistic Seller,* 72 ANTITRUST L.J. 563, 580 (2005). One example would be if I purchase my groceries at a particular store, any food supplier who wishes to sell to me probably must do so through that particular store because I am unlikely to switch grocery stores over a single product. Regardless of any contemporary debates over the differences between buyer power and seller power, one thing is clear: The gatekeeper effect is a tool that facilitates the exercise of market power over sellers; it is not market power itself.

[8] The Commission treats each individual edge provider as analogous to an upstream seller in a retail context. But it seems more plausible that consumers consider "Internet access" to be the product that they are buying, and that large product creates greater incentives to switch to another provider. Although the Commission has argued that consumers will perceive a slow connection to a particular edge provider as indicative of a problem with that edge provider, rather than as a problem with the quality of Internet access provided by the broadband provider, 25 F.C.C.R. at 17921 ¶ 27, the Commission presents no evidence to support that conclusion. Indeed, edge providers have a strong incentive to inform consumers if their connections are being degraded. Moreover, the transparency rule, which we uphold, makes this outcome almost impossible.

[9] I do think that the transparency rules rest on firmer ground. The Commission is required to make triennial reports to Congress on "market entry barriers" in information services, 47 U.S.C. § 257, and requiring disclosure of network management practices appears to be reasonably ancillary to that duty. I also agree with the majority's conclusion that the disclosure rules are severable from the anti-discrimination and anti-blocking rules.

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued December 4, 2015 Decided June 14, 2016

No. 15-1063

UNITED STATES TELECOM ASSOCIATION, ET AL.,
PETITIONERS

v.

FEDERAL COMMUNICATIONS COMMISSION AND UNITED STATES OF AMERICA,
RESPONDENTS

INDEPENDENT TELEPHONE & TELECOMMUNICATIONS ALLIANCE, ET AL.,
INTERVENORS

Consolidated with 15-1078, 15-1086, 15-1090, 15-1091, 15-1092, 15-1095, 15-1099, 15-1117, 15-1128, 15-1151, 15-1164

On Petitions for Review of an Order of
the Federal Communications Commission

Peter D. Keisler argued the cause for petitioners United States Telecom Association, et al. With him on the joint briefs were *Michael K. Kellogg*, *Scott H. Angstreich*, *Miguel A. Estrada*, *Theodore B. Olson*, *Jonathan C. Bond*, *Stephen E.*

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Michael K. Kellogg, *Scott H. Angstreich*, *Miguel A. Estrada*, *Theodore B. Olson*, *Jonathan C. Bond, Stephen E. Coran*, *S. Jenell Trigg*, *Jeffrey A. Lamken*, *Matthew A. Brill*, *Matthew T. Murchison*, *Jonathan Y. Ellis*, *Helgi C. Walker*, and *Michael R. Huston* were on the joint brief for intervenors AT&T Inc., et al. in support of respondents in case no. 15-1151.

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Markham C. Erickson and *Andrew W. Guhr* were on the brief for *amicus curiae* Internet Association in support of respondents.

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Allen Hammond was on the brief for *amici curiae* The Broadband Institute of California and The Media Alliance in support of respondents.

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Eric G. Null was on the brief for *amicus curiae* Consumer Union of the U.S., Inc. in support of respondents.

Alexandra Sternburg and *Henry Goldberg* were on the brief for *amici curiae* Computer & Communications Industry and Mozilla in support of respondents.

Krista L. Cox was on the brief for *amici curiae* American Library Association, et al. in support of respondents.

Phillip R. Malone and *Jeffrey T. Pearlman* were on the brief for *amici curiae* Sascha Meinrath, Zephyr Teachout and 45,707 Users of the Internet in support of respondents.

Before: TATEL and SRINIVASAN, *Circuit Judges*, and WILLIAMS, *Senior Circuit Judge*.

Opinion for the Court filed by *Circuit Judges* TATEL and SRINIVASAN.

Opinion concurring in part and dissenting in part filed by *Senior Circuit Judge* WILLIAMS.

TATEL and SRINIVASAN, *Circuit Judges*: For the third time in seven years, we confront an effort by the Federal Communications Commission to compel internet openness—commonly known as net neutrality—the principle that broadband providers must treat all internet traffic the same regardless of source. In our first decision, *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010), we held that the Commission had failed to cite any statutory authority that would justify its order compelling a broadband provider to adhere to certain open internet practices. In response, relying on section 706 of the Telecommunications Act of 1996, the Commission issued an order imposing transparency, anti-blocking, and anti-discrimination requirements on broadband providers. In our second opinion, *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014), we held that section 706 gives the Commission authority to enact open internet rules. We nonetheless vacated the anti-blocking and anti-discrimination provisions because the Commission had chosen to classify broadband service as an information service under the Communications Act of 1934, which expressly prohibits the Commission from applying common carrier regulations to such services. The Commission then promulgated the order at issue in this case—the 2015 Open Internet Order—in which it reclassified broadband service as a telecommunications service, subject to common carrier regulation under Title II of the Communications Act. The Commission also exercised its statutory authority to forbear from applying many of Title II's provisions to broadband service and promulgated five rules to promote internet openness. Three separate groups of petitioners, consisting primarily of broadband providers and their associations, challenge the Order, arguing that the Commission lacks statutory authority to reclassify broadband as a telecommunications service, that even if the Commission has such authority its decision was arbitrary and capricious, that the Commission impermissibly classified mobile broadband as a commercial mobile service, that the Commission impermissibly forbore from certain provisions of Title II, and that some of the rules violate the First Amendment. For the reasons set forth in this opinion, we deny the petitions for review.

I.

Called "one of the most significant technological advancements of the 20th century," Senate Committee on Commerce, Science and Transportation, Report on Online Personal Privacy Act, Sen. Rep. No. 107-240, at 7 (2002), the internet has four major participants: end users, broadband providers, backbone networks, and edge providers. Most end users connect to the internet through a broadband provider, which delivers high-speed internet access using technologies such as cable modem service, digital subscriber line (DSL) service, and fiber optics. *See* In re Protecting and Promoting the Open Internet ("2015 Open Internet Order" or "the Order"), 30 FCC Rcd. 5601, 5682–83 ¶ 188, 5751 ¶ 346. Broadband providers interconnect with backbone networks—"long-haul fiber-optic links and high-speed routers capable of transmitting vast amounts of data." *Verizon*, 740 F.3d at 628 (citing In re Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control, 20 FCC Rcd. 18,433, 18,493 ¶ 110 (2005)). Edge providers, like Netflix, Google, and Amazon, "provide content, services, and applications over the Internet." *Id.* at 629 (citing In re Preserving the Open Internet ("2010 Open Internet Order"), 25 FCC Rcd. 17,905, 17,910 ¶ 13 (2010)). To bring this all together, when an end user wishes to check last night's baseball scores on ESPN.com, his computer sends a signal to his broadband provider, which in turn transmits it across the backbone to ESPN's broadband provider, which transmits the signal to ESPN's computer. Having received the signal, ESPN's computer breaks the scores into packets of information which travel back across ESPN's broadband provider network to the backbone and then across the end user's broadband provider network to the end user, who will then know that the Nats won 5 to 3. In recent years, some edge providers, such as Netflix and Google, have begun connecting directly to broadband providers' networks, thus avoiding the need to interconnect with the backbone, 2015 Open Internet Order, 30 FCC Rcd. at 5610 ¶ 30, and some broadband providers, such as Comcast and AT&T, have begun developing their own backbone networks, *id.* at 5688 ¶ 198.

Proponents of internet openness "worry about the relationship between broadband providers and edge providers." *Verizon*, 740 F.3d at 629. "They fear that broadband providers might prevent their end-user subscribers from accessing certain edge providers altogether, or might degrade the quality of their end-user subscribers' access to certain edge providers, either as a means of favoring their own competing content or services or to enable them to collect fees from certain edge providers." *Id.* Thus, for example, "a broadband provider like Comcast might limit its end-user subscribers' ability to access the *New York Times* website if it wanted to spike traffic to its own news website, or it might degrade the quality of the connection to a search website like Bing if a competitor like Google paid for prioritized access." *Id.*

Understanding the issues raised by the Commission's current attempt to achieve internet openness requires familiarity with its past efforts to do so, as well as with the history of broadband regulation more generally.

A.

Much of the structure of the current regulatory scheme derives from rules the Commission established in its 1980 Computer II Order. The Computer II rules distinguished between "basic services" and "enhanced services." Basic services, such as telephone service, offered "pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information." In re Amendment of Section 64.702 of the Commission's Rules and Regulations ("Computer II"), 77 F.C.C. 2d 384, 420 ¶ 96 (1980). Enhanced services consisted of "any offering over the telecommunications network which is more than a basic transmission service," for example, one in which "computer processing applications are used to act on the content, code, protocol, and other aspects of the subscriber's information," such as voicemail. *Id.* at 420 ¶ 97. The rules subjected basic services, but not enhanced services, to common carrier treatment under Title II of the Communications Act. *Id.* at 387 ¶¶ 5–7. Among other things, Title II requires that carriers "furnish . . . communication service upon reasonable request," 47 U.S.C. § 201(a), engage in no "unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services," *id.* § 202(a), and charge "just and reasonable" rates, *id.* § 201(b).

The Computer II rules also recognized a third category of services, "adjunct-to-basic" services: enhanced services, such as "speed dialing, call forwarding, [and] computer-provided directory assistance," that facilitated use of a basic service. *See* In re Implementation of the Non-Accounting Safeguards ("Non-Accounting Safeguards Order"), 11 FCC Rcd. 21,905, 21,958 ¶ 107 n.245 (1996). Although adjunct-to-basic services fell within the definition of enhanced services, the Commission nonetheless treated them as basic because of their role in facilitating basic services. *See* Computer II, 77 F.C.C. 2d at 421 ¶ 98 (explaining that the Commission would not treat as an enhanced service those services used to "facilitate [consumers'] use of traditional telephone services").

Fifteen years later, Congress, borrowing heavily from the Computer II framework, enacted the Telecommunications Act of 1996, which amended the Communications Act. The Telecommunications Act subjects a "telecommunications service," the successor to basic service, to common carrier regulation under Title II. 47 U.S.C. § 153(51) ("A telecommunications carrier shall be treated as a common carrier under [the Communications Act] only to the extent that it is engaged in providing telecommunications services."). By contrast, an "information service," the successor to an enhanced service, is not subject to Title II. The Telecommunications Act defines a "telecommunications service" as "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." *Id.* § 153(53). It defines telecommunications as "the transmission, between or among points specified by the user, of information of the user's choosing without change in the form or content of the information as sent and received." *Id.* § 153(50). An information service is an "offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." *Id.* § 153(24). The appropriate regulatory treatment therefore turns on what services a provider offers to the public: if it offers telecommunications, that service is subject to Title II regulation.

Tracking the Commission's approach to adjunct-to-basic services, Congress also effectively created a third category for information services that facilitate use of a telecommunications service. The "telecommunications management exception" exempts from information service treatment—and thus treats as a telecommunications service—"any use [of an information service] for the management, control, or operation of a telecommunications system or the management of a telecommunications service." *Id.*

The Commission first applied this statutory framework to broadband in 1998 when it classified a portion of DSL service—broadband internet service furnished over telephone lines—as a telecommunications service. *See* In re Deployment of Wireline Services Offering Advanced Telecommunications Capability ("Advanced Services Order"), 13 FCC Rcd. 24,012, 24,014 ¶ 3, 24,029–30 ¶¶ 35–36 (1998). According to the Commission, the transmission component of DSL—the phone lines that carried the information—was a telecommunications service. *Id.* at 24,029–30 ¶¶ 35–36. The Commission classified the internet access delivered via the phone lines, however, as a separate offering of an information service. *Id.* at 24,030 ¶ 36. DSL providers that supplied the phone lines and the internet access therefore offered both a telecommunications service and an information service.

Four years later, the Commission took a different approach when it classified cable modem service—broadband service provided over cable lines—as solely an information service. In re Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities ("Cable Broadband Order"), 17 FCC Rcd. 4798, 4823 ¶¶ 39–40 (2002). In its 2002 Cable Broadband Order, the Commission acknowledged that when providing the information service component of broadband—which, according to the Commission, consisted of several distinct applications, including email and online newsgroups, *id.* at 4822–23 ¶ 38—cable broadband providers transmit information and thus use telecommunications. In the Commission's view, however, the transmission functioned as a component of a "single, integrated information service," rather than as a standalone offering. *Id.* at 4823 ¶ 38. The Commission therefore classified them together as an information service. *Id.* at 4822–23 ¶¶ 38–40.

The Supreme Court upheld the Commission's classification of cable modem service in *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 545 U.S. 967, 986 (2005). Applying the principles of statutory interpretation established in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), the Court explained that the key statutory term "offering" in the definition of "telecommunications service" is ambiguous. *Brand X*, 545 U.S. at 989. What a company offers, the Court reasoned, can refer to either the "single, finished product" or the product's individual components. *Id.* at 991. According to the Court, resolving that question in the context of broadband service requires the Commission to determine whether the information service and the telecommunications components "are functionally integrated . . . or functionally separate." *Id.* That question "turns not on the language of [the Communications Act], but on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance." *Id.* Examining the classification at *Chevron*'s second step—reasonableness—the Court deferred to the Commission's finding that "the high-speed transmission used to provide [the information service] is a functionally integrated component of that service," *id.* at 998, and upheld the order, *id.* at 1003. Three Justices dissented, arguing that cable broadband providers offered telecommunications in the form of the "physical connection" between their computers and end users' computers. *See id.* at 1009 (Scalia, J., dissenting).

Following *Brand X*, the Commission classified other types of broadband service, such as DSL and mobile broadband service, as integrated offerings of information services without a standalone offering of telecommunications. *See, e.g.*, In re Appropriate Regulatory Treatment for

Broadband Access to the Internet over Wireless Networks ("2007 Wireless Order"), 22 FCC Rcd. 5901, 5901–02 ¶ 1 (2007) (mobile broadband); In re Appropriate Framework for Broadband Access to the Internet over Wireline Facilities ("2005 Wireline Broadband Order"), 20 FCC Rcd. 14,853, 14,863–64 ¶ 14 (2005) (DSL).

B.

Although the Commission's classification decisions spared broadband providers from Title II common carrier obligations, the Commission made clear that it would nonetheless seek to preserve principles of internet openness. In the 2005 Wireline Broadband Order, which classified DSL as an integrated information service, the Commission announced that should it "see evidence that providers of telecommunications for Internet access or IP-enabled services are violating these principles," it would "not hesitate to take action to address that conduct." 2005 Wireline Broadband Order, 20 FCC Rcd. at 14,904 ¶ 96. Simultaneously, the Commission issued a policy statement signaling its intention to "preserve and promote the open and interconnected nature of the public Internet." In re Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14,986, 14,988 ¶ 4 (2005).

In 2007, the Commission found reason to act when Comcast customers accused the company of interfering with their ability to access certain applications. *Comcast*, 600 F.3d at 644. Because Comcast voluntarily adopted new practices to address the customers' concerns, the Commission "simply ordered [Comcast] to make a set of disclosures describing the details of its new approach and the company's progress toward implementing it." *Id.* at 645. As authority for that order, the Commission cited its section 4(i) "ancillary jurisdiction." 47 U.S.C. § 154(i) ("The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions."); In re Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 FCC Rcd. 13,028, 13,034–41 ¶¶ 14–22 (2008). In *Comcast*, we vacated that order because the Commission had failed to identify any grant of statutory authority to which the order was reasonably ancillary. 600 F.3d at 644.

C.

Following *Comcast*, the Commission issued a notice of inquiry, seeking comment on whether it should reclassify broadband as a telecommunications service. *See* In re Framework for Broadband Internet Service, 25 FCC Rcd. 7866, 7867 ¶ 2 (2010). Rather than reclassify broadband, however, the Commission adopted the 2010 Open Internet Order. *See* 25 FCC Rcd. 17,905. In that order, the Commission promulgated three rules: (1) a transparency rule, which required broadband providers to "disclose the network management practices, performance characteristics, and terms and conditions of their broadband services"; (2) an anti-blocking rule, which prohibited broadband providers from "block[ing] lawful content, applications, services, or non-harmful devices"; and (3) an anti-discrimination rule, which established that broadband providers "may not unreasonably discriminate in transmitting lawful network traffic." *Id.* at 17,906 ¶ 1. The transparency rule applied to both "fixed" broadband, the service a consumer uses on her laptop when she is at home, and "mobile" broadband, the service a consumer uses on her iPhone when she is riding the bus to work. *Id.* The anti-blocking rule applied in full only to fixed broadband, but the order prohibited mobile broadband providers from "block[ing] lawful websites, or block[ing] applications that compete with their voice or video telephony services." *Id.* The anti-discrimination rule applied only to fixed broadband. *Id.* According to the Commission, mobile broadband warranted different treatment because, among other things, "the mobile ecosystem is experiencing very rapid innovation and change," *id.* at 17,956 ¶ 94, and "most consumers have more choices for mobile broadband than for fixed," *id.* at 17,957 ¶ 95. In support of its rules, the Commission relied primarily on section 706 of the Telecommunications Act, which requires that the Commission "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans," 47 U.S.C. § 1302(a). 25 FCC Rcd. at 17,968–72 ¶¶ 117–23.

In *Verizon*, we upheld the Commission's conclusion that section 706 provides it authority to promulgate open internet rules. According to the Commission, such rules encourage broadband deployment because they "preserve and facilitate the 'virtuous circle' of innovation that has driven the explosive growth of the Internet." *Verizon*, 740 F.3d at 628. Under the Commission's "virtuous circle" theory, "Internet openness . . . spurs investment and development by edge providers, which leads to increased end-user demand for broadband access, which leads to increased investment in broadband network infrastructure and technologies, which in turns leads to further innovation and development by edge providers." *Id.* at 634. Reviewing the record, we concluded that the Commission's "finding that Internet openness fosters . . . edge-provider innovation . . . was . . . reasonable and grounded in substantial evidence" and that the Commission had "more than adequately supported and explained its conclusion that edge-provider innovation leads to the expansion and improvement of broadband infrastructure." *Id.* at 644.

We also determined that the Commission had "adequately supported and explained its conclusion that, absent rules such as those set forth in the [2010 Open Internet Order], broadband providers represent[ed] a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment." *Id.* at 645. For example, the Commission noted that "broadband providers like AT & T and Time Warner have acknowledged that online video aggregators such as Netflix and Hulu compete directly with their own core video subscription service," *id.* (internal quotation marks omitted), and that, even absent direct competition, "[b]roadband providers . . . have powerful incentives to accept fees from edge providers, either in return for excluding their competitors or for granting them prioritized access to end users," *id.* at 645–46. Importantly, moreover, the Commission found that "broadband providers have the technical . . . ability to impose such restrictions," noting that there was "little dispute that broadband providers have the technological ability to distinguish between and discriminate against certain types of Internet traffic." *Id.* at 646. The Commission also "convincingly detailed how broadband providers' [gatekeeper] position in the market gives them the economic power to restrict edge-provider traffic and charge for the services they furnish edge providers." *Id.* Although the providers' gatekeeper position would have brought them little benefit if end users could have easily switched providers, "we [saw] no basis for questioning the Commission's conclusion that end users [were] unlikely to react in this fashion." *Id.* The Commission "detailed . . . thoroughly . . . the costs of switching," and found that "many end users may have no option to switch, or at least face very limited options." *Id.* at 647.

Finally, we explained that although some record evidence supported Verizon's insistence that the order would have a detrimental effect on broadband deployment, other record evidence suggested the opposite. *Id.* at 649. The case was thus one where "'the available data do[] not settle a regulatory issue and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion.'" *Id.* (alteration in original) (quoting *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 52 (1983)). The Commission, we concluded, had "offered 'a rational connection between the facts found and the choice made.'" *Id.* (quoting *State Farm*, 463 U.S. at 52).

We nonetheless vacated the anti-blocking and anti-discrimination rules because they unlawfully subjected broadband providers to per se common carrier treatment. *Id.* at 655, 658–59. As we explained, the Communications Act provides that "[a] telecommunications carrier shall be treated as a common carrier . . . only to the extent that it is engaged in providing telecommunications services." *Id.* at 650 (quoting 47 U.S.C. § 153(51)). The Commission, however, had classified broadband not as a telecommunications service, but rather as an information service, exempt from common carrier regulation. *Id.* Because the anti-blocking and anti-discrimination rules required broadband providers to offer service indiscriminately—the common law test for a per se common carrier obligation—they ran afoul of the Communications Act. *See id.* at 651–52, 655, 658–59. We upheld the transparency rule, however, because it imposed no per se common carrier obligations on broadband providers. *Id.* at 659.

D.

A few months after our decision in *Verizon*, the Commission issued a notice of proposed rulemaking to "find the best approach to protecting and promoting Internet openness." In re Protecting and Promoting the Open Internet ("NPRM"), 29 FCC Rcd. 5561, 5563 ¶ 4 (2014). After receiving nearly four million comments, the Commission promulgated the order at issue in this case, the 2015 Open Internet Order. 30 FCC Rcd. at 5624 ¶ 74.

The Order consists of three components. First, the Commission reclassified both fixed and mobile "broadband Internet access service" as telecommunications services. *Id.* at 5743–44 ¶ 331. For purposes of the Order, the Commission defined "broadband Internet access service" as "a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service." *Id.* at 5745–46 ¶ 336 (footnote omitted). Because the Commission concluded that the telecommunications service offered to end users necessarily includes the arrangements that broadband providers make with other networks to exchange traffic—commonly referred to as "interconnection arrangements"—the Commission determined that Title II would apply to those arrangements as well. *Id.* at 5686 ¶ 195. The Commission also reclassified mobile broadband service, which it had previously deemed a "private mobile service," exempt from common carrier regulation, as a "commercial mobile service," subject to such regulation. *Id.* at 5778 ¶ 388.

In the Order's second component, the Commission carried out its statutory mandate to forbear "from applying any regulation or any provision" of the Communications Act if it determines that the provision is unnecessary to ensure just and reasonable service or protect consumers and determines that forbearance is "consistent with the public interest." 47

U.S.C. § 160(a). Specifically, the Commission forbore from applying certain Title II provisions to broadband service, including section 251's mandatory unbundling requirements. 2015 Open Internet Order, 30 FCC Rcd. at 5804–05 ¶ 434, 5849–51 ¶ 513.

In the third portion of the Order, the Commission promulgated five open internet rules, which it applied to both fixed and mobile broadband service. The first three of the Commission's rules, which it called "bright-line rules," ban blocking, throttling, and paid prioritization. *Id.* at 5647 ¶ 110. The anti-blocking and anti-throttling rules prohibit broadband providers from blocking "lawful content, applications, services, or non-harmful devices" or throttling—degrading or impairing—access to the same. *Id.* at 5648 ¶ 112, 5651 ¶ 119. The anti-paid-prioritization rule bars broadband providers from "favor[ing] some traffic over other traffic . . . either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity." *Id.* at 5653 ¶ 125. The fourth rule, known as the "General Conduct Rule," prohibits broadband providers from "unreasonably interfer[ing] with or unreasonably disadvantag[ing] (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users." *Id.* at 5660 ¶ 136. The Commission set forth a nonexhaustive list of factors to guide its application of the General Conduct Rule, which we discuss at greater length below. *See id.* at 5661–64 ¶¶ 138–45. Finally, the Commission adopted an enhanced transparency rule, which builds upon the transparency rule that it promulgated in its 2010 Open Internet Order and that we sustained in *Verizon*. *Id.* at 5669–82 ¶¶ 154–85.

Several groups of petitioners now challenge the Order: US Telecom Association, an association of service providers, along with several other providers and associations; Full Service Network, a service provider, joined by other such providers; and Alamo Broadband Inc., a service provider, joined by an edge provider, Daniel Berninger. TechFreedom, a think tank devoted to technology issues, along with a service provider and several individual investors and entrepreneurs, has intervened on the side of petitioners US Telecom and Alamo. Cogent, a service provider, joined by several edge providers, users, and organizations, has intervened on the side of the Commission.

In part II, we address petitioners' arguments that the Commission has no statutory authority to reclassify broadband as a telecommunications service and that, even if it possesses such authority, it acted arbitrarily and capriciously. In part III, we address challenges to the Commission's regulation of interconnection arrangements under Title II. In part IV, we consider arguments that the Commission lacks statutory authority to classify mobile broadband service as a "commercial mobile service" and that, in any event, its decision to do so was arbitrary and capricious. In part V, we assess the contention that the Commission impermissibly forbore from certain provisions of Title II. In part VI, we consider challenges to the open internet rules. And finally, in part VII, we evaluate the claim that some of the open internet rules run afoul of the First Amendment.

Before addressing these issues, we think it important to emphasize two fundamental principles governing our responsibility as a reviewing court. First, our "role in reviewing agency regulations . . . is a limited one." *Ass'n of American Railroads v. Interstate Commerce Commission*, 978 F.2d 737, 740 (D.C. Cir. 1992). Our job is to ensure that an agency has acted "within the limits of [Congress's] delegation" of authority, *Chevron*, 467 U.S. at 865, and that its action is not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," 5 U.S.C. § 706(2)(A). Critically, we do not "inquire as to whether the agency's decision is wise as a policy matter; indeed, we are forbidden from substituting our judgment for that of the agency." *Ass'n of American Railroads*, 978 F.2d at 740 (alteration and internal quotation marks omitted). Nor do we inquire whether "some or many economists would disapprove of the [agency's] approach" because "we do not sit as a panel of referees on a professional economics journal, but as a panel of generalist judges obliged to defer to a reasonable judgment by an agency acting pursuant to congressionally delegated authority." *City of Los Angeles v. U.S. Department of Transportation*, 165 F.3d 972, 978 (D.C. Cir. 1999). Second, we "sit to resolve only legal questions presented and argued by the parties." *In re Cheney*, 334 F.3d 1096, 1108 (D.C. Cir. 2003), *vacated and remanded on other grounds sub nom. Cheney v. U.S. District Court for the District of Columbia*, 542 U.S. 367 (2004); *see also, e.g.*, *United Parcel Service, Inc. v. Mitchell*, 451 U.S. 56, 61 n.2 (1981) ("We decline to consider this argument since it was not raised by either of the parties here or below."). "It is not our duty" to consider "novel arguments a [party] could have made but did not." *United States v. Laureys*, 653 F.3d 27, 32 (D.C. Cir. 2011). "The premise of our adversarial system is that appellate courts do not sit as self-directed boards of legal inquiry and research, but essentially as arbiters of legal questions presented and argued by the parties before them." *Carducci v. Regan*, 714 F.2d 171, 177 (D.C. Cir. 1983). Departing from this rule would "deprive us in substantial measure of that assistance of counsel which the system assumes—a deficiency that we can perhaps supply by other means, but not without altering the character of our institution." *Id.* With these two critical principles in mind, we turn to the first issue in this case—the Commission's reclassification of broadband as a "telecommunications service."

II.

In the Open Internet Order, the Commission determined that broadband service satisfies the statutory definition of a telecommunications service: "the offering of telecommunications for a fee directly to the public." 47 U.S.C. § 153(53). In accordance with *Brand X*, the Commission arrived at this conclusion by examining consumer perception of what broadband providers offer. 2015 Open Internet Order, 30 FCC Rcd. at 5750 ¶ 342. In *Brand X*, the Supreme Court held that it was "consistent with the statute's terms" for the Commission to take into account "the end user's perspective" in classifying a service as "information" or "telecommunications." 545 U.S. at 993. Specifically, the Court held that the Commission had reasonably concluded that a provider supplies a telecommunications service when it makes a "'stand-alone' offering of telecommunications, *i.e.*, an offered service that, from the user's perspective, transmits messages unadulterated by computer processing." *Id.* at 989. In the Order, the Commission concluded that consumers perceive broadband service both as a standalone offering and as providing telecommunications. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5765 ¶ 365. These conclusions about consumer perception find extensive support in the record and together justify the Commission's decision to reclassify broadband as a telecommunications service.

With respect to its first conclusion—that consumers perceive broadband as a standalone offering—the Commission explained that broadband providers offer two separate types of services: "a broadband Internet access service," *id.* at 5750 ¶ 341, which provides "the ability to transmit data to and from Internet endpoints," *id.* at 5755 ¶ 350; and "'add-on' applications, content, and services that are generally information services," *id.* at 5750 ¶ 341, such as email and cloud-based storage programs, *id.* at 5773 ¶ 376. It found that from the consumer's perspective, "broadband Internet access service is today sufficiently independent of these information services that it is a separate offering." *Id.* at 5757–58 ¶ 356.

In support of its conclusion, the Commission pointed to record evidence demonstrating that consumers use broadband principally to access third-party content, not email and other add-on applications. "As more American households have gained access to broadband Internet access service," the Commission explained, "the market for Internet-based services provided by parties other than broadband Internet access providers has flourished." *Id.* at 5753 ¶ 347. Indeed, from 2003 to 2015, the number of websites increased from "approximately 36 million" to "an estimated 900 million." *Id.* By one estimate, two edge providers, Netflix and YouTube, "account for 50 percent of peak Internet download traffic in North America." *Id.* at 5754 ¶ 349.

That consumers focus on transmission to the exclusion of add-on applications is hardly controversial. Even the most limited examination of contemporary broadband usage reveals that consumers rely on the service primarily to access third-party content. The "typical consumer" purchases broadband to use "third-party apps such as Facebook, Netflix, YouTube, Twitter, or MLB.tv, or . . . to access any of thousands of websites." Computer & Communications Industry Association Amicus Br. 7. As one amicus succinctly explains, consumers today "pay telecommunications providers for access to the Internet, and *access* is exactly what they get. For *content*, they turn to [the] creative efforts . . . of others." Automattic Amicus Br. 1.

Indeed, given the tremendous impact third-party internet content has had on our society, it would be hard to deny its dominance in the broadband experience. Over the past two decades, this content has transformed nearly every aspect of our lives, from profound actions like choosing a leader, building a career, and falling in love to more quotidian ones like hailing a cab and watching a movie. The same assuredly cannot be said for broadband providers' own add-on applications.

The Commission found, moreover, that broadband consumers not only focus on the offering of transmission but often avoid using the broadband providers' add-on services altogether, choosing instead "to use their high-speed Internet connections to take advantage of competing services offered by third parties." 2015 Open Internet Order, 30 FCC Rcd. at 5753 ¶ 347. For instance, two third-party email services, Gmail and Yahoo! Mail, were "among the ten Internet sites most frequently visited during the week of January 17, 2015, with approximately 400 million and 350 million visits respectively." *Id.* at 5753 ¶ 348. Some "even advise consumers specifically *not* to use a broadband provider-based email address[] because a consumer cannot take that email address with them if he or she switches providers." *Id.*

Amici Members of Congress in Support of Respondents provide many more examples of third-party content that consumers use in lieu of broadband provider content, examples that will be abundantly familiar to most internet users. "[M]any consumers," they note, "have spurned the applications . . . offered by their broadband Internet access service provider, in favor of services and applications offered by third parties, such as . . . news and related content on nytimes.com or washingtonpost.com or Google News; home pages on Microsoft's MSN or Yahoo!'s 'my.yahoo'; video content on Netflix or YouTube or Hulu; streaming music on Spotify or Pandora or Apple Music; and on-line shopping on Amazon.com or Target.com, as well as many others in each category." Members of Congress for Resp'ts Amicus Br. 22.

In support of its second conclusion—that from the user's point of view, the standalone offering of broadband service provides telecommunications—the Commission explained that "[u]sers rely on broadband Internet access service to transmit 'information of the user's choosing,' 'between or among points specified by the user,'" without changing the form or content of that information. 2015 Open Internet Order, 30 FCC Rcd. at 5761 ¶ 361 (quoting 47 U.S.C. § 153(50)); *see also id.* at 5762–63 ¶ 362. The Commission grounded that determination in record evidence that "broadband Internet access service is marketed today primarily as a conduit for the transmission of data across the Internet." *Id.* at 5757 ¶ 354. Specifically, broadband providers focus their advertising on the speed of transmission. For example, the Commission quoted a Comcast ad offering "the consistently fast speeds you need, even during peak hours"; an RCN ad promising the ability "to upload and download in a flash"; and a Verizon ad claiming that "[w]hatever your life demands, there's a Verizon FiOS plan with the perfect upload/download speed for you." *Id.* at 5755 ¶ 351 (alteration in original) (internal quotation marks omitted). The Commission further observed that "fixed broadband providers use transmission speeds to classify tiers of service offerings and to distinguish their offerings from those of competitors." *Id.*

Those advertisements, moreover, "link higher transmission speeds and service reliability with enhanced access to the Internet at large—to any 'points' a user may wish to reach." *Id.* at 5756 ¶ 352. For example, RCN brags that its service is "ideal for watching Netflix," and Verizon touts its service as "work[ing] well for uploading and sharing videos on YouTube." *Id.* Based on the providers' emphasis on how useful their services are for accessing third-party content, the Commission found that end users view broadband service as a mechanism to transmit data of their own choosing to their desired destination—i.e., as a telecommunications service.

In concluding that broadband qualifies as a telecommunications service, the Commission explained that although broadband often relies on certain information services to transmit content to end users, these services "do not turn broadband Internet access service into a functionally integrated information service" because "they fall within the telecommunications system management exception." *Id.* at 5765 ¶ 365. The Commission focused on two such services. The first, DNS, routes end users who input the name of a website to its numerical IP address, allowing users to reach the website without having to remember its multidigit address. *Id.* at 5766 ¶ 366. The second, caching, refers to the process of storing copies of web content at network locations closer to users so that they can access it more quickly. *Id.* at 5770 ¶ 372. The Commission found that DNS and caching fit within the statute's telecommunications management exception because both services are "simply used to facilitate the transmission of information so that users can access other services." *Id.*

Petitioners assert numerous challenges to the Commission's decision to reclassify broadband. Finding that none has merit, we uphold the classification. Significantly, although our colleague believes that the Commission acted arbitrarily and capriciously when it reclassified broadband, he agrees that the Commission has statutory authority to classify broadband as a telecommunications service. Concurring & Dissenting Op. at 10.

A.

Before addressing petitioners' substantive challenges to the Commission's reclassification of broadband service, we must consider two procedural arguments, both offered by US Telecom.

First, US Telecom asserts that the Commission violated section 553 of the Administrative Procedure Act, which requires that an NPRM "include . . . either the terms or substance of the proposed rule or a description of the subjects and issues involved." 5 U.S.C. § 553(b)(3). According to US Telecom, the Commission violated this requirement because the NPRM proposed relying on section 706, not Title II; never explained that the Commission would justify reclassification based on consumer perception; and failed to signal that it would rely on the telecommunications management exception.

Under the APA, an NPRM must "provide sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully." *Honeywell International, Inc. v. EPA*, 372 F.3d 441, 445 (D.C. Cir. 2004) (internal quotation marks omitted). The final rule, however, "need not be the one proposed in the NPRM." *Agape Church, Inc. v. FCC*, 738 F.3d 397, 411 (D.C. Cir. 2013). Instead, it "need only be a 'logical outgrowth' of its notice." *Covad Communications Co. v. FCC*, 450 F.3d 528, 548 (D.C. Cir. 2006). An NPRM satisfies the logical outgrowth test if it "expressly ask[s] for comments on a particular issue or otherwise ma[kes] clear that the agency [is] contemplating a particular change." *CSX Transportation, Inc. v. Surface Transportation Board*, 584 F.3d 1076, 1081 (D.C. Cir. 2009).

The Commission's NPRM satisfied this standard. Although the NPRM did say that the Commission was considering relying on section 706, it also "expressly asked for comments" on whether the Commission should reclassify broadband: "[w]e seek comment on whether the Commission should rely on its authority under Title II of the Communications Act, including . . . whether we should revisit the Commission's classification of broadband Internet access service as an information service . . . ." NPRM, 29 FCC Rcd. at 5612 ¶ 148 (footnote omitted).

US Telecom's second complaint—that the NPRM failed to provide a meaningful opportunity to comment on the Commission's reliance on consumer perception—is equally without merit. In *Brand X*, the Supreme Court explained that classification under the Communications Act turns on "what the consumer perceives to be the . . . finished product." 545 U.S. at 990. Given this, and given that the NPRM expressly stated that the Commission was considering reclassifying broadband as a telecommunications service, interested parties could "comment meaningfully" on the possibility that the Commission would follow *Brand X* and look to consumer perception.

Brand X also provides the answer to US Telecom's complaint about the telecommunications management exception. In *Brand X*, the Court made clear that to reclassify broadband as a telecommunications service, the Commission would need to conclude that the telecommunications component of broadband was "functionally separate" from the information services component. *Id.* at 991. Moreover, the dissent expressly noted that the Commission could reach this conclusion in part by determining that certain information services fit within the telecommunications management exception. "[The] exception," the dissent explained, "would seem to apply to [DNS and caching]. DNS, in particular, is scarcely more than routing information . . . ." *Id.* at 1012–13 (Scalia, J., dissenting). As they could with consumer perception, therefore, interested parties could "comment meaningfully" on the Commission's use of the telecommunications management exception.

US Telecom next argues that the Commission violated the Regulatory Flexibility Act by failing to conduct an adequate Final Regulatory Flexibility Analysis regarding the effects of reclassification on small businesses. *See* 5 U.S.C. § 604(a). We lack jurisdiction to entertain this argument. Under the Communications Act, for a party to challenge an order based "on questions of fact or law upon which the Commission . . . has been afforded no opportunity to pass," a party must "petition for reconsideration." 47 U.S.C. § 405(a). Because the Commission included its Final Regulatory Flexibility Analysis in the Order, US Telecom had to file a petition for reconsideration if it wished to object to the analysis. US Telecom failed to do so.

B.

This brings us to petitioners' substantive challenges to reclassification. Specifically, they argue that the Commission lacks statutory authority to reclassify broadband as a telecommunications service. They also argue that, even if it has such authority, the Commission failed to adequately explain why it reclassified broadband from an information service to a telecommunications service. Finally, they contend that the Commission had to determine that broadband providers were common carriers under this court's *NARUC* test in order to reclassify.

1.

In addressing petitioners' first argument, we follow the Supreme Court's decision in *Brand X* and apply *Chevron*'s two-step analysis. *Brand X*, 545 U.S. at 981 ("[W]e apply the *Chevron* framework to the Commission's interpretation of the Communications Act."). At *Chevron* step one, we ask "whether Congress has directly spoken to the precise question at issue." *Chevron*, 467 U.S. at 842. Where "the intent of Congress is clear, that is the end of the matter; for [we], as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842–43. But if "the statute is silent or ambiguous with respect to the specific issue," we proceed to *Chevron* step two, where "the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.* at 843.

As part of its challenge to the Commission's reclassification, US Telecom argues that broadband is unambiguously an information service, which would bar the Commission from classifying it as a telecommunications service. The Commission maintains, however, that *Brand X* established that the Communications Act is ambiguous with respect to the proper classification of broadband. As the Commission points out, the Court explained that whether a carrier provides a "telecommunications service" depends on whether it makes an "offering" of telecommunications. *Brand X*, 545 U.S. at 989; *see also* 47 U.S.C. § 153(53) ("The term 'telecommunications service' means the *offering* of telecommunications for a fee directly to the public . . . ." (emphasis added)). The term "offering," the Court held, is ambiguous. *Brand X*, 545 U.S. at 989.

Seeking to escape *Brand X*, US Telecom argues that the Court held only that the Commission could classify as a telecommunications service the "last mile" of transmission, which US Telecom defines as the span between the end user's computer and the broadband provider's computer. Here, however, the Commission classified "the *entire* broadband service from the end user all the way to edge providers" as a telecommunications service. US Telecom Pet'rs' Br. 44. According to US Telecom, "[t]he ambiguity addressed in *Brand X* thus has no bearing here because the Order goes beyond the scope of whatever ambiguity [the statute] contains." *Id.* (second alteration in original) (internal quotation marks omitted).

We have no need to resolve this dispute because, even if the *Brand X* decision was only about the last mile, the Court focused on the nature of the functions broadband providers offered to end users, not the length of the transmission pathway, in holding that the "offering" was ambiguous. As discussed earlier, the Commission adopted that approach in the Order in concluding that the term was ambiguous as to the classification question presented here: whether the "offering" of broadband internet access service can be considered a telecommunications service. In doing so, the Commission acted in accordance with the Court's instruction in *Brand X* that the proper classification of broadband turns "on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance." 545 U.S. at 991.

US Telecom makes several arguments in support of its contrary position that broadband is unambiguously an information service. None persuades us. First, US Telecom contends that the statute's text makes clear that broadband service "qualifies under *each* of the eight, independent parts of the [information service] definition," US Telecom Pet'rs' Br. 30—namely, that it "offer[s] . . . a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications," 47 U.S.C. § 153(24). Accordingly, US Telecom argues, broadband service "cannot fall within the mutually exclusive category of telecommunications service." US Telecom Pet'rs' Br. 30 (internal quotation marks and footnote omitted). But this argument ignores that under the statute's definition of "information service," such services are provided "via telecommunications." 47 U.S.C. § 153(24). This, then, brings us back to the basic question: do broadband providers make a standalone offering of telecommunications? US Telecom's argument fails to provide an unambiguous answer to that question.

US Telecom next claims that 47 U.S.C. § 230, enacted as part of the Communications Decency Act of 1996, a portion of the Telecommunications Act, "confirms that Congress understood Internet access to be an information service." US Telecom Pet'rs' Br. 33. Section 230(b) states that "[i]t is the policy of the United States . . . to promote the continued development of the Internet and other interactive computer services and other interactive media." 47 U.S.C. § 230(b)(1). In turn, section 230(f) defines an "interactive computer service" "[a]s used in this section" as "any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet." *Id.* § 230(f)(2). According to US Telecom, this definition of "interactive computer service" makes clear that an information service "includes an Internet access service." US Telecom Pet'rs' Br. 33. As the Commission pointed out in the Order, however, it is "unlikely that Congress would attempt to settle the regulatory status of broadband Internet access services in such an oblique and indirect manner, especially given the opportunity to do so when it adopted the Telecommunications Act of 1996." 30 FCC Rcd. at 5777 ¶ 386; *see Whitman v. American Trucking Ass'ns*, 531 U.S. 457, 468 (2001) ("Congress . . . does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes.").

Finally, US Telecom argues that "[t]he statutory context and history confirm the plain meaning of the statutory text." US Telecom Pet'rs' Br. 33. According to US Telecom, while the Computer II regime was in effect, the Commission classified "gateway services allowing access to information stored by third parties" as enhanced services, and Congress incorporated that classification into the Communications Act when it enacted the Telecommunications Act's information/telecommunications service dichotomy. *Id.* at 33–35. "Those 'gateways,'" US Telecom insists, "involved the same 'functions and services associated with Internet access.'" *Id.* at 34 (quoting In re Federal-State Joint Board on Universal Service, 13 FCC Rcd. 11,501 ¶ 75 (1998)). This argument suffers from a significant flaw: nothing in the Telecommunications Act suggests that Congress intended to freeze in place the Commission's existing classifications of various services. Indeed, such a reading of the Telecommunications Act would conflict with the Supreme Court's holding in *Brand X* that classification of broadband "turns . . . on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance." 545 U.S. at 991.

Amici Members of Congress in Support of Petitioners advance an additional argument that post-

Telecommunications Act legislative history "demonstrates that Congress never delegated to the Commission" authority to regulate broadband service as a telecommunications service. Members of Congress for Pet'rs Amicus Br. 4. In support, they point out that Congress has repeatedly tried and failed to enact open internet legislation, confirming, in their view, that the Commission lacks authority to issue open internet rules. But as the Supreme Court has made clear, courts do not regard Congress's "attention" to a matter subsequently resolved by an agency pursuant to statutory authority as "legislative history demonstrating a congressional construction of the meaning of the statute." *American Trucking Ass'ns v. Atchison, Topeka, & Santa Fe Railway Co.*, 387 U.S. 397, 416–17 (1967). Following this approach, we have rejected attempts to use legislative history to cabin an agency's statutory authority in the manner amici propose. For example, in *Advanced Micro Devices v. Civil Aeronautics Board*, petitioners challenged the Civil Aeronautics Board's rules adopting a more deferential approach to the regulation of international cargo rates. 742 F.2d 1520, 1527–28 (D.C. Cir. 1984). Petitioners asserted that the Board had no authority to promulgate the rules because "Congress deliberately eschewed the course now advanced by the [Board]," *id.* at 1541, when it tried and failed to enact legislation that would have put "limits on the Board's ratemaking functions regarding international cargo," *id.* at 1523. Rejecting petitioners' argument, we explained that "Congress's failure to enact legislation . . . d[oes] not preclude analogous rulemaking." *Id.* at 1542 (citing *American Trucking Ass'ns*, 387 U.S. at 416–18). In that case, as here, the relevant question was whether the agency had statutory authority to promulgate its regulations, and, as we explained, "congressional inaction or congressional action short of the enactment of positive law . . . is often entitled to no weight" in answering that question. *Id*. at 1541. Amici also argue that Congress's grants to the Commission of "narrow authority over circumscribed aspects of the Internet" indicate that the Commission lacks "the authority it claims here." Members of Congress for Pet'rs Amicus Br. 9. None of the statutes amici cite, however, have anything to do with the sort of common carrier regulations at issue here.

Full Service Network also urges us to resolve this case at *Chevron* step one, though it takes the opposite position of US Telecom. According to Full Service Network, broadband is unambiguously a telecommunications service because it functions primarily as a transmission service. That argument clearly fails in light of *Brand X*, which held that classification of broadband as an information service was permissible.

Brand X also requires that we reject intervenor TechFreedom's argument that the reclassification issue is controlled by the Supreme Court's decision in *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120 (2000). In that case, the Court held that "Congress ha[d] clearly precluded the FDA from asserting jurisdiction to regulate tobacco products." *Id.* at 126. The Court emphasized that the FDA had disclaimed any authority to regulate tobacco products for more than eighty years and that Congress had repeatedly legislated against this background. *Id.* at 143–59. Furthermore, the Court observed, if the FDA did have authority to regulate the tobacco industry, given its statutory obligations and its factual findings regarding the harmful effects of tobacco, the FDA would have had to ban tobacco products, a result clearly contrary to congressional intent. *See id.* at 135–43. If Congress sought to "delegate a decision of such economic and political significance" to the agency, the Court noted, it would have done so clearly. *Id.* at 160. Relying on *Brown & Williamson*, TechFreedom urges us to exercise "judicial skepticism of the [Commission's] power grab." TechFreedom Intervenor Br. 18.

TechFreedom ignores *Brand X*. As explained above, the Supreme Court expressly recognized that Congress, by leaving a statutory ambiguity, had delegated to the Commission the power to regulate broadband service. By contrast, in *Brown & Williamson* the Court held that Congress had "precluded" the FDA from regulating cigarettes.

This brings us, then, to petitioners' and intervenors' *Chevron* step two challenges.

First, US Telecom argues that the Commission's classification is unreasonable because many broadband providers offer information services, such as email, alongside internet access. According to US Telecom, because broadband providers still offer such services, consumers must perceive that those providers offer an information service. For its part, the Commission agreed that broadband providers offer email and other services, but simply concluded that "broadband Internet access service is today sufficiently independent of these information services that it is a separate offering." 2015 Open Internet Order, 30 FCC Rcd. at 5758 ¶ 356. US Telecom nowhere challenges that conclusion, and for good reason: the record contains extensive evidence that consumers perceive a standalone offering of transmission, separate from the offering of information services like email and cloud storage. *See supra* at 25–27.

US Telecom next contends that the Commission's reclassification of broadband was unreasonable because DNS and caching do not fall within the Communications Act's telecommunications management exception. As noted above, that exception excludes from the definition of an information service "any [service] for the management, control, or operation of a telecommunications system or the management of a telecommunications service." 47 U.S.C. § 153(24). The Commission found that "[w]hen offered as part of a broadband Internet access service, caching [and] DNS [are] simply used to facilitate the transmission of information so that users can access other services." 2015 Open Internet Order, 30 FCC Rcd. at 5770 ¶ 372. Challenging this interpretation, US Telecom argues that DNS and caching fall outside the exception because neither "manage[s] a telecommunications system or service," US Telecom Pet'rs' Br. 39, but are instead examples of the "many core information-service functions associated with Internet access," *id.* at 37. US Telecom claims that the Commission's use of the telecommunications management exception was also unreasonable because the Commission "contends that the *same functions*—DNS and caching—are used for telecommunications management when offered as part of Internet access, but are an *information service* when third-party content providers similarly offer them." *Id.* at 40. We are unpersuaded.

First, the Commission explained that the Communications Act's telecommunications management exception encompasses those services that would have qualified as "adjunct-to-basic" under the Computer II regime. 2015 Open Internet Order, 30 FCC Rcd. at 5766–67 ¶ 367 (citing Non-Accounting Safeguards Order, 11 FCC Rcd. at 21,958 ¶ 107). To qualify as an adjunct-to-basic service, a service had to be "'basic in purpose and use' in the sense that [it] facilitate[d] use of the network, and . . . [it] could 'not alter the fundamental character of the [telecommunications service].'" *Id.* at 5767 ¶ 367 (last alteration in original) (quoting In re North American Telecommunications Ass'n, 101 F.C.C. 2d 349, 359 ¶ 24, 360 ¶ 27 (1985)) (some internal quotation marks omitted). The Commission concluded that

DNS and caching satisfy this test because both services facilitate use of the network without altering the fundamental character of the telecommunications service. DNS does so by "allow[ing] more efficient use of the telecommunications network by facilitating accurate and efficient routing from the end user to the receiving party." *Id.* at 5768 ¶ 368. Caching qualifies because it "enabl[es] the user to obtain more rapid retrieval of information through the network." *Id.* at 5770 ¶ 372 (internal quotation marks omitted). US Telecom does not challenge the applicability of the adjunct-to-basic standard, nor does it give us any reason to believe that the Commission's application of that standard was unreasonable. *See GTE Service Corp. v. FCC*, 224 F.3d 768, 772 (D.C. Cir. 2000) ("[W]e will defer to the [Commission's] interpretation of [the Communications Act] if it is reasonable in light of the text, the structure, and the purpose of [the Communications Act].").

As to US Telecom's second point, the Commission justified treating third-party DNS and caching services differently on the ground that when such services are "provided on a stand-alone basis by entities other than the provider of Internet access service[,] . . . there would be no telecommunications service to which [the services are] adjunct." 2015 Open Internet Order, 30 FCC Rcd. at 5769 ¶ 370 n.1046. Again, US Telecom has given us no basis for questioning the reasonableness of this conclusion. Once a carrier uses a service that would ordinarily be an information service—such as DNS or caching—to manage a telecommunications service, that service no longer qualifies as an information service under the Communications Act. The same service, though, when unconnected to a telecommunications service, remains an information service.

Intervenor TechFreedom makes one additional *Chevron* step two argument. It contends that this case resembles *Utility Air Regulatory Group v. EPA*, in which the Supreme Court reviewed EPA regulations applying certain statutory programs governing air pollution to greenhouse gases. 134 S. Ct. 2427, 2437 (2014). EPA had "tailored" the programs to greenhouse gases by using different numerical thresholds for triggering application of the programs than those listed in the statute because using "the statutory thresholds would [have] radically expand[ed] those programs." *Id.* at 2437–38. Rejecting this approach, the Supreme Court held that because the statute's numerical thresholds were "unambiguous," EPA had no "authority to 'tailor' [them] to accommodate its greenhouse-gas-inclusive interpretation of the permitting triggers." *Id.* at 2446. "[T]he need to rewrite clear provisions of the statute," the Court declared, "should have alerted EPA that it had taken a wrong interpretive turn." *Id.* According to TechFreedom, the Commission's need to extensively forbear from Title II similarly reveals the "incoherence" of its decision. TechFreedom Intervenor Br. 21.

This case is nothing like *Utility Air*. Far from rewriting clear statutory language, the Commission followed an express statutory mandate requiring it to "forbear from applying any regulation or any provision" of the Communications Act if certain criteria are met. 47 U.S.C. § 160(a). Nothing in the Clean Air Act gave EPA any comparable authority. Accordingly, the Commission's extensive forbearance does not suggest that the Order is unreasonable.

2.

We next consider US Telecom's argument that the Commission failed to adequately explain why, having long classified broadband as an information service, it chose to reclassify it as a telecommunications service. Under the

APA, we must "determine whether the Commission's actions were 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'" *Verizon*, 740 F.3d at 635 (quoting 5 U.S.C. § 706(2)(A)). As noted at the outset of our opinion, "[o]ur role in this regard is a limited one, and we will not substitute our judgment for that of the agency." *EarthLink, Inc. v. FCC*, 462 F.3d 1, 9 (D.C. Cir. 2006). Provided that the Commission has "articulate[d] . . . a 'rational connection between the facts found and the choice made,'" we will uphold its decision. *Verizon*, 740 F.3d at 643–44 (alteration in original) (quoting *State Farm*, 463 U.S. at 52) (some internal quotation marks omitted); *see also FERC v. Electric Power Supply Ass'n*, 136 S. Ct. 760, 784 (2016) ("Our important but limited role is to ensure that [the agency] engaged in reasoned decisionmaking—that it weighed competing views, selected [an approach] with adequate support in the record, and intelligibly explained the reasons for making that choice.").

As relevant here, "[t]he APA's requirement of reasoned decision-making ordinarily demands that an agency acknowledge and explain the reasons for a changed interpretation." *Verizon*, 740 F.3d at 636. "An agency may not, for example, depart from a prior policy *sub silentio* or simply disregard rules that are still on the books." *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). That said, although the agency "must show that there are good reasons for the new policy[,] . . . it need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one." *Id.*

US Telecom contends that the Commission lacked good reasons for reclassifying broadband because "as *Verizon* made clear, and as the [Commission] originally recognized, it could have adopted appropriate Open Internet rules based upon

§ 706 *without* reclassifying broadband." US Telecom Pet'rs' Br. 54 (internal citations omitted). But the Commission did not believe it could do so. Specifically, the Commission found it necessary to establish three bright-line rules, the anti-blocking, anti-throttling, and anti-paid-prioritization rules, 2015 Open Internet Order, 30 FCC Rcd. at 5607 ¶ 14, all of which impose per se common carrier obligations by requiring broadband providers to offer indiscriminate service to edge providers, *see Verizon*, 740 F.3d at 651–52. "[I]n light of *Verizon*," the Commission explained, "absent a classification of broadband providers as providing a 'telecommunications service,' the Commission could only rely on section 706 to put in place open Internet protections that steered clear of regulating broadband providers as common carriers *per se*." 2015 Open Internet Order, 30 FCC Rcd. at 5614 ¶ 42. This, in our view, represents a perfectly "good reason" for the Commission's change in position.

Raising an additional argument, US Telecom asserts that reclassification "will undermine" investment in broadband. US Telecom Pet'rs' Br. 54. The partial dissent agrees, pointing specifically to 47 U.S.C. § 207, which subjects Title II common carriers to private complaints. Concurring & Dissenting Op. at 24. The Commission, however, reached a different conclusion with respect to reclassification's impact on broadband investment. It found that "Internet traffic is expected to grow substantially in the coming years," driving investment, 2015 Open Internet Order, 30 FCC Rcd. at 5792 ¶ 412; that Title II regulation had not stifled investment when applied in other circumstances, *id.* at 5793–94 ¶ 414; and that "major infrastructure providers have indicated that they will in fact continue to invest under the [Title II] framework," *id.* at 5795 ¶ 416. In any event, the Commission found that the virtuous cycle—spurred by the open internet rules—provides an ample counterweight, in that any harmful effects on broadband investment "are far outweighed by positive effects on innovation and investment in other areas of the ecosystem that [its] core broadband polices will promote." *Id.* at 5791 ¶ 410. In reviewing these conclusions, we ask not whether they "are correct or are the ones that we would reach on our own, but only whether they are reasonable." *EarthLink*, 462 F.3d at 12 (internal quotation marks omitted). Moreover, "[a]n agency's predictive judgments about areas that are within the agency's field of discretion and expertise are entitled to *particularly deferential* review, as long as they are reasonable." *Id.* (internal quotation marks omitted). The Commission has satisfied this highly deferential standard. As to section 207, the Commission explained that "[a]lthough [it] appreciate[d] carriers' concerns that [its] reclassification decision could create investment-chilling regulatory burdens and uncertainty, [it] believe[d] that any effects are likely to be short term and will dissipate over time as the marketplace internalizes [the] Title II approach." 2015 Open Internet Order, 30 FCC Rcd. at 5791 ¶ 410. This too is precisely the kind of "predictive judgment[] . . . within the agency's field of discretion and expertise" that we do not second guess.

In a related argument, the partial dissent contends that the Commission lacked "good reasons" for reclassifying because its rules, particularly the General Conduct Rule, will decrease future investment in broadband by increasing regulatory uncertainty. Although US Telecom asserts in the introduction to its brief that the rules "will undermine future investment by large and small broadband providers," US Telecom Pet'rs' Br. 4, it provides no further elaboration on this point and never challenges *reclassification* on the ground that the rules will harm broadband investment. As we have said before, "[i]t is not enough merely to mention a possible argument in the most skeletal way, leaving the court to do counsel's work." *New York Rehabilitation Care Management, LLC v. NLRB*, 506

F.3d 1070, 1076 (D.C. Cir. 2007) (internal quotation marks omitted). Given that no party adequately raised this argument, we decline to consider it. *See In re Cheney*, 334 F.3d at 1108 (Reviewing courts "sit to resolve only legal questions presented and argued by the parties.").

Finally, the partial dissent disagrees with our conclusion that the Commission had "good reasons" to reclassify because, according to the partial dissent, it failed to make "a finding of market power or at least a consideration of competitive conditions." Concurring & Dissenting Op. at 10. But nothing in the statute requires the Commission to make such a finding. Under the Act, a service qualifies as a "telecommunications service" as long as it constitutes an "offering of telecommunications for a fee directly to the public." 47 U.S.C. § 153(53). As explained above, *supra* at 24, when interpreting this provision in *Brand X*, the Supreme Court held that classification of broadband turns on consumer perception, *see* 545 U.S. at 990 (explaining that classification depends on what "the consumer perceives to be the integrated finished product"). Nothing in *Brand X* suggests that an examination of market power or competition in the market is a prerequisite to classifying broadband. True, as the partial dissent notes, the Supreme Court cited the Commission's findings regarding the level of competition in the market for cable broadband as further support for the agency's decision to classify cable broadband as an information service. *See id.* at 1001 (describing the Commission's conclusion that market conditions supported taking a deregulatory approach to cable broadband service). But citing the Commission's economic findings as additional support for its approach is a far cry from *requiring* the Commission to find market power. The partial dissent also cites several Commission decisions in support of the proposition that the Commission has "for nearly four decades made the presence or prospect of competition the touchstone for refusal to apply Title II." Concurring & Dissenting Op. at 12. All of those cases, however, predate the 1996 Telecommunications Act, which established the statutory test that *Brand X* considered and that we apply here.

US Telecom raises a distinct arbitrary and capricious argument. It contends that the Commission needed to satisfy a heightened standard for justifying its reclassification. As US Telecom points out, the Supreme Court has held that "the APA requires an agency to provide more substantial justification when 'its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account.'" *Perez v. Mortgage Bankers Ass'n*, 135 S. Ct. 1199, 1209 (2015) (quoting *Fox Television*, 556 U.S. at 515). "[I]t is not that further justification is demanded by the mere fact of policy change[,] but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." *Fox Television*, 556 U.S. at 515–16. Put another way, "[i]t would be arbitrary and capricious to ignore such matters." *Id.* at 515.

US Telecom believes that the Commission failed to satisfy the heightened standard because it departed from factual findings it made regarding consumer perception in its 2002 Cable Broadband Order without pointing to any changes in how consumers actually view broadband. According to US Telecom, even in 2002, when the Commission classified broadband as an information service, consumers used broadband primarily as a means to access third-party content and broadband providers marketed their services based on speed. As we have explained, however, although in 2002 the Commission found that consumers perceived an integrated offering of an information service, in the present order the Commission cited ample record evidence supporting its current view that consumers perceive a standalone offering of transmission. *See supra* at 25–27. It thus satisfied the APA's requirement that an agency provide a "reasoned explanation . . . for disregarding facts and circumstances that underlay . . . the prior policy." *Fox Television*, 556 U.S. at 515–16. Nothing more is required.

Presenting an argument quite similar to US Telecom's, the partial dissent asserts that the Commission needed to do more than justify its current factual findings because, in this case, "the agency explicitly invoke[d] changed circumstances" as a basis for reclassifying broadband. Concurring & Dissenting Op. at 10. At least when an agency relies on a change in circumstances, the partial dissent reasons, "*Fox* requires us to examine whether there is really anything new." *Id.* at 4. But we need not decide whether there "is really anything new" because, as the partial dissent acknowledges, *id.*, the Commission concluded that changed factual circumstances were not critical to its classification decision: "[E]ven assuming, *arguendo*, that the facts regarding how [broadband service] is offered had not changed, in now applying the Act's definitions to these facts, we find that the provision of [broadband service] is best understood as a telecommunications service, as discussed [herein] . . . and disavow our prior interpretations to the extent they held otherwise." 2015 Open Internet Order, 30 FCC Rcd. at 5761 ¶ 360 n.993.

US Telecom next argues that the Commission "could not rationally abandon its prior policy without account[ing] for reliance interests that its prior policy engendered." US Telecom Pet'rs' Br. 51 (alteration in original) (internal quotation marks omitted). The Commission, however, did not fail to "account" for reliance interests. *Fox Television*, 556 U.S. at 515. Quite to the contrary, it expressly considered the claims of reliance and found that "the regulatory status of broadband Internet access service appears to have, at most, an indirect effect (along with many other factors) on investment." 2015 Open Internet Order, 30 FCC Rcd. at 5760 ¶ 360. The Commission explained that "the key drivers of investment are demand and competition," not the form of regulation. *Id.* at 5792 ¶ 412. Additionally, the Commission noted that its past regulatory treatment of broadband likely had a particularly small effect on investment because the regulatory status of broadband service was settled for only a short period of time. *Id.* at 5760–61 ¶ 360. As the Commission pointed out, just five years after *Brand X* upheld the Commission's classification of broadband as an information service, the Commission asked in a notice of inquiry whether it should reclassify broadband as a telecommunications service. *Id.* at 5760 ¶ 360.

The partial dissent finds the Commission's explanation insufficient and concludes that it failed "to make a serious assessment of [broadband providers'] reliance." Concurring & Dissenting Op. at 8. With regard to the Commission's conclusion that the regulatory status of broadband had only an indirect effect on investment, the partial dissent believes that this explanation is an "irrelevance" because "[t]he proposition that 'many other factors' affect investment is a truism" and thus the explanation "tells us little about how much" the prior classification "accounts for the current robust broadband infrastructure." *Id.* at 5. But the Commission did more than simply state that the regulatory classification of broadband was one of many relevant factors. It went on to explain why other factors, namely, increased demand for broadband and increased competition to provide it, were more significant drivers of broadband investment. 2015 Open Internet Order, 30 FCC Rcd. at 5760 ¶ 360 & n.986; *id.* at 5792 ¶ 412. We also disagree with the partial dissent's assertion that the Commission "misread[] the history of the classification of broadband" when it found that the unsettled regulatory treatment of broadband likely diminished the extent of investors' reliance on the prior classification. Concurring & Dissenting Op. at 7. As explained above, *supra* at 13–16, the Commission classified broadband for the first time in 1998, when it determined that the phone lines used in DSL service qualified as a telecommunications service. *See* Advanced Services Order, 13 FCC Rcd. at 24,014 ¶ 3, 24,029–30 ¶¶ 35–36. Then, in 2002 the Commission classified cable broadband service as an information service, *see* Cable Broadband Order, 17 FCC Rcd. at 4823 ¶¶ 39–40, a classification that was challenged and not definitively settled until 2005 when the Supreme Court decided *Brand X*. Only five years later, the Commission sought public comment on whether it should reverse course and classify broadband as a telecommunications service. *See* In re Framework for Broadband Internet Service, 25 FCC Rcd. at 7867 ¶ 2. Given this shifting regulatory treatment, it was not unreasonable for the Commission to conclude that broadband's particular classification was less important to investors than increased demand. Contrary to our colleague, "[w]e see no reason to second guess these factual determinations, since the court properly defers to policy determinations invoking the [agency's] expertise in evaluating complex market conditions." *Gas Transmission Northwest Corp. v. FERC*, 504 F.3d 1318, 1322 (D.C. Cir. 2007) (internal quotation marks and alteration omitted).

3.

Finally, we consider US Telecom's argument that the Commission could not reclassify broadband without first determining that broadband providers were common carriers under this court's *NARUC* test. *See National Ass'n of Regulatory Utility Commissioners v. FCC*, 533 F.2d 601 (D.C. Cir. 1976); *National Ass'n of Regulatory Utility Commissioners v. FCC*, 525 F.2d 630 (D.C. Cir. 1976). Under that test, "a carrier has to be regulated as a common carrier if it will make capacity available to the public indifferently or if the public interest requires common carrier operation." *Virgin Islands Telephone Corp. v. FCC*, 198 F.3d 921, 924 (D.C. Cir. 1999) (internal quotation marks omitted). As the Commission points out, however, this argument ignores that the Communications Act "provides that '[a] telecommunications carrier shall be treated as a common carrier . . . to the extent that it is engaged in providing telecommunications services,'" Resp'ts' Br. 79 (alteration and omission in original) (quoting 47 U.S.C. § 153(51)), and that "[t]he Act thus authorizes—indeed, requires—broadband providers to be treated as common carriers once they are found to offer telecommunications service," *id.* The Communications Act in turn defines a telecommunications service as "the offering of telecommunications for a fee directly to the public," 47 U.S.C. § 153(53), and the Commission found that broadband providers satisfy this statutory test: "[h]aving affirmatively determined that broadband Internet access service involves 'telecommunications,' we also find . . . that broadband Internet access service providers offer broadband Internet access service 'directly to the public.'" 2015 Open Internet Order, 30 FCC Rcd. at 5763 ¶ 363. Other than challenging the Commission's interpretation of the term "offering"—an argument which we have already rejected, *see supra* section II.B.1—US Telecom never questions the Commission's application of the statute's test for common carriage. Moreover, US Telecom cites no case, nor are we aware of one, holding that when the Commission invokes the statutory test for common carriage, it must also apply the *NARUC* test.

III.

Having thus rejected petitioners' arguments against reclassification, we turn to US Telecom's challenges to the Commission's regulation of interconnection arrangements—arrangements that broadband providers make with other networks to exchange traffic in order to ensure that their end users can access edge provider content anywhere on the internet. Broadband providers have such arrangements with backbone networks, as well as with certain edge providers, such as Netflix, that connect directly to broadband provider networks. In the Order, the Commission found that regulation of interconnection arrangements was necessary to ensure broadband providers do not "use terms of interconnection to disadvantage edge providers" or "prevent[] consumers from reaching the services and applications of their choosing." 2015 Open Internet Order, 30 FCC Rcd. at 5694 ¶ 205. Several commenters, the Commission pointed out, had emphasized "the potential for anticompetitive behavior on the part of broadband Internet access service providers that serve as gatekeepers to the edge providers . . . seeking to deliver Internet traffic to the broadband providers' end users." *Id.* at 5691 ¶ 200.

As authority for regulating interconnection arrangements, the Commission relied on Title II. "Broadband Internet access service," it explained, "involves the exchange of traffic between a . . . broadband provider and connecting networks," since "[t]he representation to retail customers that they will be able to reach 'all or substantially all Internet endpoints' necessarily includes the promise to make the interconnection arrangements necessary to allow that access." *Id.* at 5693–94 ¶ 204. Because the "same data is flowing between the end user and edge consumer," the end user necessarily experiences any discriminatory treatment of the edge provider, the Commission reasoned, making interconnection "simply derivative of" the service offered to end users. *Id.* at 5748–49 ¶ 339.

As a result, the Commission concluded that it could regulate interconnection arrangements under Title II as a component of broadband service. *Id.* at 5686 ¶ 195. It refrained, however, from applying the General Conduct Rule or any of the bright-line rules to interconnection arrangements because, given that it "lack[ed] [a] background in practices addressing Internet traffic exchange," it would be "premature to adopt prescriptive rules to address any problems that have arisen or may arise." *Id.* at 5692–93 ¶ 202. Rather, it explained that interconnection disputes would be evaluated on a case-by-case basis under sections 201, 202, and 208 of the Communications Act. *See id.* at 5686–87 ¶ 195. US Telecom presents two challenges to the Commission's decision to regulate interconnection arrangements under Title II, one procedural and one substantive. We reject both.

Echoing its arguments with respect to reclassification, US Telecom first claims that the NPRM provided inadequate notice that the Commission would regulate interconnection arrangements under Title II. As we noted above, an NPRM satisfies APA notice obligations when it "expressly ask[s] for comments on a particular issue or otherwise ma[kes] clear that the agency [is] contemplating a particular change." *CSX Transportation, Inc.*, 584 F.3d at 1081. The NPRM did just that. It expressly asked whether the Commission should apply its new rules—rules which it had signaled might depend upon Title II reclassification, NPRM, 29 FCC Rcd. at 5612 ¶ 148—to interconnection arrangements. The NPRM explained that the 2010 Open Internet Order had applied only "to a broadband provider's use of its own network . . . but [had] not appl[ied] . . . to the exchange of traffic between networks." NPRM, 29 FCC Rcd. at 5582 ¶ 59. Although the

Commission "tentatively conclude[d] that [it] should maintain this approach, . . . [the NPRM sought] comment on whether [the Commission] should change [its] conclusion." *Id.*

US Telecom insists that the NPRM was nonetheless inadequate because it nowhere suggested that the Commission might justify regulating interconnection arrangements under Title II on the basis that they are a component of the offering of telecommunications to end users. Under the APA, an NPRM provides adequate notice as long as it reveals the "substance of the proposed rule or a description of the subjects and issues involved." 5 U.S.C. § 553(b)(3). An NPRM does so if it "provide[s] sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully." *Honeywell International, Inc.*, 372 F.3d at 445 (internal quotation marks omitted). Again, the NPRM did just that. It asked whether the Commission should expand its reach beyond "a broadband provider's use of its own network" in order to "ensure that a broadband provider would not be able to evade our open Internet rules by engaging in traffic exchange practices." NPRM, 29 FCC Rcd. at 5582 ¶ 59. By focusing on the threat that broadband providers might block edge provider access to end users at an earlier point in the transmission pathway, the NPRM allowed interested parties to comment meaningfully on the possibility that the Commission would consider interconnection arrangements to be part of the offering of telecommunications to end users. Indeed, interested parties interpreted the NPRM as presenting just that possibility. To take one example, COMPTEL explained in its comments that "as feared by the Commission in its [NPRM], a [broadband] provider can simply evade the Commission's 2010 rules by moving its demand for an access fee upstream to the entry point to the [broadband provider's network]." Letter from Markham C. Erickson, Counsel to COMPTEL, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127, at 10 (Feb. 19, 2015). Because "[t]he interconnection point is simply a literal extension of the [broadband provider's network]," COMPTEL explained, "applying the same open Internet rules to the point of interconnection is a logical extension of the *2010 Open Internet Order* and clearly in line with the Commission's . . . proposal [in the NPRM]." *Id.*

US Telecom next argues that our decision in *Verizon* prevents the Commission from regulating interconnection arrangements under Title II without first classifying the arrangements as an offering of telecommunications to edge providers and backbone networks. As US Telecom points out, *Verizon* recognized that broadband, and thus interconnection arrangements, provides a service not only to end users but also to edge providers and backbone networks, namely, the ability to reach the broadband provider's users. *Verizon*, 740 F.3d at 653. According to US Telecom, *Verizon* therefore requires the Commission to classify this service to edge providers and backbone networks as a telecommunications service before it regulates interconnection arrangements under Title II.

US Telecom misreads *Verizon*. Although *Verizon* does recognize that broadband providers' delivery of broadband to end users also provides a service to edge providers, *id.*, it does not hold that the Commission must classify broadband as a telecommunications service in both directions before it can regulate the interconnection arrangements under Title II. The problem in *Verizon* was not that the Commission had misclassified the service between carriers and edge providers but that the Commission had failed to classify broadband service as a Title II service at all. The Commission overcame this problem in the Order by reclassifying broadband service—and the interconnection arrangements necessary to provide it—as a telecommunications service.

IV.

We now turn to the Commission's treatment of mobile broadband service, i.e., high-speed internet access for mobile devices such as smartphones and tablets. As explained above, the Commission permissibly found that mobile broadband—like all broadband—is a telecommunications service subject to common carrier regulation under Title II of the Communications Act. We address here a second set of provisions that pertain to the treatment of mobile broadband as common carriage.

Those provisions, found in Title III of the Communications Act, segregate "mobile services" into two, mutually exclusive categories: "commercial mobile services" and "private mobile services." 47 U.S.C. § 332(c). Providers of commercial mobile services—mobile services that are, among other things, available "to the public" or "a substantial portion of the public"—are subject to common carrier regulation. *Id.* § 332(c)(1), (d)(1). Providers of private mobile services, by contrast, "shall not . . . be treated as [] common carrier[s]." *Id.* § 332(c)(2).

In 2007, the Commission initially classified mobile broadband as a private mobile service. At the time, the Commission considered mobile broadband a "nascent" service. 2007 Wireless Order, 22 FCC Rcd. at 5922 ¶ 59. In the 2015 Order we now review, the Commission found that, "[i]n sharp contrast to 2007," the "mobile broadband marketplace has evolved such that hundreds of millions of consumers now use mobile broadband to access the Internet." 2015 Open Internet Order, 30 FCC Rcd. at 5785 ¶ 398. The Commission thus concluded that "today's mobile broadband

Internet access service, with hundreds of millions of subscribers," is not a "private" mobile service "that offer[s] users access to a discrete and limited set of endpoints." *Id.* at 5788–89 ¶ 404. Rather, "[g]iven the universal access provided today and in the foreseeable future by and to mobile broadband and its present and anticipated future penetration rates in the United States," the Commission decided to "classify[] mobile broadband Internet access as a commercial mobile service" subject to common carrier regulation. *Id.* at 5786 ¶ 399; *see generally id.* at 5778–88 ¶¶ 388–403.

Petitioners CTIA and AT&T ("mobile petitioners") challenge the Order's reclassification of mobile broadband as a commercial mobile service. In their view, mobile broadband is, and must be treated as, a private mobile service, and therefore cannot be subject to common carrier regulation. We reject mobile petitioners' arguments and find that the Commission's reclassification of mobile broadband as a commercial mobile service is reasonable and supported by the record.

A.

In assessing whether the Commission permissibly reclassified mobile broadband as a commercial rather than a private mobile service, we begin with an overview of the governing statutory and regulatory framework and of the Commission's application of that framework to mobile broadband. The statute defines "commercial mobile service" as "any mobile service . . . that is provided for profit and makes interconnected service available (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission." 47 U.S.C. § 332(d)(1). The statute then defines "private mobile service" strictly in the negative, i.e., as "any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service, as specified by regulation by the Commission." *Id.* § 332(d)(3).

Because private mobile service is a residual category defined in relation to commercial mobile service, the definition of commercial mobile service is the operative one for our purposes. There is no dispute that mobile broadband meets three of the four parts of the statutory definition of commercial mobile service. Mobile broadband is a "mobile service"; it "is provided for profit"; and it is available "to the public" or "a substantial portion of the public." *Id.* § 332(d)(1). In those respects, mobile broadband bears the hallmarks of a commercial—and hence not a private—mobile service. The sole remaining question is whether mobile broadband also "makes interconnected service available." *Id.*

The statute defines "interconnected service" as "service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission)." *Id.* § 332(d)(2). Until the Order, the Commission in turn defined the "public switched network" as a set of *telephone* (cellular and landline) networks, with users' ten-digit telephone numbers making up the interconnected endpoints of the network. Specifically, "public switched network" meant "[a]ny common carrier switched network . . . that use[s] the North American Numbering Plan in connection with the provision of switched services." 47 C.F.R. § 20.3 (prior version effective through June 11, 2015). The "North American Numbering Plan" (NANP) is the ten-digit telephone numbering plan used in the United States. *See* In re Implementation of Sections 3(n) & 332 of the Communications Act ("1994 Order"), 9 FCC Rcd. 1411, 1437 ¶ 60 n.116 (1994).

In 1994, when the Commission initially established that definition of "public switched network," cellular telephone (i.e., mobile voice) service was the major mobile service; mobile broadband did not yet exist. Noting that the "purpose of the public switched network is to allow the public to send or receive messages to or from anywhere in the nation," the Commission observed that the NANP fulfilled that purpose by providing users with "ubiquitous access" to all other users. *Id.* at 1436–37 ¶¶ 59–60; *see* 2015 Open Internet Order, 30 FCC Rcd. at 5779 ¶ 391. Because mobile voice users could interconnect with the public switched network as then defined (the network of ten-digit telephone numbers), mobile voice was classified as a "commercial"—as opposed to "private"—"mobile service." 1994 Order, 9 FCC Rcd. at 1454–55 ¶ 102. It therefore was subject to common carrier treatment.

In 2007, the Commission first classified the then-emerging platform of mobile broadband. The Commission determined that mobile broadband users could not interconnect with the public switched network—defined at the time as the telephone network—because mobile broadband uses IP addresses, not telephone numbers. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5784 ¶ 397; 2007 Wireless Order, 22 FCC Rcd. at 5917–18 ¶ 45. Mobile broadband thus was not considered an "interconnected service" (or, therefore, a commercial mobile service), i.e., a "service that is interconnected with the public switched network" as that term was then "defined by . . . the Commission." 47 U.S.C. § 332(d)(2). Presumably in light of mobile broadband's "nascent" status at the time, 2007 Wireless Order, 22 FCC Rcd. at 5922 ¶ 59, the Commission gave no evident consideration to expanding its definition of the "public switched network" so as to encompass IP addresses in addition to telephone numbers.

In the 2015 Order, the Commission determined that it should expand its definition of the public switched network in that fashion to "reflect[] the current network landscape." 30 FCC Rcd. at 5779 ¶ 391; *see id.* at 5786 ¶ 399. The Commission took note of "evidence of the extensive changes that have occurred in the mobile marketplace." *Id.* at 5785–86 ¶ 398. For instance, as of the end of 2014, nearly three-quarters "of the entire U.S. age 13+ population was communicating with smart phones," and "by 2019," according to one forecast, "North America will have nearly 90% of its installed base[] converted to smart devices and connections." *Id.* at 5785 ¶ 398. In addition, the Commission noted that the "hundreds of millions of consumers" who already "use[d] mobile broadband" as of 2015 could "send or receive communications to or from anywhere in the nation, whether connected with other mobile broadband subscribers, fixed broadband subscribers, or the hundreds of millions of websites available to them over the Internet." *Id.* Those significant developments, the Commission found, "demonstrate[] the ubiquity and wide scale use of mobile broadband Internet access service today." *Id.* at 5786 ¶ 398.

The upshot is that, just as mobile voice (i.e., cellular telephone) service in 1994 provided "ubiquitous access" for members of the public to communicate with one another "from anywhere in the nation," mobile broadband by 2015 had come to provide the same sort of ubiquitous access. *Id.* at 5779–80 ¶ 391, 5785–86 ¶¶ 398–99. And the ubiquitous access characterizing both mobile voice and mobile broadband stands in marked contrast to "the private mobile service[s] of 1994, such as a private taxi dispatch service, services that offered users access to a discrete and limited set of endpoints." *Id.* at 5789 ¶ 404; *see* 1994 Order, 9 FCC Rcd. at 1414 ¶ 4. In recognition of the similarity of mobile broadband to mobile voice as a universal medium of communication for the general public—and the dissimilarity of mobile broadband to closed private networks such as those used by taxi companies or local police and fire departments—the Commission in 2015 sought to reclassify "today's broadly available mobile broadband" service as a commercial mobile service like mobile voice, rather than as a private mobile service like those employed by closed police or fire department networks. 2015 Open Internet Order, 30 FCC Rcd. at 5786 ¶ 399; *see* 1994 Order, 9 FCC Rcd. at 1414 ¶ 4. Aligning mobile broadband with mobile voice based on their affording similarly ubiquitous access, moreover, was in keeping with Congress's objective in establishing a defined category of "commercial mobile services" subject to common carrier treatment: to "creat[e] regulatory symmetry among similar mobile services." 1994 Order, 9 FCC Rcd. at 1413 ¶ 2; *see* 2015 Open Internet Order, 30 FCC Rcd. at 5786 ¶ 399; H.R. Rep. No. 103-111 at 259 (May 25, 1993) (noting that amendments to section 332 were intended to ensure "that services that provide equivalent mobile services are regulated in the same manner").

In the interest of achieving that regulatory symmetry and bringing mobile broadband into alignment with mobile voice as a commercial mobile service, the Commission updated its definition of the "public switched network" to include both users reachable by ten-digit phone numbers *and* users reachable by IP addresses. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5779 ¶ 391. The newly expanded definition of "public switched network" thus covers "the network that includes any common carrier switched network . . . that use[s] the North American Numbering Plan, *or public IP addresses*, in connection with the provision of switched services." *Id.* (emphasis added) (alteration in original); 47 C.F.R. § 20.3; *see Bell Atlantic Telephone Cos. v. FCC*, 206 F.3d 1, 4 (D.C. Cir. 2000) ("[T]he internet is a 'distributed packet-switched network.'"). And because the public switched network now includes IP addresses, the Commission found that mobile broadband qualifies as an "interconnected service," i.e., "service that is interconnected with the public switched network" as redefined. 47 U.S.C. § 332(d)(2); *see* 2015 Open Internet Order, 30 FCC Rcd. at 5779–80 ¶ 391, 5786 ¶ 399.

According to the Commission, then, mobile broadband meets all parts of the statutory definition of a "commercial mobile service" subject to common carrier regulation: it is a "mobile service . . . that is provided for profit and makes interconnected service available . . . to the public or . . . a substantial portion of the public." 47 U.S.C. § 332(d)(1). We find the Commission's reclassification of mobile broadband as a commercial mobile service under that definition to be reasonable and supported by record evidence demonstrating the "rapidly growing and virtually universal use of mobile broadband service" today. 2015 Open Internet Order, 30 FCC Rcd. at 5786 ¶ 399. In support of its reclassification decision, the Commission relied on, and recounted in detail, evidence of the explosive growth of mobile broadband service and its near universal use by the public. *See id.* at 5635–38 ¶¶ 88–92, 5779 ¶ 391, 5785–86 ¶¶ 398–99. In the face of that evidence, we see no basis for concluding that the Commission was required in 2015 to continue classifying mobile broadband as a "private" mobile service.

B.

Mobile petitioners offer two principal arguments in support of their position that mobile broadband nonetheless must be treated as a private mobile service rather than a commercial mobile service. First, they argue that "public switched network" is a term of art confined to the public switched *telephone* network. Second, they contend that, even if the Commission can expand the definition of public switched network to encompass users with IP addresses in addition to users with telephone numbers, mobile broadband still fails to qualify as an "interconnected service."

We reject both arguments. In mobile petitioners' view, mobile broadband (or any non-telephone mobile service)—no matter how universal, widespread, and essential a medium of communication for the public it may become—must *always* be considered a "private mobile service" and can *never* be considered a "commercial mobile service." Nothing in the statute compels attributing to Congress such a wooden, counterintuitive understanding of those categories. Rather, Congress expressly delegated to the Commission the authority to define—and hence necessarily to update and revise—those categories' key definitional components, "public switched network" and "interconnected service." 47 U.S.C. § 332(d); *see* 2015 Open Internet Order, 30 FCC Rcd. at 5783–84 ¶ 396.

"In this sort of case, there is no need to rely on the presumptive delegation to agencies of authority to define ambiguous or imprecise terms we apply under the *Chevron* doctrine, for the delegation of interpretative authority is express." *Women Involved in Farm Economics v. U.S. Department of Agriculture*, 876 F.2d 994, 1000–01 (D.C. Cir. 1989) (citation omitted); *see Rush University Medical Center v. Burwell*, 763 F.3d 754, 760 (7th Cir. 2014); 2015 Open Internet Order, 30 FCC Rcd. at 5783 ¶ 396 & n.1145. We find the Commission's exercise of that express definitional authority to be a reasoned and reasonable interpretation of the statute. We therefore sustain the Commission's reclassification of mobile broadband as a commercial mobile service against mobile petitioners' challenges. In light of that disposition, we need not address the Commission's alternative finding that mobile broadband, even if not a commercial mobile service, is still subject to common carrier treatment as the "functional equivalent" of a commercial mobile service. *See* 47 U.S.C. § 332(d)(3); 2015 Open Internet Order, 30 FCC Rcd. at 5788–90 ¶¶ 404–08.

1.

We first consider mobile petitioners' challenge to the Commission's updated definition of "public switched network." That term, as set out above, forms an integral component of the statutory definition of "commercial mobile service." Any such service must qualify as an "interconnected service," defined in the statute as "service that is interconnected with the public switched network." 47 U.S.C. § 332(d)(1)–(2). And Congress expressly gave the Commission the authority to define the public switched network, *id.* § 332(d)(2), which the Commission exercised by revising its definition in the Order. As we have explained, the Commission, relying on the growing universality of mobile broadband as a medium of communication for the public, expanded the definition of the public switched network so that it now uses IP addresses in addition to telephone numbers in connection with the provision of switched services.

Mobile petitioners argue that Congress intended "public switched network" to mean—forever—"public switched *telephone* network," and that the Commission thus lacks authority to expand the definition of the network to include endpoints other than telephone numbers. We are unpersuaded. Mobile petitioners' interpretation necessarily contemplates adding a critical word ("telephone") that Congress left out of the statute, an unpromising avenue for an argument about the meaning of the words Congress used. *See, e.g.*, *Adirondack Medical Center v. Sebelius*, 740 F.3d 692, 699–700 (D.C. Cir. 2014); *Public Citizen, Inc. v. Rubber Manufacturers Ass'n*, 533 F.3d 810, 816 (D.C. Cir. 2008). If

Congress meant for the phrase "public switched network" to carry the more restrictive meaning attributed to it by mobile petitioners, Congress could (and presumably would) have used the more limited—and more precise—term "public switched telephone network." Indeed, Congress used that precise formulation in another, later-enacted statute. *See* 18 U.S.C. § 1039(h)(4). Here, though, Congress elected to use the more general term "public switched network," which by its plain language can reach beyond telephone networks alone. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5783 ¶ 396.

Not only did Congress decline to invoke the term "public switched telephone network," but it also gave the Commission express authority to define the broader term it used instead. *See* 47 U.S.C. § 332(d)(2). Mobile petitioners conceive of "public switched network" as a term of art referring only to a network using telephone numbers. But if that were so, it is far from clear why Congress would have invited the Commission to define the term, rather than simply setting out its ostensibly fixed meaning in the statute. We instead agree with the Commission that, in granting the Commission general definitional authority, Congress "expected the notion [of the public switched network] to evolve and therefore charged the Commission with the continuing obligation to define it." 2015 Open Internet Order, 30 FCC Rcd. at 5783 ¶ 396.

It is of no moment that Congress, in another statute, used the term "public switched network" in a context indicating an intention to refer to the telephone network. *See* 47 U.S.C. § 1422(b)(1)(B)(ii) (referring to "the public Internet or the public switched network"). That statute, unlike section 332(d)(2), contains no grant of authority to the Commission to define the term. And it was enacted during the time when the

Commission's prior, longstanding regulatory definition of "public switched network" was in effect. Because the Commission at the time had defined the "public switched network" by reference to the telephone network, it is unsurprising that Congress would have assumed the term to have that meaning. But that assumption by no means indicates that Congress meant to divest the Commission of the definitional authority it had expressly granted the Commission in section 332(d)(2). We do not understand Congress's express grant of definitional authority to have come burdened with an unstated intention to compel the Commission to forever retain a definition confined to one specific type of "public switched network," i.e., the telephone network.

We therefore reject mobile petitioners' counter-textual argument that the statutory phrase "public switched network" must be understood as if Congress had used the phrase "public switched *telephone* network." Instead, the more general phrase "public switched network," by its terms, reaches any network that is both "public" and "switched." Mobile petitioners do not dispute that a network using both IP addresses and telephone numbers is "public" and "switched." As the Commission explained, its expansion of the network to include the use of IP addresses involves a "switched" network in that it "reflects the emergence and growth of packet *switched* Internet Protocol-based networks," and it also involves a "public" network in that "today's broadband Internet access networks use their own unique addressing identifier, IP addresses, to give users a universally recognized format for sending and receiving messages across the country and worldwide." 2015 Open Internet Order, 30 FCC Rcd. at 5779–80 ¶ 391 (emphasis added). The Commission thus permissibly considered a network using telephone numbers and IP addresses to be a "public switched network."

2.

Mobile petitioners next challenge the Commission's understanding of "interconnected service." That term, too, is an integral part of the definition of commercial mobile service. A commercial mobile service must "make[] interconnected service available . . . to the public or to . . . a substantial portion of the public." 47 U.S.C. § 332(d)(1). And "interconnected service" is "service that is interconnected with the public switched network." *Id.* § 332(d)(2). As with the phrase "public switched network," Congress gave the Commission express authority to define the term "interconnected service." *Id.*

The Commission has defined "interconnected service" as a service "that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network." 47 C.F.R. § 20.3 (prior version effective through June 11, 2015); *see* 2015 Open Internet Order, 30 FCC Rcd. at 5779 ¶ 390. (We note that, in the 2015 Order, the Commission excised the word "all" from that definition. But as we explain below, the Commission considered that adjustment a purely conforming one with no substantive effect; we use the prior language to confirm that mobile broadband would qualify as interconnected service regardless of the Commission's adjustment.)

The question under the Commission's definition of "interconnected service," then, is whether mobile broadband "gives subscribers the capability to communicate to or receive communication from all other users on the public switched network" as redefined to encompass devices using both IP addresses and telephone numbers. 47 C.F.R. § 20.3 (prior version effective through June 11, 2015). The Commission reasonably found that mobile broadband gives users that "capability." *See* 2015 Open Internet Order, 30 FCC Rcd. at 5779–80 ¶¶ 390–91, 5785–86 ¶ 398, 5787 ¶ 401.

As an initial matter, there is no dispute about the "capability" of mobile broadband subscribers to "communicate to" other mobile broadband users. As the Commission explained in the Order—and as is undisputed—"mobile broadband . . . gives its users the capability to send and receive communications from all other users of the Internet." *Id.* at 5785 ¶ 398. The remaining issue for the Commission therefore concerned communications from mobile broadband users to telephone users: whether mobile broadband "gives subscribers the capability to communicate to" users via telephone numbers. 47 C.F.R. § 20.3. The Commission concluded that it does.

Specifically, the Commission determined that mobile broadband gives a subscriber the capability to communicate with a telephone user through the use of Voice over Internet Protocol (VoIP) applications. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5786–87 ¶¶ 400–01. (Skype, FaceTime, and Google Voice and Hangouts are popular examples of VoIP applications.) VoIP technology enables a mobile broadband user to send a voice call from her IP address to the recipient's telephone number. As a result, a mobile broadband user with a VoIP application on her tablet can call her friend's home phone number even if the caller's tablet lacks cellular voice access (and thus has no assigned telephone number). When she dials her friend's telephone number, the VoIP service sends the call from her tablet's IP address over the mobile broadband network to connect to the telephone network and, ultimately, to her friend's home phone. As such, mobile broadband, through VoIP, "gives subscribers the capability to communicate to" telephone users. 47 C.F.R. § 20.3.

In 2007, when the Commission first considered the proper classification of then-nascent mobile broadband, the Commission had a different understanding about the relationship between mobile broadband and VoIP. At that time, the Commission considered VoIP applications to be a separate, non-integrated service, such that VoIP's ability to connect internet and telephone users was not thought to render mobile broadband an interconnected service. *See* 2007 Wireless Order, 22 FCC Rcd. at 5917–18 ¶ 45. But when the Commission revisited the issue nearly a decade later in the Order we now review, the Commission found that its "previous determination about the relationship between mobile broadband Internet access and VoIP applications in the context of section 332 no longer accurately reflects the current technological landscape." 2015 Open Internet Order, 30 FCC Rcd. at 5787 ¶ 401. In particular, it concluded that VoIP applications now function as an integrated aspect of mobile broadband, rather than as a functionally distinct, separate service. The Commission therefore found that mobile broadband "today, through the use of VoIP, . . . gives subscribers the capability to communicate with all NANP endpoints." *Id.*

In reaching that conclusion, the Commission emphasized that "changes in the marketplace . . . highlight the convergence between mobile voice and data networks that has occurred since the Commission first addressed the classification of mobile broadband Internet access in 2007." *Id.* The record before the Commission substantially supports that understanding, as well as the associated finding that the relationship between VoIP applications and mobile broadband today significantly differs from that of 2007. For instance, in 2007, Apple's iPhone—the only device at the time even "resembling a modern smart phone"—had just been released and was available through only one mobile carrier. Letter from Harold Feld, et al., Public Knowledge to Marlene H. Dortch, FCC, at 10, GN Dkt. Nos. 14-28 & 10-127 (Dec. 19, 2014) ("Public Knowledge 12/19 Letter"). Commenters drew the Commission's attention to its recognition in 2007 that "mobile broadband available with a standard mobile phone of the time 'enable[d] users to access a limited selection of websites' and primarily offered extremely limited functionality such as email." *Id.* (citing 2007 Wireless Order, 22 FCC Rcd. at 5906 ¶ 11 & n.43). Because of those limitations, "[i]ndependent 'app stores' that allow for seamless downloading and integration of standalone applications [e.g., VoIP applications] into the customer's handset did not exist" in 2007. *Id.*

The Commission also noted that, today, mobile broadband is dramatically faster: the average network connection speed "exploded" in just three years, going from an average connection speed of 709 kilobytes per second (kbps) in 2010 to an average speed of 2,058 kbps for all devices and 9,942 kbps for smartphones by 2013. 2015 Open Internet Order, 30 FCC Rcd. at 5636 ¶ 89 & n.170. Partly as a result, access to the internet and applications on one's mobile phone is no longer confined to a small number of functions. Rather, "there has been substantial growth" even since 2010—far more so since 2007—"in the digital app economy . . . and VoIP" in particular. *Id.* at 5626 ¶ 76.

In addition, the Commission cited a letter which explained that, because VoIP applications (such as FaceTime on Apple devices and Google Hangouts on Android devices) now come "bundled with the primary operating systems available in every smartphone," they are no longer "rare and clearly functionally distinct" as they were in 2007. Letter from Michael Calabrese, Open Technology Institute, et al., to Marlene H. Dortch, FCC, at 6, GN Dkt. Nos. 14-28 & 10-127

(Dec. 11, 2014) ("OTI 12/11 Letter"); *see* 2015 Open Internet Order, 30 FCC Rcd. at 5787 ¶ 401 n.1168. Any distinction between calls made with a device's "native" dialing capacity and those made through VoIP thus has become "increasingly inapt." OTI 12/11 Letter at 5; *see* Public Knowledge 12/19 Letter at 10.

The Commission accordingly found that "[t]oday, mobile VoIP . . . is among the increasing number of ways in which users communicate indiscriminately between NANP and IP endpoints on the public switched network." 2015 Open Internet Order, 30 FCC Rcd. at 5787 ¶ 401; *see* Resp'ts' Br. 99 (relying on that finding). In light of those developments, the Commission reasonably determined that mobile broadband today is interconnected with the newly defined public switched network. It "gives subscribers the capability to communicate to . . . other users on the public switched network," whether the recipient has an IP address, telephone number, or both. 47 C.F.R. § 20.3; *see* 2015 Open Internet Order, 30 FCC Rcd. at 5779–80 ¶ 391, 5785–87 ¶¶ 398–401.

In contending otherwise, mobile petitioners argue that mobile broadband *itself* is not "interconnected with the public switched network," 47 U.S.C. § 332(d)(2), because mobile broadband does not allow subscribers to interconnect with telephone users unless subscribers take the step of using a VoIP application. Nothing in the statute, however, compels the Commission to draw a talismanic (and elusive) distinction between (i) mobile broadband alone enabling a connection, and (ii) mobile broadband enabling a connection through use of an adjunct application such as VoIP. To the contrary, the statute grants the Commission express authority to define "interconnected service." 47 U.S.C. § 332(d)(2). And the Commission permissibly exercised that authority to determine that—in light of the increased availability, use, and technological and functional integration of VoIP applications—mobile broadband should now be considered interconnected with the telephone network. Indeed, even for communications from one mobile broadband user to another, mobile broadband generally works in conjunction with a native or third-party application of some sort (e.g., an email application such as Gmail or a messaging application such as WhatsApp) to facilitate transmission of users' messages. The conjunction of mobile broadband and VoIP to enable IP-to-telephone communications is no different.

That is especially apparent in light of the Commission's regulatory definition of "interconnected service." The regulation calls for assessing whether mobile broadband "gives subscribers the *capability* to communicate to" telephone users. 47 C.F.R. § 20.3 (emphasis added). Mobile petitioners do not challenge the Commission's understanding that a "capability to communicate" suffices to establish an interconnected service, and we see no ground for rejecting the Commission's conclusion that mobile broadband gives subscribers the "capability to communicate to" telephone users through VoIP. And although the regulation also references "receiv[ing] communications from" others in the network, *id.*, mobile petitioners also do not challenge the Commission's understanding that the capability *either* to "communicate to *or* receive communication from" is enough, *id.* (emphasis added). Consequently, the capability of mobile broadband users "to communicate to" telephone users via VoIP suffices to render the network—and, most importantly, its users—"interconnected."

Mobile petitioners note what they perceive to be a separate problem associated with communications running in the reverse direction (i.e., the capability of mobile broadband users to "receive communications from" telephone users).

That ostensible problem pertains, not to mobile *broadband* service, but instead to mobile *voice* service. In particular, mobile petitioners argue that, if the public switched network can be defined to use both IP addresses and telephone numbers, mobile voice service would no longer qualify as an "interconnected service" because telephone users cannot establish a connection to IP users. The result, mobile petitioners submit, is that the one network everyone agrees was intended to qualify as a commercial mobile service—mobile voice—would necessarily become a private mobile service. We are unconvinced.

As a starting point, the Commission's Order takes up the proper classification of mobile broadband, not mobile voice. The Commission thus did not conduct a formal assessment of whether mobile voice would qualify as an interconnected service under the revised definition of public switched network. But were the Commission to address that issue in a future proceeding, it presumably would note that, regardless of whether mobile voice users can "communicate to" mobile broadband users from their telephones, they can "receive communication from" mobile broadband users through VoIP for the reasons already explained. 47 C.F.R. § 20.3. That capability would suffice to render mobile voice an "interconnected service" under the Commission's regulatory definition of that term. *Id.*

Moreover, insofar as the Commission may be asked in the future to formally address whether mobile voice qualifies as an interconnected service, the Commission could assess at that time whether there exists the "capability" of communications in the reverse direction, i.e., the capability of mobile voice users to "communicate to" IP users from their telephones. *Id.* We note that the Commission had information before it in this proceeding indicating that a mobile broadband (or other computer) user can employ a service enabling her to receive telephone calls to her IP address. *See* Public Knowledge 12/19 Letter at 11 n.50 (describing a television commercial demonstrating Apple's Continuity service, which enables an iPhone 6 user with mobile voice service to call an iPad user with mobile broadband service); Use Continuity to connect your iPhone, iPad, iPod touch, and Mac, https://support.apple.com/en-us/HT204681 (last visited June 14, 2016) ("With Continuity, you can make and receive cellular phone calls from your iPad, iPod touch, or Mac when your iPhone is on the same Wi-Fi network."); *see also* Receive Google Voice calls with Hangouts, https://support.google.com/hangouts/answer/6079064 (last visited June 14, 2016) (describing how the "Google Voice" and "Hangouts" services allow mobile broadband users to receive calls from telephone users); What is a Skype Number?, https://support.skype.com/en/faq/FA331/what-is-a-skype-number (last visited June 14, 2016) (describing how a "Skype Number" enables mobile broadband users to receive calls from telephone users).

For those reasons, we reject mobile petitioners' argument that the Commission's classification of mobile broadband as an "interconnected service" is impermissible because of its supposed implications for the classification of mobile voice. Rather, the Commission permissibly found that mobile broadband now qualifies as interconnected because it gives subscribers the ability to communicate to all users of the newly defined public switched network. In the words of the Commission: "mobile broadband Internet access service today, through the use of VoIP, messaging, and similar applications, effectively gives subscribers the capability to communicate with all NANP endpoints as well as with all users of the Internet." 2015 Open Internet Order, 30 FCC Rcd. at 5787 ¶ 401.

Finally, the finding that mobile broadband today "gives subscribers the capability to communicate with *all* NANP endpoints," *id.* (emphasis added), confirms the immateriality of the Commission's removal of the word "all" from its regulatory definition of "interconnected service." As mentioned earlier, that regulation, until the Order, defined interconnected service as a service "that gives subscribers the capability to communicate to or receive communication from *all* other users on the public switched network." 47 C.F.R. § 20.3 (prior version effective through June 11, 2015) (emphasis added). In the updated definition, the Commission left that language unchanged except that it removed the word "all." *See* 47 C.F.R. § 20.3 (current version effective June 12, 2015). Mobile petitioners attach great significance to the removal of "all," assuming that the change enabled the Commission to find mobile broadband to be an "interconnected service" even though, according to mobile petitioners, broadband users have no capability to communicate with telephone users. By excising the word "all," mobile petitioners assert, the Commission could find that mobile broadband is an interconnected service based on the ability of users to communicate only with *some* in the network (fellow broadband users) notwithstanding the lack of any capability to communicate with others in the network (telephone users). Absent the latter ability, mobile petitioners argue, mobile broadband cannot actually be considered "interconnected" with the telephone network.

Mobile petitioners' argument rests on a mistaken understanding of the Commission's actions. The Commission did not rest its finding that mobile broadband is an "interconnected service" solely on an assumption that it would be enough for broadband subscribers to be able to communicate with *some* in the network (only fellow IP users), even if there were no capability at all to communicate with others (telephone users). To the contrary, the Commission, as explained, found that mobile broadband—through VoIP—"gives subscribers the ability to communicate with *all* NANP endpoints as well as with *all* users of the Internet." 2015 Open Internet Order, 30 FCC Rcd. at 5787 ¶ 401 (emphasis added). Once we accept that finding, as we have, we need not consider petitioners' argument challenging what the Commission characterizes as merely a "conforming" change with no independent substantive effect. *See id.* at 5787–88 ¶ 402 & n.1175. (Specifically, the Commission notes that the removal of "all" was meant to reiterate a carve-out that has always existed in the regulation: another part of the definition of "interconnected service" establishes that a service qualifies as "interconnected" even if it "restricts access in certain limited ways," such as a service that blocks access to 900 numbers. *Id.* (quoting 47 C.F.R. § 20.3); *id.* at 5787 ¶ 402 n.1172.)

In the end, then, the removal of "all" is of no consequence to the Commission's rationale for finding that mobile broadband constitutes an "interconnected service." Mobile broadband, the Commission reasonably concluded, gives users the capability to communicate to *all* other users in the newly defined public switched network, whether users with an IP address, users with a telephone number, or users with both. *See id.* at 5787 ¶ 401. Because mobile broadband thus can be considered an interconnected service, the Commission acted permissibly in reclassifying mobile broadband as a commercial mobile service subject to common carrier regulation, rather than a private mobile service immune from such regulation.

3.

Mobile petitioners also argue that the Commission has failed to "point to any change in the technology or functionality of mobile broadband" sufficient to justify reclassifying mobile broadband as a commercial mobile service. US Telecom Pet'rs' Br. 68. This argument fares no better in the mobile context than it did in the Title II reclassification context. Even if the Commission had not demonstrated changed factual circumstances—which, as described above, we think it has—mobile petitioners' argument would fail because the Commission need only provide a "reasoned explanation" for departing from its prior findings. *See Fox Television*, 556 U.S. at 515–16 ("[I]t is not that further justification is demanded by the mere fact of policy change[,] but that a reasoned explanation is needed for disregarding facts and circumstances that underlay . . . the prior policy."). It has done so here.

4.

Finally, we agree with the Commission that the need to avoid a statutory contradiction in the treatment of mobile broadband provides further support for its reclassification as a commercial mobile service. Each of the two statutory schemes covering mobile broadband requires classifying a service in a particular way before it can be subject to common carrier treatment. Under Title II, broadband must be classified as a "telecommunications service." Under Title III, mobile broadband must be classified as a "commercial mobile service." Because the two classifications do not automatically move in tandem, the Commission must make two distinct classification decisions. To avoid the contradictory result of classifying mobile broadband providers as common carriers under Title II while rendering them immune from common carrier treatment under Title III, the Commission, upon reclassifying broadband generally—including mobile—as a telecommunications service, reclassified mobile broadband as a commercial mobile service. *See* 2015 Open Internet Order at 5788 ¶ 403.

Avoiding that statutory contradiction not only assures consistent regulatory treatment of mobile broadband across Titles II and III, but it also assures consistent regulatory treatment of mobile broadband and fixed broadband, in furtherance of the Commission's objective that "[b]roadband users should be able to expect that they will be entitled to the same Internet openness protections no matter what technology they use to access the Internet." 2015 Open Internet Order, 30 FCC Rcd. at 5638 ¶ 92. When consumers use a mobile device (such as a tablet or smartphone) to access the internet, they may establish a connection either through mobile broadband or through a Wi-Fi connection at home, in the office, or at an airport or coffee shop. Such Wi-Fi connections originate from a landline broadband connection, which is now a telecommunications service regulated as a common carrier under Title II. If a consumer loses her Wi-Fi connection for some reason while accessing the internet—including, for instance, if she walks out the front door of her house, and thus out of Wi-Fi range—her device could switch automatically from a Wi-Fi connection to a mobile broadband connection. If mobile broadband were classified as a private mobile service, her ongoing session would no longer be subject to common carrier treatment. In that sense, her mobile device could be subject to entirely different regulatory rules depending on how it happens to be connected to the internet at any particular moment—which could change from one minute to the next, potentially even without her awareness.

The Commission's decision to reclassify mobile broadband as a commercial mobile service prevents that counterintuitive outcome by assuring consistent regulatory treatment of fixed and mobile broadband. By contrast, if mobile broadband—despite the public's "rapidly growing and virtually universal use" of the service today, *id.* at 5786

¶ 399—must still be classified as a "private" mobile service, broadband users may no longer experience "the same Internet openness protections no matter what technology they use to access the Internet." *Id.* at 5638 ¶ 92.

C.

Mobile petitioners also challenge the sufficiency of the Commission's notice, particularly with respect to its redefinition of the public switched network as well as its removal of the word "all" from the definition of interconnected service. As noted above, the APA requires that an NPRM "include . . . either the terms or substance of the proposed rule or a description of the subjects and issues involved." 5 U.S.C. § 553(b). But the APA also requires us to take "due account" of "the rule of prejudicial error." *Id.* § 706.

A deficiency of notice is harmless if the challengers had actual notice of the final rule, *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983), or if they cannot show prejudice in the form of arguments they would have presented to the agency if given a chance, *Owner-Operator Independent Drivers Ass'n v. Federal Motor Carrier Safety Administration*, 494 F.3d 188, 202 (D.C. Cir. 2007). Both circumstances are present here, and each independently supports our conclusion that any lack of notice was ultimately harmless. As such, we need not decide whether the Commission gave adequate notice of its redefinition of the public switched network in the NPRM.

As mobile petitioners acknowledge, Vonage raised the idea of redefining the public switched network in its comments, pointing out the Commission's "authority to interpret the key terms in th[e] definition [of commercial mobile service], including 'interconnected' and 'public switched network.'" Vonage Holdings Corp. Comments at 43, GN Dkt. Nos. 14-28 & 10-127 (July 18, 2014). Mobile petitioner CTIA responded to that point in its reply comments, disputing Vonage's underlying assumption that mobile broadband users can connect with all telephone users, *see* CTIA Reply Comments at 45, GN Dkt. Nos. 14-28 & 10-127 (Sept. 15, 2014), thereby recognizing that the definition of public switched network was in play.

In addition, over the course of several months before finalization and release of the Order, mobile petitioners (and others) submitted multiple letters to the Commission concerning the potential for redefining the public switched network. *See, e.g.*, Letter from Henry G. Hultquist, AT&T, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Feb. 13, 2015) ("AT&T 2/13 Letter"); Letter from Scott Bergmann, CTIA, to Marlene H. Dortch, FCC, at 13-18, GN Dkt. Nos. 14-28 & 10-127 (Feb. 10, 2015); Letter from Scott Bergmann, CTIA, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Jan. 14, 2015) ("CTIA 1/14 Letter"); Letter from Gary L. Phillips, AT&T, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Feb. 2, 2015); Letter from Scott Bergmann, CTIA, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Dec. 22, 2014) ("CTIA 12/22 Letter"); Letter from Scott Bergmann, CTIA, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Oct. 17, 2014) ("CTIA 10/17 Letter").

We have previously charged petitioners challenging an agency rule with actual notice based on letters like those submitted by mobile petitioners. *See Sierra Club v. Costle*, 657 F.2d 298, 355 (D.C. Cir. 1981). But we have even more evidence of actual notice here. Mobile petitioners note in their letters that, in meetings with the Commission, they discussed the substance of their arguments here, including issues surrounding the redefinition of public switched network. *See* AT&T 2/13 Letter at 1 (noting a meeting with representatives from Commissioners O'Rielly's and Pai's offices on February 11, 2015); CTIA 1/14 Letter at 1 (noting a meeting with representatives from Commissioner Pai's office on January 12, 2015); CTIA 12/22 Letter at 1 (noting a meeting with representatives from the Commission's General Counsel's office and representatives from the Wireless Telecommunications Bureau on December 18, 2014); CTIA 10/17 Letter at 1 (noting a meeting with the Commission's General Counsel and a representative from the Wireline Competition Bureau on October 15, 2014). Thus, even if the redefinition of public switched network was a "novel proposal" by Vonage during the comment period, it is clear from mobile petitioners' own letters that they had actual notice that the Commission was considering adoption of that proposal. *See National Mining Ass'n v. Mine Safety & Health Administration*, 116 F.3d 520, 531–32 (D.C. Cir. 1997).

In addition, in those letters, letters from others supporting mobile petitioners' views, and responsive letters from groups like New America's Open Technology Institute and Public Knowledge, mobile petitioners engaged in a detailed, substantive back-and-forth about the precise issues they challenge here. Reclassification of mobile broadband and redefinition of the public switched network were the focal points of that discussion, in which petitioners exchanged arguments about technology and policy with the groups supporting a broader definition of the public switched network. *See* Letters from CTIA and AT&T, *supra*; Letter from Michael Calabrese, Open Technology Institute, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Jan. 27, 2015); Letter from Harold Feld, Public Knowledge, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Jan. 15, 2015); Letter from William H. Johnson, Verizon, to

Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Dec. 24, 2014); Public Knowledge 12/19 Letter; Letter from Michael E. Glover, Verizon, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Oct. 29, 2014); OTI 12/11 Letter; Letter from William H. Johnson, Verizon, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Oct. 17, 2014).

In those exchanges, mobile petitioners raised and fiercely debated all of the same arguments they now raise before us, thus demonstrating not only the presence of actual notice, but also the absence of new arguments they might present to the Commission on remand. Indeed, when asked at oral argument, mobile petitioners could not list any new argument on the issue of the redefinition of public switched network. *See* Oral Arg. Tr. 74–79, 84–87.

Mobile petitioners also allege that the Commission gave inadequate notice of the removal of "all" from the definition of interconnected service. Any such failure, however, was also harmless. As noted above, not only does the Commission claim that the removal of "all" was inconsequential to the regulation, but that adjustment also has no bearing on our decision to uphold the Commission's reclassification decision. We would uphold the Commission's decision regardless of whether the Commission validly removed "all" from the definition of "interconnected service." Mobile petitioners thus cannot show prejudice from any lack of notice. *See Steel Manufacturers Ass'n v. EPA*, 27 F.3d 642, 649 (D.C. Cir. 1994) (explaining that inability to comment on one rationale for rule was harmless when agency had "adequate and independent grounds" for rule).

Mobile petitioners, for those reasons, fail to show the prejudice required by the APA to succeed on their arguments of insufficient notice. We therefore reject their challenges.

V.

Having upheld the Commission's reclassification of broadband services, both fixed and mobile, we consider next Full Service Network's challenges to the Commission's decision to forbear from applying portions of the Communications Act to those services. Section 10 of the Communications Act provides that the Commission "shall forbear from applying any regulation or any provision" of the Communications Act to a telecommunications service or carrier if three criteria are satisfied: (1) "enforcement of such regulation or provision is not necessary to ensure that" the carrier's practices "are just and reasonable and are not unjustly or unreasonably discriminatory," 47 U.S.C. § 160(a)(1); (2) "enforcement of such regulation or provision is not necessary for the protection of consumers," *id.* § 160(a)(2); and (3) "forbearance from applying such provision or regulation is consistent with the public interest," *id.* § 160(a)(3). Under the third criterion, "the Commission shall consider whether forbearance . . . will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of telecommunications services." *Id.* § 160(b). Thus, section 10 imposes a mandatory obligation upon the Commission to forbear when it finds these conditions are met.

Section 10(c) gives any carrier the right to "submit a petition to the Commission requesting" forbearance. *Id.* § 160(c). In regulations issued pursuant to section 10(c), the Commission requires "petitions for forbearance" to include a "[d]escription of relief sought," make a prima facie case that the statutory criteria for forbearance are satisfied, identify any related matters, and provide any necessary evidence. 47 C.F.R. § 1.54.

In the Order, the Commission decided to forbear from numerous provisions of the Communications Act. 2015 Open Internet Order, 30 FCC Rcd. at 5616 ¶ 51. Full Service Network raises both procedural and substantive challenges to the Commission's forbearance decision. None succeeds.

A.

Full Service Network first argues that the Commission should have followed its regulatory requirements governing forbearance petitions even though it forbore of its own accord. In the Order, the Commission rejected this contention, stating that "[b]ecause the Commission is forbearing on its own motion, it is not governed by its procedural rules insofar as they apply, by their terms, to section 10(c) petitions for forbearance." *Id.* at 5806 ¶ 438.

"[W]e review an agency's interpretation of its own regulations with 'substantial deference.'" *In re Sealed Case*, 237 F.3d 657, 667 (D.C. Cir. 2001) (quoting *Thomas Jefferson University v. Shalala*, 512 U.S. 504, 512 (1994)). The agency's interpretation "will prevail unless it is 'plainly erroneous or inconsistent' with the plain terms of the disputed regulation." *Everett v. United States*, 158 F.3d 1364, 1367 (D.C. Cir. 1998) (quoting *Auer v. Robbins*, 519 U.S. 452, 461 (1997)).

The Commission's interpretation of its regulations easily satisfies this standard. By their own terms, the regulations apply to "petitions for forbearance," and nowhere say anything about what happens when, as here, the Commission decides to forbear without receiving a petition. *See* 47 C.F.R. § 1.54. To the extent this silence renders the regulations ambiguous in the circumstance before us, the Commission's interpretation is hardly "plainly erroneous." *Everett*, 158 F.3d at 1367 (internal quotation marks omitted).

Full Service Network also contends that the NPRM violated the APA's notice requirement because it nowhere identified the rules from which the Commission later decided to forbear. The NPRM, however, listed the provisions from which the Commission likely would not forbear, which by necessary implication indicated that the Commission would consider forbearing from all others. The NPRM did so by citing a 2010 notice of inquiry, in which the Commission had

> contemplated that, if it were to classify the Internet connectivity component of broadband Internet access service, it would forbear from applying all but a handful of core statutory provisions—sections 201, 202, 208, and 254—to the service. In addition, the Commission identified sections 222 and 255 as provisions that could be excluded from forbearance, noting that they have attracted longstanding and broad support in the broadband context.

NPRM, 29 FCC Rcd. at 5616 ¶ 154 (footnotes and internal quotation marks omitted). The NPRM sought "further and updated comment" on that course of action. *Id.* Thus, Full Service Network "should have anticipated that" the Commission would consider forbearing from all remaining Title II provisions. *Covad Communications Co.*, 450 F.3d at 548. Indeed, Full Service Network anticipated that the Commission would do just that. In its comments, Full Service Network argued that the Commission should not forbear from the provisions at issue here, thus demonstrating that it had no trouble "comment[ing] meaningfully," *Honeywell International, Inc.*, 372 F.3d at 445. *See* Letter from Earl W. Comstock, Counsel for Full Service Network and TruConnect, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Feb. 20, 2015); Letter from Earl W. Comstock, Counsel for Full Service Network and TruConnect, to

Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127, at 1 (Feb. 3, 2015).

B.

Full Service Network contends that the Commission acted arbitrarily and capriciously in forbearing from the mandatory network connection and facilities unbundling requirements contained in sections 251 and 252. As relevant here, section 251 requires telecommunications carriers "to interconnect directly or indirectly" with other carriers and prohibits them from "impos[ing] unreasonable or discriminatory conditions or limitations on[] the resale of . . . telecommunications services." 47 U.S.C. § 251(a)(1), (b)(1). "Incumbent local exchange carrier[s]," meaning carriers who "provided telephone exchange service" in a particular area as of the effective date of the Telecommunications Act, must provide nondiscriminatory access to their existing networks and unbundled access to network elements in order to allow service-level competition through resale. *Id.* § 251(c), (h)(1). Section 252 sets standards for contracts that implement section 251 obligations.

Full Service Network first argues that section 10(a)(3)'s public interest determination "must be made for each regulation, provision and market . . . using the definition and context of that provision in the [Communications] Act." Full Service Network Pet'rs' Br. 14–15 (emphasis omitted). Because section 251 "applies to 'local exchange carriers,'" Full Service Network contends, "the geographic market, as the name implies and the definition in the [Communications] Act confirms, is local and not national." *Id.* at 15 (emphasis omitted) (quoting 47 U.S.C. § 251).

Our decision in *EarthLink, Inc. v. FCC*, 462 F.3d 1, forecloses this argument. There, EarthLink made a similar argument—that the inclusion of the phrase "geographic markets" in section 10 meant that the Commission could not "forbear on a nationwide basis" from separate unbundling requirements in section 271 "without considering more localized regions individually." *Id.* at 8. Rejecting this argument, we focused on the language of section 10, and held that "[o]n its face, the statute imposes no particular mode of market analysis or level of geographic rigor." *Id.* Rather, "the language simply contemplates that the FCC might sometimes forbear in a subset of a carrier's markets; it is silent about how to determine when such partial relief is appropriate." *Id.* For the same reason, Full Service Network cannot rope section 251's requirements into the Commission's section 10 analysis.

Full Service Network's argument is also inconsistent with our decision in *Verizon Telephone Cos. v. FCC*, 570 F.3d 294 (D.C. Cir. 2009). There, Verizon sought forbearance from section 251 in some of its telephone-service markets. *Id.* at 299. The Commission denied Verizon's petition, finding insufficient evidence of facilities-based competition to render the provision's application unnecessary to protect the interests of consumers under section 10(a)(2) and to satisfy section 10(a)(3)'s public-interest requirement. *Id.* Challenging that decision, Verizon argued that the Commission's forbearance decision was incompatible with the text of section 251 because section 251 required the Commission to find that lack of access would "'impair the ability of the telecommunications carrier seeking access to provide . . . service[],'" which the Commission had not done. *Id.* at 300 (omission and alteration in original) (quoting 47 U.S.C. § 251). We rejected this argument, explaining that "[t]he dispute before this court . . . concerns whether the statutory text of § 10—not § 251—contradicts the FCC's interpretation." *Id.* We found reasonable the Commission's conclusion that its section 10 analysis did not need to incorporate any statutory requirement arising from section 251. *Id.* at 300–01. We do so again here.

Full Service Network next challenges the Commission's finding that "the availability of other protections adequately addresses commenters' concerns about forbearance from the interconnection provisions under the section 251/252 framework." 2015 Open Internet Order, 30 FCC Rcd. at 5849–50 ¶ 513 (footnote omitted). Specifically, Full Service Network attacks the Commission's determination that section 201 gives it sufficient authority to ensure that broadband networks connect to one another for the mutual exchange of traffic. Section 201 requires "every common carrier engaged in interstate or foreign communication by wire or radio to furnish such communication service upon reasonable request therefor" and, upon an order of the Commission, "to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes." 47 U.S.C. § 201(a). "All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable . . . ." *Id.* § 201(b). Section 251 includes a savings provision that "[n]othing in this section shall be construed to limit or otherwise affect the Commission's authority under section 201." *Id.* § 251(i).

Full Service Network first contends that the Commission's authority under section 201 does not extend to physical co-location, under which local exchange carriers must allow third-party providers to physically locate cables on their property in furtherance of network connections. In support, Full Service Network relies on our decision in *Bell Atlantic Telephone Cos. v. FCC*, 24 F.3d 1441 (D.C. Cir. 1994), in which we refused to uphold under section 201 a Commission rule requiring physical co-location. The rule, we reasoned, would unnecessarily raise Takings Clause issues because the Commission could use virtual co-location, where local exchange carriers maintain equipment that third-party providers can use, to implement section 201's "physical connection" requirement without raising constitutional issues. *Id.* at 1446. So while Full Service Network is correct that *Bell Atlantic* imposes one limit on the Commission's reach under section 201, that case also demonstrates that the Commission retains authority to regulate network connections under that section.

Next, Full Service Network argues that section 152(b), which "prevent[s] the Commission from taking intrastate action solely because it further[s] an interstate goal," *AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366, 381 (1999), prohibits the Commission from "us[ing] its interstate authority under [section] 201 to regulate broadband Internet access service that is an intrastate 'telephone exchange service' under the [Communications] Act," Full Service Network Pet'rs' Br. 17 (emphasis omitted) (quoting 47 U.S.C. § 153(54)). According to Full Service Network, the Commission erred by refusing to determine whether broadband service qualifies as a "telephone exchange service" because that definition would prevent the Commission from classifying the internet as jurisdictionally interstate.

In the Order, the Commission "reaffirm[ed] [its] longstanding conclusion" that broadband service falls within its jurisdiction as an interstate service. 2015 Open Internet Order, 30 FCC Rcd. at 5803 ¶ 431; *see* Cable Broadband Order, 17 FCC Rcd. at 4832 ¶ 59; In re GTE Telephone

Operating Cos. GTOC Tariff No. 1, GTOC Transmittal No. 1148, 13 FCC Rcd. 22,466, 22,474–83 ¶¶ 16–32 (1998). "The Internet's inherently global and open architecture," the Commission reasoned, "mak[es] end-to-end jurisdictional analysis extremely difficult—if not impossible—when the services at issue involve the Internet." 2015 Open Internet Order, 30 FCC Rcd. at 5803 ¶ 431 (internal quotation marks omitted). The Commission also determined that because it had found the section 10 criteria met as to section 251, it had no reason to "resolve whether broadband Internet access service could constitute 'telephone exchange service'" under section 251. *Id.* at 5851 ¶ 513 n.1575.

We approved the Commission's jurisdictional approach in *Core Communications, Inc. v. FCC*, 592 F.3d 139, 144 (D.C. Cir. 2010). Although the petitioners in that case never challenged the general framework of the Commission's "end-to-end analysis, . . . under which the classification of a communication as local or interstate turns on whether its origin and destination are in the same state," *id.* at 142, we recognized that

> [d]ial-up internet traffic is special because it involves interstate communications that are delivered through local calls; it thus simultaneously implicates the regimes of both § 201 and of §§ 251–252. Neither regime is a subset of the other. They intersect, and dial-up internet traffic falls within that intersection. Given this overlap, § 251(i)'s specific saving of the Commission's authority under § 201 against any negative implications from § 251 renders the Commission's reading of the provisions at least reasonable.

Id.; *see also National Ass'n of Regulatory Utility Commissioners v. FCC*, 746 F.2d 1492, 1501 (D.C. Cir. 1984) ("[W]e have concluded that the FCC has broad power to regulate physically intrastate facilities where they are used for interstate communication."). To be sure, *Core Communications* concerned dial-up internet access, but because broadband involves a similar mix of local facilities and interstate information networks, we see no meaningful distinction between the interpretation approved in *Core Communications* and the one the Commission offered here. Nor do we see any reason to obligate the Commission to determine the legal status of each underlying "hypothetical regulatory obligation[]" that could result from any particular Communications Act provision prior to undertaking the section 10 forbearance analysis. *AT & T Inc. v. FCC*, 452 F.3d 830, 836–37 (D.C. Cir. 2006).

Full Service Network's final argument is not especially clear. It appears to claim that the Commission provided inadequate support for its forbearance decision. Pointing out that in prior proceedings the Commission had found that mandatory unbundling in the telephone context would promote competition and emphasizing that Congress passed section 251 to foster competition, Full Service Network argues that "[section 10] surely requires more to support forbearance than an assertion by the FCC that 'other authorities' are adequate and the public interest will be better served by enhancing the agency's discretion." Full Service Network Pet'rs' Br. 20.

In evaluating Full Service Network's argument that the Commission failed to provide adequate justification for its forbearance decision, we are guided by "the traditional 'arbitrary and capricious' standard," *Cellular Telecommunications & Internet Ass'n v. FCC*, 330 F.3d 502, 507–08 (D.C. Cir. 2003), under which "the agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made," *State Farm*, 463 U.S. at 43 (internal quotation marks omitted). We have applied this standard to section 10 forbearance decisions and have "consistently deferred to [such decisions], except in cases where the Commission deviated without explanation from its past decisions or did not discuss section 10's criteria at all." *Verizon v. FCC*, 770 F.3d 961, 969 (D.C. Cir. 2014) (internal citations omitted).

In the Order, the Commission identified two bases for forbearing from sections 251 and 252. First, it considered evidence from commenters who argued that "last-mile unbundling requirements . . . led to depressed investment in the European broadband marketplace." 2015 Open Internet Order, 30 FCC Rcd. at 5796 ¶ 417. Those commenters identified several studies suggesting that mandatory unbundling had reduced investment in broadband infrastructure in Europe relative to the United States. *See* Letter from Maggie McCready, Verizon, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127 (Jan. 26, 2015); Letter from Kathryn Zachem, Comcast, to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28 & 10-127, at 5–7 (Dec. 24, 2014) (identifying Martin H. Thelle & Bruno Basalisco, Copenhagen Economics, How Europe Can Catch Up With the US: A Contrast of Two Contrary Broadband Models (2013)); Letter from Christopher S. Yoo to Marlene H. Dortch, FCC, GN Dkt. Nos. 14-28, 10-127, 09-191 (June 10, 2014). The Commission reasoned that its decision to forbear from section 251's unbundling requirement, in combination with regulation under other provisions of Title II, would avoid similar problems and encourage further deployment because the scheme "establishes the regulatory predictability needed by all sectors of the Internet industry to facilitate prudent business planning, without imposing undue burdens that might interfere with entrepreneurial opportunities." 2015 Open Internet Order, 30 FCC Rcd. at 5796 ¶ 417.

The Commission also identified "numerous concerns about the burdens—or, at a minimum, regulatory uncertainty—that would be fostered by a sudden, substantial expansion of the actual or potential regulatory requirements and obligations relative to the status quo from the near-term past," in which many broadband providers were not subject to any aspect of Title II. *Id.* at 5839 ¶ 495. In reaching this conclusion, the Commission drew from its experience with the mobile voice industry, which "thrived under a market-based Title II regime" that included significant forbearance, "demonstrating that robust investment is not inconsistent with a light-touch Title II regime." *Id.* at 5799–800 ¶ 423.

Full Service Network argues that the Commission's "prior predictions of 'vibrant intermodal competition' . . . 'cannot be reconciled with marketplace realities.'" Full Service Network Pet'rs' Reply Br. 10 (quoting 2015 Open Internet Order, 30 FCC Rcd. at 5743 ¶ 330). As we noted above, however, "[a]n agency's predictive judgments about areas that are within the agency's field of discretion and expertise are entitled to *particularly deferential* review, as long as they are reasonable." *EarthLink*, 462 F.3d at 12 (internal quotation marks omitted). In this case, the Commission's predictive judgments about the effect mandatory unbundling would have on broadband deployment were perfectly reasonable and supported by record evidence. Multiple studies provided evidence that mandatory unbundling harmed investment in Europe. Such evidence, combined with the Commission's experience in using a "light touch" regulatory program for mobile voice, demonstrates "a rational connection between the facts found and the choice made" to forbear from applying sections 251 and 252. *State Farm*, 463 U.S. at 43 (internal quotation marks omitted). The APA demands nothing more.

The partial dissent agrees with much of this, but nonetheless believes that the Commission acted arbitrarily and capriciously by "attempt[ing] to have it both ways" when it found a lack of competition in its reclassification decision, but simultaneously found adequate competition to justify forbearance. Concurring & Dissenting Op. at 67. The partial dissent also believes that the Commission's competition analysis was contrary to its own precedent. *Id.* at 66. Notably, however, and despite the partial dissent's assertion, *see id.* at 60–61, Full Service Network has never claimed that the Commission misapplied any of the section 10(a) factors, failed to analyze competitive effect as required by section 10(b), or acted contrary to its forbearance precedent. Indeed, when pressed at oral argument, Full Service Network disclaimed any intent to make these arguments. Oral Arg. Tr. 139–40. Full Service Network's argument regarding the Commission's competition analysis was confined to its contention that section 251's focus on local competition required the Commission to perform a local market analysis as part of its forbearance inquiry. As the partial dissent acknowledges, *EarthLink* "fully supports the Commission" on that score. Concurring & Dissenting Op. at 68. According to the partial dissent, however, by citing section 10(b) in its brief, Full Service Network presented a broader challenge to the Commission's competition analysis. *Id.* at 60–61. But Full Service Network cited section 10(b) only once, and only in the context of its argument that the Commission "must evaluate each provision [under section 10] using the definition and context of that provision in the Act," which, "[i]n the context of the local 'connection link' to the Internet that phone and cable company broadband service provides, . . . must be made on a local market-by-market basis." Full Service Network Pet'rs' Br. 15 (emphasis omitted). We have addressed that argument above, and Full Service Network makes no other section 10(b) argument. Because Full Service Network never presents in its briefs the arguments made by the partial dissent, those arguments lie outside the scope of our review.

VI.

We turn next to petitioners' challenges to the particular rules adopted by the Commission. As noted earlier, the Commission promulgated five rules in the Order: rules banning (i) blocking, (ii) throttling, and (iii) paid prioritization, 2015 Open Internet Order, 30 FCC Rcd. at 5647 ¶ 110; (iv) a General Conduct Rule, *id.* at 5660 ¶ 136; and (v) an enhanced transparency rule, *id.* at 5669–82 ¶¶ 154–85. Petitioners Alamo and Berninger (together, Alamo) challenge the anti-paid-prioritization rule as beyond the Commission's authority. US Telecom challenges the General Conduct Rule as unconstitutionally vague. We reject both challenges.

A.

In its challenge to the anti-paid-prioritization rule, petitioner Alamo contends that, even with reclassification of broadband as a telecommunications service, the Commission lacks authority to promulgate such a rule under section 201(b) of Title II and section 303(b) of Title III. The Commission, however, grounded the rules in "multiple, complementary sources of legal authority"—not only Titles II and III, but also section 706 of the Telecommunications Act of 1996 (now codified at 47 U.S.C. § 1302). *Id.* at 5720–21 ¶¶ 273–74. As to section 706, this court concluded in *Verizon* that it grants the Commission independent rulemaking authority. 740 F.3d at 635–42. Alamo nonetheless argues that the Commission lacks authority to promulgate rules under section 706. It rests that argument on a claim that this court's contrary conclusion in *Verizon* was dicta.

Alamo misreads *Verizon*. Our decision in that case considered three rules from the 2010 Open Internet Order: an anti-blocking rule, an anti-discrimination rule, and a transparency rule. *See id.* at 633. We determined that section 706 vests the Commission "with affirmative authority to enact measures encouraging the deployment of broadband infrastructure" and that the Commission had "reasonably interpreted section 706 to empower it to promulgate rules governing broadband providers' treatment of Internet traffic." *Id.* at 628. In doing so, we also found that the Commission's justification for those rules—"that they will preserve and facilitate the 'virtuous circle' of innovation that has driven the explosive growth of the Internet"—was reasonable and supported by substantial evidence. *Id.* We ultimately struck down the anti-blocking and anti-discrimination rules on the ground that they amounted to common carrier regulation without any accompanying determination that broadband providers should be regulated as common carriers. *See id.* at 655–58. But we upheld the Commission's transparency rule as a permissible and reasonable exercise of its section 706 authority, one that did not improperly impose common carrier obligations on broadband providers. *See id.* at 659. Because our findings with regard to the Commission's 706 authority were necessary to our decision to uphold the transparency rule, those findings cannot be dismissed as dicta. *Seminole Tribe of Florida v. Florida*, 517 U.S. 44, 67 (1996) ("When an opinion issues for the Court, it is not only the result but also those portions of the opinion necessary to that result by which we are bound."). We note, moreover, that the separate opinion concurring in part and dissenting in part agreed with the court's conclusion as to the existence of rulemaking authority under section 706 and made no suggestion that the conclusion was mere dicta. *See Verizon*, 740 F.3d at 659–68 (Silberman, J., concurring in part and dissenting in part).

Alamo does not contend that the anti-paid-prioritization rule falls outside the scope of the Commission's rulemaking authority under section 706 or is otherwise an improper exercise of that authority (if, as we held in *Verizon* and reiterate here, that authority exists in the first place). Alamo argues only that *Verizon* was wrong on the antecedent question of the Commission's authority to promulgate rules under section 706 at all. Unfortunately for Alamo, *Verizon* established precedent on the existence of the Commission's rulemaking authority under section 706 and thus controls our decision here. Consequently, we reject Alamo's challenges to the Commission's section 706 authority and to the anti-paid-prioritization rule.

Our colleague picks up where Alamo leaves off, arguing that, even if *Verizon*'s conclusions about the *existence* of the Commission's section 706 authority were not mere dicta, *Verizon*'s conclusions about the scope of that authority (including the permissibility of the Commission's reliance on the "virtuous cycle" of innovation) were dicta. Concurring & Dissenting Op. at 52. Both sets of conclusions, however, were necessary to our upholding the transparency rule. *See Verizon*, 740 F.3d at 639–40, 644–49. Consequently, as we held in *Verizon* and reaffirm today, the Commission's section 706 authority extends to rules "governing broadband providers' treatment of internet traffic"—including the anti-paid-prioritization rule—in reliance on the virtuous cycle theory. *Verizon*, 740 F.3d at 628; *see* 2015 Open Internet Order, 30 FCC Rcd. at 5625–34 ¶¶ 76–85; *id.* at 5623–24

¶¶ 281–82. Even if there were any lingering uncertainty about the import of our decision in *Verizon*, we fully adopt here our findings and analysis in *Verizon* concerning the existence and permissible scope of the Commission's section 706 authority, including our conclusion that the Commission's virtuous cycle theory provides reasonable grounds for the exercise of that authority.

That brings us to our colleague's suggestion that the Order embodies a "central paradox[]" in that the Commission relied on the Telecommunications Act to "increase regulation" even though the Act was "intended to 'reduce regulation.'" Concurring & Dissenting Op. at 53. We are unmoved. The Act, by its terms, aimed to "encourage the rapid deployment of new telecommunications technologies." Telecommunications Act of 1996, Pub. L. 104–104, 110 Stat 56. If, as we reiterate here (and as the partial dissent agrees), section 706 grants the Commission rulemaking authority, it is unsurprising that the grant of rulemaking authority might occasion the promulgation of additional regulation. And if, as is true here (and was true in *Verizon*), the new regulation is geared to promoting the effective deployment of new telecommunications technologies such as broadband, the regulation is entirely consistent with the Act's objectives.

B.

The Due Process Clause "requires the invalidation of laws [or regulations] that are impermissibly vague." *FCC v. Fox Television Stations, Inc.*, 132 S. Ct. 2307, 2317 (2012). US Telecom argues that the General Conduct Rule falls within that category. We disagree.

The General Conduct Rule forbids broadband providers from engaging in conduct that "unreasonably interfere[s] with or unreasonably disadvantage[s] (i) end users' ability to select, access, and use broadband Internet access service or the lawful Internet content, applications, services, or devices of their choice, or (ii) edge providers' ability to make lawful content, applications, services, or devices available to end users." 2015 Open Internet Order, 30 FCC Rcd. at 5660 ¶ 136. The Commission adopted the General Conduct Rule based on a determination that the three bright-line rules—barring blocking, throttling, and paid prioritization—were, on their own, insufficient "to protect the open nature of the Internet." *Id*. at 5659–60 ¶¶ 135–36. Because "there may exist other current or future practices that cause the type of harms [the] rules are intended to address," the Commission thought it "necessary" to establish a more general, no-unreasonable interference/disadvantage standard. *Id*. The standard is designed to be flexible so as to address unforeseen practices and prevent circumvention of the bright-line rules. The Commission will evaluate conduct under the General Conduct Rule on a case-by-case basis, taking into account a "non-exhaustive" list of seven factors. *Id*. at 5661 ¶ 138.

Before examining the merits of the vagueness challenge, we first address US Telecom's argument that the NPRM provided inadequate notice that the Commission would issue a General Conduct Rule of this kind. Although the Commission did not ultimately adopt the "commercially reasonable" standard proposed in the NPRM, the Commission specifically sought "comment on whether [it] should adopt a different rule to govern broadband providers' practices to protect and promote Internet openness." NPRM, 29 FCC Rcd. at 5604 ¶ 121. The NPRM further asked: "How can the Commission ensure that the rule it adopts sufficiently protects against harms to the open Internet, including broadband providers' incentives to disadvantage edge providers or classes of edge providers in ways that would harm Internet openness? Should the Commission adopt a rule that prohibits unreasonable discrimination and, if so, what legal authority and theories should we rely upon to do so?" *Id*. In light of those questions, US Telecom was on notice that the Commission might adopt a different standard to effectuate its goal of protecting internet openness.

US Telecom contends that the NPRM was nonetheless inadequate because general notice of the possible adoption of a new standard, without notice about the rule's content, is insufficient. But the NPRM described in significant detail the factors that would animate a new standard. *See, e.g.*, *id.* at 5605–06 ¶¶ 124–126; *id*. at 5607 ¶¶ 129–31; *id*. at 5608 ¶ 134. The factors that are to guide application of the General Conduct Rule significantly resemble those identified in the NPRM. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5661–64 ¶¶ 139–45. The Rule also adopted the "case-by-case," "totality of the circumstances" approach proposed in the NPRM. 29 FCC Rcd. at 5604 ¶ 122. By making clear that the Commission was considering establishment of a general standard and providing indication of its content, the NPRM offered adequate notice under the APA.

Moving to the substance of US Telecom's vagueness argument, we note initially that it comes to us as a facial challenge. Traditionally, a petitioner could succeed on such a claim "only if the enactment [wa]s impermissibly vague in all of its applications." *Village of Hoffman Estates v. Flipside, Hoffman Estates, Inc.*, 455 U.S. 489, 495 (1982). That high bar was grounded in the understanding that a "plaintiff who engages in some conduct that is clearly proscribed cannot complain of the vagueness of the law as applied to the conduct of others." *Holder v. Humanitarian Law Project*, 561 U.S. 1, 18–19 (2010) (internal quotation marks omitted). More recently, however, in *Johnson v. United States*, 135 S. Ct. 2551 (2015), the Supreme Court suggested some skepticism about that longstanding framework. Noting that past "*holdings* squarely contradict the theory that a vague provision is constitutional merely because there is some conduct that clearly falls within the provision's grasp," the Court described the "supposed requirement of vagueness in all applications" as a "tautology." *Id*. at 2561. We need not decide the full implications of *Johnson*, because we conclude that the General Conduct Rule satisfies due process requirements even if we do not apply *Hoffman*'s elevated bar for facial challenges.

Vagueness doctrine addresses two concerns: "first, that regulated parties should know what is required of them so they may act accordingly; second, precision and guidance are necessary so that those enforcing the law do not act in an arbitrary or discriminatory way." *Fox Television*, 132 S. Ct. at 2317. Petitioners argue that the General Conduct Rule is unconstitutionally vague because it fails to provide regulated entities adequate notice of what is prohibited. We are unpersuaded. Unlike the circumstances at issue in *Fox Television*, *id.* at 2317–18, the Commission here did not seek retroactively to enforce a new policy against conduct predating the policy's adoption. The General Conduct Rule applies purely prospectively. We find that the Rule gives sufficient notice to affected entities of the prohibited conduct going forward.

The degree of vagueness tolerable in a given statutory provision varies based on "the nature of the enactment." *Hoffman Estates*, 455 U.S. at 498. Thus, "the Constitution is most demanding of a criminal statute that limits First Amendment rights." *DiCola v. FDA*, 77 F.3d 504, 508 (D.C. Cir. 1996). The General Conduct Rule does not implicate that form of review because it regulates business conduct and imposes civil penalties. In such circumstances, "regulations will be found to satisfy due process so long as they are sufficiently specific that a reasonably prudent person, familiar with the conditions the regulations are meant to address and the objectives the regulations are meant to achieve, would have fair warning of what the regulations require." *Freeman United Coal Mining Co. v. Federal Mine Safety & Health Review Commission*, 108 F.3d 358, 362 (D.C. Cir. 1997).

That standard is met here. The Commission has articulated "the objectives the [General Conduct Rule is] meant to achieve," *id.*: to serve as a complement to the bright-line rules and advance the central goal of protecting consumers' ability to access internet content of their choosing. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5659–60 ¶¶ 135–37. The Commission set forth seven factors that will guide the determination of what constitutes unreasonable interference with, or disadvantaging of, end-user or edge-provider access: end-user control; competitive effects; consumer protection; effect on innovation, investment, or broadband deployment; free expression; application agnosticism; and standard practices. *See id.* at 5661–64 ¶¶ 139–45. The Commission's articulation of the Rule's objectives and specification of the factors that will inform its application "mark out the rough area of prohibited conduct," which suffices to satisfy due process in this context. *DiCola*, 77 F.3d at 509 (internal quotation marks omitted).

Moreover, the Commission did not merely set forth the factors; it also included a description of how each factor will be interpreted and applied. For instance, when analyzing the competitive effects of a practice, the Commission instructs that it will "review the extent of an entity's vertical integration as well as its relationships with affiliated entities." 2015 Open Internet Order, 30 FCC Rcd. at 5662 ¶ 140. The Commission defines a practice as application-agnostic if it "does not differentiate in treatment of traffic, or if it differentiates in treatment of traffic without reference to the content, application, or device." *Id*. at 5663 ¶ 144 n.344. Many of the paragraphs in that section of the Order also specifically identify the kind of conduct that would violate the Rule. The Commission explains, for example, that "unfair or deceptive billing practices, as well as practices that fail to protect the confidentiality of end users' proprietary information, will be unlawful." *Id*. at 5662 ¶ 141. It goes on to emphasize that the "rule is intended to include protection against fraudulent practices such as 'cramming' and 'slamming.'" *Id*. And "[a]pplication-specific network practices," including "those applied to traffic that has a particular source or destination, that is generated by a particular application . . . , [or] that uses a particular application- or transport- layer protocol," would trigger concern as well. *Id*. at 5663 ¶ 144 n.344.

Given that "we can never expect mathematical certainty from our language," those sorts of descriptions suffice to provide fair warning as to the type of conduct prohibited by the General Conduct Rule. *Grayned v. City of Rockford*, 408 U.S. 104, 110 (1972). To be sure, as a multifactor standard applied on a case-by-case basis, a certain degree of uncertainty inheres in the structure of the General Conduct Rule. But a regulation is not impermissibly vague because it is "marked by flexibility and reasonable breadth, rather than meticulous specificity." *Id.* (internal quotation marks omitted). Fair notice in these circumstances demands "no more than a reasonable degree of certainty." *Throckmorton v. National Transportation Safety Board*, 963 F.2d 441, 444 (D.C. Cir. 1992) (internal quotation marks omitted). We are mindful, moreover, that "by requiring regulations to be too specific courts would be opening up large loopholes allowing conduct which should be regulated to escape regulation."

Freeman, 108 F.3d at 362 (alterations and internal quotation marks omitted). That concern is particularly acute here, because of the speed with which broadband technology continues to evolve. The dynamic market conditions and rapid pace of technological development give rise to pronounced concerns about ready circumvention of particularized regulatory restrictions. The flexible approach adopted by the General Conduct Rule aims to address that concern in a field in which "specific regulations cannot begin to cover all of the infinite variety of conditions." *Id*. (alteration and internal quotation marks omitted).

Any ambiguity in the General Conduct Rule is therefore a far cry from the kind of vagueness this court considered problematic in *Timpinaro v. SEC*, 2 F.3d 453 (D.C. Cir. 1993), on which US Telecom heavily relies. In that case, we found a multifactor SEC rule defining a professional trading account to be unconstitutionally vague because "a trader would be hard pressed to know when he is in danger of triggering an adverse reaction." *Id.* at 460. We emphasized that "five of the seven factors . . . are subject to seemingly open-ended interpretation," and that the uncertainty is "all the greater when these mysteries are considered in combination, according to some undisclosed system of relative weights." *Id*. Unlike in *Timpinaro*, in which the factors were left unexplained, in this case, as noted, the Commission included a detailed paragraph clarifying and elaborating on each of the factors. And because the provision at issue in *Timpinaro* was a technical definition of a professional trading account, the context of the regulation shed little additional light on its meaning. In contrast, the knowledge that the General Conduct Rule was expressly adopted to complement the bright-line rules helps delineate the contours of the proscribed conduct here.

Finally, the advisory-opinion procedure accompanying the General Conduct Rule cures it of any potential lingering constitutional deficiency. The Commission announced in the Order that it would allow companies to obtain an advisory opinion concerning any "proposed conduct that may implicate the rules," in order to "enable companies to seek guidance on the propriety of certain open Internet practices before implementing them." 2015 Open Internet Order, 30 FCC Rcd. at 5706 ¶¶ 229–30. The opinions will be issued by the Enforcement Bureau and "will be publicly available." *Id*. at 5706–07 ¶¶ 229, 231. As a result, although the Commission did not reach a definitive resolution during the rulemaking process as to the permissibility under the General Conduct Rule of practices such as zero-rating and usage caps, *see id.* at 5666–67 ¶ 151, companies that seek to pursue those sorts of practices may petition for an advisory opinion and thereby avoid an inadvertent infraction. The opportunity to obtain prospective guidance thus provides regulated entities with "relief from [remaining] uncertainty." *DiCola*, 77 F.3d at 509; *see also Hoffman*, 455 U.S. at 498.

Petitioners argue that the advisory-opinion process is insufficient because opinions cannot be obtained for existing conduct, conduct subject to a pending inquiry, or conduct that is a "mere possibilit[y]." 2015 Open Internet Order, 30 FCC Rcd. at 5707 ¶ 232. But the fact that advisory opinions cannot be used for present conduct or conduct pending inquiry is integral to the procedure's purpose—to encourage providers to "be proactive about compliance" and obtain guidance on proposed actions *before* implementing them. *Id*. at 5706 ¶ 229. Petitioners also point out that the guidance provided in advisory opinions is not binding. *See id*. at 5708 ¶¶ 235. The Bureau's ability to adjust its views after issuing an advisory opinion, however, does not negate the procedure's usefulness for companies seeking to avoid inadvertent violations of the Rule. Nonbinding opinions thus are characteristic of advisory processes, including the Department of Justice Antitrust Division's business review letter procedure, which served as the model for the Commission's process. *See id*. Expecting the Bureau to issue final, irrevocable decisions on the permissibility of proposed conduct before seeing the actual effects of that conduct could produce anomalous results.

Our colleague also identifies certain perceived deficiencies in the advisory-opinion process. Notably, however, the partial dissent makes no argument that the General Conduct Rule is unconstitutionally vague. Rather, in arguing that the Commission's reclassification of broadband is arbitrary and capricious, the partial dissent criticizes the advisory-opinion process on the grounds that the Bureau could choose to refrain from offering answers and that the process will be slow. *See* Concurring & Dissenting Op. at 22–23. Insofar as those criticisms may seem germane to petitioners' vagueness challenge, we find them unpersuasive. Even if the Bureau's discretion about whether to provide an answer could be problematic in the absence of any further guidance in the Rule as to the kinds of conduct it prohibits, here, as explained, the Rule does provide such guidance. The advisory-opinion procedure simply acts as an additional resource available to companies in instances of particular uncertainty. Moreover, the partial dissent's suppositions about the slowness of the process stem solely from the absence of firm deadlines by which the Bureau must issue an opinion. There is no indication at this point, however, that the Bureau will fail to offer timely guidance.

In the end, the advisory-opinion procedure can be expected to provide valuable (even if imperfect) guidance to providers seeking to comply with the General Conduct Rule.

The procedure thereby alleviates any remaining concerns about the Rule's allegedly unconstitutional vagueness. For the reasons described, we uphold the Rule.

VII.

We finally turn to Alamo and Berninger's First Amendment challenge to the open internet rules. Having upheld the FCC's reclassification of broadband service as common carriage, we conclude that the First Amendment poses no bar to the rules.

A.

Before moving to the merits of the challenge, we must address intervenor Cogent's argument that Alamo and Berninger lack standing to bring this claim. Because the rules directly affect Alamo's business, we conclude that Alamo has standing.

In order to establish standing, a plaintiff must demonstrate an "injury in fact" that is "fairly traceable" to the defendant's action and that can be "redressed by a favorable decision." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992) (alterations and internal quotation marks omitted). The dispute here is primarily about the first prong, injury in fact. An injury in fact requires "invasion of a legally protected interest which is (a) concrete and particularized, and (b) actual or imminent, not conjectural or hypothetical." *Id.* (citations and internal quotation marks omitted).

Alamo uses fixed wireless technology to provide internet service to customers outside San Antonio, Texas. *See* Alamo Br., Portman Decl. ¶ 2. The company claims it "is injured by the Order because it is a provider of broadband Internet access service that the FCC seeks to regulate." *Id.* ¶ 5 (italics omitted). As a broadband provider, Alamo is itself "an object of the action . . . at issue." *Lujan*, 504 U.S. at 561. When a person or company that is the direct object of an action petitions for review, "there is ordinarily little question that the action . . . has caused [it] injury, and that a judgment preventing . . . the action will redress it." *Id.* at 561–62. Here, however, Alamo seeks pre-enforcement review of the rules, which raises the question of whether it has demonstrated that the rules inflict a sufficiently concrete and actual injury. We conclude that Alamo has made the requisite showing.

Pre-enforcement review, particularly in the First Amendment context, does not require plaintiffs to allege that they "will in fact" violate the regulation in order to demonstrate an injury. *Susan B. Anthony List v. Driehaus*, 134 S. Ct. 2334, 2345 (2014). Standing "to challenge laws burdening expressive rights requires only a credible statement by the plaintiff of intent to commit violative acts and a conventional background expectation that the government will enforce the law." *Act Now to Stop War & End Racism Coalition v. District of Columbia*, 589 F.3d 433, 435 (D.C. Cir. 2009) (internal quotation marks omitted). Because "an agency rule, unlike a statute, is typically reviewable without waiting for enforcement," that principle applies with particular force here. *Chamber of Commerce v. FEC*, 69 F.3d 600, 604 (D.C. Cir. 1995).

Alamo explains that the "Open Internet conduct rules eliminate Alamo's discretion to manage the Internet traffic on its network." Portman Decl. ¶ 5. That statement indicates that, were it not for the rules, Alamo would explore alternative methods of managing internet traffic—namely blocking, throttling, or paid prioritization. In the context of this challenge, the company's "affidavit can only be understood to mean that" if the rules were removed, it would seek to exercise its discretion and explore business practices prohibited by the rules. *Ord v. District of Columbia*, 587 F.3d 1136, 1143 (D.C. Cir. 2009). Alamo has thus adequately manifested its "intention to engage in a course of conduct arguably affected with a constitutional interest, but proscribed by [regulation]." *Driehaus*, 134 S. Ct. at 2342 (internal quotation marks omitted). Its inability to follow through on that intention constitutes an injury in fact for purposes of pre-enforcement review of the rules.

That conclusion is fortified by the "strong presumption of judicial review under the Administrative Procedure Act" and the understanding that "the courts' willingness to permit pre-enforcement review is at its peak when claims are rooted in the First Amendment." *New York Republican State Committee v. SEC*, 799 F.3d 1126, 1135 (D.C. Cir. 2015) (internal quotation marks omitted). In order "to avoid the chilling effects that come from unnecessarily expansive proscriptions on speech," "courts have shown special solicitude" to such claims. *Id.* at 1135–36.

Because Alamo's standing enables us to consider the First Amendment arguments with respect to all three bright-line rules, we have no need to consider Berninger's standing. *See Rumsfeld v. Forum for Academic & Institutional Rights, Inc.*, 547 U.S. 47, 52 n.2 (2006).

B.

Alamo argues that the open internet rules violate the First Amendment by forcing broadband providers to transmit speech with which they might disagree. We are unpersuaded. We have concluded that the Commission's reclassification of broadband service as common carriage is a permissible exercise of its Title II authority, and Alamo does not challenge that determination. Common carriers have long been subject to nondiscrimination and equal access obligations akin to those imposed by the rules without raising any First Amendment question. Those obligations affect a common carrier's neutral transmission of *others'* speech, not a carrier's communication of its own message.

Because the constitutionality of each of the rules ultimately rests on the same analysis, we consider the rules together. The rules generally bar broadband providers from denying or downgrading end-user access to content and from favoring certain content by speeding access to it. In effect, they require broadband providers to offer a standardized service that transmits data on a nondiscriminatory basis. Such a constraint falls squarely within the bounds of traditional common carriage regulation.

The "basic characteristic" of common carriage is the "requirement [to] hold[] oneself out to serve the public indiscriminately." *Verizon*, 740 F.3d at 651 (internal quotation marks omitted). That requirement prevents common carriers from "mak[ing] individualized decisions, in particular cases, whether and on what terms to deal." *FCC v. Midwest Video Corp.*, 440 U.S. 689, 701 (1979) (internal quotation marks omitted). In the communications context, common carriers "make[] a public offering to provide communications facilities whereby all members of the public who choose to employ such facilities may communicate or transmit intelligence of their own design and choosing." *Id.* (alteration and internal quotation marks omitted). That is precisely what the rules obligate broadband providers to do.

Equal access obligations of that kind have long been imposed on telephone companies, railroads, and postal services, without raising any First Amendment issue. *See Denver Area Educational Telecommunications Consortium,* *Inc. v. FCC*, 518 U.S. 727, 739 (1996) (plurality opinion) (noting that the "speech interests" in leased channels are "relatively weak because [the companies] act less like editors, such as newspapers or television broadcasters, than like common carriers, such as telephone companies"); *FCC v. League of Women Voters of California*, 468 U.S. 364, 378 (1984) ("Unlike common carriers, broadcasters are entitled under the First Amendment to exercise the widest journalistic freedom consistent with their public duties." (alteration and internal quotation marks omitted)); *Columbia Broadcasting System, Inc. v. Democratic National Committee*, 412 U.S. 94, 106 (1973) (noting that the Senate decided in passing the Communications Act "to eliminate the common carrier obligation" for broadcasters because "it seemed unwise to put the broadcaster under the hampering control of being a common carrier and compelled to accept anything and everything that was offered him so long as the price was paid" (quoting 67 Cong. Rec. 12,502 (1926))). The Supreme Court has explained that the First Amendment comes "into play" only where "particular conduct possesses sufficient communicative elements," *Texas v. Johnson*, 491 U.S. 397, 404 (1989), that is, when an "intent to convey a particularized message [is] present, and in the surrounding circumstances the likelihood [is] great that the message would be understood by those who viewed it," *Spence v. Washington*, 418 U.S. 405, 410–11 (1974). The absence of any First Amendment concern in the context of common carriers rests on the understanding that such entities, insofar as they are subject to equal access mandates, merely facilitate the transmission of the speech of others rather than engage in speech in their own right.

As the Commission found, that understanding fully applies to broadband providers. In the Order, the Commission concluded that broadband providers "exercise little control over the content which users access on the Internet" and "allow Internet end users to access all or substantially all content on the Internet, without alteration, blocking, or editorial intervention," thus "display[ing] no such intent to convey a message in their provision of broadband Internet access services." 2015 Open Internet Order, 30 FCC Rcd. at 5869 ¶ 549. In turn, the Commission found, end users "expect that they can obtain access to all content available on the Internet, without the editorial intervention of their broadband provider." *Id*. Because "the accessed speech is not edited or controlled by the broadband provider but is directed by the end user," *id.* at 5869–70 ¶ 549, the Commission concluded that broadband providers act as "mere conduits for the messages of others, not as agents exercising editorial discretion subject to First Amendment protections," *id*. at 5870 ¶ 549. Petitioners provide us with no reason to question those findings.

Because the rules impose on broadband providers the kind of nondiscrimination and equal access obligations that courts have never considered to raise a First Amendment concern—i.e., the rules require broadband providers to allow "all members of the public who choose to employ such facilities [to] communicate or transmit intelligence of their own design and choosing," *Midwest Video*, 440 U.S. at 701 (internal quotation marks omitted)—they are permissible. Of course, insofar as a broadband provider might offer its own *content*—such as a news or weather site—separate from its internet access service, the provider would receive the same protection under the First Amendment as other producers of internet content. But the challenged rules apply only to the provision of internet access as common carriage, as to which equal access and nondiscrimination mandates present no First Amendment problem.

Petitioners and their amici offer various grounds for distinguishing broadband service from other kinds of common carriage, none of which we find persuasive. For instance, the rules do not automatically raise First Amendment concerns on the ground that the material transmitted through broadband happens to be speech instead of physical goods. Telegraph and telephone networks similarly involve the transmission of speech. Yet the communicative intent of the individual speakers who use such transmission networks does not transform the networks themselves into speakers. *See id.* at 700–01.

Likewise, the fact that internet speech has the capacity to reach a broader audience does not meaningfully differentiate broadband from telephone networks for purposes of the First Amendment claim presented here. Regardless of the scale of potential dissemination, both kinds of providers serve as neutral platforms for speech transmission. And while the extent of First Amendment protection can vary based on the content of the communications—speech on "matters of public concern," such as political speech, lies at the core of the First Amendment, *Snyder v. Phelps*, 562 U.S. 443, 451 (2011) (internal quotation marks omitted)—both telephones and the internet can serve as a medium of transmission for all manner of speech, including speech addressing both public and private concerns. The constitutionality of common carriage regulation of a particular transmission medium thus does not vary based on the potential audience size.

To be sure, in certain situations, entities that serve as conduits for speech produced by others receive First Amendment protection. In those circumstances, however, the entities are not engaged in indiscriminate, neutral transmission of any and all users' speech, as is characteristic of common carriage. For instance, both newspapers and "cable television companies use a portion of their available space to reprint (or retransmit) the communications of others, while at the same time providing some original content." *City of Los Angeles v. Preferred Communications, Inc.*, 476 U.S. 488, 494 (1986) (internal quotation marks omitted). Through both types of actions—creating "original programming" and choosing "which stations or programs to include in [their] repertoire"—newspapers and cable companies "seek[] to communicate messages on a wide variety of topics and in a wide variety of formats." *Id*.

In selecting which speech to transmit, newspapers and cable companies engage in editorial discretion. Newspapers have a finite amount of space on their pages and cannot "proceed to infinite expansion of . . . column space." *Miami Herald Publishing Co. v. Tornillo*, 418 U.S. 241, 257 (1974). Accordingly, they pick which articles and editorials to print, both with respect to original content and material produced by others. Those decisions "constitute the exercise of editorial control and judgment." *Id.* at 258. Similarly, cable operators necessarily make decisions about which programming to make available to subscribers on a system's channel space. As with newspapers, the "editorial discretion" a cable operator exercises in choosing "which stations or programs to include in its repertoire" means that operators "engage in and transmit speech." *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622, 636 (1994) (internal quotation marks omitted). The Supreme Court therefore applied intermediate First Amendment scrutiny to (but ultimately upheld) must-carry rules constraining the discretion of a cable company concerning which programming to carry on its channel menu. *See id.* at 661–62.

In contrast to newspapers and cable companies, the exercise of editorial discretion is entirely absent with respect to broadband providers subject to the Order. Unlike with the printed page and cable technology, broadband providers face no such constraints limiting the range of potential content they can make available to subscribers. Broadband providers thus are not required to make, nor have they traditionally made, editorial decisions about which speech to transmit. *See* 2015 Open Internet Order, 30 FCC Rcd. at 5753 ¶ 347, 5756 ¶ 352, 5869–70 ¶ 549. In that regard, the role of broadband providers is analogous to that of telephone companies: they act as neutral, indiscriminate platforms for transmission of speech of any and all users.

Of course, broadband providers, like telephone companies, can face capacity constraints from time to time. Not *every* telephone call will be able to get through instantaneously at every moment, just as service to websites might be slowed at times because of significant network demand. But those kinds of temporary capacity constraints do not resemble the structural limitations confronting newspapers and cable companies. The latter naturally occasion the exercise of editorial discretion; the former do not.

If a broadband provider nonetheless were to *choose* to exercise editorial discretion—for instance, by picking a limited set of websites to carry and offering that service as a curated internet experience—it might then qualify as a First Amendment speaker. But the Order itself excludes such providers from the rules. The Order defines broadband internet access service as a "mass-market retail service"—i.e., a service that is "marketed and sold on a standardized basis"—that "provides the capability to transmit data to and receive data from all or substantially all Internet endpoints." 2015 Open Internet Order, 30 FCC Rcd. at 5745–46 ¶ 336 & n.879. That definition, by its terms, includes only those broadband providers that hold themselves out as neutral, indiscriminate conduits. Providers that may opt to exercise editorial discretion—for instance, by offering access only to a limited segment of websites specifically catered to certain content—would not offer a standardized service that can reach "substantially all" endpoints. The rules therefore would not apply to such providers, as the FCC has affirmed. *See* FCC Br. 81, 146 n.53.

With standard broadband internet access, by contrast, there is no editorial limitation on users' access to lawful internet content. As a result, when a subscriber uses her broadband service to access internet content of her own choosing, she does not understand the accessed content to reflect her broadband provider's editorial judgment or viewpoint. If it were otherwise—if the accessed content were somehow imputed to the broadband provider—the provider would have First Amendment interests more centrally at stake. *See Forum for Academic & Institutional Rights*, 547 U.S. at 63–65; *PruneYard Shopping Center v. Robins*, 447 U.S. 74, 86–88 (1980). But nothing about affording indiscriminate access to internet content suggests that the broadband provider *agrees* with the content an end user happens to access. Because a broadband provider does not—and is not understood by users to—"speak" when providing neutral access to internet content as common carriage, the First Amendment poses no bar to the open internet rules.

VIII.

For the foregoing reasons, we deny the petitions for review.

So ordered.

WILLIAMS, *Senior Circuit Judge*, concurring in part and dissenting in part: I agree with much of the majority opinion but am constrained to dissent. In my view the Commission's Order must be vacated for three reasons:

I. The Commission's justification of its switch in classification of broadband from a Title I information service to a Title II telecommunications service fails for want of reasoned decisionmaking. (a) Its assessment of broadband providers' reliance on the now-abandoned classification disregards the record, in violation of its obligation under *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). Furthermore, the Commission relied on explanations contrary to the record before it and failed to consider issues critical to its conclusion. *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). (b) To the extent that the Commission relied on changed factual circumstances, its assertions of change are weak at best and linked to the Commission's change of policy by only the barest of threads. (c) To the extent that the Commission justified the switch on the basis of new policy perceptions, its explanation of the policy is watery thin and self-contradictory.

II. The Commission has erected its regulatory scheme on two statutory sections that would be brought into play by reclassification (if reclassification were supported by reasoned decisionmaking), but the two statutes do not justify the rules the Commission has adopted.

Application of Title II gives the Commission authority to apply § 201(b) of the Communications Act, 47 U.S.C. § 201(b). The Commission invokes a new interpretation of § 201 to sustain its ban on paid prioritization. But it has failed to offer a reasonable basis for that interpretation. Absent such a basis, the ban is not in accordance with law. 5 U.S.C. § 706(2)(A) & (C).

Application of Title II also removes an obstacle to most of the Commission's reliance on § 706 of the Telecommunications Act of 1996, 47 U.S.C. § 1302, namely any rules that have the effect of treating the subject firms as common carriers. See *Verizon Communications Inc. v. Federal Communications Commission*, 740 F.3d 623, 650 (2014). But the limits of § 706 itself render it inadequate to justify the ban on paid prioritization and kindred rules.

I discuss § 201(b) and § 706 in subparts A and B of part II.

III. The Commission's decision to forbear from enforcing a wide array of Title II's provisions is based on premises inconsistent with its reclassification of broadband. Its explicit refusal to take a stand on whether broadband providers (either as a group or in particular instances) may have market power manifests not only its doubt as to whether it could sustain any such finding but also its pursuit of a "Now you see it, now you don't" strategy. The Commission invokes something very like market power to justify its broad imposition of regulatory burdens, but then finesses the issue of market power in justifying forbearance.

Many of these issues are closely interlocked, making it hard to pursue a clear expository path. Most particularly, the best place for examining the Commission's explanation of the jewel in its crown—its ban on paid prioritization—is in discussion of its new interpretation of 47 U.S.C. § 201. But that explanation is important for understanding the Commission's failure to meet its obligations under *Fox Television*, above all the obligation to explain why such a ban promotes the "virtuous cycle," which (as the majority observes) is the primary justification for reclassification under Title II. Thus a discussion critical to part I of this opinion is deferred to part II. I ask the reader's indulgence for any resulting confusion.

* * *

I should preface the discussion by acknowledging that the Commission is under a handicap in regulating internet access under the Communications Act of 1934 as amended by the Telecommunications Act of 1996. The first was designed for regulating the AT&T monopoly, the second for guiding the telecommunications industry from that monopoly into a competitive future. The 1996 Act begins by describing itself as:

> An Act [t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.

Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56. Two central paradoxes of the Commission's position are (1) its use of an Act intended to "reduce regulation" to instead increase regulation, and (2) its coupling adoption of a dramatically new policy whose rationality seems heavily dependent on the existing state of competition in the broadband industry, under an Act intended to "promote competition," with a resolute refusal even to address the state of competition. In the Commission's words, "Thus, these rules do not address, and are not designed to deal with, the acquisition or maintenance of market power or its abuse, real or potential." Order ¶ 11 n.12.

I

I agree with the majority that the Commission's reclassification of broadband internet as a telecommunications service may not run afoul of any statutory dictate in the Telecommunications Act. But in changing its interpretation, the Commission failed to meet the modest requirements of *Fox Television*.

Fox states that an agency switching policy must as always "show that there are good reasons for the new policy." 556 U.S. at 515. But in special circumstances more is required. An "agency need not always provide a more detailed justification than what would suffice for a new policy created on a blank slate. [But s]ometimes it must—when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account." *Id.*

Here the Commission justifies its decision on two bases: changed facts and a new policy judgment. To the extent it rests on new facts, *Fox* requires us to examine whether there is really anything new. *Fox* also, of course, requires us to consider reliance interests, regardless of what the Commission has said about them. Thus novel facts and reliance interests are plainly at issue. The Commission also argues that its policy change would be reasonable even if the facts had not changed. Order ¶ 360 n.993 ("[W]e clarify that, even assuming, *arguendo*, that the facts regarding how [broadband] is offered had not changed, in now applying the Act's definitions to these facts, we find that the provision of [broadband] is best understood as a telecommunications service, as discussed [elsewhere] . . . and disavow our prior interpretations to the extent they held otherwise."). In sum then, at a minimum, we must inquire whether the Commission gave reasonable attention to petitioners' claims of reliance interests, how much the asserted factual change amounts to, and finally whether the Commission has met the minimal burden of showing "that there are good reasons for the new policy." I address them in that order.

(a) *Reliance*. The Order deals with reliance interests summarily, noting, "As a factual matter, the regulatory status of broadband internet access service appears to have, at most, an indirect effect (along with many other factors) on investment." Order ¶ 360. The Commission's support for the conclusion is weak and its pronouncement superficial.

To the extent that the Commission's judgment relies on the presence of "many other factors," it relies on an irrelevance. The proposition that "many other factors" affect investment is a truism. In a complex economy there will be few phenomena that are entirely driven by a single variable. Investment in broadband obviously reflects such matters as market saturation, the cost of capital, obsolescence, technological innovation, and a host of macroeconomic variables. Put more generally, the presence of causal factors X and Y doesn't show the irrelevance of factor Z. The significance of these factors tells us little about how much the relatively permissive regime that has hitherto applied accounts for the current robust broadband infrastructure. At least in general terms, the Commission elsewhere seems to answer that the old regime accounts for much. In an introductory paragraph it commends "the 'light-touch' regulatory framework that has facilitated the tremendous investment and innovation on the Internet." Order ¶ 5.

For its factual support, the Commission essentially lists several anecdotes about what happened to stock prices and what corporate executives said about investment in response to Commission proposals for regulatory change. For example, the Order notes that, after the Commission proposed tougher rules, the stocks of telecommunications companies outperformed the broader market. Order ¶ 360. This might be interesting if the Commission had performed a sophisticated analysis trying to hold other factors constant. In the absence of such an analysis, the evidence shows only that the threat of regulation was not so onerous as to precipitate radical stock market losses. The Order also has a quotation from the Time Warner Cable COO saying, in response to an FCC announcement of possible Title II classification (accompanied by some vague Commission assurances), "So . . . *yes, we will continue to invest*." *Id*. n.986 (emphasis added by the Commission). Citation of this remark would be an apt response to a strawman argument that there would have been *no* investment in broadband if the new rules had always applied, but not to the argument that a significant portion of the current investment was made in reliance on the old regime. Further, it is reasonable to expect that corporate executives—with their incentives to enhance the firm's appearance as an attractive investment opportunity and thus to keep its cost of capital down—would take the most favorable view of a new policy consistent with their obligations to investors not to paint too rosy a picture.

A more important (and logically prior) question is why this evidence matters at all. I take *Fox*'s position on reliance interests to be addressed to both fairness and efficiency. If a regulatory switch will significantly undercut the productivity and value of past investments, made in reasonable reliance on the old regime, rudimentary fairness suggests that the agency should take that into account in evaluating a possible switch. And a pattern of capricious change would undermine any agency purpose of encouraging future investment on the basis of new rules. But the effect of past policy on past investment is quite different from future levels of investment. For example, the Environmental Protection Agency's new regulations on coal-fired power plants very well might spur investment in energy by making legacy coal-fired plants less feasible to operate, thus encouraging investment in renewable energy to replace them. But that tells us little about whether the prior regulations on coal-fired plants and their alternatives, adjusted in light of reasonably foreseeable change, had a material impact on prior energy investments.

The Commission also argues that "the regulatory history regarding the classification of broadband Internet access service would not provide a reasonable basis for assuming that the service would receive sustained treatment as an information service in any event." Order ¶ 360. In short, the Commission says that reliance was not reasonable. The statement misreads the history of the classification of broadband. In March 2002, the Commission classified cable broadband as an information service, see *In the Matter of Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities* (the "*Cable Modem Declaratory Ruling*"), 17 F.C.C. Rcd. 4798 (2002); soon after that Order was affirmed by the Supreme Court in *National Cable & Telecommunications Ass'n v. Brand X Internet Service*, 545 U.S. 967 (2005), the Commission reclassified the transmission component of DSL service as an information service as well. See *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.* (the "*Wireline Broadband Classification Order*"), 20 F.C.C. Rcd. 14853 (2005). The Commission continued to hold that view until 2010, when in the 2010 Notice, Notice of Inquiry, *Framework for Broadband Internet Service*, 25 F.C.C. Rcd. 7866 (2010), it sought comment on reclassification (though rejecting it in the ultimate 2010 Order). I'm puzzled at the Commission's implicit claim, Order ¶ 360, that *judicial* uncertainly—dating back to the 9th Circuit's 2000 decision in *AT&T Corp. v. City of Portland*, 216 F.3d 871 (9th Cir. 2000), reading the statute to compel classification as a telecommunications service—

made it unreasonable for firms investing in provision of internet access to think that the Commission would persist in its longheld commitment. The Commission offered fierce resistance to the 9th Circuit decision, resistance that culminated in its success in *Brand X*. It seems odd, in this context, to discount firms' reliance on the Commission's own assiduously declared views.

According to data that Commission itself uses, Order ¶ 2, broadband providers invested $343 billion[1] during the five years after *Brand X*, from 2006 through 2010. This amounts to about $3,000 on average for every American household. U.S. Census Bureau, Quickfacts, https://www.census.gov/quickfacts/table/PST045215/00.[2] For the Commission to ignore these sums as investment in reliance on its rules is to say it will give reliance interests zero weight.

No one supposes that firms' past investment in reliance on a set of rules should give them immunity to regulatory change. But *Fox* requires an agency at least to make a serious assessment of such reliance. The Commission has failed to do so.

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[1] Broadband Investment – Historical Broadband Provider Capex, United States Telecom Association, available at https://www.ustelecom.org/broadband-industry-stats/investment/historical-broadband-provider-capex.

[2] This uses the average number of households between 2010 and 2014 (116 million), which gives an average of $2,951 per household. Between 2006 and 2010, there were fewer households, so the average is likely above $3,000 per household.

(b) *Changed facts*. The Commission identifies two changes, neither of which seems very radical or logically linked to the new regime. First, it argues that consumers now use broadband "to access third party content, applications and services." Order ¶¶ 330, 346-47. But that is nothing new. In the Order from well over a decade ago that *Brand X* affirmed, the Commission said that consumers "may obtain many functions from companies with whom the cable operator has not even a contractual relationship" instead of from their cable internet service provider. *Declaratory Ruling and Notice of Proposed Rulemaking*, 17 F.C.C. Rcd. 4798 ¶¶ 25, 38 & n.153 (2002) ("*Declaratory Ruling*").

Second, the Order points to the emphasis that providers put on the "speed and reliability of transmission separately from and over" other features. Order ¶¶ 330, 351. Again, there is nothing new about these statements from broadband providers, who have been advertising speed for decades. See Dissenting Statement of Commissioner Ajit Pai to Order ("Pai Dissent") at 357-58; Dissenting Statement of Commissioner Michael O'Rielly to Order at 391. As Justice Scalia put it in an undisputed segment of his *Brand X* dissent, broadband providers (like pizzerias) "advertise[] quick delivery" as an "advantage[] over competitors." 545 U.S. at 1007 n.1 (Scalia, J., dissenting).

At no point does the Commission seriously try to quantify these alleged changes in the role or speed of internet service providers. Even if there were changes in degree in these aspects of the internet, the Commission doesn't explain why an increase in consumer access to third-party content, or an increase in competition to offer high-speed service, would make application of Title II more appropriate as a policy matter now than it was at the time of the *Declaratory Ruling* at issue in *Brand X*.

I confess I do not understand the majority's view that the section of *Fox* on changed circumstances, quoted above, is not triggered so long as the agency's current view of the circumstances is sustainable. Maj. Op. 47. Whatever the soundness of such a view, it seems inapplicable where, as here, the agency explicitly invokes changed circumstances: "Changed factual circumstances cause us to revise our earlier classification of broadband Internet access service." Order ¶ 330.

(c) *New reasoning*. Perhaps recognizing the frailty of its claims of changed facts, the Commission tries to cover its bases by switching to the alternative approach set forth in *Fox*, a straightforward disavowal of its prior interpretation of the 1996 Act and related policy views. See, e.g., Order ¶ 360 n.993.

The Commission justifies its reclassification almost entirely in terms of arguments that provision of such services as DNS and caching, when provided by a broadband provider, do not turn the overall service into an "information service." Rather, those functions in its view fit within § 153(24)'s exception for telecommunications systems management. Order ¶ 365-81. Thus, the Commission set for itself a highly technical task of classification, concluding that broadband internet access could fit within the literal terms of the pertinent statutory sections. And it accomplished the task. That it could do so is hardly surprising in view of the broad leeway provided by *Brand X*, which gave it authority to reverse the policy judgment it had made in the decision there under review, the *Declaratory Ruling*.

But in doing so the Commission performed *Hamlet* without the Prince—a finding of market power or at least a consideration of competitive conditions. The *Declaratory Ruling* sustained in *Brand X* invoked serious economic propositions as the basis for its conclusion. For example, the *Brand X* majority noted that in reaching its initial classification decision the Commission had concluded that "broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market." *Id.* ¶ 5, quoted by *Brand X*, 545 U.S. at 1001 (internal quotation marks omitted). But the Commission has now discovered, for reasons still obscure, that a "minimal regulatory environment," far from promoting investment and innovation, retards them, so that the Commission must replace that environment with a regime that is far from "minimal."

And when parties claimed that the *Declaratory Ruling* was inconsistent with the Commission's decision to subject facilities-based enhanced services providers to an obligation to offer their wires on a common-carrier basis to competing enhanced-services providers, *In re Amendment of Sections 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry)*, 104 F.C.C. 2d 958, 964 ¶ 4 (1986), the *Brand X* Court responded by looking to the policy reasons that the Commission itself had invoked, reasons grounded in concern over monopoly. The Court said:

> In the *Computer II* rules, the Commission subjected facilities-based providers to common-carrier duties not because of the nature of the "offering" made by those carriers, but rather because of the concern that local telephone companies would abuse the monopoly power they possessed by virtue of the "bottleneck" local telephone facilities they owned. . . . The differential treatment of facilities-based carriers was therefore a function not of the definitions of "enhanced service" and "basic service," but instead of a choice by the Commission to regulate more stringently, in its discretion, certain entities that provided enhanced service.

545 U.S. at 996. Thus the Court recognized the Commission's practice of regarding risks of "abuse [of] monopoly power" as pivotal in *Computer II*. While the 1996 Act by no means conditions classification under Title II on a finding of market power, *Brand X* shows that the Court recognized the relevance of market power to the Commission's classification decisions. See *Declaratory Ruling* ¶ 47 (resting the classification decision in part on the desire to avoid "undermin[ing] the goal of the 1996 Act to open all telecommunications markets to competition").

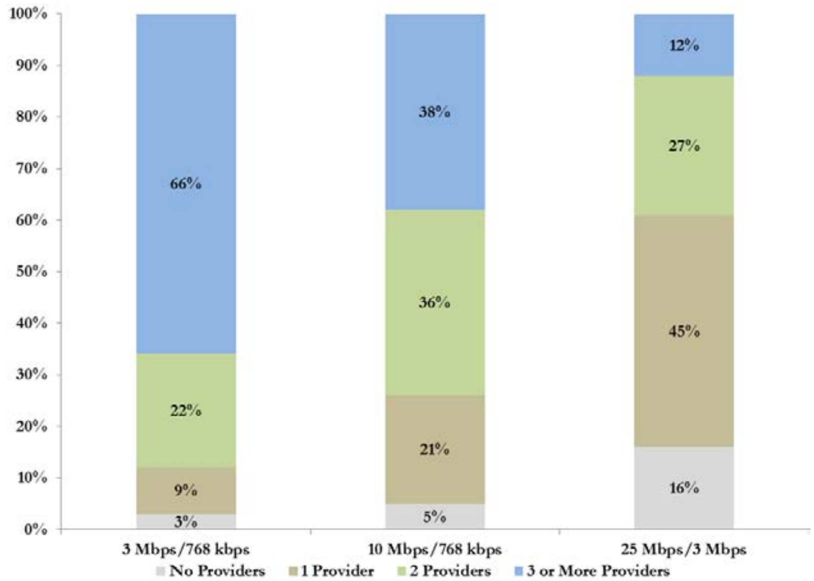
Of course the Court's citation of these instances of Commission reliance on the economic and social values associated with competition are just examples brought to our attention by *Brand X*. In addressing activities on the periphery of highly monopolized telephone service, the Commission has for nearly four decades made the presence or prospect of competition the touchstone for refusal to apply Title II. The *Computer II* decision, for example, says of the *Computer I* decision, "A major issue was whether communications common carriers should be permitted to market data processing services, and if so, what safeguards should be imposed to insure that the carriers would not engage in anti-competitive or discriminatory practices." *In re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C. 2d 384, 389-90 ¶ 15 (1980) ("*Computer II*"). In the *Computer II* decision, it is hard to go more than a page or so without encountering discussion of competition. The decision concludes that, "In view of all of the foregoing evidence of an effective competitive situation, we see no need to assert regulatory authority over data processing services." *Id.* at 433, ¶ 127. The competitiveness of the market was in large part what the inquiry was *about*. See Jonathan E. Nuechterlein & Philip J. Weiser, *Digital Crossroads* 190-91

(2d ed. 2013) (explaining link of *Computer II*'s unbundling rules to FCC's concern over monopoly).

Yet in the present Order the Commission contradicted its prior strategy and explicitly declined to offer any market power analysis: "[T]hese rules do not address, and are not designed to deal with, the acquisition or maintenance of market power or its abuse, real or potential." Order ¶ 11 n.12. In fact, as we'll see, many of the Commission's policy arguments assert what sound like claims of market power, but without going through any of the fact-gathering or analysis needed to sustain such claims.

The Order made no finding on market power; in order to do so it would have to answer a number of basic questions. Most notably, as shown in Figure 1 below, there are a fairly large number of competitors in most markets, with 74% of American households having access to at least two fixed providers giving speeds greater than 10 Mbps and 88% with at least two fixed providers giving access to service at 3 Mbps. *In re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable & Timely Fashion, & Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, 30 F.C.C. Rcd. 1375 ¶ 83 (2015) ("*2015 Broadband Report*"). Furthermore, 93% of Americans have access to three or more mobile broadband providers—access which at least at the margin must operate in competition with suppliers of fixed broadband. *In re 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, Seventeenth Report*, 29 F.C.C. Rcd. 15311 ¶ 51, Chart III.A.2 (2014).

Figure 1: American Households' Access to Fixed Broadband Providers



Source: *2015 Broadband Report*, Chart 2.

The Commission emphasizes how few people have access to 25 Mbps, but that criterion is not grounded in any economic analysis. For example, Netflix—a service that demands high speeds—recommends only 5 Mbps for its high-definition quality service and 3 Mbps for its standard definition quality. Netflix, *Internet Connection Speed Recommendations*, https://help.netflix.com/en/node/306. A likely explanation for why there has not been more rollout of higher speeds is that many people are reluctant to pay the extra price for it. Indeed, the *2015 Broadband Report* indicates that fewer than 30% of customers for whom 25 Mbps broadband is available actually order it. *2015 Broadband Report* ¶ 41 (including Table 3 and Chart 1).

That many markets feature few providers offering service at 25 Mbps or above is hardly surprising. In a competitive world of rapidly improving technology, it's unreasonable to expect that all firms will simultaneously launch the breakthrough services everywhere, especially in a context in which more than 70% of the potential customers decline to use the latest, priciest service.

The Commission established the 25 Mbps standard in its *2015 Broadband Report* ¶ 45. Its explanations seem superficial at best. For example, it relies on the marketing materials of broadband providers touting the availability and benefits of speeds at or greater than 25 Mbps. *Id.* ¶ 28. Perhaps the authors of the Order have never had the experience of a salesperson trying to sell something more expensive than the buyer inquired about—and, not coincidentally, more lucrative for the salesperson. The Commission also justifies the standard by arguing that 10 Mbps would be insufficient to "participate in an online class, download files, and stream a movie at the same time" and to "[v]iew 2 [high-definition] videos." *Id.* ¶ 39. This is like setting a standard for cars that requires space for seven passengers. The data seem to suggest that many American families are unwilling to pay the extra to be sure that all members can have continuous, simultaneous, separate access to high-speed connectivity (perhaps some of them read? engage in conversation?). The fact that the Commission strains so much to justify its arbitrary criterion shows how out of line with reality such a criterion is. The weakness of the Commission's reasoning suggests that its main purpose in setting the "standard" may simply be to make it appear that millions of Americans are at the mercy of only one supplier, or at best two, for critically needed access to the modern world. All without bothering to conduct an economic analysis!

Of course, if the Commission had assessed market power, it would have needed to define the relevant market, to understand the extent to which providers of different speeds and different services compete with each other. When defining markets for purposes of assessing competition, the Department of Justice and Federal Trade Commission use the "small but significant and non-transitory increase in price" ("SSNIP") test. The test tries to determine whether a market actor can benefit from a hypothetical increase in price, indicating market power. U.S. Department of Justice and the Federal Trade Commission, *Horizontal Merger Guidelines* 9 (2010) ("*Horizontal Merger Guidelines*"). But the Commission did not conduct such a test, and we cannot say how it would come out.

Because broadband competition is geographically specific, simple market share data at a national level are of limited value. But firms that provide service to large numbers of consumers, albeit not everywhere, seem likely to rank as potential competitors quite broadly. With these limits in mind, we can look at U.S. subscriber numbers for each of the firms in the market, Leichtman Research, *About 645,000 Add Broadband in the Third Quarter of 2015*, http://www.leichtmanresearch.com/press/111715release.html, and construct a Herfindahl–Hirschman Index, which in fact is 1,445 points. This level is in the Department of Justice's Range for "Unconcentrated Markets"—that is, markets where no firm has market power. *Horizontal Merger Guidelines* at 18-19. I report below the data used to construct the index. In fact, this number is biased upward (and thus biased toward finding market power), since the data for several smaller companies are grouped as if for only one, making it seem as if there is more concentration than there in fact is.

Similarly, the Commission scoffs at what it regards as low turnover in customers' use of mobile service providers, but the rate of turnover actually looks quite substantial. The Commission points to average monthly churn rates of 1.56% in mobile broadband across four leading providers. Order ¶ 98 n.211. Assuming that a single person does not switch more than once in a year, that rate of churn means that 18.72% of customers switch providers each year, suggesting quite robust competition. Interestingly, the Commission is especially hard on declines in churn rate, *id*., which in the absence of increased concentration or some new obstacle to switching might well suggest increased consumer satisfaction.

To bolster its switching data claims, the Commission points to documents in which parties to the rulemaking make conclusory assertions purportedly showing that 27 percent of mobile broadband consumers do not switch though "dissatisfied" with their current carriers. Order ¶ 98. Without a plausible measure of "dissatisfaction" (none is offered), the number is meaningless.

Table 1: Fixed Broadband Subscribers by Provider

	Subscribers	
	Number	Percent
Cable Companies		
Comcast	22,868,000	25.55%
Time Warner Cable	13,016,000	14.54%
Charter	5,441,000	6.08%
Cablevision	2,784,000	3.11%
Suddenlink	1,202,400	1.34%
Mediacom	1,067,000	1.19%
WOW (WideOpenWest)	712,300	0.80%
Cable ONE	496,865	0.56%
Other Major Private Cable Companies	6,675,000	7.46%
Total Cable	54,262,565	60.62%
Telephone Companies		
AT&T	15,832,000	17.69%
Verizon	9,223,000	10.30%
CenturyLink	6,071,000	6.78%
Frontier	2,415,500	2.70%
Windstream	1,109,600	1.24%
FairPoint	313,982	0.35%
Cincinnati Bell	281,300	0.31%
Total Telephone	35,246,382	39.38%
Total Broadband	89,508,947	100.00%

Source: Leichtman Research.

Even though never making any finding on market power, the Commission seems almost always to speak of fixed and mobile broadband separately. Of course to a degree the statute requires this. But if the Commission were the least bit serious about the market dysfunction that might provide support for its actions, it would consider competition between the two. The frequent articles in the conventional press about fixed broadband customers' "cutting the cord" in favor of complete reliance on mobile suggests it would be an interesting inquiry.

None of the above is intended to suggest that the Commission could not have made a sustainable finding that every firm in every relevant market has market power. My aim is simply to make two points: (1) that such a degree of market power cannot be assumed, as the Commission itself seems to acknowledge in its disclaimer of interest in market power, Order ¶ 11 n.12; and (2) that the Commission's reliance on consumers' "high switching costs," *id*. ¶ 81 (discussed below in part II), which is an implicit assertion that the providers have market power, poses an empirical question that is susceptible of resolution and is in tension with the Commission's assertion that it is not addressing "market power or its abuse, real or potential."

In a move evidently aimed at circumventing the whole market power issue (despite Title II's origin as a program for monopoly regulation), the Commission rests on its "virtuous cycle" theory, to wit the fact that "innovations at the edges of the network enhance consumer demand, leading to expanded investments in broadband infrastructure that, in turn, spark new innovations at the edge." Order ¶ 7. The Commission clearly expects the policy adopted here to cause increases in broadband investment.

I see no problem with the general idea. Indeed, it seems to me it captures an important truth about any sector of the economy. Though the subsectors may compete over rents, the prosperity of each subsector depends on the prosperity of the others—at least it does so unless some wholly disruptive technology replaces one of the subsectors. American wheat producers, American railroads, steamship lines, and wheat consumers around the globe participate in a virtuous cycle; medical device inventors, hospitals, doctors, and patients participate in a virtuous cycle. Innovation, to be sure, is especially robust in the information technology and application sectors, but a mutual relationship between subsectors pervades the economy.

There is an economic classification issue that the Commission does not really tackle: whether broadband internet access is like transportation or is a platform in a two-sided market, i.e., a business aiming to "facilitate interactions between members of . . . two distinct customer groups," David S. Evans & Richard Schmalensee, *The Industrial Organization of Markets with Two-Sided Platforms*, 3 COMPETITION POLICY INTERNATIONAL 151, 152 (2007), which in this case would be edge providers and users. (Two-sided markets are barely discussed at all, with the only mentions of any sort in the Order at ¶¶ 151 n.363, 338 & n.890, 339 n.897.) Although the Commission seems at one point to characterize broadband internet access as a two-sided market, see *id*. ¶ 338, it nowhere develops any particular consequences from that classification or taps into the vast scholarly treatment of the subject. The answer to the question may well shed light on the reasonableness of the regulations, but in view of the Commission's non-reliance on the distinction we need not go there.

I do not understand the Commission to claim that its new rules will have a *direct positive* effect on investment in broadband. The positive effect is expected from the way in which, in the Commission's eyes, the new rules encourage demand for and supply of content, which it believes will indirectly spur demand for and investment in broadband access.

The direct effect, of which the Commission doesn't really speak, seems unequivocally negative, as petitioner United States Telecom Association ("USTA") argues. USTA Pet'rs' Br. 4 ("Individually and collectively, these rules will undermine future investment by large and small broadband providers, to the detriment of consumers."); see also *id*. 54. Besides imposing the usual costs of regulatory compliance, the Order increases uncertainty in policy, which both reason and the most recent rigorous econometric evidence suggest reduce investment. Scott R. Baker, Nicholas Bloom & Steven J. Davis, *Measuring Economic Policy Uncertainty*, 131 QUARTERLY JOURNAL OF ECONOMICS (forthcoming 2016). (Though the paper is focused on economy-wide policy uncertainty and effects, it is hard to see why the linkage shown would not apply in an industry-specific setting.) In fact, the Order itself acknowledges that vague rules threaten to "stymie" innovation, Order ¶ 138, but then proceeds to adopt vague rules.

Here, a major source of uncertainty is the Internet Conduct Standard, which forbids broadband providers to "unreasonably interfere with or unreasonably disadvantage" consumer access to internet content. 47 C.F.R. § 8.11. All of these terms—"unreasonably," "interfere," and "disadvantage"—are vague ones that increase uncertainty for regulated parties. Indeed, the FCC itself is uncertain what the policy means, as indicated by the FCC Chairman's admission that even he "do[esn't] really know" what conduct is proscribed. February 26, 2015 Press Conference, *available at* http://goo.gl/oiPX2M (165:30-166:54). The Commission does announce a "nonexhaustive list" of seven factors to be used in assessing providers' practices, including "end-user control," "consumer protection," "effect on innovation," and "free expression." Order ¶¶ 138-45. But these factors themselves are vague and unhelpful at resolving the uncertainty.

The Commission made an effort to palliate the negative effect of its "standards" by establishing a procedure for obtaining advisory opinions. Order ¶¶ 229-39. It delegated authority to issue such opinions to its Enforcement Bureau, perhaps thereby telegraphing its general mindset on how broadly it intends its prohibitions to be read. But the Bureau has complete discretion on whether to provide an answer at all. Order ¶ 231. Further, any advice given will not provide a basis for longterm commitments of resources: the Bureau is free to change its mind at will, and as the opinions will be issued only at the staff level, the Commission reserves its freedom to act contrary to the staff's conclusions at any time. Order ¶ 235. I do not understand this to mean that the Commission will seek penalties against parties acting in reliance on an opinion while it is still in effect, but parties in receipt of a favorable opinion are on notice that they may be forced to shut down a program the minute the Bureau reverses itself or the Commission countermands the Bureau.

Besides affording rather fragile assurance, the advisory process promises to be slow. "[S]taff will have the discretion to ask parties requesting opinions, as well as other parties that may have information relevant to the request or that may be impacted by the proposed conduct, for additional information." *Id.* ¶ 233. Given these possible information requests from various parties, including adverse ones, it is unsurprising that the Commission is unwilling to give any timeliness commitment, explicitly "declin[ing] to establish any firm deadlines to rule on [requests for advisory opinions] or issue response letters." *Id.* ¶ 234.

The palliative effect of these procedures may be considerable for the very large service providers. They are surely accustomed to having their lawyers suit up, research all the angles, participate in proceedings after notice has been given to all potentially adversely affected parties, and receive, after an indefinite stretch, a green light or a red one. For the smaller fry, the internet service provider firms whose growth is likely to depend on innovative business models (precisely the sort that seem likely to run afoul of the Commission's broad prescriptions; see part II.B), the slow and costly advisory procedure will provide only a mild antidote to those prescriptions' negative effect. This of course fits the general pattern of regulation's being more burdensome for small firms than for large, as larger firms can spread regulation's fixed costs over more units of output. See Nicole V. Crain & W. Mark Crain, *The Impact of Regulatory Costs on Small Firms* 7 (2010). And in evaluating the impact on investment in broadband, which the Commission assures us the Order will stimulate, quality is surely relevant as well as quantity.

Further, given the breadth and vagueness of the standards, many of the acts for which firms are driven to seek advice will likely be rather picayune. As head of the Civil Aeronautics Board in its what proved to be its waning days, Alfred Kahn got a call in the middle of the night from an airline trying to find out whether its application to transport sheep from Virginia to England had been approved. "The matter was urgent, because the sheep were in heat!" Susan E. Dudley, *Alfred Kahn, 1917-2010, Remembering the Father of Airline Deregulation*, 34 REGULATION 8, 10 (2011). The internet we know wasn't built by firms requesting bureaucratic approval for every move.

Furthermore, 47 U.S.C. § 207, which applies to broadband providers once they are subject to Title II, increases uncertainty yet more. Section 207 allows "[a]ny person claiming to be damaged by any common carrier . . . [to] either make complaint to the Commission . . . , or . . . bring suit for the recovery of the damages for which such common carrier may be liable under the provisions of this chapter." In other words, reclassification exposes broadband providers to the direct claims of supposedly injured parties, further increasing uncertainty and risk. In short, the Order's probable direct effect on investment in broadband seems unambiguously negative.

As to the hoped-for indirect effect, the idea that it will be positive depends on the supposition that these new rules (the specific and the general) will cure some material problem, will avert some threat that either is now burdening the internet or could reasonably be expected to do so absent the Commission's intervention. Why, precisely, the observer wants to know, has the Commission repudiated the policy judgment it made in 2002, that "broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market"? *Declaratory Ruling* ¶ 5. The answer evidently turns on the Commission's conclusion that broadband providers have indulged (or will indulge) in behavior that threatens the internet's "virtuous cycle." Indeed, the majority points to the need to reclassify broadband so that the Commission could promulgate the rules as the Commission's "'good reason' for [its] change in position," Maj. Op. 43, and indeed its only reason. But the record contains multiple reasons for thinking that the Commission's new rules will retard rather than enhance the "virtuous cycle," and the Commission's failure to answer those objections renders its decision arbitrary and capricious. I now turn to those arguments, first in the context of 47 U.S.C. §§ 201, 202 (part II.A) and then in the context of § 706 of the 1996 Act (part II.B).

II

Having reclassified broadband service under Title II, the Commission has relied on two specific provisions to sustain its actions: § 201(b) of the Communications Act, 47 U.S.C. § 201(b), and § 706 of the Telecommunications Act of 1996, 47 U.S.C. § 1302. The petitioners contend that neither provides adequate support for the Commission's actions. Furthermore, as just mentioned, the Commission's arguments here bear directly on the reasonableness of the reclassification decision itself.

A

Petitioners Alamo Broadband Inc. and Daniel Berninger ("Alamo-Berninger") argue that even if Title II could properly be applied to broadband service, that Title gives the Commission no authority to prohibit reasonable rate distinctions. Alamo-Berninger Br. 17-19. Berninger is a would-be edge provider working on new technology that he believes could provide much enhanced telephone service—but *only* if he could be assured that "latency, jitter, and packet loss in the transmission of a communication will [not] threaten voice quality and destroy the value proposition of a high-definition service." Declaration of Daniel Berninger, October 13, 2015, at 2. He is ready to pay for the assurance of high-quality service, and asserts that the Commission's ban on paid prioritization will obstruct successful commercial development of his innovation. Berninger appears to be exactly the sort of small, innovative edge provider that the Commission claims its Order is designed to assist. In the words of Shel Silverstein's children's song, "Some kind of help is the kind of help we all can do without."

For our purposes, of course, the question is whether, as the Alamo-Berninger brief argues, the section of the statute invoked by the Commission under Title II, namely § 201(b), authorizes the ban, or, more precisely, whether the Commission has offered any reasonable interpretation of § 201(b) that would encompass the ban.

A number of points by way of background: First, nothing in the Order suggests that the paid prioritization ban allows any exception for rate distinctions based on differing costs of transmission, time-sensitivity of the material transmitted, or congestion levels at the time of transmission, all variables historically understood to justify distinctions in rates. Alfred E. Kahn, *The Economics of Regulation* (1988), at 63 (different costs), 63-64 (different elasticities of demand, as would be reflected in time sensitivity), 88-94 (congestion). The Alamo-Berninger brief cites the FCC chairman's observation in Congress, "There is nothing in Title II that prohibits paid prioritization," Hearing before the Subcommittee on Communications and Technology of the United States House of Representatives Committee on Energy and Commerce, and Technology of the United States House Commission," Video at 44:56 (May 20, 2014), available at http://go.usa.gov/3aUmY, but that need not detain us. More important, general principles of public utility rate regulation have always allowed reasonable rate distinctions, with many factors determining reasonableness. Kahn, *The Economics of Regulation*, at 63 (noting that, "from the very beginning, regulated companies have been permitted to discriminate in the economic sense, charging different rates for various services"). But the ban adopted by the Commission prohibits rate differentials for priority handling regardless of factors that would render them reasonable under the above understandings. Although the Order provides for the possibility of waiver, it cautions, "An applicant seeking waiver relief under this rule faces a high bar. We anticipate granting such relief only in exceptional cases." Order ¶ 132.

Second, in a case discussing the terms "unjust" and "unreasonable" as used in § 201(b) and in its fraternal twin § 202(a), we said that those words "open[] a rather large area for the free play of agency discretion." *Orloff v. FCC*, 352 F.3d 415, 420 (D.C. Cir. 2003); see also *Global Crossing Telecomms., Inc. v. Metrophones Telecomms., Inc.*, 550 U.S. 45 (2007) (recognizing the Commission's broad authority to define "unreasonable practice[s]" under § 201(b)). But "large" is not infinite.

Third, in the order under review in *Orloff* the Commission focused on § 202 but mentioned § 201. We summarized it as holding that "if a practice is just and reasonable under § 202, it must also be just and reasonable under § 201." *Orloff*, 352 F.3d at 418 (citing *Orloff v. Vodafone AirTouch Licenses LLC d/b/a Verizon Wireless*, 17 F.C.C. Rcd. 8987, 8999 (2002) ("Defendants . . . offer[] the same defenses to the section 201(b) claim as they do to the section 202(a) claim. We reject Orloff's section 201(b) claim. As noted, section 201(b) declares unlawful only 'unjust or unreasonable' common-carrier practices. For the reasons discussed [regarding section 202(a)], we find Defendants' concessions practices to be reasonable.")).

Fourth, the Commission (at least for the moment) allows ISPs to provide *consumers* differing levels of service at differing prices. As it says in its brief, "The *Order* does not regulate rates—for example, broadband providers can (and some do) reasonably charge consumers more for faster service or more data." Commission Br. 133. The statement is true (for now) vis-à-vis rates to consumers. But the ban on paid prioritization obviously regulates rates—the rates paid by edge providers; it insists that the *incremental rate* for assured or enhanced quality of service must be zero. Although I cannot claim that the parties' exposition of the technology is clear to me, it seems evident that the factors affecting quality of delivery to a consumer include not only whatever service characteristics go into promised (and delivered) speed at the consumer end but also circumstances along the route. "Paid peering" (discussed below) would be unintelligible if it were otherwise.

With these background points in mind, I turn to the Commission's treatments of "unjust" and "unreasonable" under §§ 201 and 202. Its principal discussions of the concept have occurred in the context of § 202(a), which bars "any unjust or unreasonable discrimination in charges, practices. . . ," etc. Section § 201(b), relied on by the Commission here, is very similar but does not include the word "discrimination." § 201(b) ("All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is declared to be unlawful . . . .") The Order's language explaining its view of § 201(b) doesn't mention this difference, so evidently the Commission's interpretation doesn't rely on it.

The Commission's decisions under § 202 have plainly recognized the permissibility of reasonable rate differences. In *In re Dev. of Operational, Tech. & Spectrum Requirements for Meeting Fed., State & Local Pub. Safety Agency Commc'n Requirements Through the Year 2010*, 15 F.C.C. Rcd. 16720 (2000), for example, the Commission issued an order declaring that premium charges for prioritized emergency mobile services were not unjust and unreasonable. In full accord with the usual understanding of rate regulation, the

Commission said, "Section 202 . . . does not prevent carriers from treating users differently; it bars only *unjust* or *unreasonable* discrimination. Carriers may differentiate among users so long as there is a valid reason for doing so." *Id*. at 16730-31(emphasis in original)). It reasoned that, "in emergency situations, non-[emergency] customers simply are not 'similarly situated' with [emergency] personnel" because "the ability of [the latter] to communicate without delays during emergencies is essential." *Id*. at 16731. Even when the Commission engages in full-scale rate regulation (which it purports to eschew in the Order), it explicitly recognizes that reasonable price differentials are appropriate where the services in question are unlike. See, e.g., *In re AT&T Communications Revisions to Tariff F.C.C. No. 12*, 6 F.C.C. Rcd. 7039 ¶ 8 (1991).

Tellingly, in its prioritized emergency mobile services decision the Commission did not see fit to discuss § 201 at all. The principle underlying the Commission's understanding of § 202 was a broad one—that allowance of differential rates based on "valid reasons" advances the public interest. Whatever explains the lack of any reference to § 201, the Commission's recognition that differential rates were not inherently unjust or unreasonable under § 202 requires, as a minimum of coherent reasoning, that it offer some explanation why the same words in § 201 should preclude such differentials. See *Orloff v. Vodafone AirTouch Licenses LLC d/b/a Verizon Wireless*, 17 F.C.C. Rcd. 8987, 8999 (finding reasonableness and justness under § 202 to be sufficient for finding the same under § 201). Of course this is no more than a recognition of the principle, prevailing throughout the era of federal regulation of natural monopolies, that it is just and reasonable that customers receiving extra speed or reliability should pay extra for it. A classic and pervasive example is the differential in natural gas transmission between firm and interruptible service. See, e.g., *Fort Pierce Utilities Auth. of*

City of Fort Pierce v. FERC, 730 F.2d 778, 785-86 (D.C. Cir. 1984).

I note that the ban here is simply on *differences* in rates, an issue normally addressed under statutory language barring discrimination. So it is at least anomalous that the Commission here relies on § 201(b), which says nothing about discrimination, rather than § 202(a), which does. The only reason I can discern is that the Commission's interpretation of § 202 was more clearly established, and obviously didn't ban reasonable discriminations. Accordingly, the Commission jumped over to § 201(b), about which it had said relatively little.

In the passage where the Order claims support from § 201(b), the Commission appears to acknowledge that it has never interpreted that section to support a sweeping ban on quality-of-service premiums, but, speaking of its anti-discrimination decisions (evidently under both §§ 201(b) and 202(a)), it says that "none of those precedents involved practices that the Commission has twice found threaten to create barriers to broadband development that should be removed under section 706." Order ¶ 292. This is an odd form of statutory interpretation. Finessing any effort to fit the agency action within the statutory *language*, it only claims that the banned practice threatens broadband deployment. Maybe the theory works, but it can do so only by a sturdy showing of how the banned conduct posed a "threat." As we'll see, the Commission has made no such showing, let alone a sturdy one.

Indeed, I can find no indication—and the Commission presents none—that any of the agencies regulating natural monopolies, such as the Interstate Commerce Commission, Federal Energy Regulatory Commission, or Federal Communications Commission—has ever attempted to use its mandate to assure that rates are "just and reasonable"[3] to invalidate a rate distinction that was not unreasonably discriminatory. To uproot over a century of interpretation—and with so little explanation—is truly extraordinary.

In its interpretation of § 201 the Commission rests its claim of a "threat" to the "virtuous cycle" theory mentioned above: "innovations at the edges of the network enhance consumer demand, leading to expanded investments in broadband infrastructure that, in turn, spark new innovations at the edge," Order ¶ 7, and the cycle repeats on and on.

The key question is what underlies the Commission's idea that a ban on paid prioritization will lead to more content, giving the cycle extra spin (or, equivalently, reducing the drag caused by paid prioritization). Order ¶ 7. In what way will an across-the-board ban on paid prioritization increase edge provider content (and thus consumer demand)? Or, putting it in terms of a "threat," how does paid prioritization threaten the flourishing of the edge provider community (and thus consumer demand, and thus broadband deployment)?

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[3] See, e.g., Interstate Commerce Act of 1887, 24 Stat. 379, § 1 ("All charges made for any service rendered or to be rendered in the transportation of passengers or property as aforesaid, or in connection therewith, or for the receiving, delivering, storage, or handling of such property, shall be reasonable and just; and every unjust and unreasonable charge for such service is prohibited and declared to be unlawful."); Federal Power Act, 16 U.S.C. § 824d ("All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.")

In fact, as we'll see, the Commission's hypothesis that paid prioritization has deleterious effects seems not to rest on any evidence or analysis. Further, the Order fails to address critiques and alternatives.

I look first to the support offered by the Commission for its claim. The Order asserts that "[t]he Commission's conclusion [that allowance of paid prioritization would disadvantage certain types of edge providers] is supported by a well-established body of economic literature, including Commission staff working papers." Order ¶ 126. This claim is, to put it simply, false. The Commission points to four economics articles, none of which supports the conclusion that all distinctions in rates, even when based on differentials in service, will reduce the aggregate welfare afforded by a set of economic transactions.[4] Indeed, the Commission plainly didn't look at the articles. None of them even addresses price distinctions calibrated to variations in quality of service; rather they are devoted to the sort of price differences addressed by the Robinson-Patman Act, 15 U.S.C. § 13, targeting sellers who sell the *same good* of the *same quality* at different prices. Three say that in some circumstances rules against price differentials *can* be beneficial (to repeat, the articles speak of rules against differentials *not* related to

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[4] Michael L. Katz, *Price Discrimination and Monopolistic Competition*, 52 ECONOMETRICA 1453, 1453-71 (1984) ("*Price Discrimination*"); Michael L. Katz, *Non-Uniform Pricing, Output and Welfare under Monopoly*, 50 REV. ECON. STUD. 37, 37-56 (1983) ("*Output and Welfare*"); Michael L. Katz, *The Welfare Effects of Third-Degree Price Discrimination in Intermediate Good Markets*, 77 AM. ECON. REV. 154, 154-167 (1987); Yoshihiro Yoshida, *Third Degree Price Discrimination in Input Markets: Output and Welfare*, 90 AM. ECON. REV. 240, 240-246 (2000) ("*Third Degree Price Discrimination*").

quality of service), not that they *are* beneficial.[5] The fourth paper, still within the sphere of non-quality-related price distinctions, is still worse for the Commission, concluding that "a flat ban" on price discrimination (even assuming no differential in cost and quality, unlike the Commission rule) "could have adverse welfare consequences," and that "the analysis does not reveal whether there is any implementable form of regulation that would be welfare-improving." Katz, *The Welfare Effects*, at 165.

It is probably no coincidence that the author of three of these articles, Michael Katz, a former chief economist at the Commission, filed a declaration in this proceeding opposing the type of regulation adopted in the Order as overly broad, especially given that the behavior banned was at most responsible for only hypothetical harms. Protecting and Promoting Consumer Benefits Derived from the internet: Declaration of Michael L. Katz, July 15, 2014 ("Katz Declaration"), at 2-3. I will discuss his critique and the alternatives he offers shortly.

The Order also points to two old Commission reports that it claims support its argument. Order ¶ 126 n.297. They do not. One, Jay M. Atkinson & Christopher C. Barnekov, *A Competitively Neutral Approach to Network Interconnection*, OPP Working Paper Series, No. 34, at 15 (2000), deals with network interconnection pricing and advocates a "bill and

[5] Katz, *Price Discrimination*, at 1454 ("uniform pricing is more efficient than price discrimination when the number of uninformed consumers is small"); Katz, *Output and Welfare*, at 37 ("there may be scope for improving market performance through regulation" of price discrimination); Yoshida, *Third Degree Price Discrimination*, at 244 ("[i]n general, we cannot expect" the condition required for regulation to improve welfare to be true).

keep" system ("under which carriers split equally those costs that are solely incremental to interconnection, and recover all remaining costs from their own customers," according to the report, *id*. at ii). Unlike the articles cited, it does address variations in quality of service, but only to argue that the ability of one provider to lower its quality doesn't undermine the case for "bill and keep" because the quality-lowering provider will bear "the main impact itself." *Id*. at 20. This is an interesting proposition, but, assuming its truth, it doesn't connect in any obvious way to a flat ban on paid prioritization; if the Commission knows a way to make that connection, it hasn't revealed it.

The second, Gerald W. Brock, *Telephone Pricing to Promote Universal Service and Economic Freedom*, OPP Working Paper Series, No. 18 (1986), is an interesting consideration of the possible welfare losses that may follow from pricing that collects a high proportion of fixed costs from usage fees. As with the Atkinson & Barnekov paper, its connection to paid prioritization is unclear, and the Commission's opinion writers have made no effort even to identify a connection, much less explain it. In discussing a possible anti-discrimination rule, the paper posits one under which a firm may adopt "any combination of two-part tariffs, volume discounts, and so forth but is required to offer the same set of prices to all customers." *Id*. at 44. Although it isn't clear that the paper gives an endorsement to such a rule, such an endorsement would not support the Commission's ban on quality-of-service based differentials.

I apologize for taking the reader through this parade of irrelevancies. But it is on these that the Commission has staked its claim to analytical support for the idea that paid prioritization poses a serious risk to broadband deployment.

The Commission does point to episodes supposedly supporting its view that paid prioritization constitutes a significant threat. Order ¶ 69, 79 n.123. It is, however, merely pointing to a handful of episodes among the large number of transactions conducted by many broadband providers. Furthermore, neither in this Order nor in the 2010 Broadband Order, 25 F.C.C. Rcd. at 17915-26, ¶¶ 20-37, cited by this Order as support, Order ¶ 79 n.123, does the Commission sift through the evidence to show that any episode impaired the ability of the internet to maximize consumer satisfaction and the flourishing of edge providers in the aggregate, as opposed to harm to a particular edge provider. Nor does it show whether, if there was harm, a far narrower rule would not have handled the problem. (For example, if a broadband provider throttled an edge provider's content at the same time as the broadband provider provided similar content, then—assuming no justification—grounds for action against such behavior could be discerned. Compare § 616(a)(3) of the Communications Act, 47 U.S.C. § 536(a)(3).) In his dissent to the Order, Commissioner Pai, using terms perhaps feistier than would suit a court, summarized it as follows:

> The evidence of these continuing threats? There is none; it's all anecdote, hypothesis, and hysteria. A small ISP in North Carolina allegedly blocked VoIP calls a decade ago. Comcast capped BitTorrent traffic to ease upload congestion eight years ago. Apple introduced FaceTime over Wi-Fi first, cellular networks later. Examples this picayune and stale aren't enough to tell a coherent story about net neutrality. The bogeyman never had it so easy.

Pai Dissent at 333. And Judge Silberman's observations about the episodes marshalled to support the precursor order vacated in *Verizon* seem as applicable today as then:

> That the Commission was able to locate only four potential examples of such conduct is, frankly, astonishing. In such a large industry where, as Verizon notes, billions of connections are formed between users and edge providers each year, one would think there should be ample examples of just about any type of conduct.

Verizon, 740 F.3d at 664-65 (Judge Silberman, dissenting from the decision's dicta).

The short of it is that the Commission has nowhere explained why price distinctions based on quality of service would tend to impede the flourishing of the internet, or, conversely, why the status quo ante would not provide a maximum opportunity for the flourishing of edge providers as a group—or small innovative edge providers as a subgroup.

It gets worse. Having set forth the notion that paid prioritization poses a threat to broadband deployment—so much so as to justify jettisoning its historic interpretation of §§ 201(b), 202(a), and resting that notion on conclusory assertions of parties and irrelevant scholarly material—the Commission then fails to respond to criticisms and alternatives proposed in the record, in clear violation of the demands of *State Farm*, 463 U.S. at 43, 51.

I start with comments in the record explaining the problems that the ban on paid prioritization could cause in the broadband market. The comments suggest that by effectively banning pricing structures that could benefit some people substantially, but impose minimal (and seemingly quite justifiable) costs on others, the ban on paid prioritization could replace the virtuous cycle with a vicious cycle, in which regulatory overreach reduces the number and quality of services available, reducing demand for broadband, and in turn reducing the content and services available owing to the reduced number of users. Investment would suffer as the number of users declines (or fails to grow as it otherwise would have).

For example, the joint comment by the International Center for Law & Economics and TechFreedom paints a picture in which innovation and investment could be substantially harmed by the ban on paid prioritization:

> With most current [internet service] pricing models, consumers have little incentive or ability (beyond the binary choice between consuming or not consuming) to prioritize their use of data based on their preferences. In other words, the marginal cost to consumers of consuming high-value, low-bit data (like VoIP [transmitting voice over the internet], for example) is the same as the cost of consuming low-value, high-bit data (like backup services, for example), assuming neither use exceeds the user's allotted throughput. And in both cases, with all-you-can-eat pricing, consumers face a marginal cost of $0 (at least until they reach a cap). The result is that consumers will tend to over-consume lower-value data and under-consume higher-value data, and, correspondingly, content developers will over-invest in the former and under-invest in the latter. The ultimate result—the predictable consequence of mandated neutrality rules—is a net reduction in the overall value of content both available and consumed, and network under-investment.

Comments of International Center for Law & Economics and TechFreedom at 17 (July 17, 2014).

In other words, paid prioritization would encourage ISP innovations such as providing special speed for voice transmission (for which timeliness and freedom from latency and jitter—delays or variations in delay in delivery of packets—are very important), at little or no cost to services where timeliness (especially timeliness measured in milliseconds) is relatively unimportant. Similarly, pricing for extra speed would incentivize edge providers to innovate in technologies that enable their material to travel faster (or reduce latency or jitter) even in the absence of improved ISP technology. To be sure, usage caps (which are permissible for now under the Order) provide some incentive for edge providers to invest in innovations enabling faster transit without extra Mbps and thus enable their customers to enjoy more service at less risk of exceeding the caps. But the usage caps are a blunt instrument, as their burden is felt by all consumers, whereas the sort of pricing increment forbidden by the Commission would be focused (de facto) on the edge providers for whom speed and other quality-of-service features are especially important. Thus paid prioritization would yield finely tuned incentives for innovation exactly where it is needed to relieve network congestion. These innovations could improve the experience for users, driving demand and therefore investment. The Order nowhere responds to this contention.

At oral argument it was suggested that with paid prioritization the speed of the high rollers comes at the expense of others. This is true and not true. Consider ways that the United States government applies paid prioritization in two monopolies that it runs, Amtrak and the U.S. Postal Service. Both offer especially fast service at a premium. If the resources devoted to providing extra speed for the premium passengers and mail were spread evenly among all passengers and mail, the now slower moving passengers and mail could travel a bit faster. But the revenues available would be diminished for want of the premium charges, and in any event it is hard to see how coach passengers or senders of ordinary mail are injured by the availability of speedier, costlier service.

Of course one can imagine priority pricing that could harm consumers. The record contains a declaration recognizing the possibility and opposing the Commission's solution. It is by the author of three of the very economics papers that the Commission says support its position, Michael Katz, who was a chief economist of the Commission under President Clinton. Pointing to the risk of distorting competition and harming customers through banning pricing strategies and "full use of network management techniques," Katz urged disallowing conduct "only in response to specific instances of identified harm, rather than imposing sweeping prohibitions that throw out the good with the bad." Katz Declaration at 2-3.

Perhaps the Commission has answers to this. But despite going out of its way to rely on papers by Katz that were irrelevant, the Commission never deigned to reflect on the concerns he expressed about harm to innovation and consumer welfare.

Furthermore, in its single-minded focus on innovation at the "edge" (and only some kinds of innovation at that), the Commission ignored arguments that the process of providing broadband service is itself one where innovation, not only in technology but in pricing strategies and business models, can contribute to maximization of the internet's value to all users. A comment of Professor Justin Hurwitz makes the point:

> Current research suggests that traditional, best-effort, non-prioritized routing may yield substantially inefficient use of the network resource. It may well

> turn out to be the case that efficient routing of data like streaming video requires router-based prioritization. It may even turn out that efficient routing of streaming video data is necessarily harmful to other data—it may not be possible to implement a single network architecture that efficiently handles data with differentiated characteristics. If this is the case, then it may certainly be "commercially reasonable" that streaming video providers pay a premium for the efficient handling of their data, in order to compensate for the negative externalities that those uses impose upon other users and uses.

Comments of Justin (Gus) Hurwitz at 17 (July 18, 2014). (Professor Hurwitz may have been mistakenly operating on the belief that the Commission would allow for "commercially reasonable" practices. The Commission ultimately rejected a ban on "commercially unreasonable" practices, Order ¶ 150, but created no defense of commercial reasonableness for any of its bans. The Commission did create an exception for "reasonable network management" for rules other than the ban on paid prioritization. Order ¶ 217.)

Generalizing the point made by Professor Hurwitz: Unless there is capacity for all packets to go at the same speed and for that speed to be optimal for the packets for which speed is most important, there must be either (1) prioritization or (2) identical speed for all traffic. If all go at the same speed, then service is below optimal for the packets for which speed is important. If there is unpaid prioritization, and it is made available to the senders of packets for which prioritization is important, then (1) those senders get a free ride on costs charged in part to other packet senders and (2) those senders have less incentive to improve their packets' technological capacity to use less transmission capacity.

Allowance of paid prioritization eliminates those two defects of unpaid prioritization.

One prominent critic of the ban on paid prioritization—Timothy Brennan, the Commission's chief economist at the time the Order was initially in production, who has called the rules "an economics-free zone"[6]—offered an alternative that addressed these concerns. His argument goes as follows. If some potential content providers might refrain from entry for fear that poor service might stifle advantageous interactions with other sites (thus thwarting the virtuous cycle), that fear could be assuaged by requiring that ISPs meet minimum quality standards. Brennan writes that

> a minimum quality standard does not preclude above-minimum quality services and pricing schemes that could improve incentives to improve broadband networks and facilitate innovation in the development and marketing of audio and video content. Moreover, a minimum quality standard should reduce the costs of and impediments to congestion management necessary under net neutrality.

Comments of International Center for Law & Economics and TechFreedom at 48; see also *id*. at 47. This is a proposal based on the notion that consumers value the things prevented by the Order, but it offers an alternative that solves a (perhaps hypothetical) problem at which the Order is aimed (relieving content providers of the fear discussed above and thus ensuring the virtuous cycle), without such significant costs as

[6] See http://www.wsj.com/articles/economics-free-obamanet-1454282427.

those the commentators discussed. The Order offers no response.

Notice that the drag on innovation to which these commentators allude has a clear adverse effect on the virtuous cycle invoked by the Commission. To be sure, as a general matter investment at the edge provider and the ISP level will be mutually reinforcing, but sound incentives for innovation at both levels will provide more benefit enhancements to consumers per dollar invested.

I've already noted with bemusement the Commission's utter disregard of arguments by two of its former chief economists, Michael Katz and Tim Brennan, that were submitted into the record. Lest the point be understated, I should also mention that the views of yet a third, Thomas W. Hazlett, also appear in several submissions. CenturyLink points to Thomas W. Hazlett and Dennis L. Weisman, *Market Power in U.S. Broadband Industries*, 38 REVIEW OF INDUSTRIAL ORGANIZATION 151 (2011), for the proposition that there is no evidence that broadband providers are earning supra-normal rates of return. This may be another clue why the Commission steers clear of any claim of market power.

And the Comments of Daniel Lyons (July 29, 2014), *Net Neutrality and Nondiscrimination Norms in Telecommunications*, 1029 ARIZ. L. REV. 1029 ("Lyons Comments") at 1070, cite Thomas W. Hazlett & Joshua D. Wright, *The Law and Economics of Network Neutrality*, 45 IND. L. REV. 767, 798 (2012), for the argument that there is much to be learned from antitrust law, which treats vertical arrangements on a rule-of-reason basis. To the argument that antitrust enforcement is costly, time-consuming and unpredictable, Hazlett and Wright acknowledge the point but argue that it has been responsible for some of the genuine triumphs in the telecommunications industry, such as the break-up of AT&T. The Lyons submission finds confirmation in the Department of Justice's Ex Parte Submission in the 2010 proceeding, arguing that "antitrust is up to the task of protecting consumers from vertical contracts that threaten competition."[7]

The silent treatment given to three of its former chief economists seems an apt sign of the Commission's thinking as it pursued its forced march through economic rationality.

The Commission does invoke justifications other than the "virtuous cycle" to support its Order. For example, it asserts that "[t]he record . . . overwhelmingly supports the proposition that the Internet's openness is critical to its ability to serve as a platform for speech and civic engagement," for which it cites comments from three organizations. Order ¶ 77 & n.118. The Order makes no attempt, however, to explain how these particular rules, and the language of § 201, relate to these goals. A raw assertion that the internet's openness promotes free speech, while in a general sense surely true (at least on some assumptions about the meaning of "openness"), is not enough reasoning to support a ban on paid prioritization.

Further, having eschewed any claim that it found the ISPs to possess market power, Order ¶ 11 n.12 ("[T]hese rules do not address, and are not designed to deal with, the acquisition or maintenance of market power or its abuse, real or

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[7] Lyons Comments at 1070 (quoting Thomas W. Hazlett & Joshua D. Wright, *The Law and Economics of Network Neutrality*, 45 IND. L. REV. 767, 803 (2012)). See also *In re Economic Issues in Broadband Competition: A National Broadband Plan for Our Future, Ex Parte Submission of the United States Department of Justice*, 2010 WL 45550 (2010).

potential"), the Commission invokes a kind of "market-power-lite." The argument fundamentally is that ISPs occupy a "gatekeeper" role and may use that role to block content whose flow might injure them: They might *want* to do this in order to prioritize their content over that of other content providers (or perhaps other purposes inconsistent with efficient use of the net). And they might *be able* to do this because impediments to customers' switching will enable them to restrict others' content without incurring a penalty in the form of customer cancellations. Order ¶¶ 79-82.

The Commission's reliance on market-power-lite is puzzling in a number of ways. First, the Commission's primary fact—the existence of switching costs—begs the question of why the Commission did not look at other forms of evidence for market power. See Horizontal Merger Guidelines, 11 (saying that "the costs and delays of switching products" are taken into account in implementing the hypothetical monopolist test). If the Commission relies on one possible source of market power, one wonders why it would not seek data that would pull together the full range of sources, including market concentration. It may be that the Department of Justice's submission in the Notice of Inquiry that ultimately led to the Order, see *In re A National Broadband Plan for Our Future,* 24 F.C.C. Rcd. 4342 (2009), reviewing some of the data but reaching no conclusion, led the Commission to believe that a serious inquiry would come up empty. *In re Economic Issues in Broadband Competition: A National Broadband Plan for Our Future, Ex Parte Submission of the United States Department of Justice*, 2010 WL 45550 (2010).

Second, even a valid finding of market power would not be much of a step towards validating a ban on paid prioritization or linking it to § 201. Eight years before the Order, the Federal Trade Commission ordered a staff study and published the results. *Broadband Connectivity Competition Policy*, Federal Trade Commission (2007), *available at* https://www.ftc.gov/sites/default/files/documents/reports/broadband-connectivity-competition-policy/v070000report.pdf. As with DOJ later, the report was non-committal on the issue of market power but reviewed (1) ISP incentives to discriminate and not to discriminate under conditions of market power, *id*. at 72-75, and (2) varieties of paid prioritization, assessing their risks and benefits, *id*. at 83-97. Instead of a nuanced assessment building on the FTC staff paper (or for that matter contradicting it), the Commission adopted a flat prohibition, paying no attention to circumstances under which specific varieties of paid prioritization would (again, assuming market power) adversely or favorably affect the value of the internet to all users. In the absence of such an evaluation, the Order's scathing terms about paid prioritization, used as a justification for the otherwise unexplained switch in interpretation of § 201(b), fall flat. Order ¶ 292.

Finally, the Commission's argument that paid prioritization would be used largely by "well-heeled incumbents," Order ¶ 126 n.286, not only is ungrounded factually (so far as appears) but contradicts the Commission's decision (and the reasoning behind its decision) not to apply its paid prioritization ban to types of paid prioritization that use caching technology.[8]

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[8] Since I would conclude that the Commission acted arbitrarily and capriciously in its reclassification decision regardless of whether DNS and caching fit the telecommunications management exception, 47 U.S.C. § 153(24), I will not address that.

Caching is the storage of frequently accessed data in a location closer to some users of the data. The provider of the caching service (in some contexts called a content delivery network) thus increases the speed at which the end user can access the data. Order ¶ 372 & n.1052. In effect, then, it prioritizes the content in question. It is provided sometimes by ISPs (sometimes at the expense of edge providers) and sometimes by third parties. *Id.*

For example, Netflix has entered agreements with several large broadband providers to obtain direct access to their content delivery networks, i.e., cached storage on their networks. See Order ¶¶ 198-205, 200 n.504 (noting that Netflix has entered into direct arrangements with Comcast, Verizon, Time Warner Cable, and AT&T); see also http://www.bloomberg.com/bw/articles/2014-02-24/netflixs-deal-with-comcast-isnt-about-net-neutrality-except-that-it-is. Contracts under which caching is supplied by broadband providers or by third parties are often called paid peering arrangements. Regardless of the name, they involve expenses incurred directly or indirectly by an edge provider, using a caching technology to store content closer to end users, so as to assure accelerated transmission of its content via a broadband provider.

Although the Commission acknowledges that caching agreements raise many of the same issues as other types of paid prioritization, it expressly declines to adopt regulations governing them, opting instead to hear disputes related to such arrangements under §§ 201 & 202 and to "continue to monitor" the situation. Order ¶ 205. The Order defines paid prioritization as "the management of a broadband provider's network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity." Order ¶ 18. If caching is a form of preferential traffic management—and I cannot see why it is not—then paid access to broadband providers' caching facilities violates the paid prioritization ban, or at any rate would do so but for the Commission's decision in ¶ 205 that it will evaluate such arrangements on a case-by-case basis rather than condemn them root-and-branch.

Curiously, although the Commission seems to be absolutely confident in its policy view on paid prioritization, it recognizes that it actually lacks experience with the subject. One objector argued that the Commission could not apply § 201(b) to paid prioritization because "no broadband providers have entered into such arrangements or even have plans to do so." Order ¶ 291 n.748 (quoting NCTA Comments at 29). Instead of contradicting the premise, the Commission responded by noting that at oral argument in *Verizon* a provider had said that but for the Commission's 2010 rules it would be pursuing such arrangements. *Id.* So all the claims about the harm threatened by paid prioritization are at best projections. We saw earlier the irrelevance of the studies on which the Commission relied to make those projections. As to caching, with which it has plenty of familiarity, the Commission uses the temperate wait-and-see approach. See Order ¶ 203.

The Commission never seriously tries to reconcile its hesitancy here with its claims that harms arising from paid prioritization are so extreme as to call for an abandonment of its longtime precedents interpreting §§ 202(a) and 201(b). See Order ¶ 292.

The Commission does note that the disputes over caching "are primarily between sophisticated entities." Order ¶ 205. But as it never says how that affects matters, we remain in the dark on the distinction. Indeed, the size and sophistication of the entities involved might exacerbate concerns that ISPs are likely to create a fast lane for large edge providers.

The Commission also notes that deep packet inspection—along with other similar types of network traffic management that rely on packet characteristics—is the technical means underlying the paid prioritization that it condemns. With that technology, it says, an ISP can examine the content of packets of data as they go by and prioritize some over others. See Order ¶ 85. If the Commission believes that this technical factor plays a role in justifying different treatment, it fails to explain why. Insofar as it suggests that packet inspection might be abused, *id*., it never explains why rules against such abuse would not fit its historic understanding of unreasonable or unjust discrimination (and that of the historic price regulatory systems).

The oddity of the Commission's view is nicely captured in its treatment of a pro-competition argument submitted by ADTRAN opposing the ban on paid prioritization. ADTRAN argued that the ban (1) would hobble competition by disabling some edge providers from securing the prioritization that others obtain via Content Delivery Networks ("CDNs") (the premise is that some edge providers, perhaps because of relatively low volume, do not have access to CDNs; the Commission does not contest the premise), ADTRAN Comment at 7, J.A. 275, and (2) would "cement the advantages enjoyed by the largest edge providers that presently obtain the functional equivalent of priority access by constructing their own extensive networks that interconnect directly with the ISPs." Order ¶ 128 (quoting ADTRAN Reply Comments at 18 (September 15, 2014)). The

Commission never answers the first objection (except insofar as it is entangled with the second). As to the second it says only that it does "not seek to disrupt the legitimate benefits that may accrue to edge providers that have invested in enhancing the delivery of their services to end users." Order ¶ 128. That answer seems to confirm ADTRAN's complaint: the Commission's split policy will "cement the advantages" secured by those who invested in interconnecting networks. Oddly, the Commission supports the ban on paid prioritization as tending to prevent "the bifurcat[ion] of the Internet into a 'fast' lane for those willing and able to pay and a 'slow' lane for everybody else," and as protecting "'user-generated video and independent filmmakers' that lack the resources of major film studios to pay priority rates." Order ¶ 126; see also *id.* n.286 (quoting a commenter's concern over advantages going to "well-heeled incumbents"). In short, then, the Commission is against slow lanes and fast lanes, and against advantages for the established or well-heeled—except when it isn't.

The Commission's favored treatment of paid peering (wait-and-see) over paid prioritization (banned) brings to mind the Commission's practice of sheltering the historic AT&T monopoly from competition. See Nuechterlein & Weiser, 11-12, 40. Contrary to the conventional notion that only regulatees enjoy the benefits of unreasoned agency favor, the Order here suggests a different selection of beneficiaries: dominant edge providers such as Netflix and Google. See Order ¶ 197 n.492.

Another question posed by the Order but never answered is the Commission's idea that if superior services are priced, their usage will track the size and resources of the firms using them. One would expect, instead, that firms would pay extra for extra speed and quality to the extent that those transit enhancements increased the value of goods and services to the end user. Firms do not ship medical supplies by air rather than rail or truck because the firms are rich and powerful (though doubtless some are). They use air freight where doing so enhances the effectiveness of their service enough to justify the extra cost. This obvious point explains why Berninger is a petitioner here.

The Commission's disparate treatment of two types of prioritization that appear economically indistinguishable suggests either that it is ambivalent about the ban itself or that it has not considered the economics of the various relevant classes of transactions. Or perhaps the Commission is drawn to its present stance because it enables it to revel in populist rhetorical flourishes without a serious risk of disrupting the net.

Whatever the explanation, the Order fails to offer a reasoned basis for its view that paid prioritization is "unjust or unreasonable" within the meaning of § 201, or a reasoned explanation for why paid prioritization is problematic, or answers to commenters' critiques and alternatives. I note that all these objections would be fully applicable even as applied to ISPs with market power.

It is true that the Commission has asserted the conclusion that the supposed beneficent effect of its new rules on edge providers as a class will (pursuant to its virtuous cycle theory) enhance demand for internet services and thus demand for broadband access services. See Order ¶ 410.[9] The

[9] The Commission also makes several other claims about the impact of the Order on investment. See Order ¶ 412 (on the expected growth in Internet traffic driving investment); Order ¶ 414 (claiming a lack of the impact of Title II regulation in other circumstances); Order ¶ 416 (on indications from a major infrastructure provider that it would continue investing under Title

Commission's predictions are due considerable deference, but when its decision shows no sign that it has examined serious countervailing contentions, that decision is arbitrary and capricious.

Accordingly, its promulgation of the rules under § 201 is, absent a better explanation, not in accordance with law. 5 U.S.C. § 706(2)(A) & (C).

B

Alamo-Berninger raise two objections to the Commission's reliance on § 706 of the 1996 Act, 47 U.S.C. § 1302, as support for its new rules, especially the bans on paid prioritization, blocking and throttling (i.e., the statutory theory offered by the Commission as an alternative to its reliance on § 201). First, Alamo-Berninger develop a comprehensive claim that § 706 grants the Commission no power to issue rules. Alamo-Berninger Br. 9-16. On its face the argument seems quite compelling, see also Pai Dissent, at 370-75, but I agree with the majority that the *Verizon* court's ruling on that issue was not mere dictum, but was necessary to the court's upholding of the transparency rules. Maj. Op. 95.

Second, Alamo-Berninger raise, albeit in rather conclusory form, the argument that "the purpose of section 706 is to move away from exactly the kind of common-carrier duties imposed by this *Order*. Thus . . . the rules [adopted in the Order] frustrate the purpose of the statute and are therefore unlawful." Alamo-Berninger Br. 15.

II). None of these addresses the incremental effects of the specific rules that the Commission adopted.

On this issue, the passages of *Verizon* giving § 706 a broad reading—"virtually unlimited power to regulate the Internet," as Judge Silberman observed in dissent, 740 F.3d at 662—and endorsing the Commission's applications of its "virtuous cycle" theory, were dicta, as Alamo-Berninger argue. Alamo-Berninger Br. 16. With the narrow exception of the transparency rules, the *Verizon* court *struck down* the rules at issue on the ground that they imposed common-carrier duties on the broadband carriers, impermissibly so in light of 47 U.S.C. §§ 153(51) (providing that a telecommunications carrier can be treated "as a common carrier under this [Act] only to the extent that it is engaged in providing telecommunications services") & 332(c)(2) (similar limitation as to persons engaged in providing "a private mobile service"). 740 F.3d at 650. The sole rules *not* struck down were the transparency rules. Although Judge Silberman would have upheld them on the basis of 47 U.S.C. § 257, see 740 F.3d at 668 n.9, they are equally sustainable as ancillary to a narrow reading of § 706, confining it, as Judge Silberman would have, to remedying problems derived from market power. See *id*. at 664-67. Of course, on no understanding could *Verizon* provide direct support for the Commission's ban on paid prioritization, as that was not before the court.

Although the Alamo-Berninger argument here is conclusory, the briefing that led to the *Verizon* dicta was extensive, Brief for Appellant Verizon at 28, 31, *Verizon*, 740 F.3d; Reply Brief for Appellant Verizon at 14, *Verizon*, 740 F.3d, so concern for the Commission's opportunity to reply is no basis for disregarding the issue. The Commission's reliance on § 706 poses questions of both statutory interpretation and arbitrary and capricious rulemaking. Further, paralleling the inadequacies in the Commission's reliance on § 201(b), the reasonableness of the regulations under § 706 is important not only on its own but also for its relevance to the reasonableness of reclassification under Title II.

There is an irony in the Commission's coupling of its decision to subject broadband to Title II and its reliance on § 706. As the Alamo-Berninger brief argues, § 706 points away from the Commission's classification of broadband under Title II and its Order. Alamo-Berninger Br. 15. Title II is legacy legislation from the era of monopoly telephone service. It has no inherent provision for evolution to a competitive market. It fits cases where all hope (of competitive markets) is lost. Section 706, by contrast, as part of the 1996 Act and by its terms, seeks to facilitate a shift from regulated monopoly to competition. Indeed, the Telecommunications Act of 1996 begins by describing itself as

> [a]n Act [t]o promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.

Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56. Two central paradoxes of the majority's position are how an Act intended to "reduce regulation" is used instead to increase regulation and how an Act intended to "promote competition" is used at all in a context in which the Commission specifically forswears any findings of a lack of competition.

On top of the generally deregulatory pattern of the 1996 Act, a reading of § 706 as a mandate for virtually unlimited regulation collides with the simultaneously enacted 47 U.S.C. § 230. That section is directed mainly at making sure that internet service providers and others performing similar functions are not liable for offensive materials that users may encounter. But it also broadly states that it "is the policy of the United States . . . to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." *Id*. § 230(b)(2). The Commission's use of § 706 to impose a complex array of regulation on all internet service provision seems a distinctly bad fit with that declared policy.

Furthermore, consider the specific measures that § 706 encourages:

> The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing, in a manner consistent with the public interest, convenience, and necessity, *price cap regulation, regulatory forbearance*, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.

Section 706(a), 47 U.S.C. § 1302(a) (emphasis added).

The two steps expressly favored are both deregulatory. Forbearance is obvious; it presupposes statutory authority to impose some burden on the regulated firms, coupled with authority to relieve them from that burden—and encourages the Commission to give relief.

Price cap regulation needs more explanation. It is normally seen as a device for at least softening the deadening effects of conventional cost-based rate regulation in natural monopolies. Such regulation dulls incentives by telling the regulated firm that if it makes some advance cutting its costs of service, the regulator will promptly step in and snatch away any profits above its normal allowed rate of return. Of course there will be a "regulatory lag" between the innovation and the regulator's clutching hand, but the regulatory process overall limits the incentive to innovate to a fraction of what it would be under competitive conditions. See *National Rural Telecom Association v. FCC*, 988 F.2d 174, 177-78 (D.C. Cir. 1993). Price cap regulation, by contrast, looks to general trends in the cost inputs for providers, typically building in (if trends support it) an assumption of steadily improving efficiency. Firms benefit from their innovation except to the extent that their successes may bring down average costs across the industry. *Id.*; for some details of application, see *United States Telephone Association v. FCC*, 188 F.3d 521 (D.C. Cir. 1999). So it is easy to see how a shift to price cap regulation might be a suitable transition move for a still uncompetitive industry. Allowing the firms such benefits would invite "advance[s]" in telecommunications capability and would "remove barriers to infrastructure investment," which § 706 posits as the goals of agency actions thereunder.

Section 706's broad language points in the same direction as the two examples. It speaks of removing "barriers to infrastructure investment." Writing in 1996, before the Commission developed its virtuous cycle theory, the drafters most likely had in mind the well-known barriers erected by conventional natural monopoly regulation—not only the bad incentive effects of cost-based rate regulation but also hurdles such as agency veto power over new entry into markets.

Section 706 also speaks of measures "that promote competition." But here the Commission saddles the broadband industry with common-carrier obligation, which is normally seen as a *substitute* for competition—as I mentioned earlier, for markets where all hope is lost. Where a shipper or passenger faces only one carrier, it makes some sense to require that carrier to accept all comers, subject to reasonable rules of eligibility. This is true even for historic innkeeper duties, which seem to presuppose a desperate traveler reaching an isolated inn in the dead of night.

In part II.A I reviewed the distortions likely to flow from the Commission's ban on paid prioritization, but here, considering the Commission's reliance on a statute that seems the antithesis of common-carrier legislation, we should consider the way the common-carrier mandate may thwart competition and thus contradict the purposes of § 706.

In ordinary markets a firm can enter the field (or expand its position) by preferential cooperation with one or more vertically related firms. Antitrust law clearly recognizes this avenue to enhanced competition. See XI Herbert Hovenkamp, *Antitrust Law: An Analysis of Antitrust Principles and Their Application* ¶ 1811a2 (2006). For example, in *Sewell Plastics v. Coca-Cola*, 720 F. Supp. 1196 (W.D.N.C. 1989), *aff'd per curiam*, 1990-2 Trade Cas. ¶ 69,165, 912 F.2d 463 (4th Cir. 1990) (unpublished), the court considered under § 1 of the Sherman Act an arrangement among Coca-Cola bottlers to buy at least 80% of their plastic bottles from a new entrant—a joint venture of the bottlers themselves. The object was to circumvent the steadily rising prices charged by plaintiff Sewall Plastics, the largest supplier of plastic bottles in the country; the joint venturers saw the agreement as necessary to assure a steady market for their bottle-making operation and thus justify the investment, which Sewall could readily have undercut by dropping its prices. The court found the agreement pro-competitive because it enabled the new entry, which in turn lowered prices—just as ordinary economic understanding would predict. Speaking of requirements contracts but in terms that seem to match other exclusive vertical arrangements in workably competitive markets more generally, the Supreme Court has said that they are "of particular advantage to a newcomer to the field to whom it is important to know what capital expenditures are justified." *Standard Oil Co. of California v. United States*, 337 U.S. 293, 306-07 (1949). Hovenkamp makes the extension explicitly, seeing such cases as examples of "the procompetitive use of exclusive dealing to facilitate market entry where it might not otherwise occur at all." Hovenkamp ¶ 1811a2, at 153.

The Commission's common-carrier mandate, however, especially as implemented by the Order's Internet Conduct Standard, poses serious obstacles to comparable efforts by ISPs. It prohibits internet providers from "unreasonably interfer[ing] with or disadvantag[ing] . . . (1) end users' ability to select, access, and use . . . the lawful Internet content, applications, services, or devices of their choice, or (2) edge providers' ability to make lawful content, applications, services, or devices available to end users," Order ¶ 136, and is coupled with a multi-factor test, Order ¶¶ 138-145. Although the Commission for the moment purports to keep an open mind as to a variant of such preferential arrangements ("structured data plans"), Order ¶ 152, the Order at minimum casts a shadow over such arrangements.

Of course the Commission is not an antitrust enforcement agency. But consider exclusive deals of this sort in relation to its virtuous cycle theory. Special deals facilitating new entry among ISPs (or expansion of existing small firms) would enable investment and growth in broadband, which the Commission says is its goal (linked, of course, to the flourishing of edge providers). Yet the Commission says, without analytical support, that the new rules, generally requiring all broadband providers to follow a single business model, are just the ticket for broadband growth and investment. This seems antithetical to § 706, not to mention the post-DARPA decades in which innovative individuals and firms spontaneously developed the internet, creating new businesses and entirely new types of competition. This model of spontaneous creation is, interestingly, the very model of the internet sketched out in compelling terms by the FCC's current General Counsel before he assumed that post. See Jonathan Sallet, *The Creation of Value: The Broadband Value Circle and Evolving Market Structures* (2011).

In light of this textual analysis of § 706 and its relation to common carriage, and of Judge Silberman's arguments in *Verizon*, see especially 740 F.3d at 662, and considering the rules' antithetical relation to the goals set forth in § 706, I believe that a threshold to application of § 706 is either (1) a finding that the regulated firms possess market power or (2) at least a regulatory history treating the firms as possessing market power (classically as natural monopolies). Under this reading of § 706, then, the Commission's refusal to take a position on market power wholly undercuts its application of § 706.

I must now consider the role of § 706 even if we were to assume the view taken by the *Verizon* majority in dicta. Here all the problems I discussed as to paid prioritization in part II.A come into play, with the record full of highly plausible arguments—never so much as acknowledged by the Commission—as to the distortions that a ban on paid prioritization would generate (especially if made relatively coherent by removing the Commission's puzzling exception for caching and other paid peering). The Order fails to give any reasoned support for the notion that the ban on paid prioritization (or the affiliated and ancillary bans on blocking and throttling) would spin the virtuous cycle along and thereby promote investment. It does not respond to arguments that the ban on paid prioritization would result in increased network congestion, less innovation, less investment, and worse service, nor explain why alternatives offered in the rulemaking would not address the supposed problems with less collateral damage.

In short, the Commission has not taken the initial step of showing that its reading of § 706 as a virtually limitless mandate to make the internet "better" is a reasonable reading to which we owe deference. *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 & n.4 (2009). Without such an interpretation, the Commission's rules cannot be sustained under § 706, even without regard to the reasoning gaps that were a primary subject of part II.A.

III

Full Service Network challenges the Commission's decision to forbear from applying a host of Title II's provisions, most particularly 47 U.S.C. §§ 251-52, on the ground (among others) that forbearance, in the absence of a showing of competition between local exchange carriers (see 47 U.S.C. §§ 153(32), 153(54)), is arbitrary, capricious, and contrary to law. I agree to this extent: The Commission's forbearance decision highlights the dodgy character of the Commission's refusal, in choosing to reclassify broadband under Title II, to take any position on the question whether the affected firms have market power. The upshot is to leave the Commission in a state of hopeless self-contradiction.

In part II I noted that one reason for the Commission's evasion of the market-power question may well have been its intuition that the question might (unlike its handwaving about the virtuous cycle) be susceptible of a clear answer and that that answer would be fatal to its expansive mission. The issue raised by Full Service exposes another flaw in the Commission's non-decision. While a finding that the broadband market was generally competitive would, under Commission precedent, amply justify its forbearance decisions, here again the Commission refuses to take that position. Doing so would obviously undermine its decision to reclassify broadband under Title II. Strategic ambiguity best fits its policy dispositions. But strategic ambiguity on key propositions underlying its regulatory choices is just a polite name for arbitrary and capricious decisionmaking.

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Full Service points out that in *justifying* application of Title II the Commission broadly repudiated its 2005 reliance on the emergence of "competitive and potentially competitive providers and offerings," see Order ¶ 330 n.864, saying instead that "the predictive judgments on which the Commission relied in the *Cable Modem Declaratory Ruling* anticipating vibrant intermodal competition for fixed broadband cannot be reconciled with current marketplace realities." Order ¶ 330; in support of this reading of the *Cable Modem Declaratory Ruling*, the Order cites the *Wireline Broadband Classification Order*, 20 F.C.C. Rcd. 14853 ¶ 50 (2005). Order ¶ 330 n.864; FSN Br. 18. Besides invoking the Commission's conclusory repudiation of its former view, Full Service stresses § 251's pro-competitive purposes, points to data accumulated by the Commission that it contends show widespread lack of competition among local distribution facilities, and argues that the state of competition is highly relevant to the Commission's exercise of forbearance under 47 U.S.C. § 160, at least with respect to provisions aimed at stimulating competition. FSN Br. 15, 18-20; 47 U.S.C. § 160(b) (requiring Commission to consider whether forbearance "will promote competitive market conditions"); cf. Maj. Op. 93-94. Moreover, Full Service specifically ties its argument to the statutory requirements, noting that, in 47 U.S.C. § 160(b), "Congress directed that the FCC evaluate the effect of forbearance on competition," FSN Br. 15, and that unbundling requirements were intended to promote competition, *id.* at 20. Full Service dedicates a subsection to this argument in its brief, *id.* at 18-20, concluding that Congress's intent to promote competition, together with evidence of a lack of competition nationwide, means that "47 U.S.C. § 160 surely requires more to support forbearance than an assertion by the F.C.C. that 'other authorities' are adequate and the public interest will be better served by enhancing the agency's discretion." Full Service pursued the same angle in oral argument, asserting that "you can't say that waiving Section 251 is about anything but competition, that's the whole purpose of that section." Oral Arg. Tr. 142.

47 U.S.C. § 251 requires local exchange carriers to provide competitors with various advantages, mostly notably "access to network elements on an unbundled basis." 47 U.S.C. § 251(c)(3); cf. Order ¶ 417 (referring to such access as "last-mile unbundling"). Full Service seeks such access to broadband providers' facilities (governed by the procedures set out in § 252 for negotiating these agreements), asserting that such access is necessary to its ability to compete in local markets for broadband internet. FSN Br. 13; see *U.S. Telecom Ass'n v. FCC*, 359 F.3d 554, 561 (D.C. Cir. 2004) ("The [1996 Act] sought to foster a competitive market in telecommunications. To enable new firms to enter the field despite the advantages of the incumbent local exchange carriers ("ILECS"), the Act gave the Federal Communications Commission broad powers to require ILECs to make 'network elements' available to other telecommunications carriers.").

As we shall see, the Commission's reasoning in the Order resembles that of the Environmental Protection Agency in *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014) ("*UARG*"). There the Agency interpreted certain permitting requirements under the Clean Air Act to apply to greenhouse gases, but acknowledged that applying the thresholds that Congress specified in the relevant sections would regulate too many firms and create unacceptable costs. The agency therefore relied on its power to interpret ambiguous statutory terms to "tailor" the requirements, increasing the permitting thresholds from 100 or 250 tons to 100,000 tons (i.e., three orders of magnitude). *Id.* at 2444-45. The Court held that the agency's combined choice—construing an ambiguous statutory provision to apply while dramatically reducing its substantive application—was unreasonable. In so holding, it "reaffirm[ed] the core administrative-law principle that an agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate." *Id.* at 2446.

The Commission violates that core principle here, where it seeks to apply Title II to broadband internet providers while forbearing from the vast majority of Title II's statutory requirements. As did EPA in *UARG*, though perhaps with less candor, the Commission recognizes that the statutory provisions naturally flowing from reclassification of broadband under Title II do not fit the issues posed by broadband access service. "This is Title II tailored for the 21st Century. Unlike the application of Title II to incumbent wireline companies in the 20th Century, a swath of utility-style provisions (including tariffing) will *not* be applied. . . . In fact, Title II has never been applied in such a focused way." Order ¶ 38.

Although the 1996 Act requires the Commission to forbear from application of any of the provisions of Title 47's Chapter 5 when the conditions of 47 U.S.C. § 160(a) are met, Pub. L. 104-104, Title IV, § 401 (Feb. 8, 1996), the Commission's massive forbearance, without findings that the forbearance is justified by competitive conditions, demonstrates its unwillingness to apply the statutory scheme. Even if the Commission's forbearance itself were reasonable standing alone, that forbearance, *paired with the reclassification decision*, was arbitrary and capricious. Or, to note the reverse implication, the massive, insufficiently justified forbearance infects the decision to apply (or purport to apply) Title II. The logical inconsistency is fatal to both. (The Commission offers no opposition to USTA's contention that reclassification and forbearance are intertwined and therefore stand or fall together. USTA Intervenor Br. 21.)

While the statute explicitly envisions forbearance, it does so only under enumerated conditions. To forbear, the Commission must determine that enforcement of a provision is not necessary to ensure just, reasonable, and nondiscriminatory charges and practices or to protect consumers, 47 U.S.C. § 160(a)(1)-(2), and that forbearance "is consistent with the public interest," *id.* § 160(a)(3). In making these determinations, "the Commission shall consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which such forbearance will enhance competition among providers of telecommunications services." *Id.* § 160(b). These conditions are broadly framed, but the emphasis on consumer protection, competition, and reasonable, nondiscriminatory rates is plainly intended to implement the 1996 Act's policy goal of promoting competition in a context that had historically been dominated by firms with market power, while assuring that consumers are protected.

The Commission relied in part on the idea that enforcement of unbundling rules would unduly deter investment, specifically that such enforcement would collide with its "duty to encourage advanced services deployment." Order ¶ 514. But, perhaps recognizing that this concern would apply universally to compulsory unbundling, the Commission also confronted claims that broadband providers often have local market power. But it responded to these claims not with factual refutation but with an assertion that "persuasive evidence of competition" is unnecessary as a predicate to forbearance. Order ¶ 439. This assertion is in line with the Commission's view that, "although there is some amount of competition for broadband Internet access service, it is limited in key respects." Order ¶ 444. The language is sufficiently vague to cover any state of competition between outright monopoly and perfect competition.

The Commission claimed that its current forbearance matches its past practice, offering a list of orders in which it forbore while giving competition little or no consideration. *Id*. ¶ 439 n.1305 (listing cases). But the cited orders do not vindicate the Commission. They fall into three groups: (1) orders forbearing from provisions not directly involving economic issues at all, such as reporting requirements, (2) orders of clear economic import but with no evident relationship to competition, and (3) orders evidently related to competition where the Commission analyzed competition intensely.

The first group is easily addressed. The Commission's grant of forbearance from seemingly noneconomic requirements is irrelevant to the arbitrariness of its forbearance from a provision aimed precisely at fostering competition.

The second set of orders posed economic concerns but no evident link to competition. In *In re Iowa Telecommunications Services, Inc.*, 17 F.C.C. Rcd. 24319 ¶¶ 17-18 (2002), the Commission granted forbearance to replace one set of rates with a different set of rates based on forward-looking cost estimates that it believed better reflected the petitioner's operating costs; no finding of competition was necessary to guide that replacement. In *In re Petition for Forbearance from Application of the Communications Act of 1934, As Amended, to Previously Authorized Servs.*, 12 F.C.C. Rcd. 8408 (1997), the Commission forbore from § 203(c), allowing the petitioner to refund excess charges to consumers. As the Commission pointed out in that brief order, forbearance served consumers and the public interest, since consumers would receive the refund. *Id.* ¶ 10.

The Commission's use of the third group suggests that its opinion-writing staff was asleep at the switch. The group comprises three rulings, *In re Implementation of Sections 3(n) & 332 of the Communications Act*, 9 F.C.C. Rcd. 1411 (1994),[10] *In re Petition of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Omaha Metro. Statistical Area*, 20 F.C.C. Rcd. 19415 (2005), and *In re Petition of Qwest Corp. for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metro. Statistical Area*, 25 F.C.C. Rcd. 8622 (2010). Yet in each decision the Commission conducted a detailed analysis of the state of competition. See 9 F.C.C. Rcd. 1411 ¶¶ 135-54 (considering numbers of competitors, falling price trends, etc., and concluding that "all CMRS service providers, other than cellular service licensees, currently lack market power," *id.* at ¶ 137, and, after an extensive recounting of factors, making a cautious finding that it could not find cellular "fully competitive," *id.* at ¶ 154); 20 F.C.C. Rcd. 19415 ¶¶ 28-38 (analyzing market shares, supply and demand elasticity, and firm cost, size and resources to assess competition); 25 F.C.C. Rcd. 8622 ¶¶ 41-91 (assessing whether incumbent firm had market power by careful consideration of market definition,

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[10] This order was later quashed by another order, *In re Petition of Arizona Corp. Comm'n, to Extend State Authority Over Rate and Entry Regulation of All Commercial Mobile Radio Services & In re Implementation of Sections 3(N) & 332 of the Communications Act*, 10 F.C.C. Rcd. 7824 (1995). Unsurprisingly, that order also contains a detailed market analysis. See, e.g., *id.* at ¶¶ 42-68.

factors affecting competition, assessment of the effects of SSNIPs).

I am in no position to assess the quality of these analyses, but the entire batch of decisions cited in Order ¶ 439 n.1305 provides no support for the idea (indeed, undermines the idea) that the Commission has an established practice of neglecting market power in deciding whether to forbear from a provision such as § 251. (I discuss below an interesting exception, the order reviewed in *EarthLink v. FCC*, 462 F.3d 1 (D.C. Cir. 2006).)

Given the Commission's assertions elsewhere that competition is limited, and its lack of economic analysis on either the forbearance issue or the Title II classification, the combined decisions to reclassify and forbear—and to assume sufficient competition as well as a lack of it—are arbitrary and capricious. The Commission acts like a bicyclist who rides now on the sidewalk, now the street, as personal convenience dictates.

The inaptness of the Order's ¶ 439 n.1305 citations of its prior decisions is confirmed by forbearance decisions that have reached this court. In *U.S. Telecom*, 359 F.3d at 578-83, for example, we considered the Commission's decision to forbear from unbundling requirements for the high-frequency portion of copper and hybrid loops for broadband (but not from unbundling requirements for the narrowband portion of hybrid loops). In reviewing that forbearance decision, which was far narrower than the forbearance before us today, we gave detailed consideration to the Commission's analysis of the likely effects of more limited unbundling on both investment and competition. We concluded that this forbearance was not arbitrary and capricious partly because the Commission had offered "very strong record evidence" of "robust intermodal competition from cable [broadband] providers," who maintained a market share of about 60%. *Id.* at 582. Both we and the Commission took for granted that findings of competition were central to any such forbearance decision. The Commission justified its forbearance in terms of competition: "A primary benefit of unbundling hybrid loops—that is, to spur competitive deployment of broadband services to the mass market—appears to be obviated by the existence of a broadband service competitor with a leading position in the marketplace." *In re Review of the Section 251 Unbundling Obligations of Incumbent Local Exch. Carriers*, 18 F.C.C. Rcd. 16978 ¶ 292 (2003). Now, when forbearing from unbundling requirements far more broadly, the Commission asserts that no findings of competition are necessary. Rather than justifying its change in position, it denies having made any change.

It is unnecessary, in concluding that the Commission has failed to meet its *State Farm* obligation to reconcile its reclassification and forbearance decisions, to resolve whether the Commission has adequately considered competition for purposes of 47 U.S.C. § 160(b). See Order ¶¶ 501-02. The Commission's difficulty, in its mentions of competition, lies in its attempts to have it both ways. It asserts that there is too little competition to maintain the classification of broadband as an information service (remember, that is the sole function of its discussion of switching costs), but (implicitly) that there is enough competition for broad forbearance to be appropriate. This sweet spot, assuming the statute allows the Commission to find it, is never defined.

In responding to Full Service's narrow claim—that the Commission was required to do a competition analysis market by market—the Commission relies on our decision in *EarthLink v. F.C.C.*, 462 F.3d 1, 8 (D.C. Cir. 2006), where indeed we rejected a claim that forbearance from unbundling under 47 U.S.C. § 271 required such an analysis. On that narrow issue, *EarthLink* fully supports the Commission.

But there are considerable ironies in the Commission's supporting its Order here by pointing to *Earthlink* and the order reviewed there. The current Order manifests a double repudiation of the one under review in *EarthLink*: first, it now rejects its former interpretation of § 706, and second, it reflects the Commission's complete abandonment of its views on the force of intermodal competition.

In the *Earthlink* order, the Commission invoked § 706 for the proposition that *relieving* local distribution companies from regulation would encourage investment, and thus would let competition bloom, sufficiently to offset any loss to competition from refusing to order unbundling. Now, of course, the Commission invokes § 706 for the idea that *saddling* such firms with regulation will encourage investment.

And in the *Earthlink* order the Commission relied on its now repudiated idea that intermodal competition would play a big role in assuring adequate competition. See 462 F.3d at 7, citing *Petition for Forbearance of the Verizon Telephone Companies Pursuant to 47 U.S.C. § 160(c)*, 19 F.C.C. Rcd. 21,496 ¶¶ 21-23. Now, without undertaking the inconvenience of a market power analysis, the Commission has rendered its confidence in intermodal competition "inoperative" (to borrow a phrase from the Watergate proceedings) for purposes of reclassification, but (perhaps) not for unbundling.

In sum, the Commission chose to regulate under a Title designed to temper the effects of market power by close agency supervision of firm conduct, but forbore from provisions aimed at constraining market power by compelling firms to share their facilities, all with no effort to perform a market power analysis. The Order's combined reclassification-forbearance decision is arbitrary and capricious.

* * *

The ultimate irony of the Commission's unreasoned patchwork is that, refusing to inquire into competitive conditions, it shunts broadband service onto the legal track suited to natural monopolies. Because that track provides little economic space for new firms seeking market entry or relatively small firms seeking expansion through innovations in business models or in technology, the Commission's decision has a decent chance of bringing about the conditions under which some (but by no means all) of its actions could be grounded—the prevalence of incurable monopoly.

I would vacate the Order.

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 1, 2019 Decided October 1, 2019

No. 18-1051

MOZILLA CORPORATION,
PETITIONER

v.

FEDERAL COMMUNICATIONS COMMISSION AND UNITED STATES OF AMERICA,
RESPONDENTS

CITY AND COUNTY OF SAN FRANCISCO, ET AL.,
INTERVENORS

Consolidated with 18-1052, 18-1053, 18-1054, 18-1055, 18-1056, 18-1061, 18-1062, 18-1064, 18-1065, 18-1066, 18-1067, 18-1068, 18-1088, 18-1089, 18-1105

On Petitions for Review of an Order of
the Federal Communications Commission

Pantelis Michalopoulos and *Kevin Kendrick Russell* argued the causes for non-government petitioners. With them on the joint briefs were *Cynthia L. Taub*, *Markham C. Erickson*, *Michael A. Cheah*, *Brian M. Willen*, *Donald J. Evans*, *Sarah J. Morris*, *Matthew F. Wood*, *Colleen Boothby*, *James N. Horwood*, *Tillman L. Lay*, *Jeffrey M. Bayne*, *Katherine J. O'Konski*, *Andrew Jay Schwartzman*, *Harold J. Feld*, and *Lisa A. Hayes*. *Keenan P. Adamchak* and *Kevin S. Bankston*, entered appearances.

Stephanie Weiner argued the cause for intervenors Internet Association et al. et al. in support of petitioners. With her on the briefs were *Christopher J. Wright*, *Scott Blake Harris*, *E. Austin Bonner*, *Matt Schruers*, *John A. Howes*, *Jr.*, and *Anthony R. Segall*. *Maria K. Myers* entered an appearance.

Danielle L. Goldstein and *Steven C. Wu*, Deputy Solicitor General, Office of the Attorney General for the State of New York, argued the causes for government petitioners. With them on the briefs were *Barbara D. Underwood*, Attorney General at the time the brief was filed, Office of the Attorney General for the State of New York, *Arocles Aguilar*, *Helen M. Mickiewicz*, *Lisa-Marie G. Clark*, *Kimberly Lippi*, *Ester Murdukhayeva*, Assistant Solicitor General, Office of the Attorney General for the State of New York, *James R. Williams*, *Greta Hansen*, *Xavier Becerra*, Attorney General, Office of the Attorney General for the State of California, *Sarah E. Kurtz*, Deputy Attorney General, *Nicklas A. Akers*, Senior Assistant Attorney General, *George Jepsen*, Attorney General, Office of the Attorney General for the State of Connecticut, *Jonathan J. Blake*, Assistant Attorney General, *Jeffrey T. Pearlman*, *Phillip R. Malone*, *Matthew P. Denn*, Attorney General, Office of the Attorney General for the State of Delaware, *Christian D. Wright*, Director, Consumer Protection, *Thomas J. Miller*, Attorney General, Office of the Attorney General for the State of Iowa, *Benjamin E. Bellus*, Assistant Attorney General, *Russell A. Suzuki*, Attorney General at the time the brief was filed, Office of the Attorney General for the State of Hawai'i, *Clyde J. Wadsworth*, Solicitor General, *Lisa Madigan*, Attorney General, Office of the Attorney General for the State of Illinois, *David Franklin*, Solicitor General, *Andrew G.*

Beshear, Attorney General, Office of the Attorney General for the Commonwealth of Kentucky, *Maura Healey*, Attorney General, Office of the Attorney General for the Commonwealth of Massachusetts, *Jared Rinehimer*, Assistant Attorney General, *Janet T. Mills*, Attorney General at the time the brief was filed, Office of the Attorney General for the State of Maine, *Brendan O'Neil*, Assistant Attorney General, *Brian E. Frosh*, Attorney General, Office of the Attorney General for the State of Maryland, *Richard L. Trumka*, *Jr*., Assistant Attorney General, *Lori Swanson*, Attorney General, Office of the Attorney General for the State of Minnesota, *Joseph C. Meyer*, Assistant Attorney General, *Hector Balderas*, Attorney General, Office of the Attorney General for the State of New Mexico, *Tania Maestas*, Deputy Attorney General, *James M. Hood*, Attorney General, Office of the Attorney General for the State of Mississippi, *Crystal Utley Secoy*, Special Assistant Attorney, *Gurbir S. Grewal*, Attorney General, Office of the Attorney General for the State of New Jersey, *Jeremy M. Feigenbaum*, Assistant Attorney General, *Joshua H. Stein*, Attorney General, Office of the Attorney General for the State of North Carolina, *Kevin Anderson*, Senior Deputy Attorney General, *Peter Kilmartin*, Attorney General, Office of the Attorney General for the State of Rhode Island, *Michael W. Field*, Assistant Attorney General, *Ellen F. Rosenblum*, Attorney General, Office of the Attorney General for the State of Oregon, *Andrew Shull*, Senior Assistant Attorney General, *Josh Shapiro*, Attorney General, Office of the Attorney General for the Commonwealth of Pennsylvania, *Michael J. Fischer*, Chief Deputy Attorney General, *Thomas J. Donovan*, *Jr*., Attorney General, Office of the Attorney General for the State of Vermont, *Christopher J. Curtis*, Chief, Public Protection Division, *Karl A. Racine*, Attorney General, Office of the Attorney General for the District of Columbia, *Loren L. AliKhan*, Solicitor General, *Mark R. Herring*, Attorney General, Office of the Attorney General for the

Commonwealth of Virginia, *Samuel T. Towell*, Deputy Attorney General, *Robert W. Ferguson*, Attorney General, Office of the Attorney General for the State of Washington, *Tiffany Lee*, Assistant Attorney General, *Dennis J. Herrera*, and *William K. Sanders*. *Bryan C. Yee*, Deputy Attorney General, Office of the Attorney General for the State of Hawai'i, *Sarah E. Kurtz*, Deputy Attorney General, Office of the Attorney General for the State of California, *Michael C. Wertheimer*, Assistant Attorney General, and *John S. Story*, Attorney, Office of the Attorney General for the State of Connecticut, *Theresa C. Mueller*, *Jennifer M. Murphy*, and *James B. Ramsey*, entered appearances.

Christopher Jon Sprigman was on the brief for *amici curiae* Members of Congress in support of petitioners.

Mitchell Stoltz and *Corynne McSherry* were on the brief for *amicus curiae* Electronic Frontier Foundation in support of petitioners.

Christopher T. Bavitz was on the brief for *amicus curiae* Engine Advocacy in support of petitioners.

MacKenzie Fillow, *Edward N. Siskel*, *Michael P. May*, and *Karen L. Moynahan* were on the brief for *amici curiae* The City of New York and 27 other local governments, mayors and municipal organizations in support of petitioners.

Allen S. Hammond, *IV* was on the brief for *amici curiae* Professors of Administrative, Communications, Energy, Antitrust, and Contract Law and Policy in support of petitioners.

Jessica L. Ellsworth and *Matthew Higgins* were on the brief for *amici curaie* The American Council on Education and

19 other education and library associations in support of petitioners.

Henry Goldberg and *Devendra T. Kumar* were on the brief for *amicus curiae* eBay Inc. in support of petitioners.

Adrienne E. Fowler was on the brief for *amicus curiae* Twilio Inc. in support of petitioner.

Andrew Jay Schwartzman and *James T. Graves* were on the brief for *amicus curiae* Consumer Reports in support of petitioners.

Thomas H. Vidal was on the brief for *amici curiae* Professors Scott Jordan and Jon Peha in support of petitioners.

Michael J. Burstein was on the brief for *amici curiae* Professors of Communications Law in support of petitioners.

Paul Goodman and *Yosef Getachew* were on the brief for *amici curiae* Common Cause, et al. in support of petitioners and vacation of the order.

William Michael Cunningham, *pro se*, was on the brief for *amicus curiae* William Michael Cunningham in support of the public interest.

Thomas M. Johnson Jr, General Counsel, Federal Communications Commission, argued the cause for respondents. With him on the brief were *Kristen C. Limarzi* and *Nickolai G. Levin*, Attorneys, U.S. Department of Justice, *David M. Gossett*, Deputy General Counsel, Federal Communications Commission, *Jacob M. Lewis*, Associate General Counsel, and *James M. Carr* and *Scott M. Noveck*, Counsel. *Robert J. Wiggers*, Attorney, U.S. Department of

Justice, and *Richard K. Welch*, Deputy Associate Counsel, Federal Communications Commission, entered appearances.

Jonathan E. Nuechterlein argued the cause for ISP intervenors. On the brief were *Michael K. Kellogg*, *Scott H. Angstreich*, *Helgi C. Walker*, *Andrew G.I. Kilberg*, *Miguel A. Estrada*, *Matthew A. Brill*, *Matthew T. Murchison*, *Jeffrey A. Lamken*, and *Stephen E. Coran*. *C. Frederick Beckner*, *III*, *Rick Chessen*, *Kellam M. Conover*, *Neal M. Goldberg*, *Theodore B. Olson*, and *Michael S. Schooler* entered appearances.

Ken Paxton, Attorney General, Office of the Attorney General for the State of Texas, *Kyle D. Hawkins*, Solicitor General, and *John C. Sullivan*, Assistant Solicitor General, were on the brief for *amici curiae* The States of Texas, et al. in support of respondents.

Lawrence J. Spiwak was on the brief for *amicus curiae* Phoenix Center for Advanced Legal and Economic Public Policy Studies in support of respondents.

Tara M. Corvo and *Jonathan Markman* were on the brief for *amici curiae* Richard Bennett, et al. in support of respondents.

Thomas R. McCarthy was on the brief for *amici curiae* Washington Legal Foundation, et al. in support of respondents.

John D. Seiver, *Daniel P. Reing*, and *Sarah Oh* were on the brief for *amicus curiae* The Technology Policy Institute in support of respondents.

Charles Kennedy and *James Dunstan* were on the brief for *amicus curiae* TechFreedom in support of respondents.

Arthur J. Burke was on the brief for *amicus curiae* Information Technology and Innovation Foundation in support of respondents.

Robert N. Weiner was on the brief for *amici curiae* The Georgetown Center for Business and Public Policy and Nine Prominent Economists and Scholars in support of respondents.

Leonid Goldstein, *pro se*, was on the brief as an intervenor in support of respondents.

John P. Elwood, *Matthew X. Etchemendy*, *Peter C. Tolsdorf*, *Kevin W. Brooks*, *Dileep S. Srihari*, and *Daryl Joseffer* were on the brief for *amici curiae* The National Association of Manufacturers, et al. in support of respondents.

David P. Murray was on the brief for *amici curiae* The International Center for Law and Economics and Participating Scholars in support of respondents.

Robert G. Kirk was on the brief for *amicus curiae* Roslyn Layton in support of respondents.

J. Wade Lindsay was on the brief for *amicus curiae* Tech Knowledge in support of respondents.

Christopher S. Yoo was on the brief for *amicus curiae* Christopher S. Yoo in support of respondents.

Andrew Grimm was on the briefs for intervenor Digital Justice Foundation, Inc. in support of neither party.

Before: MILLETT and WILKINS, *Circuit Judges*, and WILLIAMS, *Senior Circuit Judge*.

Opinion for the Court filed PER CURIAM.

Concurring opinion filed by *Circuit Judge* MILLETT.

Concurring opinion filed by *Circuit Judge* WILKINS.

Opinion concurring in part and dissenting in part filed by *Senior Circuit Judge* WILLIAMS.

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PER CURIAM: In 2018, the Federal Communications Commission adopted an order classifying broadband Internet access service as an information service under Title I of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, Pub. L. 104–104, 110 Stat 56 ("the Act"). *See In re Restoring Internet Freedom*, 33 FCC Rcd. 311 (2018) ("*2018 Order*"). In so doing, the agency pursued a market-based, "light-touch" policy for governing the Internet and departed from its 2015 order that had imposed utility-style regulation under Title II of the Act.

Petitioners—an array of Internet companies, non-profits, state and local governments, and other entities—bring a host of challenges to the 2018 Order. We find their objections unconvincing for the most part, though we vacate one portion of the 2018 Order and remand for further proceedings on three discrete points.

The 2018 Order and today's litigation represent yet another iteration of a long-running debate regarding the regulation of the Internet. We rehearsed much of this complex history in *United States Telecom Association v. FCC*, 825 F.3d 674, 689–697 (D.C. Cir. 2016) ("USTA"), and see no need to recapitulate here what was so well and thoroughly said there. In the interest of reader-friendliness, though, we briefly review certain highlights necessary to understand this opinion.

As relevant here, the 1996 Telecommunications Act creates two potential classifications for broadband Internet: "telecommunications services" under Title II of the Act and "information services" under Title I. These similar-sounding terms carry considerable significance: Title II entails common carrier status, *see* 47 U.S.C. § 153(51) (defining "telecommunications carrier"), and triggers an array of statutory restrictions and requirements (subject to forbearance at the Commission's election). For example, Title II "declar[es] * * * unlawful" "any * * * charge, practice, classification or regulation that is unjust or unreasonable." *Id.* § 201(b). By contrast, "information services" are exempted from common carriage status and, hence, Title II regulation.

An analogous set of classifications applies to mobile broadband: A "commercial mobile service" is subject to common carrier status, *see* 47 U.S.C. § 332(c)(1), whereas a "private mobile service" is not, *see id.* § 332(c)(2).

The Commission's authority under the Act includes classifying various services into the appropriate statutory categories. *See National Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 980–981 (2005). In the years since the Act's passage, the Commission has exercised its classification authority with some frequency.

Initially, in 1998, the Commission classified broadband over phone lines as a "telecommunications service." *See In re Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 FCC Rcd. 24012 (1998).

Just four years later, though, the Commission determined that cable broadband was an "information service," *see In re Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities* ("*Cable Modem Order*"), 17 FCC Rcd. 4798 (2002), a choice that the Supreme Court upheld in *Brand X*, 545 U.S. 967. The agency then applied a similar classification to wireline and wireless broadband. *See In re Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd. 14853 (2005) ("*2005 Wireline Broadband Order*"); *In re Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd. 5901 (2007) ("*Wireless Broadband Order*").

But in 2015 the Commission took the view that broadband Internet access is, in fact, a "telecommunications service" and that mobile broadband is a "commercial mobile service*.*" *See In re Protecting and Promoting the Open Internet*, 30 FCC Rcd. 5601 (2015) ("*Title II Order*"). In *USTA*, this court upheld that classification as reflecting a reasonable interpretation of the statute under *Chevron*'s second step. *See* 825 F.3d at 701–706, 713–724; *see also Chevron, U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837 (1984).

Once again, the Commission has switched its tack. In 2017, the Commission issued a notice of proposed rulemaking seeking to revert to its pre-2015 position, *In re Restoring Internet Freedom*, 32 FCC Rcd. 4434 (2017), and released the final order at issue in this case in January 2018.

The 2018 Order accomplishes a number of objectives. First, and most importantly, it classifies broadband Internet as an "information service," *see 2018 Order* ¶¶ 26–64, and mobile broadband as a "private mobile service," *see id.* ¶¶ 65–85. Second, relying on Section 257 of the Act (located in Title II but written so as to apply to Titles I through VI), the Commission adopts transparency rules intended to ensure that consumers have adequate data about Internet Service Providers' network practices. *See id.* ¶¶ 209–38. Third, the Commission undertakes a cost-benefit analysis, concluding that the benefits of a market-based, "light-touch" regime for Internet governance outweigh those of common carrier regulation under Title II, *see id.* ¶¶ 304–323, resting heavily on the combination of the transparency requirements imposed by the Commission under Section 257 with enforcement of existing antitrust and consumer protection laws, *see id.* ¶¶ 140–154. The Commission likewise finds that the burdens of the Title II Order's conduct rules exceed their benefits. *See id.* ¶¶ 246–266.

We uphold the 2018 Order, with two exceptions. First, the Court concludes that the Commission has not shown legal authority to issue its Preemption Directive, which would have barred states from imposing any rule or requirement that the Commission "repealed or decided to refrain from imposing" in the Order or that is "more stringent" than the Order. *2018 Order* ¶ 195. The Court accordingly vacates that portion of the Order. Second, we remand the Order to the agency on three discrete issues: (1) The Order failed to examine the implications of its decisions for public safety; (2) the Order does not sufficiently explain what reclassification will mean for regulation of pole attachments; and (3) the agency did not adequately address Petitioners' concerns about the effects of broadband reclassification on the Lifeline Program.

I. Broadband Internet Classification

The central issue before us is whether the Commission lawfully applied the statute in classifying broadband Internet access service as an "information service." We approach the issue through the lens of the Supreme Court's decision in *Brand X*, which upheld the Commission's 2002 refusal to classify cable broadband as a "telecommunications service." 545 U.S. at 974. The Commission's classification of cable modem as an "information service" was not challenged in *Brand X*, *see id*. at 987, but, given that "telecommunications service" and "information service" have been treated as mutually exclusive by the Commission since the late 1990s, *see, e.g.*, *2018 Order* ¶¶ 53, 62 & n.239; *Title II Order* ¶ 385, a premise Petitioners do not challenge, *see* Mozilla Br. 24, we view *Brand X* as binding precedent in this case.

We start, of course, with the statutory definition. Section 47 U.S.C. § 153(24) reads:

> The term "information service" means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications * * * 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.

The final clause is known as the "telecommunications management" exception. The Act defines "telecommunications service" (as distinct from "telecommunications," *see id*. § 153(50)), as follows:

> The term "telecommunications service" means 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.

Id. § 153(53).

The Commission appears to make two arguments for its classification. It states first that "broadband Internet access service necessarily has the capacity or potential ability to be used to engage in the activities within the information service definition—'generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications,'" *2018 Order* ¶ 30 (quoting 47 U.S.C. § 153(24)), and on that basis alone merits an "information service" classification.

The Commission then goes on to say: "But even if 'capability' were understood as requiring more of the information processing to be performed by the classified service itself, we find that broadband Internet access service meets that standard." *2018 Order* ¶ 33. As we will see, the Commission regards this requirement as being met by specific information-processing features that are, in its view, functionally integrated with broadband service, particularly Domain Name Service ("DNS") and caching, about which more later. (Petitioners themselves treat the Commission's DNS/caching argument as "an alternative ground" for the Commission's classification. Mozilla Reply Br. 21.)

Our review is governed by the familiar *Chevron* framework in which we defer to an agency's construction of an ambiguous provision in a statute that it administers if that construction is reasonable. *See, e.g.*, *American Elec. Power Serv. Corp. v. FCC*, 708 F.3d 183, 186 (D.C. Cir. 2013) (The *Chevron* framework "means (within its domain) that a 'reasonable agency interpretation prevails.'") (quoting *Northern Nat. Gas Co. v. FERC*, 700 F.3d 11, 14 (D.C. Cir. 2012)). By the same token, if "Congress has directly spoken to an issue then any agency interpretation contradicting what Congress has said would be unreasonable." *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 218 n.4 (2009).

At *Chevron* Step One, we ask "whether Congress has directly spoken to the precise question at issue." 467 U.S. at 842. Where "the intent of Congress is clear, that is the end of the matter; for [we], as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842–843. But if "the statute is silent or ambiguous with respect to the specific issue," we proceed to *Chevron* Step Two, where "the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.* at 843. However, we do not apply *Chevron* reflexively, and we find ambiguity only after exhausting ordinary tools of the judicial craft. *Cf. Kisor v. Wilkie*, 139 S. Ct. 2400, 2414–2415 (2019).

All this of course proceeds in the shadow of *Brand X*, which itself applied *Chevron* to a similar issue.

Applying these principles here, we hold that classifying broadband Internet access as an "information service" based on the functionalities of DNS and caching is "'a reasonable policy choice for the [Commission] to make' at *Chevron*'s second step." *Brand X*, 545 U.S. at 997 (alteration in original) (quoting *Chevron*, 467 U.S. at 845). As we said in *USTA*, "Our job is to ensure that an agency has acted 'within the limits of [Congress's] delegation' of authority," 825 F.3d at 697 (quoting *Chevron*, 467 U.S. at 865), and "we do not 'inquire as to whether the agency's decision is wise as a policy matter; indeed, we are forbidden from substituting our judgment for that of the agency,'" *id*. (quoting *Association of Am. Railroads v. ICC*, 978 F.2d 737, 740 (D.C. Cir. 1992)); *see also United States Telecom Ass'n v. FCC*, 855 F.3d 381, 384 (D.C. Cir. 2017) ("[T]he [*Brand X*] Court made clear in its decision—over and over—that the Act left the [classification] to the agency's discretion." (Srinivasan, J., joined by Tatel, J., concurring in denial of rehearing en banc)).

A. The Supreme Court's Decision in *Brand X*

Brand X held that, by virtue of the ambiguity of the word "offering," the FCC could permissibly choose not to classify cable modem service as a "telecommunications service." *Brand X*, 545 U.S. at 973–974, 989–992. As to DNS and caching, the *Brand X* Court endorsed the Commission's argument that those functionalities can be relied on to classify cable modem service as an "information service." Challengers opposing the FCC had argued that when consumers "go[] beyond" certain Internet services offered by cable modem companies themselves—for example, beyond access to proprietary e-mail and Web pages (commonly referred to as the cable modem companies' "walled gardens")—the companies were "offering" a "telecommunications service" rather than an "information service." *Id.* at 998. The Court rejected this claim. It found that such a view "conflicts with the Commission's understanding of the nature of cable modem service," which the Court deemed "reasonable." *Id.*; *cf. 2018 Order* ¶ 51. The Court explained that—when a user accesses purely third-party content online—"he is *equally using* the information service provided by the cable company that offers him Internet access as when he accesses the company's own Web site, its e-mail service, or his personal Web page," *Brand X*, 545 U.S. at 999 (emphasis added), i.e., "walled garden" services. Why so?

Brand X's answer, as relevant here, lay in DNS and caching. The argument proceeded in two steps—first, showing that DNS and caching themselves can properly fall under the "information service" rubric; second, showing that these "information services" are sufficiently integrated with the transmission element of broadband that it is reasonable to classify cable modem service as an "information service." *See Brand X*, 545 U.S. at 999–1000.

As to the first step, the Court observed that "[a] user cannot reach a third party's Web site without DNS," *Brand X*, 545 U.S. at 999, which "among other things, matches the Web page addresses that end users type into their browsers (or 'click' on) with the Internet Protocol (IP) addresses of the servers containing the Web pages the users wish to access," *id*. at 987. It therefore saw it as "at least reasonable" to treat DNS *itself* "as a 'capability for acquiring * * * retrieving, utilizing, or making available' Web site addresses and therefore part of the information service cable companies provide." *Id*. at 999 (quoting 47 U.S.C. § 153(24)); *see also id*. at n.3 (rebutting dissent's claim that "DNS does not count as use of the information-processing capabilities of Internet service"). The Court applied a cognate analysis to caching, which "facilitates access to third-party Web pages by offering consumers the ability to store, or 'cache' popular content on local computer servers," *id*. at 999, "obviat[ing] the need for the end user to download anew information from third-party Web sites each time the consumer attempts to access them," *id*. at 999–1000. Thus the Court found "reasonable" the FCC's position that "subscribers can reach third-party Web sites via 'the World Wide Web, and browse their contents, [only] because their service provider offers the capability for * * * acquiring, [storing] * * * retrieving [and] utilizing * * * information.'" *Id*. at 1000 (alterations in original) (some internal quotation marks omitted) (quoting *In re Federal-State Joint Bd. on Universal Serv.*, 13 FCC Rcd. 11501, 11537–11538 ¶ 76 (1998) ("*Stevens Report*")).

As to the second step, the *Brand X* Court endorsed the FCC's position that—because DNS and caching are "inextricably intertwined" with high-speed transmission—it was reasonable for the Commission *not* to treat the resulting package as an "offering" of a standalone "telecommunications service." 545 U.S. at 978–979, 989–991; *see Cable Modem Order* at 4823 ¶ 38 ("As currently provisioned, cable modem service is a single, integrated service that enables the subscriber to utilize Internet access service * * * ."). "[H]igh-speed transmission used to provide cable modem service is a *functionally integrated* component of [cable modem] service because it transmits data only in connection with the further processing of information and is necessary to provide Internet service." *Brand X*, 545 U.S. at 998 (emphasis added). DNS and caching, in turn, are two examples of such "further processing" integrated with the data transmission aspect of cable modem service. "[A] consumer cannot purchase Internet service without also purchasing a connection to the Internet and the transmission always occurs in connection with information processing," *id*. at 992, in the form of (for example) DNS or caching. Thus, according to the Supreme Court, the Commission reasonably concluded that cable modem service is not an offering of a standalone "telecommunications service," but, rather, an "information service"—which by definition is offered "via telecommunications." *See id.* at 989–992*; see also 2018 Order* ¶ 52.

B. DNS and Caching in the 2018 Order

The reasoning in the 2018 Order tallies with the line of argument in *Brand X* described above. *See, e.g.*, *2018 Order* ¶¶ 26, 34, 41, 51, 53, 54, 55 n.207, 57. The Commission's principal claim is that "ISPs offer end users the capability to interact with information online * * * through a variety of functionally integrated information processing components that are part and parcel of the broadband Internet access service offering itself"—including DNS and caching. *Id.* ¶ 33. The Commission describes DNS and caching as "integrated information processing capabilities offered as part of broadband Internet access service to consumers today." *Id*. We hold that under *Brand X* this conclusion is reasonable.

We note that the 2018 Order alluded to several "information processing functionalities inextricably intertwined with the underlying service" besides DNS and caching, such as "email, speed test servers, backup and support services, geolocation-based advertising, data storage, parental controls, unique programming content, spam protection, pop-up blockers, instant messaging services, on-the-go access to Wi-Fi hotspots, and various widgets, toolbars, and applications." *2018 Order* ¶ 33 n.99. Although the 2018 Order states that these "further support the 'information service' classification," it did not find them "determinative," *id.*, and mentioned them only briefly in a footnote. Thus we address DNS and caching only.

In passages echoing *Brand X*, the Commission characterized the essential roles of DNS and caching. As to DNS, it observed that DNS is "indispensable to ordinary users as they navigate the Internet." *2018 Order* ¶ 34 (quoting AT&T Comments at 73, J.A. 189). "[T]he absence of ISP-provided DNS would fundamentally change the online experience for the consumer." *Id*. This formulation is actually a good deal more cautious than that of the Court in *Brand X*, which declared that without DNS a "user cannot reach a third party's Web site." 545 U.S. at 999. In fact users who know the necessary IP addresses could enter them for each relevant server. But the Commission and the Court (the latter more emphatically) are making an undeniable pragmatic point—that use of the Web would be nightmarishly cumbersome without DNS.

As to caching, the Commission explained that it "provides the capability to perform functions that fall within the information service definition," *2018 Order* ¶ 41, including, but not limited to, "enabl[ing] the user to obtain more rapid retrieval of information through the network," *id*. (quoting Information Technology and Innovation Foundation ("ITIF") Comments at 13, WC Dkt. No. 17-108 (July 17, 2017) (quoting, in turn, *Title II Order* ¶ 372)). Operating a caching service entails running "complex algorithms to determine what information to store where and in what format," *id*. (quoting ITIF Comments at 13), so that "caching involves storing and retrieving capabilities required by the 'information service' definition," *id*. Thus the Commission added technical detail reinforcing the *Brand X* Court's statements as to caching. *See* 545 U.S. at 999–1000.

The Commission then summarized these points, again in terms resonating with those in which *Brand X* had endorsed the 2002 Cable Modem Order. It argued that "ISPs offer a single, inextricably intertwined information service," *2018 Order* ¶ 49, based in part on the functionalities of DNS and caching. It said that "all broadband Internet access services rely on DNS and commonly also rely on caching by ISPs," *id*. ¶ 48, and contended that DNS and caching should be "understood as part of a single, integrated information service offered by ISPs," *id*. ¶ 50; *see also id*. ¶ 42. It then maintained, drawing on *Brand X*, that "[w]here * * * a service involving transmission inextricably intertwines that transmission with information service capabilities—in the form of an integrated information service—there cannot be 'a "stand-alone" offering of telecommunications * * * ,'" *id*. ¶ 53 (quoting *Brand X*, 545 U.S. at 989), in line with the Commission's stance in *Brand X*. "[A]n offering like broadband Internet access service that 'always and necessarily' includes integrated transmission and information service capabilities * * * [is] an information service." *Id*. ¶ 55 (quoting *Brand X*, 545 U.S. at 992).

C. Objections to the Classification

Petitioners raise numerous objections aimed to show that the Commission's reliance on DNS and caching for classifying broadband as an "information service" is unreasonable at *Chevron*'s second step. We find them unconvincing.

1. "Walled Garden" Reading of *Brand X*

First, to short-circuit the Commission's reliance on *Brand X*, Petitioners try to characterize the Court's reasoning in that case as dependent on a vision of Internet providers as offering mainly access to their "walled gardens." They assert that in *Brand X* "the Court was focused on the [Broadband Internet

Access Service ("BIAS")] providers' add-on information services, such as ISP-provided e-mail," and that "the Court had no occasion to consider the proper classification of a service combining telecommunications with nothing more than DNS and caching." Mozilla Br. 42. This reading is unpersuasive because it airbrushes out the lengthy discussion summarized above in which the Court finds "reasonable" the Commission's "information-service" classification even where "a consumer goes beyond [walled garden] offerings and accesses content provided by parties other than the cable company," *Brand X*, 545 U.S. at 998—by virtue of the functionalities of DNS and caching, *see id*. at 998–1000. We thus reject Petitioners' attempt to discredit the Commission's sensible reliance on *Brand X*'s treatment of DNS and caching. *See, e.g.*, *2018 Order* ¶¶ 10, 34, 41, 51; *see also* Part I.C.4 *infra* (addressing Petitioners' related claims in functional integration context).

2. "Telecommunications Management" Exception

Petitioners assert that DNS and caching fall under the "telecommunications management" exception ("TME") and so cannot be relied on to justify an "information service" classification. *See* Mozilla Br. 43–46. We find that Petitioners' arguments do not hold up, either because they rest on a misreading of *Brand X* and *USTA* or do not adequately grapple with the Commission's reasonable explanation as to why DNS and caching fall outside that exception. *See 2018 Order* ¶¶ 36–38, 42–44. Our discussion here will be quite involved in part because *Brand X* did not directly confront whether DNS and caching may fall within the TME. *See Brand X*, 545 U.S. at 999 n.3.

In deciding whether to slot DNS and caching under the TME the Commission confronted "archetypal *Chevron* questions[] about how best to construe an ambiguous term in light of competing policy interests." *City of Arlington v. FCC*, 569 U.S. 290, 304 (2013). "[I]f the implementing agency's construction is reasonable, *Chevron* requires a federal court to accept the agency's construction of the statute, even if the agency's reading differs from what the court believes is the best statutory interpretation." *Brand X*, 545 U.S. at 980. And when an agency changes course, as it did here, it "must show that there are good reasons for the new policy," but "it need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one." *USTA*, 825 F.3d at 707 (quoting *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009)). The Commission clears this bar.

a. The Commission's Interpretation

To begin with, Petitioners misconstrue *USTA*. As they do persistently, they gloss passages that find parts of the Title II Order to be *permissible* readings of the statute as *mandating* those readings—when the passages plainly do not do so. A case in point is the treatment of the TME. Petitioners say that "[t]his Court has *already agreed* that DNS and caching fall within the terms of the telecommunications management exception." Mozilla Br. 43 (emphasis added) (citing *USTA*, 825 F.3d at 705). Yet all we said in *USTA* was that we were "unpersuaded" that the FCC's "use of the telecommunications management exception was * * * unreasonable." *USTA*, 825 F.3d at 705. The Title II Order, in other words, adopted a permissible reading, though not a required one. This holding in no way bars the Commission from adopting a contrary view now—so long as it adequately justifies that view, as we find it has.

Despite Petitioners' objections, we find that the 2018 Order engages in reasonable line-drawing for purposes of administering this amorphous exception. Relying on judicial precedent, Department of Justice policy (developed pursuant to its duty to see that the settlement of its antitrust suit against AT&T was lawfully implemented), and prior Commission statements, the 2018 Order seems to envision a continuum with two poles: a user-centered pole and network management-centered pole. It locates a given service on the continuum and classifies it as falling within or outside the TME according to which pole it appears closest to. If a service is "directed at * * * customers or end users," *2018 Order* ¶ 36 (quoting *United States v. Western Elec. Co.*, No. 82-0192, 1989 WL 119060, at *1 (D.D.C. Sept. 11, 1989)), or benefits users "in significant part," *id.* ¶ 38, or "predominantly," *id.* ¶ 42, it does not call for TME classification. We view this construction as an adequately justified departure from the Title II Order's understanding of the TME in the face of a dauntingly ambiguous provision with inevitably fuzzy borderline cases and complex and possibly inconsistent (or at least orthogonal) policy implications.

Given the Commission's approach, it need not—and does not—deny that even those services properly classed under the TME benefit end users *in some respect*. It would be folly to deny as much given that the raison d'être of ISPs is to serve their customers. As one commenter notes, "To maintain * * * that something that is 'useful' to an end user cannot fall under the management exception is absurd, as the entire purpose of broadband is to be useful to end users * * * ." Public Knowledge Reply at 37, J.A. 2857; *see 2018 Order* ¶ 38 n.135; *see also* Mozilla Reply Br. 19–20.

But a rule involving a spectrum or continuum commonly requires a decider to select a point where both ends are in play. Night and day are distinguishable, however difficult classification may be at dawn and dusk. The Commission's way of construing the TME and applying its continuum-based approach is not inconsistent with Public Knowledge's point that "the entire purpose of broadband is to be useful to end users." The Commission notes that its "focus remains on the purpose or use of the specific function in question and not merely whether the resulting service, as a whole, is useful to end-users." *2018 Order* ¶ 38 n.135. While DNS might play a role in managing a network, the Commission reasonably concluded that DNS "is a function that is useful and essential to providing Internet access for the ordinary consumer," *id.* ¶ 36, and that these benefits to the end user predominate over any management function DNS might serve. The Commission says that caching "benefits" users through "rapid retrieval of information from a local cache," *id.* ¶ 42, and can also be used "as part of a service, such as DNS, which is *predominantly* to the benefit of the user (DNS caching)," *id.* (emphasis added). And it gives examples of services that in its view are genuine TME services: Simple Network Management Protocol ("SNMP"), Network Control Protocol ("NETCONF"), or Data Over Cable Service Interface Specification ("DOCSIS") bootfiles for controlling the configuration of cable modems. *Id.* ¶ 36 (quoting Sandvine Comments at 5, WC Dkt. No. 17-108 (July 14, 2017)). It observes that the Title II Order had essentially proceeded in a contrary manner, finding that the management-centered functionality of DNS predominated, so as to render it TME-worthy. "Although confronted with claims that DNS is, *in significant part*, designed to be useful to end-users rather than providers, the *Title II Order* nonetheless decided that it fell within the [TME]." *Id.* ¶ 38 (emphasis added). The Commission reasonably declined to follow this route (partly, as we shall see below, because it believed that it would cause the exception to swallow the rule in ways antithetical to its reading of Commission precedent and the Act's goals). It chose a different, and reasonable, alternative.

b. Modification of Final Judgment Precedent

In adopting its approach to the TME, the Commission rested on precedent from a line of judicial decisions interpreting the Modification of Final Judgment ("MFJ"), a consent decree entered into between the Department of Justice and AT&T in 1982 as part of the breakup of the AT&T monopoly to create a set of independent regional Bell Operating Companies ("BOCs"). *See United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131, 225–232 (D.D.C. 1982) (subsequent history omitted). This decree, which modified a 1956 consent decree and final judgment, spawned a long line of cases in which District Court Judge Harold Greene resolved conflicts over the decree's limits on the BOCs' permissible business ventures. The cases interpreted a broad array of terms of the consent decree, entered many modifications, and granted waivers, balancing a need to "avoid anticompetitive effects" (which might flow from BOC exploitation of their monopolies in telecommunications to dominate related services) with a hope of "bring[ing] th[e] nation closer to enjoyment of the full benefits of the information age" by facilitating "the efficient, rapid, and inexpensive dissemination of * * * information." *United States v. Western Elec. Co.*, 714 F. Supp. 1, 3, 5 (D.D.C. 1988), *aff'd in part, rev'd in part*, 900 F.2d 283 (D.C. Cir. 1990).

The Commission makes a good case for the persuasiveness of this precedent. First, the definition of "information service" in the 1996 Act—including the TME—is lifted nearly verbatim from the 1982 consent decree. *Compare American Tel. & Tel. Co.*, 552 F. Supp. at 229, *with* 47 U.S.C. § 153(24). Second, in the case on which the Commission principally relies, the court was interpreting the MFJ's TME equivalent and adopted a reading in keeping with its understanding of Department of Justice policy at the time.

In *Western Electric*, Judge Greene addressed the question whether the consent decree permitted the BOCs to offer relay services for customers who use "telecommunications devices for the deaf" ("TDDs"). 1989 WL 119060, at *1. The court held that, because TDD services involve "transformation of information"—"the very crux and purpose of the TDD relay services"—they "f[e]ll squarely" within the definition of "information services," which covers the capability to "transform[] * * * information." *Id*. Accordingly offering the service ran afoul of Section II(D)(1) of the decree, *see American Tel. & Tel. Co.*, 552 F. Supp. 131 at 227, banning the BOCs from providing information services, *see Western Electric*, 1989 WL 119060, at *1. The BOCs argued as a fallback position that TDD services fell within the TME. *Id.* Judge Greene made quick work of this, finding it "patently obvious that what is being sought * * * does not involve the internal management of Bell Atlantic" and hence was not TME-eligible. *Id.* In support of this conclusion the court explained, relying on the Department of Justice *Competitive Impact Statement*, that the TME "was *directed at* internal operations, not at services for customers or end users." *Western Elec. Co.*, 1989 WL 119060, at *1 (emphasis added) (citing Department of Justice, *Competitive Impact Statement in Connection with Proposed Modification of Final Judgment*, Notice, 47 Fed. Reg. 7170, 7176 (Feb. 17, 1982)).

It is this language that the Commission expressly invokes to ground its interpretation of the TME, stating that it (the Commission) "interpret[s] the concepts of 'management, control, or operation' in the [TME] consistent with" Judge Greene's analysis. *See 2018 Order* ¶ 36. And as we have noted above, the Commission rightly acknowledges that being "directed at" one end of a spectrum does not rule out embodying certain aspects from the other end. The agency was within its rights to treat Judge Greene's analysis—which in essence interpreted the statutory provision at issue and squared with the government's position supporting enforcement of the antitrust decree—as support for its construction of the TME. (As no party objected to the BOCs' offering of TDD services, and BOC entry into this activity posed no anticompetitive risk, the court granted a waiver for their provision. *See Western Elec. Co.*, 1989 WL 119060, at *2.)

The Commission offers an added reason to put stock in the MFJ precedent: It believed that Petitioners' approach risked causing the TME exception to swallow the "information services" category. It said, plausibly, that such an "expansive view" of the TME assigns it an outsized role, thereby "narrowing * * * the scope of information services" in a way that clashes with the Commission's pre-1996 Act approach to cabining the "basic services" category, *see 2018 Order* ¶ 38 & n.135, and the 1996 Act's imperative to "preserve the vibrant and competitive free market * * * for the Internet * * * unfettered by Federal or State regulation," *id.* ¶ 39 (quoting 47 U.S.C. § 230(b)(2)), which the Commission permissibly uses as a rationale to interpret a vague provision in a way that limits regulatory burdens. In sum, the Commission lawfully construed an ambiguous statutory phrase in a way that tallies with its policy judgment, as is its prerogative.

Petitioners' objections to the Commission's classification of DNS and reliance on the MFJ do not convince us.

Many of Petitioners' objections pillory a straw man. They state that "[t]he statute asks whether a function is used 'for the management, control, or operation of a telecommunications system,' not whether the function also benefits consumers." Mozilla Br. 45 (quoting 47 U.S.C. § 153(24)). But, as noted before, the Commission need not deny, for example, that "configuration management"—a function it slots under the

TME, *see 2018 Order* ¶ 36 & n.126—benefits end users in some respect. *See* Mozilla Reply Br. 19–20. It can simply say that DNS/caching and (for example) configuration management, respectively, adjoin opposite ends of the spectrum, one meriting inclusion in the TME and the other not.

Petitioners observe that DNS renders broadband Internet access "more efficient in ways that are generally invisible to users," a point that misses its mark entirely, or at best equivocates on the key point at issue. Mozilla Br. 45. While DNS is "invisible" in the sense that it is "under the hood," so to speak, it remains "essential to providing Internet access for the ordinary consumer." *2018 Order* ¶ 36. Using a certain "configuration" tool or protocol might, say, make Internet traffic a bit faster or slower in the way that a metro's use of varying rail technologies might influence train speeds. But an absence of DNS would be something different altogether, hobbling ordinary users in navigating the Web, akin to a total absence of signage in a metro. Signage, unlike DNS, is of course quite apparent, but their user-centered purposes are alike for all practical purposes. (We address in Part I.C.4 Petitioners' separate argument that users' ability to obtain DNS from providers other than their ISPs precludes a finding of functional integration.) So the sense in which DNS is "invisible" to many end users is fully consistent with the agency's rationale for locating it nearer to the user-centric pole—and hence beyond the TME.

Finally, an argument made by amici on behalf of Petitioners as to DNS arguably aligns with claims made by the Commission's amici and so may work in the agency's favor. Petitioners' amici assert in the context of functional integration (an issue to which we turn in Part I.C.4) that broadband Internet access is not functionally integrated with DNS because broadband access works perfectly well *without* DNS. "Internet architects deliberately created DNS to be entirely independent from the IP packet transfer function," Jordan/Peha Amicus Br. 17, and "a BIAS provider's DNS is an *extraneous capability* * * * not required for the core service," *id*. at 17–18 (emphasis added). But if DNS is "extraneous" to operating the network, it is at least debatable whether DNS is used in "the management, control, or operation of a telecommunications system or the management of a telecommunications service." Amici for the Commission make related points, observing that "[a]n app's DNS translation transaction ends before the BIAS transmission begins," "DNS transactions do not provide the BIAS provider with information about the best path to the destination," and they "do not have the power to either optimize or impair the BIAS provider network." Bennett *et al*., Amicus Br. 13. Thus it is at least reasonable not to view DNS as a network management tool. *Id*. at 13–14. Granted, Jordan and Peha remark that running DNS helps an ISP "reduce[] the volume of DNS queries passing through its network." Jordan/Peha Amicus Br. 18. But in the deferential posture of *Chevron* the points quoted above by Jordan/Peha seem in part to support the Commission's reading of the record (consistent with Bennett *et al*.) as showing that, whereas "little or nothing in the DNS look-up process is designed to help an ISP 'manage' its network," *2018 Order* ¶ 36, DNS is "essential to providing Internet access for the ordinary consumer," *id*., for whom "DNS is a must," *id*. ¶ 34 (quoting *Brand X*, 545 U.S. at 999).

The Commission extends the same logic to caching, though matters here are less obvious. It explains that caching "does not merely 'manage' an ISP's broadband Internet access service and underlying network," but "enables and enhances consumers' access to and use of information online." *2018 Order* ¶ 42. It makes clear that ISP caching service is not just "instrumental to pure transmission" but, rather, "enhances access to information" by consumers by facilitating "rapid retrieval of information from a local cache or repository." *Id*. As the Title II Order had put it (albeit drawing a different lesson), "caching * * * provide[s] a benefit to subscribers in the form of faster, more efficient service," *id.* ¶ 368 n.1037, by "enabling the user to obtain 'more rapid retrieval of information' through the network," *id*. ¶ 372 (quoting *Cable Modem Order*, 17 FCC Rcd. at 4810 ¶ 17 & n.76); *cf. Brand X*, 545 U.S. at 999–1000 (stating that "[c]acheing [sic] obviates the need for the end user to download anew information from third-party Web sites * * * , thereby increasing the speed of information retrieval").

Granted, some ISPs describe caching in terms indicating that it is a network management practice, and caching can help reduce ISPs' costs. *See* Jordan/Peha Amicus Br. 20–21. But these facts are not determinative. The Commission is entitled to draw its own conclusions based on its (permissible) interpretation of the TME, so long as consistent with the record. Here it has done that. The Commission found (without contradiction in the record) that caching "enables and enhances consumers' access to and use of information online." *2018 Order* ¶ 42. In particular, "[t]he record reflects that without caching, broadband Internet access service would be a significantly inferior experience for the consumer, particularly for customers in remote areas, requiring additional time and network capacity for retrieval of information from the Internet." *Id*. That is so, the Commission maintains, even though encrypted traffic does not use caching, because "truly pervasive encryption on the Internet is still a long way off[] and * * * many sites still do not encrypt." *Id*. at n.147 (citation omitted).

3. Adjunct-to-Basic Precedent

Finally, Petitioners raise a host of objections arising from the Commission's "adjunct-to-basic" precedent, developed in the *Computer Inquiries* orders issued by the Commission. *See In re Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384 (1980) ("*Second Computer Inquiry*").

Because in our view the precedents in this area are murky, raising convoluted questions of grafting older Commission interpretations onto the "information services" definition as applied to broadband Internet service, we find neither side's recounting of adjunct-to-basic precedent fully compelling. Even though Congress's creation of the TME may fairly be said to have "[t]rack[ed]" adjunct-to-basic in certain respects, *USTA*, 825 F.3d at 691, the Commission reasonably refused to be bound by facets of the analogy filtered through the lens of the Title II Order. The Commission's chief task was to interpret the TME's statutory text in a coherent, workable fashion and offer a reasonable rationale for altering its course, not to demonstrate that its reading is a tight fit with every aspect of adjunct-to-basic precedent. In fact, as we will see, that precedent is not the seamless web of Petitioners' vision.

Petitioners try to catch the Commission in a contradiction in a two-step approach. The agency, as we have seen, locates DNS and caching outside the TME. First, Petitioners invoke Commission precedent seeming to suggest that all or most adjunct-to-basic services would fall under the TME. Second, they observe that—whereas paradigmatic examples of adjunct-to-basic services such as speed dialing and call forwarding are undeniably useful to consumers and, per step one, belong under the TME—the Commission can give no satisfactory explanation for excluding DNS and caching from the TME. In particular, Petitioners and commenters analogize DNS to ordinary directory assistance, which the Commission has dubbed adjunct-to-basic, since both services help direct users to their chosen endpoints. *See, e.g.*, Mozilla Br. 46; Open Technology Institute ("OTI") New America Comments at 33–34, J.A. 1631–1632. Whence the difference?

To make sense of these claims and the Commission's response, we need to review the basic terms. To preview, even if there are incongruities in the Commission's treatment of the TME vis-à-vis the adjunct-to-basic idea, we see them as byproducts of drawing imperfect analogies.

The FCC created a distinction between "basic services" and "enhanced services" in its *Second Computer Inquiry*, with the latter concept defined as follows:

> [T]he term "enhanced service" shall refer to services[] offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information. Enhanced services are not regulated under Title II of the Act.

Second Computer Inquiry, 77 F.C.C.2d at 498; *see also* 47 C.F.R. § 64.702(a).[1] In contrast,

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[1] Note that the definition of "enhanced services" is restricted to services "offered over common carrier transmission." *Second Computer Inquiry*, 77 F.C.C.2d at 498. For this reason, among others, at least one scholar has argued that caution is warranted in

> In offering a basic transmission service * * * a carrier essentially offers a pure transmission capability over a communications path that is virtually transparent in terms of its interaction with customer supplied information.

Second Computer Inquiry, 77 F.C.C.2d at 420 ¶ 96; *see also id*. at 419–420 ¶ 95 ("[A] basic transmission service should be limited to the offering of transmission capacity between two or more points suitable for a user's transmission needs and subject only to the technical parameters of fidelity or distortion criteria, or other conditioning.").

The most contested category is a third: adjunct-to-basic. It arose to accommodate the reality that providers of ordinary telephone services wished to offer new technologies facilitating that service—technologies that would quite plainly fall under the "enhanced services" definition, though ordinary phone service was indisputably a "basic service." To square the circle and avoid complexities of hybrid treatment, the Commission created an adjunct-to-basic bucket:

> In the [1985] *NATA Centrex* proceeding, the Commission defined adjunct services as services that 'facilitate the provision of basic services without altering their fundamental character,' and determined that such services should be treated as basic services

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drawing overly-neat analogies between "enhanced services" and "information services" on the one hand, and "basic services" and "telecommunications services," on the other. *See* Robert Cannon, *The Legacy of the Federal Communications Commission's Computer Inquiries*, 55 Fed. Comm. L.J. 167, 191–192 (2003) (explaining why all "enhanced services" are "information services" whereas not all "information services" are necessarily "enhanced services").

> for purposes of the *Computer II* rules, even though they might fall within possible literal readings of the definition of enhanced services.

In re Bell Operating Companies, Petitions for Forbearance from the Application of Section 272 of the Commc'ns Act of 1934, as Amended, to Certain Activities, 13 FCC Rcd. 2627, 2639 ¶ 18 (CCB 1998) ("*272 Forbearance Order*") (citation omitted).

The Commission has set out two necessary criteria for a service to qualify as adjunct-to-basic:

> [C]arriers may use some of the processing and storage capabilities within their networks to offer optional tariffed features as 'adjunct to basic' services, if the features: (1) are intended to facilitate the use of traditional telephone service; and (2) do not alter the fundamental character of telephone service.

In re Establishment of a Funding Mechanism for Interstate Operator Servs. for the Deaf, 11 FCC Rcd. 6808, 6816–6817 ¶ 16 (1996) ("*Operator Services Order*").

Which services qualify as adjunct-to-basic? The answer covers a remarkably wide gamut, including "*inter alia*, speed dialing, call forwarding, computer-provided directory assistance, call monitoring, caller i.d., call tracing, call blocking, call return, repeat dialing, and call tracking, as well as certain Centrex features." *In re Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Commc'ns Act of 1934, as Amended*, 11 FCC Rcd. 21905, 21958 ¶ 107 n.245 (1996) ("*Non-Accounting Safeguards Order*"). The same goes for "communications between a subscriber and the network itself for call setup, call routing, call cessation, calling or called party identification, billing, and accounting," *In re N. Am. Telecommunications Ass'n Petition for Declaratory Ruling Under Section 64.702 of the Commission's Rules Regarding the Integration of Centrex, Enhanced Servs., and Customer Premises Equip.*, 3 FCC Rcd. 4385, 4386 ¶ 11 (1988) ("*Centrex Order*") (citation omitted), and prepaid calling cards with built-in advertisements, *see American Tel. & Tel. Co. v. FCC*, 454 F.3d 329, 331 (D.C. Cir. 2006)—though not "talking yellow pages" with advertisements, *see id*. at 333; *see also Northwest Bell Tel. Co. Petition for Declaratory Ruling*, 2 FCC Rcd. 5986, 5988 ¶ 20 (1987).

Having laid out the key terms, we return to the parties' claims. We are satisfied with the Commission's prioritization of the MFJ precedent and its way of squaring the adjunct-to-basic precedent with its treatment of DNS and caching.

First, as explained above, the Commission had adequate grounds to focus on the 1982 MFJ's definition of "information service," which the 1996 Act took over virtually word for word.

Second, devising a coherent and workable test for applying the statutory TME permissibly takes precedence in the Commission's analysis over attempts to reach synthetic conformity between adjunct-to-basic precedent and the 1996 Act's terms. As the Court said in *Brand X*, we should "leav[e] federal telecommunications policy in this technical and complex area to be set by the Commission, not by warring analogies," 545 U.S. at 992, whether crafted by courts, litigants, or Commissions past.

Third, the Commission's historical approach to adjunct-to-basic has hardly been clear-cut in its own right. As we have previously said, "it is difficult to discern any clear policy" in the Commission's application of its "various formulations" of what counts as adjunct-to-basic, so that "[t]he Commission's rulings reflect a highly fact-specific, case-by-case style of adjudication." *American Tel. & Tel. Co.*, 454 F.3d at 333. Given this lack of cohesion, we can hardly fault the current Commission for discounting the persuasive force of adjunct-to-basic analogies in interpreting and applying the 1996 Act's TME in light of its policy views.

Furthermore, the Commission's definition of adjunct-to-basic services does not, as a linguistic matter, force the Commission's hand in interpreting the TME. Just because an adjunct-to-basic service like speed dialing or directory assistance "facilitate[s]" telephone service, *USTA*, 825 F.3d at 691, it hardly follows automatically that it also qualifies under the text of the TME, since it requires no contortion of English to say that (for example) directory assistance is, by and large, not used to "manage[]" or "control" or "operat[e]" a telecommunications system or service, 47 U.S.C. § 153(24).

So the Commission had ample basis to dub the adjunct-to-basic line of analysis "potentially ambiguous precedent," *2018 Order* ¶ 39, and depart from what it regarded as "loose analogies" devised in the Title II Order. "Because broadband Internet access service was not directly addressed in pre-1996 Act *Computer Inquiries* and MFJ precedent, analogies to functions that were classified under that precedent must account for potentially distinguishing characteristics" as they relate to "technical details" and "regulatory backdrop." *Id.* These claims are not unreasonable. Whatever the Commission's prior views on the relationship between basic services and *their* adjuncts, it is reasonable for the Commission to say that that rubric need not transfer over neatly to what it claims *is not* a basic service—broadband Internet access. *See id.* ¶ 40 n.139. Hence there is little basis for the claim that adjunct-to-basic lore requires the Commission to jettison the lesson of Judge Greene's TDD ruling. *See Western Elec. Co.*, 1989 WL 119060, at *1; *see also* Mozilla Br. 44.

Fourth, the Commission identifies precedent from the *Computer Inquiries* themselves to support a reading of the TME as requiring location of particular services on a spectrum running between utility to carriers and utility to end users. A ruling invoked by the 2018 Order allowed BOCs to enable the tracing of Emergency 911 ("E911") calls to the right location. The FCC's Common Carrier Bureau said:

> Although the "telecommunications management exception" encompasses adjunct services, the storage and retrieval functions associated with the BOCs' automatic location identification databases provide information that is useful to end users, rather than carriers. As a consequence, those functions are not adjunct services and cannot be classified as telecommunications services on that basis.

272 Forbearance Order, 13 FCC Rcd. at 2639 ¶ 18; *see 2018 Order* ¶ 38 n.131. While the Title II Order had sought to distinguish this precedent on the ground that the benefit of E911 service was "unrelated to telecommunications," *Title II Order* ¶ 368, it does not seem unreasonable for the current 2018 Order to assume a broader view of telecommunications in its invocation of this precedent.

Fifth, in any case, we are satisfied with the agency's refusal to treat DNS like speed dialing, call forwarding, and directory assistance.

As already noted, the Commission has adequate grounds not to hold its interpretation of the TME hostage to a chimerical hope for a perfect match-up with adjunct-to-basic precedent, in part because the regulatory history is so convoluted as to render the likelihood of a "perfect" matchup remote. So even if the Commission's interpretation of the TME comes at the cost of certain incongruities with the concept of adjunct-to-basic services, it reasonably regards alignment with the text and purposes of the 1996 Act, and the unifying policy vision animating the 2018 Order, as more weighty factors. *See 2018 Order* ¶ 39.

Moreover, implicit in the Commission's analysis is a recognition of a key difference between the above services and, at the least, DNS. Those other services are plausibly described as *adjunct*-to-basic, i.e., "ancillary" and "optional" in relation to telephone service. *Centrex Order*, 3 FCC Rcd. at 4389 ¶ 30 (quoting *Second Computer Inquiry*, 77 F.C.C.2d at 421 ¶ 98); *cf. 2018 Order* ¶ 40 n.138. Not so, the Commission says, for DNS, which "[f]or an Internet user * * * is a *must*." *2018 Order* ¶ 34 (quoting *Brand X*, 545 U.S. at 999) (emphasis added) (internal quotation mark omitted). So DNS might well be seen to "alter the fundamental character of [the] service," and would thus fail to satisfy one of the two criteria *specified* by the Commission (and quoted above) for a service to qualify as adjunct-to-basic. *Operator Services Order*, 11 FCC Rcd. at 6816–6817 ¶ 16. This seems to distinguish DNS from such functions as speed dialing, call forwarding, and directory assistance, and thus square the Commission's current treatment of DNS with the Commission's prior treatment of those services as adjunct-to-basic, consistent with Judge Greene's treatment of a certain type of directory assistance as falling within the TME. *See Western Elec. Co.*, 1989 WL 119060, *1 n.7; Mozilla Br. 44–45. (While some adjunct-to-basic services seem non-optional in certain respects, like "communications between a subscriber and the network itself for call setup * * * [and] call cessation," *Centrex Order*, 3 FCC Rcd. at 4386 ¶ 11, this point simply reinforces the miscellaneous nature of the adjunct-to-basic category, where "it is difficult to discern any clear policy," *American Tel. & Tel. Co.*, 454 F.3d at 333.)

We find the above considerations sufficient to uphold the agency's position and hence do not address analogies to other MFJ precedents on technologies and services. *See 2018 Order* ¶¶ 35, 43–44. Even if Petitioners offer plausible interpretations of rulings on address translation and third-party storage services provided by the BOCs, we believe the Commission has given a sufficiently sturdy justification for treating DNS and caching as non-TME services apart from other MFJ-linked analogies. It has set forth a plausible reading of the highly ambiguous TME, adequately explained its basis for giving more credence to judicial MFJ precedent than to the *Computer Inquiries* in this context, and made a reasonable case as to why DNS and caching need not be classed under the TME.

4. Functional Integration

Petitioners then open a new—and final—line of attack: *Even if* DNS and caching are "information services," the Commission's reliance on them to classify broadband as an "information service" was still unreasonable. Mozilla Br. 46. They make three arguments in support of this thesis, but none holds water. As a threshold matter, we note that *Brand X* already held it reasonable for the Commission to conclude that DNS and caching are information services functionally integrated with the offering of "Internet access [service]" "to members of the public." *Brand X*, 545 U.S. at 1000 (quoting *Stevens Report* ¶ 79).

Petitioners first play up the facts that users may obtain DNS from providers other than their ISPs and that caching is not utterly indispensable. According to them, because "a user can easily configure her computer to use a third-party DNS server and content can be delivered even without caching," Mozilla Br. 46, especially in the context of encrypted communications that occur without caching, *id*. at 46–47, it follows that DNS and caching are not "inextricably intertwined with the transmission component" of broadband, *id*. at 46. These facts ostensibly yield a "contradict[ion]" in the agency's position, since one's ISP-provided DNS and caching are not "indispensable" after all. *Id*.

We find the objection misguided. As the Commission explained, "[T]he fact that some consumers obtain [DNS and caching] from third-party alternatives is not a basis for ignoring the capabilities that a broadband provider actually 'offers.'" *2018 Order* ¶ 50. Given the ambiguity in the term "offe[r]," *see Brand X*, 545 U.S. at 989–990, the Commission's preferred reading of that term rather than the Title II Order's "narrower interpretation," *2018 Order* ¶ 50—which would foreclose the Commission's view quoted above—is permissible. In elucidating the ambiguity, *Brand X* said that "[t]he entire question is whether the products here are functionally integrated (like the components of a car) or functionally separate (like pets and leashes). That question turns not on the language of the Act, but on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance." 545 U.S. at 991. The agency reasonably concluded that, notwithstanding the availability of alternative sources of DNS, a market where "the vast majority of ordinary consumers"—"[a]pproximately 97 percent"—"rely upon the DNS functionality provided by their ISP," *2018 Order* ¶ 34 & n.109 (citation omitted in second quotation), as "part and parcel of the broadband Internet access service," *id*. ¶ 42, meets *Brand X*'s requirements for functional integration. *Chevron* licenses these interpretive steps.

Second, Petitioners focus on what they dub the "relative importance" of the "inextricably intertwined" components at play—DNS/caching and high-speed transmission. Mozilla Br. 47. The transmission aspect, they say, overshadows DNS and caching in "importance," where that concept is understood in terms of what "consumers focus on," *id*. (quoting *USTA*, 825 F.3d at 698), and what aspect has "dominance in the broadband experience," *id*.; *see also* Mozilla Reply Br. 24. The supposedly miniscule "importance" of DNS and caching in consumers' minds when using the Web means that those functionalities cannot be "inextricably intertwined" with high-speed transmission—and hence broadband cannot be an "information service" based on DNS and caching services.

These claims are unavailing. To begin with, Petitioners' invocation of *USTA* is yet again misplaced. There we said simply that the Commission *reasonably* determined what "consumers focus on," *USTA*, 825 F.3d at 698, without holding that that is the only permissible view. Moreover, nowhere does *Brand X* say that a finding of "functional integration" requires a finding as to "dominance" or "relative importance" in the sense Petitioners imply. Average consumers, presumably, are no less in the dark now about the inner workings of DNS and caching than they were in 2005 when the Court decided *Brand X*. Yet that did not keep the Court from finding reasonable the FCC's position that DNS and caching were functionally integrated with high-speed transmission. However "consumer perception" might be understood, it is not unreasonable to interpret it as reflected in a consumer's *use* of the offered service as a whole and the functionalities that make that possible, even if the consumer has no inkling of what is "under the hood." As *Brand X* said, "Seen from the consumer's point of view, the Commission concluded, cable modem service is not a telecommunications offering because the consumer *uses* the high-speed wire always in connection with the information-processing capabilities provided by Internet access * * * ." 545 U.S. at 988 (emphasis added). So it is perfectly sensible for the agency to retort that "[w]hile the typical broadband subscriber may know little or nothing about DNS or caching, that subscriber would keenly feel the absence of those functions" in everyday Web use. Commission Br. 43.

Petitioners reply that the argument proves too much, as Web browsers and search engines are also essential to the consumer's Internet experience. *See* Mozilla Reply Br. 24. But quite apart from the fact that the role of ISP-provided browsers and search engines appears very modest compared to that of DNS and caching in ISPs' overall provision of Internet access, Petitioners are in a weak posture to deny that inclusion of "search engines and web browsers" could support an "information service" designation, *id*., since those appear to be examples of the "walled garden" services that Petitioners hold up as models of "information service"-eligible offerings in their gloss of *Brand X*.

Finally, Petitioners contend that even if DNS and caching *were* functionally integrated with transmission, that "does not automatically lead to an information service classification." Mozilla Br. 47. "The FCC could not have reasonably concluded that a drop of DNS and caching in a sea of transmission transformed the service into something that could properly be called an information service." *Id*. The idea seems to be that ISPs now offer fewer "walled garden" services of the kind consumers mostly care about than they did in the era of the 2002 Cable Modem Order and *Brand X*, so that basing an "information service" designation on DNS and caching alone is currently as dubious as saying that a few golden threads interwoven in an ordinary sweater turn the sweater into a golden garment. "Congress could not have intended inclusion of two minor auxiliary information services to transform the classification of what is otherwise overwhelmingly telecommunications." Mozilla Reply Br. 25.

But the Supreme Court has never imposed or even hinted at such a quantitative standard to determine whether inextricably intertwined functionalities can justify an "information service" classification. We see no basis for launching such a notion on our own. Had the Court thought along Petitioners' lines, it could have sided with challengers in *Brand X* by saying that—when users wander beyond ISPs' proprietary services—the quantum of ISP-offered "information services" shrinks so greatly in proportion to the transmission aspect that in that realm they are accepting an "offering" of standalone telecommunications service. The Court took the opposite tack, marshaling DNS and caching as examples of "information services" operative when users "access[] content provided by parties other than the cable company," *Brand X*, 545 U.S. at 998, thereby rendering the Commission's classification "reasonable," *id*. at 1000.

Petitioners try to get mileage from a hypothetical in *Brand X* involving the bundling of telephone service with voicemail, *see* Mozilla Br. 47, but the attempt falls far short. Challengers in *Brand X* had argued that, on the FCC's theory in that case, a telephone-plus-voicemail bundle would have to be classified as an "information service," making it far too easy to evade the reach of Title II. The Court declined to "decide whether a construction that resulted in these consequences would be unreasonable"—because the hypothetical misfired. *Brand X*, 545 U.S. at 997. Its result "d[id] not follow from the construction the Commission adopted," *id*., which was "more limited than respondents [had] assume[d]," *id*. at 998. That is, the FCC's position "*d*[*id*] *not* leave all information-service offerings exempt from mandatory Title II regulation." *Id*. at 997 (emphasis added). A landline telephone service provider could not—on the FCC's theory as interpreted by the Court—get away with "packag[ing] voice mail [or a time-of-day announcement] with telephone service" and on that basis take landline service out of Title II. *Id*. at 998. That gimmick must fail because add-ons like voicemail and time-of-day announcements are separable from "pure transmission" in a way that is not true for DNS and caching in relation to broadband. Whereas landline service "transmits information independent of the information-storage capabilities provided by voice mail," and is "only trivially dependent on the information service the [time-of-day] announcement provides," *id*., broadband involves "functional[] integrat[ion]" between "high-speed transmission," which is "necessary to provide Internet service," with "further processing of information," *id*., e.g., in the form of DNS and caching, *see id*. at 998–1000. The *Brand X* Court, in short, made plain that the challengers' hypothetical was simply irrelevant. Since Petitioners develop no credible explanation as to why the current Commission's theory is any more vulnerable to the hypothetical discredited by *Brand X*, we can see no merit in their criticism.

To summarize, just as the *USTA* petitioners "fail[ed] to provide an unambiguous answer to" whether "broadband providers make a standalone offering of telecommunications," *USTA*, 825 F.3d at 702, Petitioners have not done so here. Nor have they shown the Commission's stance to be unreasonable. We conclude, under the guidance of *Brand X*, that the Commission permissibly classified broadband Internet access as an "information service" by virtue of the functionalities afforded by DNS and caching.

II. Mobile Broadband Classification

In keeping with its classification of broadband Internet as an "information service" not subject to Title II, the Commission classified mobile broadband as a "private mobile service"—a classification that under the statute automatically exempted it from common carriage treatment—just as the sole alternative classification available under the statute would have automatically *required* common carriage treatment. *See* 47 U.S.C. § 332(c)(1) & (2). We uphold this classification as reasonable under *Chevron*. As we said in *USTA* (and as the Title II Order and Petitioners recognize), the Commission has compelling policy grounds to ensure consistent treatment of the two varieties of broadband Internet access, fixed and mobile, subjecting both, or neither, to Title II.

A. The 2018 Order's Provisions

Title III of the Act, as amended by Congress in 1993, Pub. L. No. 103-66, 107 Stat. 312, establishes two mutually exclusive categories of mobile services—"commercial" and "private." Because the latter is defined negatively, as "*any* mobile service * * * that is *not* a commercial service or [its] functional equivalent," 47 U.S.C. § 332(d)(3) (emphases added), the key definition is that of "commercial mobile service." And the statute defines it as "any mobile service * * * that is provided for profit and makes interconnected service available" to the public. *Id.* § 332(d)(1). "[I]nterconnected service," in turn, is a "service that is interconnected with the public switched network (as such terms are defined by regulation by the Commission) * * * ." *Id.* § 332(d)(2).

The 2018 Order readopted definitions of "public switched network" and "interconnected service" that the Commission had set out in the Second CMRS Report and Order of 1994, *2018 Order* ¶ 74; *see In re Implementation of Sections 3(n) and 332 of the Commc'ns Act; Regulatory Treatment of Mobile Servs.*, 9 FCC Rcd. 1411, 1516–1517 § 20.3 (1994) ("*Second CMRS Report and Order*"), and maintained until the Title II Order of 2015.

First, the Commission now defines "the public switched network" as:

> [A]ny common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the [ten-digit] North American Numbering Plan [NANP] in connection with the provision of switched services.

2018 Order ¶ 66 (second alteration in original); *see* 47 C.F.R. § 20.3; *see also CMRS Report and Order*, 9 FCC Rcd. at 1517 § 20.3. The Title II Order, by contrast, modified that definition by inserting the phrase "or public IP addresses":

> [T]he network that includes any common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the North American Numbering Plan, *or public IP addresses*, in connection with the provision of switched services.

Title II Order ¶ 391 (second alteration in original) (emphasis added). This insertion assisted the Title II Order in making a case that mobile broadband was "interconnected" with the newly redefined public switched network.

As for "interconnected service," the Commission now defines it as "a service 'that gives subscribers the capability to communicate to or receive communication from *all* other users on the public switched network.'" *2018 Order* ¶ 77 (quoting 47 C.F.R. § 20.3); *see Second CMRS Report and Order*, 9 FCC Rcd. at 1516 § 20.3. Restoring "all" was again a reversion to the agency view since the 1994 Second CMRS Report and Order. *See 2018 Order* ¶ 77. The Title II Order had deleted that word, explaining the change at least in part as a recognition of the already accepted view that services reaching North American Numbering Plan ("NANP") numbers generally could meet Section 332(d)(1)'s requirement of interconnectedness despite the existence of some blocked NANP numbers (such as 900 numbers). *See Title II Order* ¶ 402 & n.1172.

Finally, the Commission readopted the Second CMRS Report and Order's "functional equivalence" test, which considers "a variety of factors" in making that determination. *2018 Order* ¶ 83. The "principal inquiry will involve evaluating consumer demand for the service in order to determine whether the service is a close substitute for [a commercial mobile radio service]," which entails "evaluat[ing] whether changes in price for the service under examination, or for the comparable commercial service, would prompt customers to change from one service to the other." *Second CMRS Report and Order*, 9 FCC Rcd. at 1447–1448 ¶ 80.

Viewing these definitions in the policy-driven mode endorsed by *Brand X* (*see, e.g.*, 545 U.S. at 992), the Commission observed: "No one disputes that, consistent with the Commission's previous findings, if mobile broadband Internet access service were a commercial mobile service for purposes of § 332 and were also classified as an information service, such a regulatory framework could lead to contradictory and absurd results." *2018 Order* ¶ 82. As we said in *USTA*, clashing classifications between mobile and fixed broadband services would yield a "counterintuitive outcome" in which a "mobile device could be subject to entirely different regulatory rules depending on how it happens to be connected to the internet at any particular moment." 825 F.3d at 724. Just as the Title II Order strove to avoid a "statutory contradiction" that would arise if mobile broadband were classified differently from broadband Internet, *see Title II Order* ¶ 403, the Commission now opted to treat mobile broadband as a "private mobile service." Parallel classifications, it explained, would "further[] the Act's overall intent to allow information services to develop free from common carrier regulations" and tally with the Commission's policy rationales for classifying broadband as an "information service." *2018 Order* ¶ 82; *see also id*. ¶ 83 n.308; *cf. Wireless Broadband Order* 5919–5921 ¶¶ 48–56 (2007) (explaining importance of avoiding a contradictory outcome in classifying broadband Internet access and mobile broadband). Petitioners accept the general proposition, though with an inverse spin: They say that if we were to reject the Commission's "information service" classification, that refusal *in itself* "would be a powerful factor in favor of concluding that mobile BIAS is a commercial mobile service," because it "would be unreasonable to construe the statute to create * * * a contradiction." Mozilla Br. 79.

Of course the Commission's legitimate policy purposes could not justify its indulging in unreasonable interpretations of the controlling provisions. But it is obliged to interpret the statute as a whole, and interpretations needed to avert "statutory contradiction" (really, self-contradiction) ipso facto have a leg up on reasonableness.

B. Objections to the Classification

We now analyze Petitioners' three specific objections.

1. Meaning of "Public Switched Network"

First, Petitioners protest the Commission's reversion to the pre-Title II Order definition of "the public switched network."

Their initial argument in support of that claim is an entirely misplaced reliance on passages in *USTA* where we rejected challengers' argument "that the statutory phrase 'public switched network' *must* be understood as if Congress had used the phrase 'public switched *telephone* network.'" 825 F.3d at 718 (first emphasis added). Rejection of that claim meant, under *Chevron*, that we were required to affirm the Title II Order so long as it had "*permissibly* considered a network using [both] telephone numbers and IP addresses to be a 'public switched network.'" *Id*. (emphasis added). Thus we said that the phrase "public switched network" "by its plain language *can* reach beyond telephone networks alone." *Id*. at 717–718 (emphasis added). In light of *Chevron* and *Brand X*, there is no basis for doubting that we meant just what we said, leaving the door open to a different, adequately supported, reading, which the Commission has provided here.

We likewise see no basis for a view that the statutory language compels the Commission to retain the phrase "or public IP address," which the Title II Order had inserted into the definition of "public switched network." We note, as we did in *USTA*, that the agency acts under express statutory authority to modify its definition: The term "the public switched network" is to be "defined by regulation by the Commission." 47 U.S.C. § 332(d)(2); *see USTA*, 825 F.3d at 717–718; *Title II Order* ¶ 396. Further, the Commission offers multiple textual grounds in favor of its reading, emphasizing Congress's use of the definite article ("*the* public switched network") and "network" in the singular, suggesting that "Congress intended 'public switched network' to mean a single, integrated network." *2018 Order* ¶ 76; *cf. United States v. Manafort*, 897 F.3d 340, 347 (D.C. Cir. 2018) ("The use of the definite article 'the' * * * suggests a narrow reading."). The Commission also points to contemporaneous understandings of "public switched network" by the Commission and courts suggesting that it was commonly understood to refer to the "public switched telephone network." *See 2018 Order* ¶ 75. It singles out Commission precedent going back to 1981, *see id*. at n.276, as well as cases from this circuit, referring to "public switched network" and "public switched telephone network" seemingly interchangeably, *see id*. at n.279. It was against this background that Congress added the phrase "the public switched network" to Title III in 1993. Although mobile broadband was not yet in widespread use, these textual points and identification of contemporaneous usage and meaning lend support to the Commission's gloss of that term to mean a "singular network that 'must still be interconnected with the local exchange or interexchange switched network as it evolves.'" *Id*. ¶ 76 (quoting *Wireless Broadband Order*, 22 FCC Rcd. at 5918 ¶ 45).

In parrying the *USTA* petitioners' claims, we addressed two other uses of "public switched network" in the United States Code. Pointing to 18 U.S.C. § 1039(h)(4)'s express use of "public switched telephone network," *USTA*, 825 F.3d at 717, we found that use of this phrase contradicted petitioners' idea that Congress had intended to assign a more "restrictive meaning" to "public switched network" in Section 332. But the language occurs in Title 18 of the United States Code (devoted to the rather different subject of criminal law), and was enacted in 2007, two features rendering it insufficient as a basis to compel either the narrow reading of Congress's 1993 addition to Title 47 advanced by the *USTA* petitioners, or the broad one advanced by the current Petitioners. Further, despite some language in the 2018 Order to the effect that "Congress intended 'public switched network' to mean a single, integrated network" that was not "meant to encompass multiple networks whose users cannot necessarily communicate or receive communications across networks," *2018 Order* ¶ 76, the Commission here did not suppose that its reading was required. Rather it said simply that that reading was "the best reading of the Act," *id*. ¶ 74, "more consistent with the text of section 332(d)(2)," *id*. ¶ 76, and "better reflects Congressional intent," *id*. Section 1039(h)(4) at most helped the *USTA* court find that the petitioners in that case failed to carry their burden of showing that the Title II Order violated the unambiguous meaning of "public switched network." The Commission's burden *here* was only to show the reasonableness of its interpretation. It did so, and without running afoul of the doctrine that we must remand a decision when the agency rests its result on a mistaken notion that it is compelled by statute. *See, e.g.*, *Prill v. NLRB*, 755 F.2d 941, 947–948 (D.C. Cir. 1985).

Similarly in *USTA* we rejected a claim that 47 U.S.C. § 1422(b)(1)(ii)'s use of the term "public switched network"—in a context pretty clearly meaning only the telephone network—meant that the Commission was *required* to so limit its definition for purposes of Section 332. We responded by pointing out that Congress was merely using the term in the sense established by the Commission's then longstanding definition (including "telephone"); accordingly the section could not have reasonably been thought "to divest the Commission of the definitional authority" expressly granted in Section 332. *USTA*, 825 F.3d at 718. In short, we simply refused to regard the provision as inflicting an implied constraint on the Commission's definitional authority. *Id*. Just so here, as well.

Next, Petitioners stress the need for Commission policy to keep pace with technological innovation. They in essence reiterate *USTA*'s "agree[ment] with the Commission that, in granting the Commission general definitional authority, Congress 'expected the notion [of the public switched network] to evolve and therefore charged the Commission with the continuing obligation to define it.'" *USTA*, 825 F.3d at 718 (second alteration in original) (quoting *Title II Order* ¶ 396). But, given the ambiguity in the statutory text, the manner in which the Commission chooses to carry out that "continuing obligation" is naturally and permissibly driven by its underlying policy judgments (subject of course to the possibility of technological changes so substantial and material that they render the policy judgment irrational, which the Commission reasonably concluded were not shown here). Noting that the Title II Order expressly invoked *its* policy reasons for broadening the concept of public switched network, *2018 Order* ¶ 78 (citing *Title II Order* ¶ 399), the Commission similarly invoked its policy choices to restore the agency's previous view, *id.*; *see also id.* ¶ 82.

The Commission also reasoned that it wished to harmonize its definition of "public switched network" with that of an "interconnected service." *See 2018 Order* ¶ 77. Because it restored the word "all" to the definition of "interconnected service" (as discussed shortly), it had good grounds to omit "public IP address" from "public switched network." The proliferation of "smart" devices with IP addresses, such as "servers, thermostats, washing machines, and scores of other devices in the Internet of Things," Verizon Comments at 48, J.A. 1968; *see also* ISPs' Br. 18, 21–22, threatened such a definition with a new complication. If those devices were part of the public switched network, it might yield the dubious upshot that *mobile voice* would no longer be a commercial mobile service because its subscribers could *not* interconnect with "all" endpoints on the network, "such as IP-enabled televisions, washing machines, and thermostats, and other smart devices" incapable of voice communications. *2018 Order* ¶ 76 n.284. Hence a restoration of "all" in the definition of "interconnected service," coupled with an important technological development, gave added reason to restore the agency's prior view of the "public switched network."

In sum the Commission amply justified its return to the CMRS definition of "public switched network."

2. Whether Mobile Broadband Is an "Interconnected Service"

Second, Petitioners argue that—even on the Commission's definition of "public switched network"—it is unreasonable to conclude that mobile broadband is not an "interconnected service." *See* Mozilla Br. 75–79. We disagree.

As noted previously, an "interconnected service," in the Commission's view, "gives subscribers the capability to communicate to or receive communication from *all* other users on the public switched network." 47 C.F.R. § 20.3 (emphasis added). The Commission's core contention is that Voice-over-IP ("VoIP")—the generic name for voice calls transmitted over the Internet—is "a separate application or service" from mobile broadband. *2018 Order* ¶ 80. Hence the capabilities it affords cannot turn mobile broadband, a separate service, into an "interconnected service" as defined above. "[M]obile broadband Internet access as a core service is distinct from the service capabilities offered by applications (whether installed by a user or hardware manufacturer) that may ride on top of it." *Id.* ¶ 81. The Commission instead centers its inquiry on the capabilities mobile broadband service *itself* affords, rather than "whether [it] allows consumers to acquire other services that bridge the gap to the telephone network." *Id.* ¶ 80 (quoting Verizon Comments at 47, J.A. 1967). As the Commission explained in its 2007 Wireless Broadband Order, its finding that mobile broadband was not an "interconnected service" did not prejudge how other services—such as "interconnected VoIP"—should be classified. *Wireless Broadband Order*, 22 FCC Rcd. at 5918 ¶ 46; *cf. American Council on Educ. v. FCC*, 451 F.3d 226, 227–229, 228 n.1 (D.C. Cir. 2006) (taking for granted that broadband and VoIP are distinct services in upholding a Commission decision).

Petitioners by contrast contend, reprising the Title II Order, that mobile broadband service meets the above definition of "interconnected service" by virtue of functionalities afforded by VoIP. VoIP applications—like Apple FaceTime, Google Voice, and Skype—are now ubiquitous and easy to use. "For most users, the only operational difference between communicating with all other users, including all NANP endpoints, through a mobile voice call versus VoIP is which icon they press." Mozilla Br. 77. This holds true, Petitioners say, whether applications are preinstalled on mobile devices or downloaded by users. Some carriers themselves offer preinstalled Wi-Fi calling and Voice-over-LTE capabilities that permit users to make voice calls to NANP numbers via broadband without needing any additional applications. *See* OTI New America Reply at 56–59, J.A. 2791–2794; *see also* Mozilla Br. 76–77. As Petitioners see it, VoIP functionalities have become part and parcel of mobile broadband service *itself* and give subscribers "capabilit[ies]" that make mobile broadband an "interconnected service."

Some commenters frame the issue as a claim that technological change demands persistence in the choice of the Title II Order. Whereas "[t]he Commission's findings in the

2007 *Wireless Broadband Ruling* were reasonable," they are so no longer, given "the increasing convergence of mobile service offerings (mobile carriers market 'data' packages, not separate voice calling and broadband products) and of mobile networks * * * ." OTI New America Reply at 55, J.A. 2790; *see Title II Order* ¶ 401. In part for that reason Petitioners say, quoting *USTA*, that the distinction between "(i) mobile broadband alone enabling a connection, and (ii) mobile broadband enabling a connection through use of an adjunct application such as VoIP" is "elusive," *USTA*, 825 F.3d at 721, and, therefore, they claim, no longer permissible, Mozilla Br. 77.

We do not see it Petitioners' way. In our view the Commission adequately defended its approach and responded to relevant objections, in keeping with its inclusion of the word "all" in the definition of "interconnected service."

First, Petitioners yet again overread *USTA*. There we spoke of an "elusive" line in making the simple point that "[n]othing in the statute * * * compels the Commission to draw" that line. *USTA*, 825 F.3d at 721. That proposition is quite consistent with the proposition that nothing in the statutes *bars* the Commission from adopting the distinction—many legal distinctions are, after all, rather elusive. We fail to see our language in *USTA* as foreclosing the Commission's current view of what is part of mobile broadband service.

Second, as alluded to earlier, the agency previously drew this "elusive" distinction at least since 2007, interrupted of course by the Title II Order, even while it fully and expressly recognized the availability and significance of VoIP, as it said in the Wireless Broadband Order:

> Mobile wireless broadband Internet access service in and of itself does not provide this capability to communicate with all users of the public switched

> network. For example, mobile wireless broadband Internet access services do not use the North American Numbering Plan to access the Internet, which limits subscribers' ability to communicate to or receive communications from *all* users in the public switched network. Instead, users of a mobile wireless broadband Internet access service need to rely on another service or application, such as certain voice over Internet Protocol (VoIP) services that rely in part on the underlying Internet access service, to make calls to, and receive calls from, "all other users on the public switched network." Therefore, mobile wireless broadband Internet access service itself is not an "interconnected service" as the Commission has defined the term in the context of section 332.

Wireless Broadband Order, 22 FCC Rcd. at 5917–5918 ¶ 45; *see also 2018 Order* ¶ 81 n.300; *Title II Order* ¶ 400 & n.1167 (quoting language from the above and acknowledging the Commission's previous conclusion).

Third, technological advances since the 2007 Wireless Broadband Order do not invalidate the Commission's way of drawing the line between services. Of course technological change may sometimes require regulatory reclassification. But it is not clear why the changes identified by commenters are an example of such a requirement, as we have noted above. The *proliferation* of VoIP and *prevalence* of its use are orthogonal to the Commission's point about the *relationship* between mobile broadband and VoIP. Whether VoIP applications are used by many users or few, and whether they are preinstalled or acquired on an ad hoc basis, the question is whether VoIP functionalities are part of the service at issue here—mobile broadband service—or constitute other services that mobile broadband allows users to access. Similarly, ease of interoperability is irrelevant to the Commission's way of framing whether there are one or two services involved in facilitating a call, no matter how seamless the toggling may be from a user's standpoint. Although a user's ability to move easily between making mobile voice calls and VoIP calls (or to toggle automatically between mobile voice and VoIP on a single call) may, as the Title II Order had put it, have "*blurred the distinction between services* using NANP numbers and services using public IP addresses," *Title II Order* ¶ 401 (emphasis added), blurring is not erasing. The Commission observes that "even if providers are increasingly offering voice service and mobile broadband Internet access service together, this does not support classifying and regulating the latter in the same way as the former." *2018 Order* ¶ 81 n.302. Similarly, the Commission comments that there is nothing odd about subjecting carriers offering "multiple services of mixed classification" to regulation on a service-by-service basis, and thus, for example, being "regulated as common carriers to the extent they offer services that are subject to Title II regulation." *Id*. (citing 47 U.S.C. § 153(51)). (The Commission declined to determine whether Wi-Fi calling and Voice-over-LTE could qualify as "interconnected services" because, on the same logic as above, it treats them as distinct services "subject to separate classification determinations." *Id*.)

Indeed, the 2018 Order recognized "the evolution of mobile network technologies that have blurred the [physical] lines between circuit switched and packet switched networks," and agreed with commenters arguing that the "public switched network should *not* be defined in a static way" (emphasis added) and should account for "continuous[] grow[th] and chang[e]." *2018 Order* ¶ 78 n.290. But it believed that this flexibility must be constrained by fidelity to what it viewed as the best reading of the statute, so that "the public switched network remains a single integrated network incorporating the traditional local and interexchange telephone networks and enabling users to send or receive messages to or from all other users." *Id.*

Fourth, no precise conceptual framework dictated to either the current Commission or the one that issued the Title II Order how it should parse the relationship between mobile broadband and VoIP. None of the parties identifies (and we have not found) either a set of regulatory definitions purporting to draw lines between "applications" and "services," or a set of generally accepted linguistic practices drawing such a line or generally governing when the capability of apps that are usable with a service should be taken to belong to the "capabilities" of the service. As a matter of ordinary language there surely is no problem with the Commission's take. If someone tells a friend, "I just got a great new tablet with mobile broadband," it would hardly be a solecism for the friend to reply, "Great—does your service let me reach you from my landline?" Of course the new tablet owner might reply, "Not now—but it could if I set up a Google Voice number," but that only shows the linguistic ambiguity. Given the absence of any norms pressing in Petitioners' favor, we cannot condemn as impermissible the Commission's choice to draw the line in a way that averted what it reasonably viewed as statutory self-contradiction, echoing the Title II Order's reasoning in Paragraph 403, which was accepted by *USTA*, *see* 825 F.3d at 724.

Fifth, attempts to catch the Commission in self-contradiction are unavailing. Commenters and Petitioners say that if the Commission's theory were properly applied, *mobile voice* would turn out not to be an "interconnected service," an untenable outcome. Commenters invoke the truth that the Commission recognizes a service as having a "capability" even though exercise of that capability requires customer premises equipment ("CPE") even for ordinary landline use. *See* OTI New America Comments at 56–57, J.A. 2791–2792; Mozilla Reply Br. 36–37. And just as customers need mobile devices packaged with software to make use of a mobile voice service, they need VoIP to place voice calls over broadband. Since the former does not disqualify mobile voice from being a commercial mobile service (as everyone agrees), the latter, commenters and Petitioners say, should not disqualify mobile broadband from the same classification. *See* Mozilla Br. 75–76; *see also* OTI New America Comments at 56, J.A. 2791 ("[A] mobile voice subscriber cannot 'speak' to a fax machine, or to a pager, because each of these common carrier services, despite being 'interconnected' through the 'public switched network,' obviously requires certain CPE (or applications) to meaningfully interconnect and communicate. VoIP and Wi-Fi calling to NANP endpoints over the internet is no different, whether the application is pre-loaded by the mobile BIAS provider (e.g., T-Mobile Wi-Fi Calling, Google Voice) or downloaded via a pre-loaded app store gateway.").

But the Commission found the analogy "inapt." *2018 Order* ¶ 80 n.298. (Hence Mozilla is mistaken in saying that the Commission did not address the matter. *See* Mozilla Br. 76). The difference, the Commission says, is that—even though users need to acquire equipment and software separately for mobile voice—"the function of interconnection is provided by the purchased mobile service itself." *2018 Order* ¶ 80 n.298. With VoIP, by contrast, the add-on application—and not the broadband service—supplies the interconnection functionality. *Id*. And precisely because (as noted above) no regulatory, conceptual, or linguistic strictures force the Commission's hand, its analysis here is reasonable.

Finally, even if we were to accept Petitioners' argument that the capability of mobile broadband service should be conceived as embracing the capabilities both of that service and of VoIP, the choice of mobile broadband subscribers *not* to obtain VoIP capability would stand in the way of mobile broadband's satisfying the Commission's restored definition of "interconnected service": To repeat, such service must give subscribers "the capability to communicate to or receive communication from *all* other users on the public switched network." 47 C.F.R. § 20.3 (emphasis added). Petitioners and commenters in support of their position never dispute the existence of many such non-VoIP-using mobile broadband subscribers, though their number is unknown.

The gap in Petitioners' theory is shown most clearly in the obvious inability of a would-be caller from a NANP number who seeks to reach a person with mobile broadband but no form of VoIP (or mobile voice service). Suppose we agreed with Petitioners that mobile broadband gives the call's intended recipient the "capability" of receiving NANP-originated calls by, for example, obtaining a NANP number through Google Voice or Skype or like services. By this they really mean that it gives him the capability of acquiring that capability ("capability^2"?). But the availability of that option for the intended *recipient* does not give the would-be *caller* even the capability of obtaining the capability of reaching his intended call recipient.

And a party with mobile broadband but *without* some form of VoIP capability cannot either "communicate to or receive communication from *all* other users on the public switched network," 47 C.F.R. § 20.3 (emphasis added), even though she has the capability of acquiring that capability. But "[u]sers who cannot communicate with each other are simply not 'interconnected' in any plausible sense." ISPs' Br. 19.

In sum, we find that the Commission's way of distinguishing among services and analyzing their regulatory implications meets *Fox Television*'s reasonableness requirement, 556 U.S. at 514–516, and falls within the bounds of agency discretion under *Chevron*.

3. Whether Mobile Broadband Is the "Functional Equivalent" of a Commercial Mobile Service

Third, Petitioners dispute the Commission's conclusion that mobile broadband is not a "functional equivalent" of mobile voice, which all agree is a commercial mobile service. 47 U.S.C. § 332(d)(3). We are unconvinced. We find that the Commission reasonably readopted its test for functionally equivalent services that it had used from 1994 until 2015 and permissibly found that mobile broadband does not qualify as a service functionally equivalent to mobile voice.

To begin with, Petitioners do not directly challenge the Commission's return to its pre-Title II Order test for functional equivalence laid out in the Second CMRS Report and Order. *See 2018 Order* ¶¶ 83–84; *see also Second CMRS Report and Order*, 9 FCC Rcd. at 1447–1448 ¶ 80; *cf.* ISPs' Br. 22 n.9. That approach entails looking to "a variety of factors" to determine whether "demand for" the allegedly functionally equivalent service is "a close substitute" for a given commercial mobile service, including:

> [C]onsumer demand for the service to determine whether the service is closely substitutable * * *; whether changes in price for the service under examination, or for the comparable * * * service[,] would prompt customers to change from one service to the other; and market research information

> identifying the targeted market for the service under review.

Second CMRS Report and Order, 9 FCC Rcd. at 1519 § 20.9(a)(13)(ii)(B); *see also id*. at 1447–1448 ¶ 80. This focus on cross-elasticity of demand differs significantly from the new test adopted in the Title II Order, which focused entirely on whether a service is "widely available" and "offers mobile subscribers the capability to send and receive communications on their mobile device to and from the public." *Title II Order* ¶ 404.

In justifying its return to the CMRS test, the Commission properly underscores its statutory "discretion" to define functional equivalence, *2018 Order* ¶ 84, whose meaning is to be "specified by regulation by the Commission," 47 U.S.C. § 332(d)(3); *cf. Title II Order* ¶ 404. The Commission argues that the CMRS test "reflects the best interpretation of section 332," *2018 Order* ¶ 83, and "hews much more faithfully to the intent of Congress" than the Title II Order "or the analyses in the record focusing on the extent of service availability," *id.* ¶ 84.

It was reasonable for the Commission to home in on substitutability: If the same regulatory regime is to govern two services, the Commission could sensibly conclude that economic rationality suggests that the risk of regulation-engendered economic distortions will be less if the two are close substitutes. As the Commission rightly observed in the Second CMRS Report and Order, the "statute's overriding purpose [is] to ensure that *similar services* are subject to the same regulatory classification and requirements." 9 FCC Rcd. at 1447 ¶ 78 (emphasis added). The 2018 Order quite properly rested on this section of the Second CMRS Report and Order. *2018 Order* ¶ 84 & n.312.

Applying the restored CMRS test, the Commission appropriately looked to substitutability of the services on offer. It reasoned that mobile voice and mobile broadband "have different service characteristics and intended uses and are not closely substitutable for each other * * *." *2018 Order* ¶ 85. Consumers purchase mobile broadband to "access the Internet, on-line video, games, search engines, websites, and various other applications." *Id*. By contrast, consumers "purchase mobile voice service solely to make calls to other users using NANP numbers [presumably referring primarily to users reachable via the public switched telephone network]." *Id*. Thus the Commission plausibly places its emphasis on the distinct purposes and capabilities of the services taken as a whole. In virtue of these differences, the two are not "closely substitutable in the eyes of consumers." *Id*. ¶ 84; *cf. Second CMRS Report and Order*, 9 FCC Rcd. at 1447–1448 ¶ 80 (asking whether a service is a "close substitute").

In support of its finding of non-substitutability, the Commission points to divergent price points between the two services. It offers examples showing a substantial price gap—with up to a six-fold jump from $15 to $90 per line—between unlimited voice/text plans and unlimited mobile broadband plans. *2018 Order* ¶ 85; *see id*. at nn.317 & 318. It ties this down to the CMRS test by making the seemingly indisputable point that "[n]othing in the record suggests that changing the price for one service by a small but significant percentage would prompt a significant percentage of customers to move to the other service." *Id*. ¶ 85. Petitioners do not contest that finding, which is hardly surprising, given the distinct purposes and range of options in mobile voice and mobile broadband, notwithstanding their interoperability.

Instead Petitioners respond with an interesting but seemingly unhelpful point: "Today each of the four national [mobile] carriers exclusively sell smartphone plans that bundle voice, texting and internet access as applications * * * ." OTI New America Comments at 97–98, J.A. 1695–1696 (quoted at Mozilla Br. 81). The Commission concedes that the voice-and-text-only plans it describes are offered by "small mobile carriers." Commission Br. 56 n.12. But Petitioners' approach suffers a worse defect: To contest the Commission's finding that the two services are not close substitutes (and therefore not very direct *competitors*) it offers evidence that they are very good *complements*. That seems a rather deft way of changing the subject. Though national plans may bundle voice and data, the Commission aptly says that this "does not undermine [its] conclusion that consumers do not regard [the services] as fungible." *Id.*; *cf.* ISPs' Br. 22 ("[C]onsumers generally subscribe to both services * * * because they employ them for different purposes.").

Petitioners appear to rely on a competing test for functional equivalence resembling the Title II Order's approach. As Petitioners see it, the fact that mobile voice and mobile broadband both allow users to carry out some of the same tasks—most importantly, placing voice calls to NANP numbers (to the extent allowed by mobile broadband users' adoption of VoIP)—suffices to compel their treatment as functionally equivalent services. Mozilla contends that mobile broadband "provides *all* the functionality of mobile voice, allowing subscribers to call anyone a mobile voice subscriber could," and is therefore a functionally equivalent service. Mozilla Br. 80.

This argument fails on two counts. It completely disregards the Commission's solid grounds for returning to the pre-Title II Order focus on substitutability and cross-elasticity—a return that, as we noted above, Petitioners do not explicitly challenge. That focus made the statute's "functional equivalent" provision serve the sound policy objective of bringing services in close competition with each other under the same regulatory umbrella. Second, Petitioners' alternative test suffers the same flaw (from the Commission's perspective) as their effort to treat mobile broadband *and* VoIP as a single service, an effort the Commission was under no obligation to countenance.

In sum, even though Petitioners' reading of a "functional equivalen[ce]" in Section 332(d)(3) is not foreclosed by the statute, the agency's interpretation of that term, and its application to mobile broadband, are reasonable and merit *Chevron* deference.

III. Section 706 Authority

Petitioners additionally argue that the Commission could have addressed the harms of blocking and throttling and issued open Internet rules under Section 706 of the Telecommunications Act. Pursuant to Section 706(a), the FCC "shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans * * * by utilizing * * * price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment." 47 U.S.C. § 1302(a). Furthermore, Section 706(b) states that the agency "shall take immediate action" if this goal is not being met "in a timely fashion." *Id.* § 1302(b). The Commission interpreted these provisions as "exhorting the Commission to exercise market-based or deregulatory authority granted under other statutory provisions, particularly the Communications Act" not as "an independent grant of regulatory authority to give those provisions meaning." *2018 Order* ¶ 270. Despite

Petitioners' contentions, we find that this interpretation of Sections 706(a) and (b) is lawful.

As with our prior analysis of the Commission's classification determinations, we evaluate its statutory interpretation decisions concerning Section 706 authority by applying the two-step analysis of *Chevron*. *See* 467 U.S. at 842–843.

In *Verizon v. FCC*, we noted that the language of Section 706 is ambiguous. *See* 740 F.3d 623, 635-636 (D.C. Cir. 2014) (citing *Chevron*, 467 U.S. at 842–843); *see also id.* at 641 ("[A]s with section 706(a), it is unclear whether section 706(b) * * * vested the Commission with authority to remove [] barriers to infrastructure investment and promote competition."). Thus, we proceed to Step Two of the analysis and ask whether the Commission's understanding of Section 706 as hortatory represents a reasonable interpretation of the statute. We find that it does. Indeed, we have previously held that the language of Section 706(a) could "certainly be read as simply setting forth a statement of congressional policy" and "just as easily be read to vest the Commission with actual authority. *Id.* at 637. We have also understood Section 706(b) to be similarly permissive. *Id.* at 641. Furthermore, in support of its interpretation, the Commission notes that Section 706 lacks details "identify[ing] the providers or entities whose conduct could be regulated," whereas other provisions of the Act that unambiguously grant regulatory authority do specify such details. *2018 Order* ¶ 271. We find the Commission's rationales in favor of its reading of Section 706 to be reasonable.

IV. Section 257 and the 2018 Order's Transparency Requirements

In its 2018 Order, the Commission retained a "transparency rule," which provided that "[a]ny person providing broadband Internet access service shall publicly disclose accurate information regarding the network management practices, performance, and commercial terms of its broadband Internet access services sufficient to enable consumers to make informed choices * * * ." *2018 Order* ¶ 215. Petitioners challenge the Commission's legal authority to issue a transparency rule under 47 U.S.C. § 257. Instead, Petitioners argue that the Commission should have adopted the rule under Section 706 of the Telecommunications Act. We disagree.

We first dispense with the Commission's contention that Petitioners Mozilla and Internet Association ("IA") do not have standing to assert this challenge because they do not suffer injury. The Commission notes that Petitioners fail to identify any injuries that flow from the transparency rule itself but rather observe that the rule derivatively supports other rules that they find injurious. Without alleging harm specific to the transparency rule, the Commission contends, Petitioners lack standing. This understanding of injury is flawed. Petitioners allege concrete injury from the Commission's Order repealing Internet conduct rules. When a party alleges concrete injury from promulgation of an agency rule, it has standing to challenge essential components of that rule, invoked by the agency to justify the ultimate action, even if they are not directly linked to Petitioners' injuries; if Petitioners' objections carry the day, the rule will be struck down and their injury redressed. *See Sierra Club v. FERC*, 867 F.3d 1357, 1366–1367 (D.C. Cir. 2017); *see also WildEarth Guardians v. Jewell*, 738 F.3d 298, 304–308 (D.C. Cir. 2013). Because it is undisputed that the transparency rule is an essential component of the 2018 Order, Petitioners have standing to object to any deficiency with the transparency rule. *See Sierra Club*, 867 F.3d at 1366–1367. The deficiency need not be tied to the Petitioners' specific injuries. Accordingly, we find that Petitioners suffer injury for the purpose of establishing standing.

Nonetheless, the Commission's reliance on 47 U.S.C. § 257 to issue the transparency rule was proper. Section 257(a) of the Communications Act required the FCC, within 15 months after enactment of the 1996 Act, to "complete a proceeding for the purpose of identifying and eliminating, by regulations pursuant to its authority under this chapter (other than this section), market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services." 47 U.S.C. § 257(a). Section 257(c) directed the Commission, "triennially thereafter, to report to Congress on such marketplace barriers and how they have been addressed by regulation or could be addressed by recommended statutory changes." *2018 Order* ¶ 232 (citing 47 U.S.C. § 257(c)). The Commission observed that "section 257 does not specify precisely how [they] should obtain and analyze information for purposes of its reports to Congress," and thus "construe[d] the statutory mandate to 'identify' the presence of market barriers as including within it direct authority to collect evidence to prove that such barriers exist." *2018 Order* ¶ 232 n.847. We find that this interpretation of Section 257(a) is permissible. "The Commission, however, interpreted the statute to require a rulemaking based on authority other than section 257 itself only for rules intended to eliminate market barriers rather than rules meant to identify such barriers." Commission Br. 100. The relevant language in Section 257 is sufficiently ambiguous—Congress does not proscribe the means of “identifying” market barriers. The Commission permissibly read the clause to apply only to the elimination of market barriers. In turn, we find that the Commission’s reading easily satisfies review at *Chevron* Step Two, under which we defer to the agency’s interpretation unless it is “arbitrary or capricious in substance, or manifestly contrary to the statute.” *United States v. Mead Corp.*, 533 U.S. 218, 227 (2001).

While Petitioners correctly note that Section 257(c) was removed from the Communications Act before the 2018 Order became effective, *see* RAY BAUM’S Act of 2018, Pub. L. 115-141, § 402(f), 132 Stat. 1089 (2018), it was not altered in any material respect for purposes of the Commission’s authority in this regard. The 2018 legislation that amended the Act introduced a biennial reporting requirement quite similar to the triennial reporting requirement contained in the former Section 257(c). *See* Pub. L. No. 115-141, Div. P, §§ 401, 402(f), 132 Stat. at 1087-1089 (codifying a reporting requirement at 47 U.S.C. § 163). Indeed, Congress emphasized that “[n]othing in this title or the amendments made by this title shall be construed to expand or contract the authority of the Commission.” Pub. L. No. 115-141, Div. P, § 403, 132 Stat. at 1090.

We also reject Petitioners’ contention that they did not have adequate notice of the statutory authority upon which the Commission relied in imposing the transparency rule. This Court has previously recognized Section 257 as a possible source of authority for such rules. *See, e.g.*, *Comcast Corp. v. FCC*, 600 F.3d 642, 659 (D.C. Cir. 2010) (“We readily accept that certain assertions of Commission authority could be reasonably ancillary to the Commission’s statutory responsibility to issue a report to Congress. For example, the Commission might impose disclosure requirements on regulated entities in order to gather data needed for such a report." (quotations omitted)); *see also Verizon*, 740 F.3d at 668 n.9 (Silberman, J., concurring in part and dissenting in part). In fact, in response to the Notice of Proposed Rulemaking's ("NPRM's") explicit solicitation of comment on its legal authority to adopt rules if the Commission reclassified broadband as an information service, several commenters identified Section 257 as a possible source of authority for a transparency rule. *See 2018 Order* ¶ 232 n.843; *see also* NPRM ¶ 103 ("[W]e seek comment on *any* other sources of independent legal authority." (emphasis added)). Thus, we find Petitioners' notice argument to be without merit.

Intervenor Digital Justice Foundation argues that while the Commission has authority to maintain a transparency rule, it should have retained aspects of the rule contained in a 2010 Order issued by the Commission. *See Preserving the Open Internet*, 25 FCC Rcd. 17905 (2010) ("*2010 Order*"). At the outset, we reject the Commission's assertion that this argument is not properly before us. Digital Justice has simply raised a new argument in support of claims the Petitioners have presented. The argument is thus a far cry from the sort of intervenor's claim with "absolutely no substantive connection with the issues raised by the petition for review," which we have rejected in the past. *See Synovus Fin. Corp. v. Board of Governors of Fed. Reserve Sys.*, 952 F.2d 426, 434 (D.C. Cir. 1991). We also find no merit in the Commission's argument that Digital Justice was required to seek reconsideration before raising this garden-variety arbitrary-and-capricious challenge. A petition for reconsideration is required for "only those issues upon which the Commission has been afforded no opportunity to pass." *AT&T Corp. v. FCC*, 394 F.3d 933, 938 n.1 (D.C. Cir. 2005) (internal quotation marks omitted). That rule always allows courts to consider whether the Commission "relied on faulty logic," *id.*, because "[t]he Commission necessarily had an opportunity to pass upon the validity of the rationale that it actually put forth," *MCI Telecomm. Corp. v. FCC*, 10 F.3d 842, 845 (D.C. Cir. 1993).

Turning to the merits, Digital Justice charges that it was arbitrary and capricious for the Commission to eliminate aspects of the former transparency rule without considering the impact on entrepreneurs and small businesses — as identified in Section 257(a)—or providing a reasoned explanation for modifying the rule. We disagree. The Commission explained that the "additional obligations [of the former transparency rule] [did] not benefit consumers, entrepreneurs, or the Commission sufficiently to outweigh the burdens imposed on [broadband providers]." *See 2018 Order* ¶ 210. We are also unpersuaded by Digital Justice's claim that the Commission needed to analyze the interest of entrepreneurs and other small businesses in the specific context of repealing portions of the transparency rule. Section 257(a) simply requires the FCC to consider "market entry barriers for entrepreneurs and other small businesses." 47 U.S.C. § 257(a). The disclosure requirements in the transparency rule are in service of this obligation. The Commission found that the elements of the transparency rule in the 2018 Order will "keep entrepreneurs and other small businesses effectively informed of [broadband provider] practices so that they can develop, market, and maintain Internet offerings." *See 2018 Order* ¶ 218. In fact, the Order takes care to describe the specific requirements of the rule to "ensure that consumers, entrepreneurs, and other small businesses receive sufficient information to make [the] rule effective." *Id.*; *see also id.* ¶¶ 218–223. Digital Justice's challenges cannot prevail under our particularly deferential arbitrary-and-capricious review.

In sum, we uphold the transparency rule as authorized by 47 U.S.C. § 257.

V. Arbitrary and Capricious Challenges

The Commission claims that we can uphold its entire rulemaking on the weight of its statutory interpretation alone. *See* Commission Br. 58 (expressing its view that its legal interpretation "alone suffices to justify the repeal"). In the Commission's view, the reasonableness of its interpretation necessarily insulates the 2018 Order from arbitrary and capricious challenge. *See id.*

That argument misunderstands the law. To be sure, the analysis of an agency's statutory interpretation at *Chevron* Step Two has some overlap with arbitrary and capricious review. The former asks whether the agency's interpretation "is based on a permissible construction of the statute." *Chevron*, 467 U.S. at 843. And the latter asks whether the agency "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made," and "whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal quotations marks omitted). Nevertheless, "the Venn diagram of the two inquiries is not a circle." *Humane Soc'y of United States v. Zinke*, 865 F.3d 585, 605 (D.C. Cir. 2017). Each test must be independently satisfied.

This is a case in point. The Commission has advanced what is, under controlling precedent, a reasonable interpretation of the statute for purposes of *Chevron*. But aspects of the Commission's decision are still arbitrary and capricious under the Administrative Procedure Act because of the Commission's failure to address an important and statutorily mandated consideration—the impact of the 2018

Order on public safety—and the Commission's inadequate consideration of the 2018 Order's impact on pole-attachment regulation and the Lifeline Program. We consider each of Petitioners' challenges in turn.

A. Effects on Investment and Innovation

Petitioners challenge the Commission's conclusion that reclassification of broadband as an information service is "likely to increase ISP investment and output," *2018 Order* ¶ 98, focusing almost entirely on the Commission's suggestion that the Title II Order may well have led to reduced investment in broadband. They object to particular studies on which the agency relies, the explanations it offers for its conclusions, and its failure to credit certain data. We find that the agency's position as to the economic benefits of reclassification away from "public-utility style regulation," *id*. ¶ 90, which the Commission sees as "particularly inapt for a dynamic industry built on technological development and disruption," *id*. ¶ 100, is supported by substantial evidence, *see National Lifeline Ass'n v. FCC*, 921 F.3d 1102, 1111 (D.C. Cir. 2019), and so reject Petitioners' objections.

As part of its justification for "light-touch" regulation of the Internet ecosystem, the Commission made a variety of arguments about optimal, and suboptimal, conditions for broadband investment and innovation. It relied on, among other things, (1) prior agency positions, which have "long recognized that regulatory burdens and uncertainty * * * can deter investment by regulated entities," *2018 Order* ¶ 88, backed up by economic theory in general, *id*. ¶¶ 89, 93; (2) a finding that "the balance of the evidence indicates that Title II discourages investment by ISPs," *id*. ¶ 93, supported by studies evaluating ISP investment before and after the Title II Order, *id*. ¶¶ 89–98; (3) the disincentive to investment arising from regulatory uncertainty about the substance and potential reach of Title II regulation, *id*. ¶¶ 99–102; (4) effects on small ISPs and rural communities where firms are more likely to take the risks of offering much-needed services in a more predictable and less onerous regulatory climate, *id*. ¶¶ 103–106; and (5) the absence of evidence of negative effects on edge investment, *id*. ¶¶ 107–108. This diverse array of theses led the Commission to conclude that "Title II classification likely has resulted, and will result, in considerable social cost, in terms of forgone investment and innovation," without "discernable incremental benefit relative to Title I classification." *Id*. ¶ 87.

We reiterate that our posture in arbitrary and capricious review is deferential. To withstand scrutiny, "the agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43 (internal quotation marks omitted). Where, as here, the agency shifts course, "it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates." *Fox Television*, 556 U.S. at 515. Especially apt here is an admonition we have long made: "Predictions regarding the actions of regulated entities are precisely the type of policy judgments that courts routinely and quite correctly leave to administrative agencies." *Public Citizen, Inc. v. National Highway Traffic Safety Admin.*, 374 F.3d 1251, 1260–1261 (D.C. Cir. 2004) (quoting *Public Utils. Comm'n v. FERC*, 24 F.3d 275, 281 (D.C. Cir. 1994)).

Mozilla and Intervenors IA especially attack a study by Hal J. Singer, which had "concluded that ISP investment by major ISPs fell by 5.6 percent between 2014 and 2016." *2018 Order* ¶ 91. They allege "serious methodological defects" with the study, Mozilla Br. 69, and say that the Commission should have placed greater stock in "aggregate investment totals as actually reported by companies to investors," *id.*—specifically, capital expenditure figures of publicly traded broadband providers in 2013–2016 as summarized by Free Press in its comments to the Commission, *see* J.A. 860. And they unfavorably contrast the reliability of Singer's numbers with those cited by Free Press. They note the Commission's acknowledgement that "Singer's calculations do not control for some factors that influence investment, such as the 'lumpiness' of capital investment and technological change," *2018 Order* ¶ 91 n.339; *see* Mozilla Br. 69; IA Intervenors' Br. ("IA Br.") 22–23, an acknowledgement that might well be taken to reflect quite proper Commission caution about the empirical issues.

In our view the Commission's reliance on, and analysis of, the Singer study are reasonable. First, it is but one of numerous studies and trends invoked by the Commission that reached similar conclusions—about which Petitioners say relatively little or nothing specific. These include (1) a study finding that "ISP capital investment increased each year from the end of the recession in 2009 until 2014, when it peaked," *2018 Order* ¶ 90 & n.335; *see* IA Br. 20–21 (questioning trends in these data); (2) another reporting that wireless capital investment had slowed, with a "precipitous decline in 2016," *id.* ¶ 90 n.337; and (3) an article, Thomas W. Hazlett & Joshua D. Wright, *The Effect of Regulation on Broadband Markets: Evaluating the Empirical Evidence in the FCC's 2015 'Open Internet' Order*, 50 Rev. Indus. Org. 487 (2017), uncontroverted by Petitioners, on which the Commission drew extensively, *see 2018 Order* ¶¶ 94 & n.349, 96 & n.358, 98 & n.362, 107, 148 & nn.535–536. This study relied in part on a "natural experiment" derived from Commission policy changes, showing a "statistically significant upward shift in DSL [Digital

Subscriber Line]" investment after the FCC reclassified DSL service as an "information service" in 2005. *Id.* ¶ 94.

Mozilla's effort to paint a contrasting picture of the Singer and Free Press studies ("Singer—bad; Free Press—good") encounters multiple obstacles (undiscussed by Petitioners). Mozilla does not address shortcomings of the Free Press figures, pinpointed by the agency, including for example its failure to exclude investment abroad, which the Singer study had accounted for. *2018 Order* ¶ 91; *cf.* IA Br. 22 (acknowledging this point). Most important, Mozilla and IA entirely ignore an analysis that puts the two studies on an apples-to-apples basis and finds agreement between them. That analysis "adjusted the Free Press and Singer numbers so that they [1] covered the same ISPs, [2] spanned the same time period, and [3] subtracted investments unaffected by the regulatory change." *2018 Order* ¶ 92 (numbering added). After controlling for these three factors, the assessment "found that *both sets of numbers* demonstrate that ISP investment fell by about 3 percent in 2015 and by 2 percent in 2016." *Id.* (emphasis added). The comparison thus indicates a convergence between the two sets of figures—a convergence close to the original Singer findings. While that assessment may itself be flawed, Petitioners and Intervenors ignore it altogether. We thus conclude that the Commission's reliance on the Singer study—given its apparent match-up with the Free Press data, and as but a part of the agency's analysis—is not unreasonable.

Mozilla also reframes its championing of the Free Press data by asserting the superiority of investment "results" attained by "[i]ndividual BIAS providers[]" (citing only the Free Press data), over "aggregate numbers," which may be "easily[] skewed." Mozilla Br. 70; *see* IA Br. 21. Whatever the force of the general theory, it seems immaterial as a basis to prefer Free Press's calculations in light of the apparent (and uncontested by Petitioners) harmony of the Free Press and Singer data.

The broader point here is that the Commission was clear-eyed in assigning quite modest probative value to studies attempting to draw links between the Title II Order and broadband investment, so that there is less daylight between the Commission and Petitioners than the latter seem to think. It states that "reclassification * * * is *likely* to increase ISP investment and output." *2018 Order* ¶ 98 (emphasis added). It also notes a separate calculation by the Free State Foundation that yielded findings similar to Singer's based on "capital expenditure data for 16 of the largest ISPs." *Id*. ¶ 92. But the Commission observes that, while "suggestive," they are at most confirmatory of "other evidence in the record that indicates that Title II affected broadband investment." *Id*. So here too we find IA's criticism of Free State's calculation, *see* IA Br. 23–24, to a large extent blunted by the Commission's having already discounted it. To be sure, the IA asserts a more intense level of skepticism, indeed an Olympian level, calling "attempts to identify and quantify direct causal impacts of the [Title II Order]" an "essentially * * * pointless exercise." IA Br. 18 (citation omitted). The takeaway here is *both* that Petitioners' skepticism is echoed in the 2018 Order and that some commenters seem to set the bar so high that no empirical grounds relating to the Title II Order's effects on ISP investment could support (or refute) the Commission's policy.

The parties spar at length over a paper by George Ford at the Phoenix Center, which had shown that then-FCC Chairman Julius Genachowski's "surprise[]" announcement in 2010 of a "framework for reclassifying broadband under Title II * * * was associated with a $30 billion-$40 billion annual decline in investment in" the United States Bureau of Economic

Analysis['s] 'broadcasting and telecommunications' category between 2011 and 2015." *2018 Order* ¶ 95 & n.353. Again we note that the Commission was fairly modest in its reliance on the study, observing that because it had used data "cover[ing] the entire broadcasting and telecommunications industries," it could only be reliably adduced as evidence of the *directionality* of broadband investment, not "the absolute size of the change" attributable to the Title II Order. *2018 Order* ¶ 95.

IA (perhaps applying the lofty standard by which it discounted *any* effort to estimate the effect of the Title II Order on investment as "essentially a pointless exercise") still regards the Commission as having placed undue weight on this result while underweighting a competing study by Christopher Hooton that it had proffered. *See* J.A. 1178–1222. The Hooton study had criticized Dr. Ford's work, *see* J.A. 1184, and elicited a reply, *see 2018 Order* ¶ 97 n.360; *see also* IA Br. 24–25; Phoenix Ctr. Amicus Br. 18–25.

The Ford-Hooton dispute seems far too sophisticated for us to credibly take sides. When intricacies of econometric modeling are in dispute, "we do not sit as a panel of referees on a professional economics journal, but as a panel of generalist judges obliged to defer to a reasonable judgment by an agency acting pursuant to congressionally delegated authority." *USTA*, 825 F.3d at 697 (quoting *City of Los Angeles v. United States Dep't of Transp.*, 165 F.3d 972, 978 (D.C. Cir. 1999)). One issue suggests the impenetrability of the matter from our perspective. The IA brief is very insistent that the Commission unfairly criticizes the Hooton study for relying "partially on forecast [data] rather than actual data," Commission Br. 83 (quoting *2018 Order* ¶ 97), while failing to complain of comparable methodologies in its own favored studies, *see* IA Br. 19; IA Reply Br. 9–11.

Maybe so, maybe not. Perhaps the methodological dispute will ultimately attract scholarly attention and be sorted out persuasively on one side or the other. It seems likely that many variables would be relevant in assessing when reliance on forecasts would be justifiable, and—in cases where it was not—assessing whether the reliance was of any real consequence. But we are not the needed scholars, and will not pretend we understand more than we do. Perhaps Hooton wins on points. That is an insufficient ground for us to call the Commission's finding unreasonable.

Next Mozilla quotes remarks by two chief executive officers of ISPs that it believes "offer[] much more probative evidence on the effect of the [*Title II*] *Order* on investment decisions." Mozilla Br. 70; *see* IA Br. 21–22. But those statements seem to match exactly one of the grounds on which the Commission found such statements generally irrelevant to the investment-effect issue, namely that the executives were saying only that their firms' *practices* would not be affected because they were not engaged in the conduct prohibited by the new rules. *See 2018 Order* ¶ 102 & nn.384–385; R Street Institute Reply at 8, WC Dkt. No. 17-108 (Aug. 30, 2017); *see also* Commission Br. 83. Petitioners do not address these points. *See* Mozilla Br. 69–70; IA Br. 22; *see also* Mozilla Reply Br. (failing to address reduced investment).

Indeed, one of the CEOs whose December 2015 remarks Mozilla highlights, Randall Stephenson of AT&T, Mozilla Br. 70 (quoting J.A. 881), said in January 2017 that, while his company is an "advocate[] of net neutrality," "[t]here is no way anybody can argue" that "placing utility[-]style regulation on our mobility and internet businesses * * * is not suppressive to investment," Georgetown Ctr. for Bus. and Pub. Policy Amicus Br. 6; *see also* AT&T Comments at 54 n.91, J.A. 170, a distinction that echoes the FCC's contrast between a commitment to "net neutrality *per se*" and "the threat of Title II regulation," *2018 Order* ¶ 95.

We now turn to IA's claims that the Commission gave short shrift to benefits for edge investment arising from the Title II Order. IA Br. 25–27. We are unconvinced. While agreeing that it is critical not to overlook effects on edge providers, the Commission found no evidence of either (1) "a correlation between edge provider investment and Title II regulation" or (2) a "causal relationship" between the Title II Order and upswings in edge investment, which would need to be demonstrated using a counterfactual analysis of the sort employed on other matters in Hazlett and Wright's paper. *2018 Order* ¶ 107. Without claiming that edge investment would have been higher absent the Title II Order, the Commission pointed to data suggesting that "the strongest growth" for certain edge providers and segments of the industry "predate[d] the *Title II Order*." *Id.* ¶ 108.

First, IA alleges a double standard as to the above: The Commission sets a high bar to show causal links between edge investment and the Title II Order while settling for less exacting standards in finding that the Title II Order likely hurt ISP investment. IA Br. 26. But we have already said that the agency drew reasonable, and appropriately qualified, conclusions on the latter issue. Second, IA says it is ironic that the Commission asks for counterfactual analysis while putting stock in the (allegedly) flawed Ford study. *Id.* Without touching on the Ford-Hooton debate, we simply note that IA is silent as to Hazlett and Wright's methodology for running counterfactual analyses, which the Commission treated as reliable—and without any equivalent as to edge providers in these proceedings. *2018 Order* ¶ 107. Third, IA says the Commission flouts *Fox Television* by ignoring the Title II Order's claim that edge innovation "depends upon low barriers to innovation and entry," IA Br. 26–27 (quoting *Verizon*, 740 F.3d at 645 (quoting, in turn, *Title II Order* ¶ 14)). Here IA begs the question. The thrust of the 2018 Order is that edge investment will benefit on net from unburdening ISPs of "onerous utility regulation." *2018 Order* ¶ 110. The Commission argues, *inter alia*, that (1) the Title II Order failed to take a properly "holistic view of the market(s) supplied by ISPs," and that "net gains to subscribers *and edge providers*," *id*. ¶ 119 (emphasis added), are best achieved without "heavy-handed" Title II rules, *id*. ¶ 117; *see also id*. ¶¶ 120–121; (2) "smaller edge providers may benefit from tiered pricing, such as paid prioritization, as a means [both] of gaining [market] entry," *id*. ¶ 133, and "compet[ing] on a more even playing field against large edge providers," *id*. ¶ 255; (3) "ending the flat ban on paid prioritization will encourage the entry of new edge providers into the market, particularly those offering innovative forms of service differentiation and experimentation," *id*.; *see also id*. at n.921 (reasoning that "encourag[ing] differentiated services is important because some online activities require only a minimal amount of bandwidth but extremely low latency; other uses may require greater bandwidth" (quoting Ericsson Comments at 5, WC Dkt. No. 17-108 (July 17, 2017)); and (4) transparency rules, coupled with ISPs' economic incentives, can protect "Internet openness," ¶ 117; *see also id*. ¶ 142. Putting aside the merits of these claims, which we address elsewhere, we do not find that the Commission's take on edge investment at Paragraphs 107–108 of the 2018 Order is either arbitrary or in conflict with *Fox Television*.

IA also alleges that the Commission failed to grapple properly with the Title II Order's prediction of a possible short-term downturn in investment, only touching cursorily on it at Paragraph 247. *See Title II Order* ¶ 410; *see also* IA Br. 28 & n.11. But the Commission, noting "that the vague Internet

Conduct Standard [of the Title II Order] subjects providers to substantial regulatory uncertainty," *2018 Order* ¶ 247, expressed doubt that this uncertainty was "likely to be short term and [would] dissipate over time as the marketplace internalizes [the] Title II approach," *id*. (second alteration in original) (quoting *Title II Order* ¶ 410).

Finally, Petitioners appear to believe that the Commission arbitrarily downweighted a study, Robert W. Crandall, *The FCC's Net Neutrality Decision and Stock Prices*, 50 Rev. Indus. Org. 555 (2017), finding that, despite release of the Title II Order in March 2015, there had been no decline in the stock prices of BIAS providers in the first half of 2015 relative to the stock market generally. Mozilla Br. 70–71; *see 2018 Order* ¶ 93 n.346. (We note that the study relates only indirectly to the issue of investment, although both derive from market anticipations of future profit.) The agency had commented that the study "may reflect the forward-looking, predictive capabilities of market players." *2018 Order* ¶ 93 n.346. In its brief before us the Commission confirms what an ordinary reader would likely have made of that remark, namely, that the market would have factored into the stock price investors' expectations of the ultimate Commission action before it occurred. Commission Br. 84 n.23. Anticipating this reading, Petitioners see it as unreasonable, because it is tantamount to using a "crystal ball, since reclassification was not the preferred course announced by the Commission in the *2014 NPRM* [¶ 148]." Mozilla Br. 71; *see In re Protecting and Promoting the Open Internet*, 29 FCC Rcd. 5561, 5612–5613 ¶ 148 ("*2014 NPRM*").

Curiously, we have already opined on Paragraph 148 of the 2014 NPRM for the Title II Order. In *USTA* we addressed United States Telecom's claim that because the NPRM proposed to rely on Section 706 there was inadequate notice of its ultimate use of Title II. We batted that out of the park in one sentence, citing Paragraph 148's call for comment on possible use of Title II, *USTA*, 825 F.3d at 700, a call that the Commission in fact proliferated in seven additional paragraphs bursting with minutiae about the use of Title II, *see 2014 NPRM* ¶¶ 149–155. Moreover the May 2014 NPRM made clear the Commission's plan to impose new rules on industry. *See, e.g.*, *id.* ¶ 24. ("Today, we respond directly to that remand [*Verizon*, 740 F.3d at 659] and propose to adopt enforceable rules of the road * * * to protect and promote the open Internet."). Strikingly, United States Telecom's claim of inadequate notice did not suggest that the NPRM left it in the dark *on a single rule* adopted in the Title II Order. *USTA*, 825 F.3d at 700.

We should add that the disputed Crandall article takes no explicit note of the 2014 NPRM (though its charts suggest an absence of any stock movement associated with it). *See* Crandall, *The FCC's Net Neutrality Decision and Stock Prices*, 50 Rev. Indus. Org. at 661 Figs. 1 & 2. Reading the article as finding no stock price impact from the whole course of events, however, does not ipso facto undermine the Commission's inference of a probable reduction in investment, as that reduction might reflect firms' strategies for minimizing the Title II Order's anticipated economic impact by reallocating capital to other, similarly productive, uses, thereby keeping stock prices mostly unaffected.

In sum, we stress again the Commission's recognition that the Title II Order's effect on investment was subject to honest dispute, focusing in Paragraphs 87–98 on what is "likely" to happen, repeatedly flagging shortcomings in studies it cites, and qualifying their probative force. It found modestly that "[t]he balance of the evidence in the record suggests that Title II classification has reduced ISP investment in broadband networks." *2018 Order* ¶ 88. Further, claims about the Title II Order's effects on investment are only one element of the Commission's basis for believing that reclassification will yield positive economic effects. We are, in short, unpersuaded by Petitioners' and Intervenors' objections to the Commission's finding and their implicit claim that uncertainties associated with that finding render arbitrary the Commission's overall judgment—that there are net public policy benefits from reclassification, based not only on a likelihood of increased investment and innovation but also on the absence of any "discernable incremental benefit relative to Title I classification." *Id.* ¶ 87. This court "properly defers to policy determinations invoking the [agency's] expertise in evaluating complex market conditions." *Gas Transmission Nw. Corp. v. FERC*, 504 F.3d 1318, 1322 (D.C. Cir. 2007).

B. Harms to Edge Providers and Consumers

Petitioners emphasize that, historically, the "FCC has repeatedly found that [broadband providers] have the ability and incentive to harm edge providers and consumers." *See* Mozilla Br. at 62 (citing *2010 Order* ¶ 21 and *Title II Order* ¶ 20). According to Petitioners, the Commission ignored these prior findings when it issued the 2018 Order. Under *Fox Television*, when an agency changes its policy "a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." 556 U.S. at 515–516. While "[a]n agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past, any more than it can ignore inconvenient facts when it writes on a blank slate," *Id.* at 537 (Kennedy, J., concurring), such is not the case here.

The Commission reasonably concluded that the harms the Title II Order was designed to prevent did not require the prior

Order's regulatory measures but could instead be mitigated—at a lower cost—with transparency requirements, consumer protection, and antitrust enforcement measures. Even if the conduct rules lead to marginal deterrence, the Commission determined that the "substantial costs" are "not worth the possible benefits." *2018 Order* ¶ 245; *see also id.* ¶¶ 240–266. In arriving at this conclusion, the Commission "scrutinize[ed] closely each prior conduct rule." *2018 Order* ¶ 239. Rather than ignoring its prior findings, the Commission changed its balancing of the relevant incentives. The Commission employed a different method to address its previous concerns regarding broadband providers' behavior and incentives. In so doing, the Commission provided a "reasoned explanation" for its changed view as required by *Fox*.

We are, however, troubled by the Commission's failure to grapple with the fact that, for much of the past two decades, broadband providers were subject to some degree of open Internet restrictions. For example, from the late 1990s to 2005, Title II applied to the transmission component of DSL service. *Title II Order* ¶ 313. Even after the Commission issued the 2005 Wireline Broadband Order, which classified DSL as an integrated information service and thus further removing it from Title II's ambit, the Commission announced that should it "see evidence that providers of telecommunications for Internet access or IP-enabled services are violating" the Internet Policy Statement, which reflected Chairman Michael Powell's four principles of Internet openness, it would "not hesitate to take action to address that conduct," *id.* at 14904 ¶ 96. In 2015, the Commission also claimed that "Title II has been maintained by more than 1000 rural local exchange carriers that have chosen to offer their DSL and fiber broadband services as common carrier offerings." *Title II Order* ¶ 39. The Commission's failure to acknowledge this regulatory history, however, does not provide grounds for reversal on this record given its view that market forces combined with other enforcement mechanisms, rather than regulation, are enough to limit harmful behavior by broadband providers.

Petitioners dispute that the transparency rule, market forces, or existing antitrust and consumer protection laws can adequately protect Internet openness. The Commission's conclusion to the contrary, they argue, was arbitrary and capricious. We consider Petitioners' attack on components of the light-touch regime but are ultimately unpersuaded.

1. Reliance on the Transparency Rule

The Commission, in large part, undergirds its light-touch regime with its finding that the transparency rule's disclosure requirements will discourage broadband providers from engaging in harmful practices. *2018 Order* ¶ 209. Specifically, the Commission reasoned that public disclosure requirements would encourage broadband providers to abide by open Internet principles and "incentivize[] quick corrective measures by providers if problematic conduct is identified." *Id.*; *see also id.* ¶ 217. Disclosure could help ensure that "those affected by such conduct will be in a position to make informed competitive choices or seek available remedies for anticompetitive, unfair, or deceptive practices." *Id.* ¶ 217. But Petitioners contend that the Commission's reliance on the transparency rule was unreasonable because "[d]isclosure does little for consumers with no practical alternatives." Mozilla Br. 55. We disagree and find that the Commission offered a reasonable justification for the transparency rules. Since the Commission first adopted a transparency rule in 2010, "almost no incidents of harm to Internet openness have arisen." *2018 Order* ¶ 242; *see also id.* ¶ 241. Based on this record, the Commission concluded that "public scrutiny and market pressure" is an effective "disinfectant" and leads to "increasingly fast [broadband provider]-driven resolution[s]" when issues do arise. *Id.* ¶243. Beyond its claim that the transparency rule does not go far enough to protect some consumers, Petitioners offer no more elaborate reason for explaining how the Commission's reliance on disclosure was impermissible. Seeing none, we reject Petitioners' arbitrary-and-capricious challenge.

2. Reliance on Competition

Petitioners contend that the Commission acted arbitrarily and capriciously in changing its view about the magnitude of competitive pressures in the fixed broadband market. Recall, the "premise of Title II and other public utility regulation is that [broadband providers] can exercise market power sufficient to substantially distort economic efficiency and harm end users." *2018 Order* ¶ 123. But in the most recent order, the Commission concluded that "fixed broadband Internet access providers frequently face competitive pressures that mitigate their ability to exert market power." *2018 Order* ¶217. Petitioners responded with three arguments, none of which we find surmount the highly deferential standard of review.

First, Petitioners claim that the Commission arbitrarily accepted a lack of competition in the fixed broadband market. For example, Petitioners lament that almost half of Americans have either one or no choice for residential high-speed wireline broadband providers (download speeds of 25 Mbps and higher and upload speeds of 3 Mbps and higher). Another 45 percent have only two high-speed wireline options. Despite this information, the Commission concludes that competition is "widespread." *2018 Order* ¶ 125.

As part of its overall argument, the Commission suggests that "fixed satellite and fixed terrestrial wireless Internet access providers" exert "some pressure on [broadband] providers."

2018 Order at ¶ 125. When considering this wider range of providers, the Commission estimates that 43.9 percent of all Americans have a choice of three or more providers offering high-speed broadband (download speeds of 25 Mbps and upload speeds of 3Mbps and higher), and about 95 percent have a choice of three or more providers offering slower speeds. *Id.* ¶ 124. But the Commission's own discussion makes clear the limited conclusions these figures can support as to competition in wireline services. First, the Commission acknowledges that fixed satellite and fixed terrestrial wireless Internet access service may not be "broadly effective competitors." *Id.* ¶ 125. So, at best, we can only anticipate that "these services, where available, place *some* competitive constraints on wireline providers." *Id.* (emphasis added). Second, the Commission "make[s] no finding as to whether lower speed fixed Internet access services are in the same market as higher speed fixed Internet access services." *Id.* ¶ 124 n.454. Taken together, the Commission fails to provide a fully satisfying analysis of the competitive constraints faced by broadband providers.

We are, however, satisfied by the Commission's other reasons for believing that competition exists in the broadband market. The Commission turns to empirical research that supports the claim that the presence of two wireline providers is enough to ensure that meaningful competition exists. *Id.* ¶ 126. Consumers in areas with fewer than two providers may also reap the benefits of competition; a provider in this area "will tend to treat customers that do not have a competitive choice as if they do" because competitive pressures elsewhere "often have spillover effects across a given corporation." *Id.* ¶ 127. Additionally, these providers could face hefty operational and reputational cost from acting badly in uncompetitive areas. *Id.* Based on these reasonable findings and our highly deferential standard of review, it was not arbitrary for the Commission to conclude that fixed broadband providers face competitive pressures.

Second, Petitioners worry that even if there is competition in the local market for broadband, once a consumer chooses a broadband provider, that provider has a monopoly on access to her. In turn, the provider can use that access to control the interaction between edge providers, end users, and others. The Title II Order took this "terminating access monopoly" concern seriously and found that it enabled broadband providers of all types and sizes to raise prices. Petitioners claim that the Commission's 2018 Order shifts from this previous position without explanation. This is not so.

The Commission offered several reasons for rejecting its prior finding of a terminating monopoly. For example, it notes that many customers can access edge provider's content from multiple sources (i.e., fixed and mobile). *See 2018 Order* ¶ 136. In this way, there is no terminating monopoly. *Id.* Additionally, the Commission argued that even if a terminating monopoly exists for some edge providers the commenters did not offer sufficient evidence in the record to demonstrate that the resulting prices will be inefficient. *Id.* ¶ 137. Given these reasons, we reject Petitioners' claim that the Commission's conclusion on terminating monopolies is without explanation.

Third, Petitioners argue that the Commission disregards its previous determination that broadband provider market power is strengthened by the high costs of switching broadband providers. The Title II Order found that, when switching providers, "consumers may experience []: high upfront device installation fees; long-term contracts and early termination fees; the activation fee when changing service providers; and compatibility costs of owned equipment not working with the new service." *Title II Order* ¶ 81. However, the Commission's most recent order was skeptical of whether the rate of consumers changing providers — the "churn" rate — is as low as it previously found. *See 2018 Order* ¶ 128. More importantly, the Commission contends that low churn rates do not *per se* indicate market power. *See id.* Instead, they could be a function of competitive actions taken by broadband providers to attract and retain customers. *See id.* And such action to convince customers to switch providers, the Commission argues, is indicia of material competition for new customers. *See id.* This rationale provides a reasoned explanation for departing from prior findings on churn rates and broadband provider market power.

3. Reliance on Antitrust and Consumer Protection Laws

The Commission found that "[i]n the unlikely event that ISPs engage in conduct that harms Internet openness," legal regimes like "antitrust law and the FTC's authority under Section 5 of the FTC Act to prohibit unfair and deceptive practice" will provide protection for consumers. *See 2018 Order* ¶ 140. The Commission reasoned that antitrust and consumer protection laws are particularly well-suited to addressing openness concerns because "they apply to the whole of the Internet ecosystem, including edge providers, thereby avoiding tilting the playing field against ISPs and causing economic distortions by regulating only one side of business transactions on the Internet." *Id.* Petitioners argue that reliance on antitrust and consumer protection law was an improper delegation of authority. We disagree.

Petitioners' argument relies on Section 706, which directs "[t]he *Commission*" to "encourage the deployment" of broadband, 47 U.S.C. § 1302(a) (emphasis added), and Section 1 of the Communications Act, which likewise directs the FCC to make rapid and efficient communications services available to all, *id.* § 151. According to Petitioners, these mandates mean that the Commission may not "delegate" fundamental questions of national telecommunications policy to the Department of Justice and the Federal Trade Commission.

Petitioners liken this case to *Local 1976, United Brotherhood of Carpenters & Joiners v. NLRB*, 357 U.S. 93 (1958), where the Supreme Court held that an agency may not "abandon an independent inquiry into the requirements of its own statute and mechanically accept standards elaborated by another agency under a different statute for wholly different purposes." *Id.* at 111. But the Commission has not "mechanically accept[ed] the standards" of other laws as satisfying its own. Instead, it has conducted an independent assessment of the degree of problematic conduct that has been and will be committed by broadband providers and whether, as a policy matter, the benefits of restricting that conduct outweigh the costs. A reasonable piece of that policy-making puzzle, then, is an assessment of other regulatory regimes that might already limit the conduct in question. Therefore, it was not impermissible for the Commission to recognize that the Department of Justice and Federal Trade Commission have the ability to police blocking and throttling practices *ex post*.

To be sure, the Commission's discussion of antitrust and consumer protection law is no model of agency decisionmaking. The Commission theorized why antitrust and consumer protection law is preferred to *ex ante* regulations but failed to provide any meaningful analysis of whether these laws would, in practice, prevent blocking and throttling. For example, the Commission opines that "[m]ost of the examples of net neutrality violations discussed in the Title II Order could have been investigated as antitrust violations," *see 2018 Order* ¶ 145, but fails to explain what, if any, concrete remedies might address these antitrust violations. It is concerning that the Commission provides such an anemic analysis of the safety valve that it insists will limit anticompetitive behavior among broadband providers. Nonetheless, we cannot go so far as to say that this failure is so profound that the agency "entirely failed to consider an important aspect of the problem," *State Farm*, 463 U.S. at 43, or otherwise engaged in unreasoned decisionmaking. That is especially true because the Commission viewed those laws as only one part of a larger regulatory and economic framework that it believes will limit broadband providers' engagement in undesirable practices. The Commission barely survives arbitrary and capricious review on this issue.

C. Public Safety

The Governmental Petitioners challenge as arbitrary and capricious the Commission's failure to consider the implications for public safety of its changed regulatory posture in the 2018 Order. And they are right.

Congress created the Commission for the purpose of, among other things, "promoting safety of life and property through the use of wire and radio communications." 47 U.S.C. § 151. So the Commission is "required to consider public safety by * * * its enabling act." *Nuvio Corp. v. FCC*, 473 F.3d 302, 307 (D.C. Cir. 2006); *see also* 47 U.S.C. § 615 (The Wireless Communication and Public Safety Act of 1999, Pub. L. No. 106–81, § 3, 113 Stat. 1286, 1287, directs the Commission to "encourage and support efforts by States to deploy comprehensive end-to-end emergency communications infrastructure and programs" and to "consult and cooperate with State and local officials responsible for emergency services and public safety.”).

An agency’s failure to consider and address during rulemaking “an important aspect of the problem” renders its decision arbitrary and capricious. *State Farm*, 463 U.S. at 43. A “statutorily mandated factor, by definition, is an important aspect of any issue before an administrative agency, as it is for Congress in the first instance to define the appropriate scope of an agency’s mission.” *Public Citizen v. Federal Motor Carrier Safety Admin.*, 374 F.3d 1209, 1216 (D.C. Cir. 2004); *accord Lindeen v. SEC*, 825 F.3d 646, 657 (D.C. Cir. 2016) (“A rule is arbitrary and capricious if an agency fail[s] to consider * * * a factor the agency must consider under its organic statute.”) (internal quotation marks omitted). When, as here, “Congress has given an agency the responsibility to regulate a market such as the telecommunications industry that it has repeatedly deemed important to protecting public safety,” then the agency’s decisions “must take into account its duty to protect the public.” *Nuvio*, 473 F.3d at 307.

A number of commenters voiced concerns about the threat to public safety that would arise under the proposed (and ultimately adopted) 2018 Order. Specifically, public safety officials explained at some length how allowing broadband providers to prioritize Internet traffic as they see fit, or to demand payment for top-rate speed, could imperil the ability of first responders, providers of critical infrastructure, and members of the public to communicate during a crisis.

Santa Clara County, for example, explained that the 2018 Order would have a “profound negative impact on public welfare, health, and safety” communications. J.A. 3332. The County and its fire department have implemented new, Internet-based services that depend on community members’ speedy and unimpeded access to broadband Internet. "For example, the County's virtual Emergency Operations Center, used by the County and County Fire to coordinate crisis response, relies on contributors' access to the internet on nondiscriminatory terms." J.A. 3333; *see also* J.A. 3338 (describing an Internet-based system that allows emergency personnel to log in through "a web interface and populate, monitor, and act on situational data"); *id.* (describing a critical "web-based public alert system" that "provides immediate contact with members of the public via email, text, or phone on matters such as evacuation or shelter-in-place orders, fires, unhealthy air quality, and excessive heat warnings").

Similarly, the California Public Utility Commission warned that the 2018 Order could "profoundly impair[]" the ability of state and local governments "to provide comprehensive, timely information to the public in a crisis." J.A. 259. Catherine Sandoval, former Commissioner of the California Public Utilities Commission, J.A. 2481, noted that the Utility Commission authorized energy utility companies to expend taxpayer funds on Internet-based "demand response programs" that are "activated during times of high demand, or when fire or other emergencies make conservation urgent," and "call on people and connected devices to save power." J.A. 2514–2515. Pacific Gas and Electric, for example, implemented a "gas detection box that uses readily available [geographic information systems] platforms and tablets" in the wake of an earthquake to "quickly survey * * * damaged areas and identify and prioritize work to address gas leaks." J.A. 2511. And the California Department of Forestry and Fire Protection "depends on broadband access, speed, and reliability" in order to "track fire threats, fires, and manage forests and vegetation" to prevent fires. J.A. 2530–2531.

Any blocking or throttling of these Internet communications during a public safety crisis could have dire, irreversible results. "[E]ven if discriminatory practices might later be addressed on a post-hoc basis by entities like the Federal Trade Commission," the harm to the public "cannot be undone." J.A. 3333.

On appeal, the Governmental Petitioners attempt to supplement their record comments with documentation of an incident involving the (apparently accidental) decision by Verizon to throttle the broadband Internet of Santa Clara firefighters while they were battling a devastating California wildfire. "To ensure that we review only those documents that were before the agency, we do not allow parties to supplement the record unless they can demonstrate unusual circumstances justifying a departure from this general rule." *District Hosp. Partners v. Burwell*, 786 F.3d 46, 55 (D.C. Cir. 2015) (internal quotation marks omitted). Unusual circumstances will be found where (i) "[t]he agency deliberately or negligently excluded documents," (ii) "the district court needed to supplement the record with 'background information' in order to determine whether the agency considered all of the relevant factors," or (iii) "the agency failed to explain administrative action so as to frustrate judicial review." *American Wildlands v. Kempthorne*, 530 F.3d 991, 1002 (D.C. Cir. 2008).

The throttling incident involving the Santa Clara firefighters occurred in June 2018, six months after the 2018 Order was issued. Yet, the Governmental Petitioners have made no attempt to demonstrate the type of unusual circumstances that would allow this court to consider that post-Order evidence. Therefore, we decline to consider it.

Even without that evidence, though, the direct and specific comments by Santa Clara County, former California Public

Utility Commissioner Sandoval, and others repeatedly raised substantial concerns about the Commission's failure to undertake the statutorily mandated analysis of the 2018 Order's effect on public safety.[2]

In fact, the Commission does not dispute that it was obligated to consider public safety. Nor does it claim that it specifically addressed public safety in its 2018 Order. Instead, the Commission offers two defenses. The Commission argues that the June 2018 incident with Verizon demonstrates that light-touch rules promote public safety because, in response to the negative public reaction to its throttling practice, Verizon introduced a new plan for public safety customers. The Commission also reasons that the Governmental Petitioners' concerns "about government services are issues that apply to all edge providers, public and private." Commission Br. 95. Those arguments are too little, too late.

First, the argument about Verizon's response was not made in the 2018 Order to explain the Commission's bypassing of the required public-safety analysis. In fact, it was not made at all because, as noted, this incident postdated the final 2018 Order by half a year. Just as we will not expand the record to consider documentation about Verizon's decision to throttle the Santa Clara County Fire Department after the 2018 Order

[2] Most of Santa Clara County's comments appear to have been made outside the comment window. However, the Commission has not suggested that those comments are untimely. Therefore, it has itself forfeited any forfeiture challenge to Santa Clara County's arguments. *See National Corn Growers Ass'n v. EPA*, 613 F.3d 266, 275 (D.C. Cir. 2010) (considering letter where EPA did not suggest until oral argument that it was untimely); *BNSF Ry. Co. v. Surface Transp. Bd.*, 604 F.3d 602, 611 (D.C. Cir. 2010) ("[A] forfeiture can be forfeited by failing on appeal to argue an argument was forfeited.").

was issued, we will not consider the public statements made by Verizon in response to that controversy. Under the Administrative Procedure Act as elsewhere, what is good for the goose is good for the gander.

Nor, for that matter, will we consider arguments about those statements' relevance to the 2018 Order surfaced for the first time on appeal. "[C]ourts may not accept appellate counsel's *post hoc* rationalization for agency action," because longstanding Supreme Court precedent "requires that an agency's discretionary order be upheld, if at all, on the same basis articulated in the order by the agency itself." *Temple Univ. Hosp. v. NLRB*, 929 F.3d 729, 734 (D.C. Cir. 2019) (quoting *Erie Brush & Mfg. Corp. v. NLRB*, 700 F.3d 17, 23 (D.C. Cir. 2012)); *see SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947).

Second, the Commission did not claim in the 2018 Order that the public safety issues raised by the Governmental Petitioners could be ignored because they were redundant of the arguments made by edge providers. Therefore, the Commission's argument is an off-limits *post hoc* rationalization. *See Temple Univ. Hosp.*, 929 F.3d at 734.

And the argument is facially inadequate to boot. The Commission's after-the-fact reasoning entirely misses the fact that, whenever public safety is involved, lives are at stake. As noted by Santa Clara County, unlike most harms to edge providers incurred because of discriminatory practices by broadband providers, the harms from blocking and throttling during a public safety emergency are irreparable. People could be injured or die. *See* J.A. 3333; s*ee also Hawkins v. Defense Logistics Agency of the Dep't of Defense*, 99 F.3d 1149 (Table), *1 (10th Cir. 1996) (using imminent threat of death as an example of irreparable harm); *New York v. Sullivan*, 906 F.2d

910, 918 (2d Cir. 1990) (finding irreparable harm when the "[d]enial of benefits potentially subjected claimants to deteriorating health, and possibly even death").

Apparently recognizing the problem, the Broadband Intervenors United States Telecom, *et al.* try a different tack. They argue that—unbeknownst even to the Commission itself—the 2018 Order did consider public safety. The four references that the Broadband Intervenors cite do not hold up.

First, the Broadband Intervenors claim that the Commission found "'scant evidence' of threats to public safety." Broadband Br. 37 (citing *2018 Order* ¶ 265 & n.978). What the Commission actually found is that there was "scant evidence that end users, under different legal frameworks, have been prevented by blocking or throttling from accessing the content of their choosing." *2018 Order* ¶ 265. No mention of public safety.

Second, the Broadband Intervenors say the 2018 Order allowed that States "could continue to play their vital role" in advancing public safety. Broadband Br. 37 (citing *2018 Order* ¶ 196 & n.737). Not quite. The full quote was that States "will continue to play their vital role in protecting consumers from fraud, enforcing fair business practices, for example, in advertising and billing, and generally responding to consumer inquiries and complaints." *2018 Order* ¶ 196. While important, those topics are not about public safety.

Third, the Broadband Intervenors point to the Commission's conclusion that national security objections to the 2018 Order were vague and unsubstantiated. Broadband Br. 37 (citing *2018 Order* ¶ 258 n.943). But that Commission statement was made in reference to a comment in the record about "a September 11-type of failure of imagination about risks to America's national security and democracy." *2018*

Order ¶ 258 n.943. That narrow and isolated response says nothing about the multi-faceted public safety concerns associated with subjecting emergency services providers, other public health providers, and the members of the public who depend on those services to paid prioritization and blocking and throttling.

Finally, the Broadband Intervenors note the Commission's conclusion that "any remaining unaddressed harms" were "small relative to the costs of implementing more heavy-handed regulation." Broadband Br. 37 (citing *2018 Order* ¶ 116). That Rorschachian speculation is hardly the focused and specific study of public safety implications that the law requires.

The Commission's disregard of its duty to analyze the impact of the 2018 Order on public safety renders its decision arbitrary and capricious in that part and warrants a remand with direction to address the issues raised.

D. Reliance Interests

Both sets of Petitioners argue that the Commission paid too little heed to the reliance that various parties—particularly edge providers and state and local governments—allegedly placed on the Title II Order in making investments that Petitioners see as jeopardized by the Commission's action here. *See* Mozilla Br. 71–72; Governmental Pet'rs' Br. 29–32. The Commission acknowledged, as it must, the significance of reliance interests as a potential weight against its decision, *see 2018 Order* ¶ 159; *cf. Fox Television*, 556 U.S. at 515–516; *Mingo Logan Coal Co. v. EPA*, 829 F.3d 710, 718–719 (D.C. Cir. 2016), but found the submissions wanting. It argues first that parties have not established any reliance to begin with, for lack of any "attempt to attribute particular portions of th[eir] investment to any reliance on the *Title II Order*." *2018 Order*

¶ 159; *see also id.* at n.588 (quoting comment observing that the complainants had not "provide[d] any empirical basis for speculating that edge investment since 2015 would have been substantially lower in the absence of Title II regulation"). Second, even if reliance had been shown, the Commission maintains that it would not have been reasonable under the circumstances. *Id.* ¶ 159.

As to the Commission's first argument, the issue is whether the Commission was arbitrary or capricious in finding that there were no serious reliance interests attributable to the Title II Order because it was not convinced that edge providers' investments in the time since the Title II Order had been made in reliance on that order. We lack adequate briefing on the issues we would need to settle here, including what findings an agency must make to support a conclusion that serious reliance interests do not exist in the first place—issues that neither the Supreme Court, *see Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117 (2016); *Fox Television*, 556 U.S. at 515–516, nor our circuit has resolved. Given as much, and in light of the availability of other grounds for decision, we will not pass on the Commission's first argument. Rather, we will uphold the agency's treatment of reliance interests based on its alternative argument. That is, assuming the change in agency position implicated serious reliance interests, we agree with the Commission that such reliance would have been unreasonable on the facts before us.

Besides noting the record's loose link between investment and particular rules, the Commission says that it was not persuaded that any "such reliance would have been reasonable in any event, given the lengthy prior history of information service classification of broadband Internet access service, which we are simply restoring here after the brief period of departure initiated by the *Title II Order*." *2018 Order* ¶ 159.

Insofar as the regulation on which reliance is asserted is simply the Title II Order's package of rules and policies, we think this is a fair response. First, the 2015 rules had been in effect "barely two years before the Commission proposed to repeal them," a limited period to engender reliance. Commission Br. 92–93; *see 2018 Order* ¶ 159 (referring to a "brief period of departure" from the prior classification policy "initiated by the *Title II Order*"); *see also Encino Motorcars*, 136 S. Ct. at 2126 (describing "decades of industry reliance on the Department's prior policy"); *USTA*, 825 F.3d at 709–710 (crediting 2015 Commission's rebuttal to Petitioners' asserted reliance interests on the basis that "just five years after *Brand X*" the Commission sought comments on reclassifying broadband). Second, in light of the Commission's approach to classifying cable modem service and Internet access since the late 1990s, the Title II Order could reasonably have been viewed as a regulatory step that might soon be reversed. *See 2018 Order* ¶ 159 (referring to "lengthy prior history of information service classification of broadband Internet access service").

In its brief before us, the Commission adds a third point. In the two-year period between the Title II Order and the Commission's announcement of its intention to return to prior policies, the Title II Order faced persistent legal challenges. Commission Br. 93. (Indeed, certiorari on the legal assaults was denied only on November 5, 2018, *see, e.g., United States Telecom Ass'n v. FCC*, 139 S. Ct. 475 (2018), after issuance of the 2018 Order itself, with three Justices dissenting from denial of certiorari, *id.*) Any reliance on the rules of the Title II Order would not have been reasonable unless tempered by substantial concerns for legal or political jeopardy.

But as we already mentioned, Petitioners do not confine themselves to the Title II Order as the basis for their claim (though they seem to view our *overturning* the Commission's overturning of that order as the proper remedy). According to Mozilla, edge investment has "relied not simply on a particular classification decision, but on the Commission's unwavering commitment * * * to use what powers it has to ensure that consumers would have free access to all lawful internet content" "beginning at least with" a 2005 Commission policy statement. Mozilla Br. 71–72; *see In re Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, 20 FCC Rcd. 14986 (2005) ("*2005 Policy Statement*"). One of the comments Mozilla points to takes the matter back to the statement of Commission Chairman Powell in February 2004 outlining four principles of "internet freedom," J.A. 3348 & n.5, reflected in the *2005 Policy Statement*. Each of those principles was meant "to encourage broadband deployment and preserve and promote the open and interconnected nature of the public Internet." *2005 Policy Statement*, 20 FCC Rcd. at 14988. And Governmental Petitioners claim the 2018 Order "overturned a much longer history of open Internet protections." Governmental Pet'rs' Br. 31.

The Commission did not expressly respond to this variant of the "reliance" argument. But Petitioners' effort to define the status quo as a whole era of Commission policy, from Chairman Powell's 2004 statement to the 2018 Order (or at least the underlying NPRM), renders the claim more or less non-falsifiable. While outside observers may associate "light touch" with a distinct era in regulation and "open Internet" with another era, the successive Commission majorities have consistently vowed fealty to both. The Title II Order at multiple locations insisted that the new policy was "light-touch," *see, e.g.*, *Title II Order* ¶¶ 5, 37, 39, 382, and the 2018 Order similarly sees its policy as a new and better way to advance precisely what Petitioners see as the Commission's age-old policy, an "open Internet," *see 2018 Order* ¶¶ 1, 4, 18. Here the Commission, though recognizing that the phrase "net neutrality" is in some circles equated with application of Title II, draws a clear contrast between "net neutrality *per se*" and "Title II regulation," suggesting that the Powell principles evinced a commitment to the former but not the latter. 2018 Order ¶ 95. And, far from eschewing any effort to prevent unreasonable discrimination, it sees its insistence on transparency as well-designed to advance that goal. *See, e.g., id*. ¶¶ 116, 142, 153, 209. Petitioners may distrust the Commission's stated dedication to an open Internet, but the ubiquity of Commissioners' attachment to an open Internet (as well as to "light touch") makes it impossible to rest a reliance claim on some notion that either phrase represented a discrete policy that has appeared and disappeared with each zig or zag of Commission analysis.

We conclude that the agency's treatment of reliance interests is not arbitrary or capricious.

E. Pole Attachments

The Governmental Petitioners express substantial concern that, in reclassifying broadband Internet as an information service, the Commission, without reasoned consideration, took broadband outside the current statutory scheme governing pole attachments. That is because the Communications Act defines the "pole attachment[s]" it subjects to regulation by reference to "telecommunications service[s]" under Title II, not information services under Title I. 47 U.S.C. § 224(a)(4).

We agree. The Commission offered, at best, scattered and unreasoned observations in response to comments on this issue. Because the Commission did not adequately address how the reclassification of broadband would affect the regulation of pole attachments, we remand for the Commission to do so.

For purposes of the Communications Act, a "pole attachment" is defined as an "attachment * * * to a pole, duct, conduit, or right-of-way owned or controlled by a utility." 47 U.S.C. § 224(a)(4). As the Commission has recognized, pole attachments are "crucial to the efficient deployment of communications networks including, and perhaps especially, new entrants." *See Title II Order* ¶ 56; *id*. ¶ 413 (recognizing that Title II classification "offers other benefits at the state level, including access to public rights of way, which some broadband providers reportedly utilize to deploy networks") (internal quotation marks omitted). The Commission has also "recognized repeatedly" that "[l]eveling the pole attachment playing field for new entrants that offer solely broadband services * * * removes barriers to deployment and fosters additional broadband competition." *Id*. ¶ 478.

The Communications Act establishes as a default rule that "the Commission shall regulate the rates, terms, and conditions for pole attachments." 47 U.S.C. § 224(b)(1). Yet the Act also allows any State to displace Commission regulation if the State certifies to the Commission that it is regulating pole attachments. *See id.* § 224(c) ("Nothing in this section shall be construed to apply to, or to give the Commission jurisdiction with respect to rates, terms, and conditions or access to poles, ducts, conduits, and rights-of-way * * * for pole attachments in any case where such matters are regulated by a State."). Approximately twenty States regulate pole attachments under this regime. *See States That Have Certified That They Regulate Pole Attachments*, 25 FCC Rcd. 5541, 5541–5542 (May 19, 2010); *2018 Order* ¶ 185.

But this whole regulatory scheme applies only to cable television systems and "telecommunications service[s]"—categories to which, under the 2018 Order, broadband no longer belongs. *See* 47 U.S.C. § 224(a)(4) (defining "pole attachment" as "any attachment by a *cable television system or provider of telecommunications service* to a pole, duct, conduit, or right-of-way owned or controlled by a utility") (emphasis added); *id*. § 224(f)(1) ("A utility shall provide a *cable television system or any telecommunications carrier* with nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled by it.") (emphasis added). Section 224's regulation of pole attachments simply does not speak to information services. Which means that Section 224 no longer speaks to broadband.

The Commission must have seen this problem coming because it sought comment on the specific issue of "the impact of reclassification * * * with respect to pole attachments." *See* NPRM at ¶ 69. The Governmental Petitioners foresaw it too. During the comment period, they alerted the Commission that reclassification would disrupt this settled legal and regulatory foundation. *See* J.A. 234–240. Given that "[u]nauthorized, and sometimes hazardous, attachments to poles are a regular occurrence," the Governmental Petitioners expressed concern that broadband providers might invoke reclassification "to ignore, avoid, deny or undercut" the States' power to impose pole-attachment safety regulations. J.A. 236. They also warned that reclassification would take away broadband providers' "statutory *right*, under federal law, to nondiscriminatory, just and reasonable access to the poles and conduit that cable providers and telecommunications carriers enjoy." J.A. 236. On top of that, reclassification "without a successful alternative for pole attachment rights under federal law could delay or harm [broadband] deployment and that, in turn, could negatively affect competition * * * throughout the nation." J.A. 239.

The Commission's response makes no sense. In some portions of the 2018 Order, the Commission candidly acknowledged that reclassification means that Section 224 no longer governs broadband. *See 2018 Order* ¶ 163 n.600 ("We make clear that as a result of our decision to restore the longstanding classification of broadband Internet access service as an information service, Internet traffic exchange arrangements are no longer subject to Title II and its attendant obligations," including obligations under Section "224 (pole attachments).").

But in other portions of the Order, the Commission seemed to whistle past the graveyard, implying without reasoned basis that Section 224 would continue to govern reclassified broadband. *See 2018 Order* ¶ 185 ("[I]n the twenty states and the District of Columbia that have reverse-preempted Commission jurisdiction over pole attachments, those states rather than the Commission are empowered to regulate the pole attachment process."); *id.* ¶ 186 ("[W]e caution pole owners not to use this *Order* as a pretext to increase pole attachment rates or inhibit broadband providers from attaching equipment—and we remind pole owners of their continuing obligation to 'offer rates, terms, and conditions [that] are just and reasonable.'") (quoting 47 U.S.C. § 224(b)(1)); *id.* ¶ 196 ("Nor do we deprive the states of any functions expressly reserved to them under the Act, such as * * * exclusive jurisdiction over poles, ducts, conduits, and rights-of-way when a state certifies that it has adopted effective rules and regulations over those matters under section 224(c).").

Both cannot be true.

The best explanation the Commission provided was its reference to the 2007 Wireless Broadband Order. "As to section 224," the Commission said, the Wireless Broadband Order directs that "where the same infrastructure would provide 'both telecommunications and wireless broadband Internet access service,' the provisions of section 224 governing pole attachments would continue to apply to such infrastructure used to provide both types of service." *2018 Order* ¶ 188 (quoting 22 FCC Rcd. at 5922–5923). According to the Commission, its "rationale from 2007, that commingling services does not change the fact that the facilities are being used for the provisioning of services within the scope of the statutory provision, remains equally valid today." *Id*. ¶ 189. That "clarification," the Commission concluded, "will alleviate concerns that wireless broadband Internet access providers not face increased barriers to infrastructure deployment as a result of today's reclassification." *Id*.

That is all well and good for providers who "commingl[e]" telecommunication and broadband services. *Wireless Broadband Order* at 5922. But it does nothing to "alleviate concerns" regarding standalone broadband, which Americans have come to "increasingly * * * favor." J.A. 2268 (citing letter from members of Congress); *see also* J.A. 2270 (discussing "new entrants such as Google Fiber who offer standalone broadband services"). That is because the plain text of Section 224 speaks only of telecommunications services and cable television services. So under the 2018 Order, the statute textually forecloses any pole-attachment protection for standalone broadband providers.

The Commission was required to grapple with the lapse in legal safeguards that its reversal of policy triggered. *See Colorado Fire Sprinkler, Inc. v. NLRB*, 891 F.3d 1031, 1038 (D.C. Cir. 2018); *see also Lone Mountain Processing, Inc. v.*

Secretary of Labor, 709 F.3d 1161, 1164 (D.C. Cir. 2013). But it failed to do so. Because the 2018 Order was arbitrary and capricious in this respect, we remand for the Commission to confront the problem in a reasoned manner. *See Fogo De Chao (Holdings) Inc. v. United States Dep't of Homeland Sec.*, 769 F.3d 1127, 1141 (D.C. Cir. 2014) (agency's judgment "fails the requirement of reasoned decisionmaking under arbitrary and capricious review" where it "was neither adequately explained * * * nor supported by agency precedent"); *see also Hawaiian Dredging Constr. Co. v. NLRB*, 857 F.3d 877, 881 (D.C. Cir. 2017) (citing *State Farm*, 463 U.S. at 52).

F. Lifeline Program

The Lifeline Program subsidizes low-income consumers' access to certain communications technologies, including broadband Internet access. *See* 47 U.S.C. §§ 214, 254; 47 C.F.R. § 54.403. The Governmental Petitioners challenged the 2018 Order on the ground that reclassification would eliminate the statutory basis for broadband's inclusion in the Program. *See* 47 U.S.C. §§ 214(e), 254(e). The Commission brushed off their concern. That was straightforward legal error which requires remand.

Since its inception, the Commission has been responsible for "mak[ing] available, so far as possible * * * a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges." Communications Act of 1934, Pub. L. No. 416, 48 Stat. 1064, 1064 (codified at 47 U.S.C. § 151); *see also National Lifeline*, 921 F.3d at 1106. In 1985, the Commission implemented this national policy of universal service by creating the Lifeline Program. *MTS and WATS Market Structure; and Establishment of a Joint Board; Amendment*, 50 Fed. Reg. 939 (Jan. 8, 1985); *see also National Lifeline*, 921

F.3d at 1106 (describing the Lifeline Program as meant to "ensure * * * low-income consumers [have] access to affordable, landline telephone service").

In 1996, Congress codified the Lifeline Program as part of the Communications Act. *See* 47 U.S.C. §§ 214, 254. The statutory provisions set forth, among other things, a program-funding mechanism, guidelines for state participation, and a designation scheme for determining Program eligibility. *Id.* §§ 214, 254(d) & (f). The Act also declared that "[u]niversal service is an evolving level of telecommunications services that the Commission shall establish periodically * * *, taking into account advances in telecommunications and information technologies and services." *Id.* § 254(c)(1).

With Congress's directive in mind, the Commission added broadband to the Lifeline Program in 2016. *See In re Lifeline & Link UP Reform and Modernization*, 31 FCC Rcd. 3962, 3964 (2016) ("*Lifeline Order*"); 47 C.F.R. § 54.403. In doing so, it sought to "enable all Americans to share in the opportunities broadband connectivity provides" by allowing "low income consumers to apply Lifeline's $9.25 per month discount to stand-alone broadband service." FCC, Lifeline Support for Affordable Communications, https://www.fcc.gov/sites/default/files/lifeline_support_for_affordable_communications.pdf. In the Lifeline Order, the Commission repeatedly referenced Congress's overriding command to provide *"telecommunication services* to consumers." *Lifeline Order* at 3964 (emphasis added); *see also id.* at 3970, 3972, 3975, 3994, 4084.

That made sense, given that Congress had tethered Lifeline eligibility to common-carrier status. To receive Lifeline support under the Act, an entity must be designated as an eligible telecommunications carrier—a category that extends to common carriers regulated under Title II. *See* 47 U.S.C. §§ 254(e), 214(e). This congressional understanding pervades the statute. *See, e.g.*, *id.* § 214(e)(2) ("A State commission shall upon its own motion or upon request designate a *common carrier* that meets the requirements of paragraph (1) as an eligible telecommunications carrier for a service area designated by the State commission.") (emphasis added); *id*. § 214(e)(3) ("If no *common carrier* will provide the services that are supported by Federal universal service support mechanisms * * *, the Commission [or a State commission] shall determine which *common carrier or carriers* are best able to provide such service to the requesting unserved community or portion thereof and shall order such carrier or carriers to provide such service.") (emphasis added); *id*. § 214(e)(6) ("In the case of a *common carrier* providing telephone exchange service and exchange access that is not subject to the jurisdiction of a State commission, the Commission shall upon request designate such a *common carrier* that meets the requirements of paragraph (1) as an eligible telecommunications carrier for a service area designated by the Commission.") (emphasis added).

As a result, broadband's eligibility for Lifeline subsidies turns on its common-carrier status. *See In re FCC 11-161*, 753 F.3d 1015, 1048–1049 (10th Cir. 2014) (observing, before broadband was classified as a telecommunications service, that "broadband-only providers * * * cannot be designated as 'eligible telecommunications carriers'" because "under the existing statutory framework, only 'common carriers' * * * are eligible to be designated as 'eligible telecommunications carriers'"). As a matter of plain statutory text, the 2018 Order's reclassification of broadband—the decision to strip it of Title II common-carrier status—facially disqualifies broadband from inclusion in the Lifeline Program.

Several commenters raised this concern in response to the NPRM. The Commission backhanded the issue, stating that it "need not address concerns in the record about the effect of * * * reclassification" given its "authority under Section 254(e) of the Act to provide Lifeline support to [Eligible Telecommunications Carriers] that provide broadband service over facilities-based broadband-capable networks that support voice service." *2018 Order* ¶ 193.

That response does not work. The Commission completely fails to explain how its "authority under Section 254(e)" could extend to broadband, even "over facilities-based broadband-capable networks that support voice service," *2018 Order* ¶ 193, now that broadband is no longer considered to be a common carrier. After all, Section 254(e) provides that "only an eligible *telecommunications carrier* designated under section 214(e) of this title shall be eligible to receive specific Federal universal service support." 47 U.S.C. § 254(e) (emphasis added). And the statute expressly defines an "eligible telecommunications carrier" as a "common carrier" under Title II. *Id*. § 214(e)(1).

For whatever it is worth, the Commission has proven unable to explain itself in this litigation either. Rather than engage with the Governmental Petitioners' statutory argument, the Commission takes the position that it has "broad discretion" to "defer consideration of particular issues to future proceedings," and it "need not address all problems in one fell swoop." Commission Br. 110 (quoting *United States Telecom Ass'n v. FCC*, 359 F.3d 554, 588 (D.C. Cir. 2004)).

That is a non-sequitur. If, as the statute seems to clearly say, the Commission's reclassification of broadband as an information service *precludes* the agency from solving this problem in future proceedings, the possibility of future proceedings is irrelevant. At the very least, the Governmental Petitioners identified a "relevant and significant" problem that the Commission was obligated to address in a reasoned way. *See Liliputian Sys., Inc. v. Pipeline & Hazardous Materials Safety Admin.*, 741 F.3d 1309, 1312 (D.C. Cir. 2014) ("An agency's failure to respond to relevant and significant public comments generally demonstrates that the agency's decision was not based on a consideration of the relevant factors.") (formatting modified). So we must remand this portion of the 2018 Order for the Commission to address the issue now.

G. Cost-Benefit Analysis

Petitioners next take exception to the Commission's cost-benefit analysis. *See 2018 Order* ¶¶ 304–323; Mozilla Br. 72–74. They express two sets of concerns. The first set goes to the general nature of the analysis (qualitative rather than quantitative) and to the NPRM's allegedly having failed to alert the public to the possibility that the Commission would pursue a purely qualitative analysis. The second set goes to some specific treatments of benefits and costs. We review cost-benefit analyses with deference, *National Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012), and here find nothing arbitrary in the Commission's choice of methodology or explanation of its conclusions. Petitioners' objections to the Commission's treatment of several issues arguably classifiable as part of cost-benefit analysis are treated under separate headings of this opinion. *See* Parts V.A–B.

The notice argument rests on a claim that the NPRM's discussion committed the Commission to a quantitative analysis under OMB Circular A-4. It fails on two grounds: the NPRM made clear that the Commission was not wedded to the idea of following the Circular, and the Circular itself calls for a qualitative analysis under circumstances that the Commission reasonably invoked.

The Commission said in the NPRM that it "*propose*[*s*] to follow the guidelines in Section E * * * of * * * Circular A-4." *NPRM* ¶ 107 (emphasis added). It then added that it was "seek[ing] comment on following Circular A-4 generally" and "on any specific portions of Circular A-4 where the Commission should *diverge* from the guidance provided." *Id*. (emphasis added). "Commenters should explain why particular guidance in Circular A-4 *should not be followed* in this circumstance and should propose alternatives." *Id*. (emphasis added). The passage leaves little doubt that the Commission envisioned possibly deviating from Circular A-4 in ways large and small, necessarily including a possibility of electing qualitative analysis even where the Circular contemplates quantitative. Even assuming that the Commission applied a laxer standard than prescribed by the Circular for choosing qualitative over quantitative (see below), notice of such a possible detour was adequate and the Commission's way of proceeding was a "logical outgrowth" of the notice, as suffices under our cases. *See Covad Commc'ns Co. v. FCC*, 450 F.3d 528, 548 (D.C. Cir. 2006); *see also USTA*, 825 F.3d at 700.

Further, although not essential to rejection of this claim, the Commission's ultimate decision to conduct a qualitative analysis appears consistent with the Circular. The latter provides that "where no quantified information on benefits, costs, and effectiveness can be produced, the regulatory analysis should present a qualitative discussion of the issues and evidence." OMB Circular A-4 at 10 (2003). The Commission, after finding that "the record provides little data that would allow [the agency] to quantify the magnitudes of many of" the costs and benefits, adopted the qualitative approach, seeking to assess "the direction of the effect on economic efficiency." *2018 Order* ¶ 304; *cf. National Ass'n of Regulatory Util. Comm'rs v. FCC*, 737 F.2d 1095, 1140–1141 (D.C. Cir. 1984) (holding that the Commission had acted within the scope of its "broad discretion" in a context where "no reliable data was available").

Mozilla makes no effort to undermine the Commission's finding that a quantitative analysis was infeasible. In fact, as we will see shortly, its fault-finding (apart from matters addressed elsewhere in this opinion) focuses on exactly the sort of issues on which hard and convincing quantitative data would be difficult to find—the sort of issues that are the basis of the Circular's warning that "[w]hen important benefits and costs cannot be expressed in monetary units," attempting a quantitative cost-benefit analysis "can even be misleading, because the calculation of new benefits in such cases does not provide a full evaluation of all relevant benefits and costs." OMB Circular A-4 at 10.

We should add that we are hard-pressed to imagine how the notice defect claimed by Petitioners might have hurt them in a legally significant way. Notice typically serves to help parties marshal their arguments and analyses to persuade an agency to see matters their way. If Petitioners had offered an array of useful quantitative analyses and the Commission had turned it aside because of its decision in favor of a qualitative approach, we could understand. But Petitioners claim no such thing, and it is hard to imagine that an agency pursuing qualitative analysis would on that account turn away a quantitative one (which, one supposes, would typically encompass qualitative elements). *Cf.* IA Br. 19 (*criticizing* the Commission for failing to "acknowledg[e] that economists might not yet be able to" quantify certain economic effects of the Title II Order).

As to the substance of the cost-benefit analysis, Petitioners set out four challenges. Two of these are addressed separately in this opinion—the claims that the Commission overlooked particular reliance interests, *see* Part V.D., and overstated the costs of Title II classification by relying selectively on studies whose defects it ignored, *see* Part V.A.

We thus turn directly to the other two, which overlap so heavily as to amount to one. We identify them separately, but will treat them together. First, Petitioners claim that the agency did not account for harms to "innovation and democratic discourse" that the 2018 Order would supposedly bring about. Mozilla Br. 73. Second, they assert that the Commission failed to factor in the "cost to consumers of decreased innovation and other consumer harms," citing a comment about Comcast's interference with file sharing, *see* J.A. 1098, and news stories from 2007–2008 describing how "Comcast had blocked users' ability to share copies of the King James Bible," Mozilla Br. 73–74; *see also* J.A. 2429 & n.198.

As an initial matter, Petitioners do not explain how the 2018 Order would harm "innovation and democratic discourse" beyond quoting an assertion by a commentator that "*ex post* enforcement would hamstring nascent industries." Mozilla Br. 73; *see* J.A. 1097. This bare-bones objection is not enough to pose an issue for the court, which after all is not generally expected to do counsel's work. *See Masias v. EPA*, 906 F.3d 1069, 1077 (D.C. Cir. 2018). In any event, the Commission's cost-benefit analysis makes a reasonable case that its "light-touch" approach is more conducive to innovation and openness than the Title II Order. We do note that antitrust enforcement by the Commission's sister agencies (the Department of Justice and the FTC, the latter being released by the 2018 Order from the statutory exclusion effected by application of Title II) aims at generating and protecting competition, *see* Part V.B.3; at least as a general matter, it seems reasonable to expect that competition would tend to multiply the voices in the public square. The agency says as much, noting that "the transparency rule and the ISP commitments backed up by FTC enforcement are targeted to preserving free expression, particularly the no-blocking commitment," and that "[t]he market competition that antitrust law preserves will protect values such as free expression." *2018 Order* ¶ 153. At the same time, the Commission frankly acknowledges that "[t]he competitive process and antitrust would not protect free expression in cases where consumers have decided that they are willing to tolerate some blocking or throttling in order to obtain other things of value." *Id*. at n.558.

As to harms akin to those such as interference with file-sharing, the Commission observes that commenters could point "only to a handful of incidents that purportedly affected Internet openness, while ignoring the two decades of flourishing innovation that preceded the *Title II Order*." *2018 Order* ¶ 110; *see also id*. ¶ 116. The colorful example of difficulties with downloading the King James Bible arose from Comcast's "throttling of BitTorrent, a peer-to-peer networking protocol," *id*. ¶ 112, which had nothing in particular to do with the Bible, *see* J.A. 2429 n.198, and which Petitioners do not suggest is of a type likely to recur. Further, Petitioners do nothing to refute the agency's claim that "since 2008, few tangible threats to the openness of the Internet have arisen." *2018 Order* ¶ 113; *see id*. ¶¶ 111–114 (describing examples of similar conduct).

Against this backdrop of what the Commission views as slim empirical support for relevant harms, *see, e.g., 2018 Order* ¶ 153, the agency argues that the benefits of "maintaining a free and open Internet" are "positive and considerable," *id*. ¶ 313. It contends that its "light-touch" strategy—rooted in transparency rules and "enforcement under antitrust and consumer protection law," *id*.—will protect Internet openness and help "prevent and remedy harmful behaviors by ISPs," *id*., without the costs imposed by Title II regulations (measured by "the economic welfare of consumers, ISPs, and edge providers," *id*. ¶ 306). For example, a "light-touch" route incentivizes greater "deployment of [broadband] service to unserved areas," *id*. ¶ 308, so that more people can get online sooner and enjoy content at higher speeds—especially those "in rural and/or lower-income communities" with "underserved and hard-to-reach populations," *id*. ¶ 106. Such an outcome, presumably, would bolster democratic discourse and participation.

In weighing the costs and benefits of Title II regulation against those of a deregulatory strategy, the agency finds that, on almost every point, the latter approach is preferable. Title II regulation would "discourage[] investment in the network," which, in turn, may cause "society * * * to lose some spillover benefits," *2018 Order* ¶ 310, including forgone "improvements in productivity and innovation that occur because broadband is a general-purpose technology," *id*. Conduct rules mandated by the Title II Order, the Commission said, have "large [negative] effects on consumers obtaining innovative services," such as zero-rating. *Id*. ¶ 318. Following up its prior observation that "smaller edge providers may benefit from tiered pricing, such as paid prioritization, as a means of gaining entry," *id*. ¶ 133, it reasoned that removal of the Title II Order's ban could yield "innovative services and business models," *id*. ¶ 321. Whatever harms might occur absent a ban on paid prioritization, the agency estimated them to be "small" and "infrequent," *id*. ¶ 320, and thus outweighed by the costs of the Title II Order. As for rules against blocking and throttling, the agency states that their costs are "likely small," though they could grow if compliance becomes more onerous. *Id*. ¶ 322.

The benefits of such rules, however, are "approximately zero," *id*. ¶ 323—a point Petitioners do not grapple with, *see* Mozilla Reply Br. 36; *cf.* IA Br. 25–26 (claiming Title II Order promoted edge investment); Part V.A (discussing IA's claim). That is so, in the agency's view, because the 2018 Order's transparency rules—combined with the deterrent effects of "market forces, public opprobrium, and enforcement of the consumer protection laws"—can "mitigate potential harms." *2018 Order* ¶ 323; *cf.* ¶ 315 (explaining that the Title II Order's transparency rules would "impose significant additional costs" without "additional benefits"). In sum, a "light-touch" approach can in the Commission's judgment secure Internet openness and encourage innovation at lower cost than the Title II Order, while yielding unique benefits.

The Commission's reasoning rehearsed above is not plagued by "serious flaw[s]" that so "undermin[e]" its cost-benefit analysis as to render the rule "unreasonable." *Home Builders*, 682 F.3d at 1040. We therefore reject Petitioners' objections on this front.

H. Data Roaming Rates

Petitioner NTCH, Inc. (NTCH) argues that the 2018 Order failed to address data roaming rates charged by broadband providers. According to NTCH, the Commission unlawfully disregarded its comments that stressed the need for Title II regulation given the allegedly high data roaming rates. But the Commission's 2018 Order classified mobile broadband—of which data roaming is a service—as an information service, thus making Title II regulation inapplicable. Thus, the Commission's failure to respond to NTCH's comments regarding data roaming is "significant only insofar as it demonstrates that the agency's decision was not based on a consideration of the relevant factors." *Texas Mun. Power*

Agency v. EPA, 89 F.3d 858, 876 (D.C. Cir. 1996) (quoting *Thompson v. Clark*, 741 F.2d 401, 409 (D.C. Cir. 1984)). NTCH offers no reason why the value of regulating data roaming rates under Title II would be important enough to affect the agency's decision to reclassify mobile broadband. Given that we conclude, *infra* Part II, that the classification of mobile broadband as an information service was reasonable, the Commission had no obligation to consider NTCH's comments urging for Title II regulations for mobile broadband providers' data roaming agreements.

I. Procedural Challenges

Before the Commissioner, Petitioner National Hispanic Media Coalition ("NHMC") moved to include in the record and for the Commission to consider informal consumer complaints filed under the previous rules. NHMC had itself obtained these documents from the Commission under the Freedom of Information Act. NHMC argues that these materials are relevant because the May 2017 Notice of Proposed Rulemaking specifically requested information about the impact of Title II classification on consumers and ISPs' conduct. The Commission denied the motion, finding that it was "exceedingly unlikely" that those complaints raised any issue that was not already identified in "the voluminous record in this proceeding." *2018 Order* ¶ 342. Given the broad discretion afforded to the Commission to "make ad hoc procedural rulings in specific instances," *FCC. v. Schreiber*, 381 U.S. 279, 289 (1965); *see also* 47 U.S.C. § 154(j) ("The Commission may conduct its proceedings in such manner as will best conduce to the proper dispatch of business and to the ends of justice."), we reject NHMC's challenge.

On this basis, we also conclude that the Commission did not abuse its discretion in denying INCOMPAS's motion to "modify the protective orders" in four recent proceedings reviewing corporate transactions involving Internet service providers "to allow confidential materials submitted in those dockets to be used in this proceeding." *2018 Order* ¶ 324. The Commission declined to do so, noting that the protective orders assured the parties involved that the confidential materials would not be used in future proceedings. *Id*. ¶ 331. Moreover, the Commission explained that gathering this requested information would be "costly" and "administratively difficult" yet would only provide an "incomplete picture of industry practices" and would not "meaningfully improve the Commission's analysis." *Id.* ¶ 330, 329. Indeed, the Commission is "fully capable of determining which documents are relevant to its decision-making." *SBC Commc'ns Inc. v. FCC.*, 56 F.3d 1484, 1496 (D.C. Cir. 1995). Thus, in the absence of a more specific showing of relevance or prejudice arising from the agency's failure to consider, the Commission is not "bound to review every document." *Id.* We thus reject INCOMPAS's challenge.

VI. Preemption

We vacate the portion of the 2018 Order that expressly preempts "any state or local requirements that are inconsistent with [its] deregulatory approach." *2018 Order* ¶ 194; *see id.* ¶¶ 194–204 ("Preemption Directive"). The Commission ignored binding precedent by failing to ground its sweeping Preemption Directive—which goes far beyond conflict preemption—in a lawful source of statutory authority. That failure is fatal.

The relevant portion of the Order provides that "regulation of broadband Internet access service should be governed principally by a uniform set of federal regulations," and not "by a patchwork that includes separate state and local requirements." *2018 Order* ¶ 194. In service of that goal, the 2018 Order expressly "preempt[s] any state or local measures that would effectively impose rules or requirements that we have repealed or decided to refrain from imposing in this order or that would impose more stringent requirements for any aspect of broadband service that we address in this order." *Id.* ¶ 195. In other words, the Preemption Directive invalidates all state and local laws that the Commission deems to "interfere with federal regulatory objectives" or that involve "any aspect of broadband service * * * address[ed]" in the Order. *Id.* ¶¶ 195–196.

The Preemption Directive conveys more than a mere intent for the agency to preempt state laws in the future if they conflict with the 2018 Order. As the Commission confirmed at oral argument, it is not just a "heads up that ordinary conflict preemption principles are going to apply." Oral Arg. Tr. 171. The Order was meant to have independent and far-reaching preemptive effect from the moment it issued. *Id.*; *see also 2018 Order* ¶¶ 195–197. And the Commission meant for that preemptive effect to wipe out a broader array of state and local laws than traditional conflict preemption principles would allow. Oral Arg. Tr. 171 (Q: "It's broader than ordinary conflict preemption?" A: "That's correct.").

The Governmental Petitioners challenge the Preemption Directive on the ground that it exceeds the Commission's statutory authority. They are right.

A. Express and Ancillary Authority

"The [Commission], like other federal agencies, literally has no power to act unless and until Congress confers power upon it." *American Library Ass'n v. FCC.*, 406 F.3d 689, 698 (D.C. Cir. 2005) (formatting modified). That means that the Commission "may preempt state law only when and if it is acting within the scope of its congressionally delegated authority." *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986) ("*Louisiana PSC*"); *see also Comcast*, 600 F.3d at 654 (applying the "axiomatic principle that administrative agencies may act only pursuant to authority delegated to them by Congress") (formatting modified). Of course, if a federal law expressly confers upon the agency the authority to preempt, that legislative delegation creates and defines the agency's power to displace state laws. *FERC v. Mississippi*, 456 U.S. 742, 759 (1982) ("Insofar as [the statute] authorizes FERC to exempt qualified power facilities from 'State laws and regulations,' it does nothing more than pre-empt conflicting state enactments in the traditional way."); *cf. Wyeth v. Levine*, 555 U.S. 555, 576–577 & n.9 (2009) (declining to "defer[] to an agency's conclusion that state law is pre-empted" where "Congress ha[d] not authorized [the agency] to pre-empt state law directly," and collecting examples of statutes in which Congress had done so) (emphasis omitted).

By the same token, in any area where the Commission lacks the authority to regulate, it equally lacks the power to preempt state law. After all, an "agency may not confer power on itself," and "[t]o permit an agency to expand its power in the face of a congressional limitation on its jurisdiction would be to grant to the agency power to override Congress." *Louisiana PSC*, 476 U.S at 374–375; *see Public Serv. Comm'n of Md. v. FCC*, 909 F.2d 1510, 1515 n.6 (D.C. Cir. 1990) ("*Maryland PSC*") (recognizing that the Commission may not "regulate (let alone preempt regulation of) any service that does not fall within its * * * jurisdiction"). In other words, even "the allowance of 'wide latitude' in the exercise of delegated powers is not the equivalent of untrammeled freedom to regulate activities over which the statute fails to confer, or explicitly denies, Commission authority." *National Ass'n of*

Regulatory Util. Comm'rs v. FCC, 533 F.2d 601, 618 (D.C. Cir. 1976) ("*NARUC II*") (quoting *United States v. Midwest Video Corp.*, 406 U.S. 649, 676 (1972) (Burger, C.J., concurring)).

The Commission's regulatory jurisdiction falls into two categories. The first is the "express and expansive authority" Congress delegated in the Act to regulate certain technologies. *Comcast*, 600 F.3d at 645. This authority extends to "common carrier services, including landline telephony (Title II of the Act); radio transmissions, including broadcast television, radio, and cellular telephony (Title III); and 'cable services,' including cable television (Title VI)." *Id.* (internal citations omitted).

The second is the Commission's "ancillary authority." *Comcast*, 600 F.3d at 650. The Commission's ancillary authority derives from a provision within Title I of the Act that empowers the Commission to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions." 47 U.S.C. § 154(i). That provision enables the Commission to regulate on matters "reasonably ancillary to the * * * effective performance of its statutorily mandated responsibilities." *American Library*, 406 F.3d at 692.

For the Preemption Directive to stand, then, the Commission must have had express or ancillary authority to issue it. It had neither.

The Preemption Directive could not possibly be an exercise of the Commission's express statutory authority. By reclassifying broadband as an information service, the Commission placed broadband *outside* of its Title II jurisdiction. And broadband is not a "radio transmission" under Title III or a "cable service" under Title VI. So the Commission's express authority under Titles III or VI does not come into play either. Nor did Congress statutorily grant the Commission freestanding preemption authority to displace state laws even in areas in which it does not otherwise have regulatory power.

Neither can the Commission house the Preemption Directive in its ancillary authority under Title I. "Title I is not an independent source of regulatory authority." *People of State of Cal. v. FCC*, 905 F.2d 1217, 1240 n.35 (9th Cir. 1990) (citing *United States v. Southwestern Cable Co.*, 392 U.S. 157, 178 (1968)). As a result, ancillary jurisdiction exists only when "(1) the Commission's general jurisdictional grant under Title I of the Communications Act covers the regulated subject and (2) the regulations are reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities." *American Library*, 406 F.3d at 691–692 (formatting modified).

Under binding circuit precedent, those "statutorily mandated responsibilities" must themselves be dictated by Title II, III, or VI of the Act—none of which apply since the Commission took broadband out of Title II. *See Comcast*, 600 F.3d at 654 ("[I]t is Title II, III, or VI to which the authority must ultimately be ancillary."); *see also, e.g.*, *National Ass'n of Regulatory Util. Comm'rs v. FCC*, 880 F.2d 422, 429–431 (D.C. Cir. 1989) ("*NARUC-III*") (upholding the Commission's preemption of state "inside wiring" regulation as ancillary to its Title II authority over interstate telephone services); *Computer & Commc'ns Indus. Ass'n v. FCC*, 693 F.2d 198, 207, 218 (D.C. Cir. 1982) (upholding the Commission's preemption of certain state tariff regulations as ancillary to its Title II ratemaking power).

The Commission seemingly agrees because nowhere in the 2018 Order or its briefing does it claim ancillary authority for the Preemption Directive. *See 2018 Order* ¶¶ 194–204; Commission Br. 121 (acknowledging that the Order "makes *no mention* of either Title II or ancillary authority") (emphasis in original).

B. The Commission's Asserted Sources of Authority

With express and ancillary preemption authority off the table, the Commission was explicit that it was grounding its Preemption Directive in (i) the "impossibility exception" to state jurisdiction, and (ii) the "federal policy of nonregulation for information services." *2018 Order* ¶¶ 198, 202. Neither theory holds up.

1. Impossibility Exception

Section 152 of the Communications Act provides, as relevant here, that "nothing in this chapter shall be construed to apply or to give the Commission jurisdiction with respect to * * * regulations for or in connection with intrastate communication service by wire or radio of any carrier." 47 U.S.C. § 152(b). That provision divides regulatory authority "into two separate components: interstate communications, which can be regulated by the [Commission]; and intrastate communications, which cannot." *Maryland PSC*, 909 F.2d at 1514 (internal quotation marks omitted). In doing so, Section 152 "severely circumscribes" the Commission's "power by 'fencing off from [its] reach or regulation intrastate matters,'" including "matters in connection with intrastate service." *Public Util. Comm'n of Tx. v. FCC*, 886 F.2d 1325, 1331 (D.C. Cir. 1989) (quoting *Louisiana PSC*, 476 U.S. at 370) (formatting modified).

Needless to say, "the realities of technology and economics" sometimes obscure the statute's "parceling of responsibility." *Louisiana PSC*, 476 U.S. at 360. The "impossibility exception" is a judicial gloss on Section 152 that attempts to help navigate the Act's sometimes complicated division of regulatory power.

The impossibility exception started with the Supreme Court's decision in *Louisiana PSC*. There, the Supreme Court rejected the Commission's attempt to preempt States from applying their own depreciation rules in setting intrastate telephone rates. The Commission had argued that the state rules impermissibly "frustrate[d]" the "federal policy of increasing competition in the industry." *Louisiana PSC*, 476 U.S. at 368, 369. The Supreme Court rejected that argument as driving outside the Commission's statutory lane. *Id.* at 369–370. But the Court also candidly acknowledged that "jurisdictional tensions may arise as a result of the fact that interstate and intrastate [telephone] service are provided by a single integrated system." *Id*. at 375. Because "Section 152(b) "constitutes * * * a congressional *denial* of power to the [Commission]," the Supreme Court explained, "we simply cannot accept an argument that the [Commission] may nevertheless take action which it thinks will best effectuate a federal policy." *Id*. at 374; *see also id.* at 370 ("We might be inclined to accept [the Commission's argument] were it not for the express jurisdictional limitations on [Commission] power contained in § 152(b)."); *id*. at 376 ("As we so often admonish, only Congress can rewrite this statute.").

Having rejected the Commission's preemption effort, the Supreme Court added a footnote distinguishing cases where lower courts had found it "*not* possible to separate the interstate and the intrastate components of the asserted [Commission] regulation." *Louisiana PSC*, 476 U.S. at 375 n.4 (citing *North*

Carolina Utils. Comm'n v. FCC, 537 F.2d 787 (4th Cir. 1976), and *North Carolina Utils. Comm'n v. FCC*, 552 F.3d 1036 (4th Cir. 1977)). And with that, the impossibility exception was born.

This court has applied the impossibility exception just once, in *Maryland PSC*, 909 F.2d at 1515. Drawing from *Louisiana PSC*, we held that the express denial of Commission authority codified in Section 152(b) does not apply where (i) "the matter to be regulated has both interstate and intrastate aspects"; (ii) "preemption is necessary to protect a valid federal regulatory objective"; and (iii) "state regulation would negate the exercise by the [Commission] of its own lawful authority because regulation of the interstate aspects of the matter cannot be 'unbundled' from regulation of the intrastate aspects." *Maryland PSC*, 909 F.2d at 1515 (formatting modified).

But *Maryland PSC* and the impossibility exception are of no help to the Commission. In applying the impossibility exception, *Maryland PSC* did not vitiate the need for either an express delegation of regulatory authority or ancillary authority. All the impossibility exception does is help police the line between those communications matters falling under the Commission's authority (Section 152(a)) and those remaining within the States' wheelhouse (Section 152(b)). Specifically, if the matter involves interstate communications or a mix of state and federal matters *and* it falls within the impossibility exception, then the Commission may regulate to the extent of its statutory authority. *See Louisiana PSC*, 476 U.S. at 374; *Maryland PSC*, 909 F.2d at 1513–1515. If not, the matter falls within the States' jurisdiction. *Maryland PSC*, 909 F.2d at 1514. In other words, the impossibility exception presupposes the existence of statutory authority to regulate; it does not serve as a substitute for that necessary delegation of power from Congress.

Nor can 47 U.S.C. § 152—the statutory hook for the impossibility exception—by itself provide a source of preemption authority. We have rejected that precise argument before. In *NARUC II*, *supra*, the Commission asserted that Section 152 authorized it to preempt state regulation of two-way communications over cable systems' leased access channels.[3] That argument failed, we explained, because "each and every assertion of jurisdiction over cable television must be independently justified as reasonably ancillary to the Commission's power over broadcasting." *NARUC II*, 533 F.2d at 612. So the Commission cannot bootstrap itself into preemption authority just by pointing to Section 152. It has to identify an independent source of regulatory authority to which the preemption action would be "reasonably ancillary." *Id.* (explaining that prior Supreme Court opinions "compel[] the conclusion that cable jurisdiction, which [the Court has] located primarily in § 152(a), is really incidental to, and contingent upon, specifically delegated powers under the Act") (citing *Southwestern Cable*, 392 U.S. at 178; and *Midwest Video*, 406 U.S. at 662–663); *see also Comcast*, 600 F.3d at 654 ("[I]t is Titles II, III, and VI that do the delegating."); *People of State of Cal.*, 905 F.2d at 1240 n.35 (recognizing that "Title I is not a source of regulatory authority").

All that is a long way of saying that, contrary to the Commission's argument, the "impossibility exception" does not create preemption authority out of thin air.

[3] This was before the Cable Communications Policy Act of 1984, Pub. L. No. 98–549, 98 Stat. 2279, established a national policy governing cable television.

2. Federal Policy of Nonregulation

What the Commission calls the "federal policy of nonregulation for information services," Commission Br. 123, cannot sustain the Preemption Directive either.

First, as a matter of both basic agency law and federalism, the power to preempt the States' laws must be conferred by Congress. It cannot be a mere byproduct of self-made agency policy. Doubly so here where preemption treads into an area—State regulation of intrastate communications—over which Congress expressly "deni[ed]" the Commission regulatory authority, *Louisiana PSC*, 476 U.S. at 374.

Presumably recognizing as much, the Commission attempts to house its preemption authority in 47 U.S.C. § 230(b)(2). That provision says that "the policy of the United States [is] * * * to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." *Id*.

No dice. As the Commission has itself acknowledged, this is a "statement[] of policy," not a delegation of regulatory authority. *Comcast*, 600 F.3d at 652 ("The Commission acknowledges that section 230(b) * * * [contains] statements of policy that themselves delegate no regulatory authority."); *see also 2018 Order* ¶ 284 (characterizing Section 230(b) as merely "hortatory, directing the Commission to adhere to the policies specified in that provision when *otherwise* exercising our authority") (emphasis added); *id*. ¶ 267 ("We also are not persuaded that section 230 of the Communications Act is a grant of regulatory authority."). To put it even more simply, "[p]olicy statements are just that—statements of policy. They are not delegations of regulatory authority." *Comcast*, 600 F.3d at 654.

Nor do policy statements convey "statutorily mandated responsibilities" that the Commission may use to support an exercise of ancillary authority. *Comcast*, 600 F.3d at 644, 654 ("Although policy statements may illuminate [delegated] authority, it is Title II, III, or VI to which the authority must ultimately be ancillary."); *see also Motion Picture Ass'n of America v. FCC*, 309 F.3d 796, 806–807 (D.C. Cir. 2002) (rejecting the Commission's "argument that [its] video description rules are obviously a valid communications policy goal and in the public interest" because the Commission "can point to no statutory provision that gives the agency authority" to issue those rules).

Second, the Commission points to 47 U.S.C. § 153(51), which defines "telecommunications carrier," and provides that "[a] telecommunications carrier shall be treated as a common carrier under this chapter only to the extent that it is engaged in providing telecommunications services."

That does not work either. Section 153(51) is a definitional provision in Title I, and so is "not an independent source of regulatory authority." *People of State of Cal.*, 905 F.2d at 1240 n.35. Quite the opposite. As the parties agree, that provision is a *limitation* on the Commission's authority. *See* Governmental Pet'rs' Br. 43 (characterizing it as "limit[ing] only the agency's authority"); Commission Br. 128 n.38 (characterizing it as "a substantive limitation on government authority") (citing *Verizon*, 740 F.3d at 650).

It also would make no sense for Congress to bury the enormously far-reaching and consequential authority to override every single State's *statutorily conferred* power to regulate intrastate communications deep within a list of fifty-nine definitions in a non-regulatory portion of the statute, and then articulate the relevant definition as a *restriction* of the Commission's power.

Third, the Commission points to 47 U.S.C. § 160(e). That provision says that "[a] State commission may not continue to apply or enforce any provision of [the Act] that the Commission has determined to forbear from applying under subsection (a)." Subsection (a), in turn, gives the Commission some flexibility to forbear from regulating technologies classified under Title II. *Id*. § 160(a).

That Title II provision has no work to do here because the 2018 Order took broadband out of Title II. So the Commission is not "forbear[ing] from applying any provision" of the Act to a Title-II technology. 47 U.S.C. § 160(e). On top of that, Section 160(e)—as a part of Title I—does not itself delegate any preemption authority to the Commission. *People of State of Cal.*, 905 F.2d at 1240 n.35.

The best the Commission can do is try to argue by analogy. It claims that it would be "incongruous" not to extend preemption authority under Title I, given that Section 160(e) prohibits States from regulating a service classified under Title II in instances of federal forbearance. Commission Br. 115–116.

That is a complaint that the Commission is free to take up with Congress. Until then, preemption authority depends on the Commission identifying an applicable statutory delegation of regulatory authority, and Section 160(e) does not provide it. The Commission's "own bruised sense of symmetry" is irrelevant. *NARUC II*, 533 F.2d at 614.

Anyhow, there is no such incongruity. By expressly requiring that communications services under Title II be regulated as common carriers, the Federal Communications

Act grants the Commission broad authority over services classified under Title II, unlike those classified under Title I. *See* 47 U.S.C. § 153(51); *Brand X*, 545 U.S. at 976; *Verizon*, 740 F.3d at 630; *Comcast*, 600 F.3d at 645. Which is also why the Act carves out more space for federal objectives to displace those of the States in the Title II context. *See* 47 U.S.C. § 253(a), (d) (expressly authorizing the Commission to preempt state or local regulations that "may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service[]").

The dissenting opinion calls this "a complete non sequitur," arguing that it "assumes an asymmetry in preemption implications" in which preemption protects "heavy-handed regulation" more than "light-touch regulation." Dissenting Op. 10 (emphasis omitted). Not so. The Commission could choose to enact heavier or lighter regulation under Title II by exercising less or more of its Title II forbearance authority, with symmetrical "preemption implications," *id*. It just cannot completely disavow Title II with one hand while still clinging to Title II forbearance authority with the other.

3. Case Precedent

Governing precedent nails the coffin shut on the Preemption Directive.

In *Louisiana PSC*, the Supreme Court squarely rejected the Commission's argument that it "is entitled to pre-empt inconsistent state regulation" just because it "frustrates federal policy." 476 U.S. at 368. In doing so, the Court was explicit that, if the Commission cannot tether a rule of preemption to a relevant source of statutory authority, courts "simply cannot accept [the] argument that the [Commission] may nevertheless take action which it thinks will best effectuate a federal policy." *Id*. at 374. That fits this case to a T.

Likewise, in *City of New York v. FCC*, on which the Commission and their amici heavily rely, the Supreme Court repeated that "an agency literally has no power to act, let alone pre-empt the validly enacted legislation of a sovereign State, unless and until Congress confers power upon it." 486 U.S. 57, 66 (1988). The Court then added that "the best way of determining whether Congress intended the regulations of an administrative agency to displace state law is to examine the nature and scope of the authority granted by Congress to the agency." *Id.* (quoting *Louisiana PSC*, 476 U.S. at 374). Needless to say, no such examination can occur if there is no legislative grant of authority against which to evaluate the preemptive rule, and certainly not when, as here, Congress expressly *withheld* regulatory authority over the matter. 47 U.S.C. § 152(b).

To be sure, in *City of New York*, the Supreme Court referenced the "background of federal pre-emption on this particular issue" as weighing in favor of preemption. 486 U.S. at 66–67. But the Court said so only after the threshold requirement of statutory authority had been satisfied. Specifically, the Court "conclude[d] that the Commission is authorized under § 624(e) of the Cable Act"—authority expressly delegated in Title VI—"to pre-empt technical standards imposed by state and local authorities." *Id*. at 70 n.6. That statutory authority is the fatal gap in the Commission's argument here.

Not only is the Commission lacking in its own statutory authority to preempt, but its effort to kick the States out of intrastate broadband regulation also overlooks the Communications Act's vision of dual federal-state authority and cooperation in this area specifically. *See, e.g.*, 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."); *id.* § 1302(a) (referring to "[t]he Commission and each State Commission with regulatory jurisdiction" in a chapter titled "Broadband"); *id.* § 1304 ("[e]ncouraging State initiatives to improve broadband"); *cf. id.* § 253(b) ("Nothing in this section shall affect the ability of a State to impose * * * requirements necessary to * * * protect the public safety and welfare, * * * and safeguard the rights of consumers."); *id.* § 254(i) ("The Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable."). Even the 2018 Order itself acknowledges the States' central role in "policing such matters as fraud, taxation, and general commercial dealings," *2018 Order* ¶ 196, "remedying violations of a wide variety of general state laws," *id.* ¶ 196 n.732, and "enforcing fair business practices," *id.* ¶ 196—categories to which broadband regulation is inextricably connected.

C. Conflict Preemption

Finally, the Commission argues that we should leave the Preemption Directive undisturbed because principles of conflict preemption would lead to the same result. *See* Commission Br. 130–133.

Any intuitive appeal this argument might have offered evaporated at oral argument when the Commission confirmed what the Preemption Directive's plain language bespeaks: It sweeps "broader than ordinary conflict preemption." Oral Arg. Tr. 171; *see 2018 Order* ¶ 195 (preempting "any state or local measures that would effectively impose rules or requirements that we have repealed or decided to refrain from imposing in this order or that would impose more stringent requirements for any aspect of broadband service that we address in this order"). The necessary consequence of this position is that ordinary conflict preemption principles cannot salvage the Preemption Directive. *Cf. City of New York*, 486 U.S. at 65–66 ("Since the Commission has explicitly stated its intent to * * * pre-empt state and local regulation, this case does not turn on whether there is an actual conflict between federal and state law.").

Beyond that, the Commission's conflict-preemption argument tries to force a square peg into a round hole. Conflict preemption applies to "state law that *under the circumstances of the particular case* stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress—whether that 'obstacle' goes by the name of conflicting; contrary to; repugnance; difference; irreconcilability; inconsistency; violation; curtailment; interference, or the like." *Geier v. American Honda Motor Co., Inc.*, 529 U.S. 861, 873 (2000) (formatting modified). We have long recognized that "whether a state regulation unavoidably conflicts with national interests is an issue incapable of resolution in the abstract," let alone in gross. *Alascom, Inc. v. FCC*, 727 F.2d 1212, 1220 (D.C. Cir. 1984); *see also Time Warner Entertainment Co. v. FCC*, 56 F.3d 151, 195 (D.C. Cir. 1995) ("[T]he issue of whether the 1992 Cable Act preempts state negative option billing laws involves a host of factual questions peculiar to the state law at issue in each case.").

Because a conflict-preemption analysis "involves fact-intensive inquiries," it "mandates deferral of review until an actual preemption of a specific state regulation occurs." *Alascom*, 727 F.2d at 1220. Without the facts of any alleged conflict before us, we cannot begin to make a conflict-preemption assessment in this case, let alone a categorical determination that any and all forms of state regulation of intrastate broadband would inevitably conflict with the 2018 Order.

The dissenting opinion, for its part, invents a brand new source of preemptive power that not even the Commission claims. Dissenting Op. 5–6, 9. The power to preempt is said to derive from *Chevron* deference and the "definitional ambiguity" that permits the Commission to classify broadband under Title I. *Id.* at 9; *see Chevron,* 467 U.S. 837. In the dissenting opinion's view, that interpretive ambiguity alone spawns a power to preempt with all the might of an express statutory grant of authority, and is singlehandedly capable of investing the Commission with the very state-law-displacing authority that the statute withheld in Section 152(b). That theory fails for four reasons.

First, this asserted legal basis for preemption is not before us. The 2018 Order offered two, and only two, sources of authority for the Preemption Directive: the impossibility exception and the federal policy of nonregulation for information services. 2018 Order ¶¶ 197–204 (discussing these sources under the heading "*Legal Authority*"). It did not advance *Chevron* Step Two as a source of preemption authority, so it cannot do so here for the first time. *See Chenery*, 318 U.S. at 87 ("The grounds upon which an administrative order must be judged are those upon which the record discloses that its action was based."); *Clean Air Council v. Pruitt*, 862 F.3d 1, 4, 9 (D.C. Cir. 2017) (per curiam) (holding that an agency could not invoke on appeal a source of authority for its action that it "did not rely on" when it acted); *Business Roundtable v. SEC*, 905 F.2d 406, 407–408, 417 (D.C. Cir. 1990) (holding that an agency's regulation exceeded its authority under the statutory provisions it invoked, and under *Chenery* "we cannot supply grounds to sustain the regulations that were not invoked by the [agency] below").

The Commission's brief here hewed to the 2018 Order, advancing the same "two independent bases of authority[,]" plus "ordinary principles of conflict preemption." Commisssion Br. 116–133 (asserting these bases under the heading "The *Order*'s Preemption Of Inconsistent State And Local Regulation Is Lawful"). Once again, the dissenting opinion's *Chevron* Step Two theory is not there. So it is forfeited. *See In re U.S. Office of Personnel Mgmt. Data Sec. Breach Litig.*, 928 F.3d 42, 71 (D.C. Cir. 2019) ("And KeyPoint has not raised a preemption argument in this court, so any argument to that effect is forfeited for purposes of this appeal."); *United States v. Gewin*, 759 F.3d 72, 87 n.2 (D.C. Cir. 2014) ("Gewin * * * forfeited that argument, however, by failing to discuss it in his briefing."). Of course, the Commission alluded to its *Chevron* Step Two interpretation in explaining its *policy* reasons for desiring categorical preemption. *See* 2018 Order ¶ 194; Commission Br. 115. But nowhere does it argue what the dissenting opinion does: that *Chevron* interpretive ambiguity provides an affirmative source of legal *authority* to preempt state laws.

Second, the dissenting opinion fails to explain how the Commission's interpretive authority under *Chevron* to *classify* broadband as a Title I information service could do away with the *sine qua non* for agency preemption: a congressional delegation of authority either to preempt or to *regulate*. Congress expressly "fenc[ed] off from [the Commission's] reach or regulation intrastate matters, * * * including matters in connection with intrastate service." *Louisiana PSC*, 476 U.S. 370 (internal quotation marks omitted). It is also Congress that chose to house affirmative regulatory authority in Titles II, III, and VI, and not in Title I. And it is Congress to which the Constitution assigns the power to set the metes and bounds of agency authority, especially when agency authority would otherwise tramp on the power of States to act within their own borders. So to work here, the agency's interpretive authority would have to trump Congress's calibrated assignment of regulatory authority in the Communications Act.

But that cannot be right. No matter how desirous of protecting their policy judgments, agency officials cannot invest themselves with power that Congress has not conferred. *Louisiana PSC*, 476 U.S. at 374; *American Library*, 406 F.3d at 698. And nothing in *Chevron* rewrites or erases plain statutory text. *See Chevron*, 467 U.S. at 842–843 ("First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.").

The dissenting opinion invokes two cases discussing implied preemption arising from different agencies' decisions to forgo regulation under different statutory schemes. *See* Dissenting Op. 14–15. It first cites *Arkansas Electric Cooperative Corp. v. Arkansas Public Service Commission*, in which the Supreme Court observed that "a federal decision to forgo regulation in a given area *may* imply an authoritative federal determination that the area is best left unregulated." 461 U.S. 375, 384 (1983) (formatting modified). The Court went on to conclude that the relevant statute did not in fact imply such a determination, and so the state regulation at issue was not preempted. *Id*.

At best, *Arkansas Electric* sets up one version of the question. But it gets the dissent no closer to its preferred answer: that here, Congress delegated to the Commission the authority to give sweeping preemptive effect to whatever policy determination underlay its *Chevron* Step Two interpretation of "offer," Dissenting Op. 5.

In the second case, *Ray v. Atlantic Richfield Co.*, the Supreme Court described the "pre-emptive impact" implied by the "failure of federal officials affirmatively to exercise their full authority" under a statute that the Court had already recognized as delegating regulatory power to the agency. 435 U.S. 151, 174, 177–178 (1978) (formatting modified) ("We begin with the premise that the Secretary has the authority to establish 'vessel size and speed limitations.'") (cited at Dissenting Op. 14–15).

Those cases do nothing to empower the Commission to engage in *express* preemption in the 2018 Order. *See* Oral Arg. Tr. 171 (Commission: "No, Your Honor, it's express preemption."). In neither case was the source or existence of statutory authority for the agency to preempt state regulation at issue. Nor do those cases speak to a statutory scheme in which Congress expressly marked out a regulatory role for States that the federal agency has attempted to supplant. If Congress wanted Title I to vest the Commission with some form of Dormant-Commerce-Clause-like power to negate States' statutory (and sovereign) authority just by washing its hands of its own regulatory authority, Congress could have said so.

Third, the dissenting opinion's effort to discern Congress's delegation of preemption authority in *Chevron* and *Brand X* does not work either. The dissenting opinion acknowledges that its theory of *Chevron* preemption authority derives entirely from the "ambiguity in the word 'offer,'" Dissenting Op. 5, a word that is buried in a definitional section in a non-regulatory part of the statute, 47 U.S.C. § 153(53).

To be sure, *Chevron* and *Brand X* together confirm that the Commission has interpretive "discretion" to classify broadband as either an information service or a telecommunications service. *Brand X*, 545 U.S. at 996–997; *see Chevron*, 467 U.S. at 860–862 (reading a statutory gap as indicating a congressional delegation of power to an agency to fill it). Congress, in other words, created an interpretive statutory fork in the road and gave the Commission the authority to choose the path.

But the Commission's power to choose one regulatory destination or another does not carry with it the option to mix and match its favorite parts of both. The dissenting opinion's defense of the Preemption Directive makes the mistake of collapsing the distinction between (i) the Commission's authority to make a threshold classification decision, and (ii) the authority to issue affirmative and State-displacing legal commands within the bounds of the classification scheme the Commission has selected (here, Title I). The agency's power to do the former says nothing about its authority to do the latter. *Chevron*, after all, is not a magic wand that invests agencies with regulatory power beyond what their authorizing statutes provide. Instead, the point of *Chevron* was simply to draw lines between the courts' and administrative agencies' respective roles in interpreting ambiguous statutes. *See Chevron*, 467 U.S. at 842–844.

The dissenting opinion's theory of *Chevron* preemption, in other words, takes the discretion to decide which definition best fits a real-world communications service and attempts to turn that subsidiary judgment into a license to reorder the entire statutory scheme to enforce an overarching "nationwide regime" that enforces the policy preference underlying the definitional choice. Dissenting Op. 6. Nothing in *Chevron* goes that far. And doing so here would turn every exercise of *Chevron* Step-Two interpretation into a bureaucratic blunderbuss capable of demolishing state laws across the

Nation any time the agency fears that state regulation might intrude on its regulatory or deregulatory ethos.

The Supreme Court has made very clear that *Chevron* does not have that much muscle. Congress, the Court has explained, "does not alter the fundamental details of a regulatory scheme," let alone step so heavily on the balance of power between the federal government and the States, "in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes." *Whitman v. American Trucking Ass'ns*, 531 U.S. 457, 468 (2001).

And that principle is a well-settled limitation on *Chevron*. *See*, *e.g.*, *King v. Burwell*, 135 S. Ct. 2480, 2495 (2015) (quoting *Whitman*, 531 U.S. at 468); *Gonzales v. Oregon*, 546 U.S. 243, 267 (2006) (same); *see also Natural Res. Def. Council v. EPA*, 661 F.3d 662, 664–665 (D.C. Cir. 2011); *American Chemistry Council v. Johnson*, 406 F.3d 738, 743 (D.C. Cir. 2005) ("Congress does not generally hide elephants in mouseholes, and we think it utterly improbable that [Congress intended to authorize the EPA's interpretation] by creating a list of several hundred toxic chemicals.") (internal citation omitted). The mousehole, in short, cannot be the wellspring of preemption authority that the Commission needs. Doubly so here, where the Supreme Court has specifically held that the Commission's desire to "best effectuate a federal policy" must take a back seat to Section 152(b)'s assignment of regulatory authority to the States. *Louisiana PSC*, 476 U.S. at 374.

Anyhow, the argument that the Commission needs to save its classification decision from becoming "meaningless," Dissenting Op. 23, still does not work. If the Commission can explain how a state practice actually undermines the 2018

Order, then it can invoke conflict preemption.[4] If it cannot make that showing, then presumably the two regulations can co-exist as the Federal Communications Act envisions, 47 U.S.C. § 152(b). What matters for present purposes is that, on this record, the Commission has made no showing that wiping out *all* "state or local requirements that are inconsistent with the [Order's] federal deregulatory approach" is necessary to give its reclassification effect. *2018 Order* ¶ 194. And binding Supreme Court precedent says that mere worries that a policy will be "frustrate[d]" by "jurisdictional tensions" inherent in the Federal Communications Act's division of regulatory power between the federal government and the States does not create preemption authority. *Louisiana PSC*, 476 U.S. at 370, 375.

For those same reasons, the dissenting opinion's concern that "the most draconian state policy trumps all else," Dissenting Op. 1, is a straw man. In vacating the Preemption Directive, we do not consider whether the remaining portions of the 2018 Order have preemptive effect under principles of conflict preemption or any other implied-preemption doctrine. Much like the dissenting opinion's effort to wring out of *Arkansas Electric* and *Ray* a source of preemption authority, the dissenting opinion's suggestion that the court's decision leaves no room for implied preemption confuses (i) the scope of the Commission's authority to expressly preempt, with (ii) the (potential) implied preemptive effect of the regulatory choices the Commission makes that are within its authority.

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[4] *See Williamson v. Mazda Motor of America, Inc.*, 562 U.S. 323, 330 (2011) (conflict preemption wipes out "state law that stands as an obstacle to the accomplishment and execution of the [federal law's] full purposes and objectives") (internal quotation marks omitted).

Fourth, the dissenting opinion's reliance on the Eighth Circuit's opinion in *Minnesota Public Utilities Commission v. FCC* ("*Minnesota PUC*"), 483 F.3d 570 (8th Cir. 2007), is misplaced. That opinion enumerated the discrete questions it purported to answer—none of which was whether Congress delegated to the Commission the authority to preempt. *Id*. at 577. The Eighth Circuit decided only whether the Commission's order was "arbitrary and capricious because it * * * determined it was impractical or impossible to separate the intrastate components of VoIP service from its interstate components," or because it "determined state regulation of VoIP service conflicts with federal regulatory policies." *Id*. This set of inquiries does not resolve the purely legal question of the source of the Commission's asserted preemption authority here.

The dissenting opinion concedes that point. Dissenting Op. 18 (acknowledging that "legal authority * * * was not formally at issue"). The dissent nevertheless suggests that the Eighth Circuit's decision upholding as neither arbitrary nor capricious the Commission's finding of "the facts essential for application of the impossibility exception" implies that, had that court actually considered the question whether the Commission had the legal authority to preempt, it would have disagreed with us. *Id.* at 17–18. But the Eighth Circuit's silence on that question leaves us with nothing to answer.

* * * * *

At bottom, the Commission lacked the legal authority to categorically abolish all fifty States' statutorily conferred authority to regulate intrastate communications. For that reason, we vacate the Preemption Directive, *2018 Order* ¶¶ 194–204. And because no particular state law is at issue in this case and the Commission makes no provision-specific arguments, it would be wholly premature to pass on the preemptive effect, under conflict or other recognized preemption principles, of the remaining portions of the 2018 Order.

VII. Conclusion

Despite the Commission's failure to adequately consider the 2018 Order's impact on public safety, pole-attachment regulation, and the Lifeline Program and despite our vacatur of the Preemption Directive, we decline to vacate the 2018 Order in its entirety.

When deciding whether to vacate an order, courts are to consider the "the seriousness of [its] deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences of an interim change that may itself be changed." *Allied-Signal, Inc. v. United States Nuclear Regulatory Comm'n*, 988 F.2d 146, 150–151 (D.C. Cir. 1993); *see also Heartland Regional Med. Ctr. v. Sebellius*, 566 F.3d 193 (D.C. Cir. 2009) (analyzing the *Allied-Signal factors*).

Here, those factors weigh in favor of remand without vacatur. First, the Commission may well be able to address on remand the issues it failed to adequately consider in the 2018 Order. *See Susquehanna Int'l Grp., LLC v. SEC*, 866 F.3d 442, 451 (D.C. Cir. 2017) ("[T]he SEC may be able to approve the Plan once again, after conducting a proper analysis on remand."); *see also Black Oak Energy, LCC v. FERC.*, 725 F.3d 230, 244 (D.C. Cir. 2013) (remanding without vacatur where it was "plausible that FERC can redress its failure of explanation on remand while reaching the same result"). Second, the burdens of vacatur on both the regulated parties (or non-regulated parties as it may be) and the Commission counsel in favor of providing the Commission with an opportunity to rectify its errors. Regulation of broadband

Internet has been the subject of protracted litigation, with broadband providers subjected to and then released from common carrier regulation over the previous decade. We decline to yet again flick the on-off switch of common-carrier regulation under these circumstances.

But because the Commission's Preemption Directive, *see 2018 Order* ¶¶ 194–204, lies beyond its authority, we vacate the portion of the 2018 Order purporting to preempt "any state or local requirements that are inconsistent with [the Commission's] deregulatory approach[,]" *see id.* ¶ 194.

For the foregoing reasons, the petitions for review are granted in part and denied in part.

So ordered.

MILLETT, *Circuit Judge*, concurring:

I join the Court's opinion in full, but not without substantial reservation. The Supreme Court's decision in *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 545 U.S. 967 (2005), compels us to affirm as a reasonable option the agency's reclassification of broadband as an information service based on its provision of Domain Name System ("DNS") and caching. But I am deeply concerned that the result is unhinged from the realities of modern broadband service.

We have held before, as we do again today, that under the Supreme Court's decision in *Brand X*, "classification of broadband as an information service *was permissible*." *USTA v. FCC*, 825 F.3d 674, 704 (D.C. Cir. 2016) (emphasis added). That is because the Supreme Court "made clear" in *Brand X*, "over and over[,] that the [Communications] Act left [classification] to the agency's discretion." *USTA v. FCC*, 855 F.3d 381, 384 (D.C. Cir. 2017) (Srinivasan and Tatel, JJ., concurring in the denial of rehearing *en banc*); *see, e.g.*, *Brand X*, 545 U.S. at 992 ("[T]he statute fails unambiguously to classify the telecommunications component of cable modem service as a distinct offering[]," and "[t]his leaves federal telecommunications policy in this technical and complex area to be set by the Commission, not by warring analogies[.]"); *id.* at 996–997 ("silence suggests * * * instead that the Commission has the discretion to fill the consequent statutory gap").

But that was then, and this is now. *Brand X* was decided almost fifteen years ago, during the bygone era of iPods, AOL, and Razr flip phones. The market for broadband access has changed dramatically in the interim. *Brand X* faced a "walled garden" reality, in which broadband was valued not merely as a means to access third-party content, but also for its bundling of then-nascent information services like private email, user newsgroups, and personal webpage development. Today, none of those add-ons occupy the significance that they used to. Now it is impossible "to deny [the] dominance of [third-party content] in the broadband experience." *USTA*, 825 F.3d at 698. "[C]onsumers use broadband principally to access third-party content, *not* [ISP-provided] email and other add-on applications." *Id.* (emphasis added). In a nutshell, a speedy pathway to content is what consumers value. It is what broadband providers advertise and compete over. And so, under any natural reading of the statute, the technological mechanism for accessing third-party content is what broadband providers "offer."

As our opinion today recognizes, auxiliary services like DNS and caching remain in the broadband bundle. But their salience has waned significantly since *Brand X* was decided. DNS is readily available, free of charge, and at a remarkably high quality, from upwards of twenty different third-party providers. And caching has been fundamentally stymied by the explosion of Internet encryption. For these accessories to singlehandedly drive the Commission's classification decision is to confuse the leash for the dog. In 2005, the Commission's classification decision was "just barely" permissible. *Brand X*, 545 U.S. at 1003 (Breyer, J., concurring). Almost fifteen years later, hanging the legal status of Internet broadband services on DNS and caching blinks technological reality.

I

A

The Commission's latest reclassification decision reinterprets the Communications Act, and so the statutory text and structure are where I begin. *See Ross v. Blake*, 136 S. Ct. 1850, 1856 (2016).

The Act divides the world of relevant technologies into two buckets: "information services" subject only to minimal regulation, and "telecommunications services" subject to the common carriage requirements of Title II. "Information service" is defined as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." 47 U.S.C. § 153(24). "Telecommunications," in turn, is "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." *Id.* § 153(50). And "telecommunications service" means "the offering of telecommunications for a fee directly to the public * * * regardless of the facilities used." *Id.* § 153(53).

A telecommunications carrier is "treated as a common carrier" subject to Title II "to the extent that it is engaged in providing telecommunications services." 47 U.S.C. § 153(51). Title II requires, among other things, that telecommunications carriers charge just, reasonable, and nondiscriminatory rates, *see id.* §§ 201(b), 202(a), and design their systems so that other carriers can interconnect with their networks, *see id.* § 251(a).

To be sure, these regulatory enhancements need not always run with the Title II classification. The Commission is specifically directed to "forbear from applying" common carrier regulations whenever forbearance "is consistent with the public interest,'' 47 U.S.C. § 160(a)(3), and enforcement is "[un]necessary" to either "protect[]" consumers or ensure "just and reasonable" rates, *id.* § 160(a)(1)–(2). In making that public interest assessment, the Commission must consider "whether forbearance * * * will promote competitive market conditions" that reduce rates and improve product quality. *Id.* § 160(b). In other words, even when the Commission elects the Title II common-carrier pathway, serving the "public interest" remains the touchstone.

B

In *Brand X*, the Supreme Court held that the key statutory term "offering" in the definition of "telecommunications service" is ambiguous in the following respect. *Brand X*, 545 U.S. at 989. What a company "offers," according to *Brand X*, can refer to either the "single, finished product" *or* the product's "individual components." *Id.* at 991. Resolving that question in the context of broadband service required the Commission to determine whether broadband's data-processing and telecommunications components "are functionally integrated * * * or functionally separate," *id.*, and, relatedly, "what the consumer perceives to be the integrated finished product," *id.* at 990. According to *Brand X*, those questions "turn[] not on the language of [the Communications] Act, but on the factual particulars of how Internet technology works and how it is provided, questions *Chevron* leaves to the Commission to resolve in the first instance." *Id.* at 991.

Brand X recognized that "telecommunications"—in the form of a "physical connection" between the providers' computers and end users' computers, *Brand X*, 545 U.S. at 1009 (Scalia, J., dissenting)—"was one necessary component" of broadband service. *See id.* at 978–979, 988, 990 (majority opinion). But given the Commission's definition of the word "offering," the key question was whether that transmission component was sufficiently independent to amount to a "stand-alone" offering. *See id.* at 988–989. At *Chevron*'s second step, the Court deferred to the Commission's finding that "the high-speed transmission used to provide [the information service] is a functionally integrated component of [an information] service[.]" *Id.* at 998.

Based on the technological realities of the time, the Supreme Court held that the Commission reasonably concluded in 2002 that the "data transport" aspect of broadband was "inextricably intertwined" with information service capabilities like DNS, caching, "Usenet newsgroups," and ISP-provided email, so that, together, they formed just one "single, integrated" offering. *See Brand X*, 545 U.S. at 977–979, 987–990.

As today's opinion explains, we are bound to uphold the Commission's classification because it hewed closely to the portions of *Brand X* that discuss DNS and caching as information services. *2018 Order* ¶ 33; *see id.* ¶ 33 n.99 (recognizing other functionalities, but only by way of footnote, with no elaboration, and deeming them non-"determinative"). In the 2018 Order, the Commission describes DNS as "indispensable to ordinary users as they navigate the Internet," and it claims "the absence of ISP-provided DNS would fundamentally change the online experience for the consumer." *Id.* ¶ 34. The Commission then largely duplicates *Brand X's* discussion of caching, albeit with some additional technical detail. *Id.* ¶ 41. It concludes that they are "functions provided as part and parcel of" broadband, *id.* ¶ 42, and should be "understood as part of a single, integrated information service offered by ISPs," *id.* ¶ 50; *see also id.* ¶ 33.

Brand X allows that approach. The Supreme Court picked out DNS and caching to explain why the consumer continues to make use of a functionally integrated information service, even when she "goes beyond [the walled garden] and accesses content provided by third parties other than the cable company[.]" *Brand X*, 545 U.S. at 998; *id.* at 998–1000; *see also 2018 Order* ¶ 34. In so doing, the Supreme Court implied that DNS and caching were themselves information services. *See id.* at 998–1000.

From our limited institutional perch as a lower court, that conclusion controls our decision. "[W]e must follow the binding Supreme Court precedent." *We the People Found., Inc. v. United States*, 485 F.3d 140, 145 (D.C. Cir. 2007).

II

The Supreme Court, however, is not so constrained. It is freer than we are to conclude that the "factual particulars of how Internet technology works," *Brand X*, 545 U.S. at 991, have changed so materially as to undermine the reasonableness of the agency's judgments and in particular its "determinative" reliance on DNS and caching, *2018 Order* ¶ 33 n.99. Or Congress could bring its own judgment to bear by updating the statute's governance of telecommunications and information services to match the rapid and sweeping developments in those areas. Either intervention would avoid trapping Internet regulation in technological anachronism.

A

The Commission's decision to cling to DNS and caching as the acid test for its regulatory classification "cannot bear very much reality."[1] Today, the typical broadband offering bears little resemblance to its *Brand X* version. The walled garden has been razed and its fields sown with salt. The add-ons described in *Brand X*—"a cable company's e-mail service, its Web page, and the ability it provides consumers to create a personal Web page," 545 U.S. at 998—have dwindled as consumers routinely deploy "their high-speed Internet connections to take advantage of competing services offered by third parties." *Title II Order* ¶ 347. That is why the

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[1] T.S. Eliot, *Burnt Norton*, *in* FOUR QUARTETS 1, 4 (1943).

Commission today makes no effort to rely on those ancillary services. *2018 Order* ¶ 33 n.99.

In fact, the significance of the walled garden is likely what led the *Brand X* challengers to effectively concede, and likely what led the Supreme Court to accept, that information services like email, newsgroups, caching, and DNS were sufficiently significant to define the overall "offering" and, thus, to control the classification decision. The only question was whether those services were sufficiently integrated with transmission to constitute a single offering. *Brand X*, 545 U.S. at 987–988. But such musings about the technological realities that seemingly informed a Supreme Court decision alone cannot license this court to disregard *Brand X* as binding precedent. *See Dronenburg v. Zech*, 741 F.2d 1388, 1392 (D.C. Cir. 1984) ("[W]e doubt that a court of appeals ought to distinguish a Supreme Court precedent on the speculation that the Court might possibly have had something else in mind.").[2]

With the Commission now having abandoned its reliance on any additional technologies provided by broadband, *see 2018 Order* ¶ 33 n.99, the question is whether the combination of transmission with DNS and caching *alone* can justify the information service classification. If we were writing on a clean slate, that question would seem to have only one answer given the current state of technology: No. *Cf. Brand X*, 545 U.S. at 990 ("[C]able companies providing Internet service *do not 'offer' consumers DNS*, even though DNS is essential to providing Internet access.") (emphasis added). Not only does the walled garden lay in ruin, but the roles of DNS and caching themselves have changed dramatically since *Brand X* was

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[2] To be clear, I agree fully with the majority that *Brand X* did not assess the "relative importance" of the data-processing and transmission components of cable modem. Majority Op. 42.

decided. And they have done so in ways that strongly favor classifying broadband as a telecommunications service, as Justice Scalia had originally advocated. *Brand X*, 545 U.S. at 1012–1014 (Scalia, J., dissenting).

DNS, much like email, is now free and widely available to consumers in the Internet marketplace. As explained in the Title II Order, "the factual assumption that DNS lookup necessarily is provided by the broadband Internet access provider is no longer true today." *Title II Order* ¶ 370. OpenDNS was founded in 2006, just one year after *Brand X* was decided, with the mission of providing "a recursive DNS service for use at home." *About Us*, OpenDNS, https://www.opendns.com/about (last visited July 30, 2019). Google followed suit in 2010, rupturing the DNS status quo and rendering free third-party DNS a seamless reality for interested consumers. Google, *Introducing Google Public DNS*, Google Official Blog (Dec. 3, 2009), https://googleblog.blogspot.com/2009/12/introducing-google-public-dns.html.

By 2015, OpenDNS and Google were processing over 180 billion queries *every day*. *Title II Order* ¶ 370 n.1046. As the Title II Order recognized, "Internet users are free to use the DNS provider of their choice, and switching between them does not require altering any aspect of the Internet access service itself. Users need only quickly update a single setting in their operating system's Internet preferences to point DNS requests to another server." *Id.* (quoting CDT Comments at 14). Today, with a menu of more than twenty third-party providers of free DNS, *cf.* J.A. 2214–2215, many millions of Internet users have simply discarded the Commission's North Star—ISP-provided DNS. *Cf. 2018 Order* ¶ 34 n.109.

As for caching, Petitioners explain—and the Commission does not dispute—that it does not work when users employ encryption. Mozilla's Br. 46–47; *see 2018 Order* ¶ 42 n.147; J.A. 2182–2184. And encrypted traffic has "increased from just 2% in 2010 to more than 50% in 2017." *2018 Order* ¶ 42 n.147 (quoting ACLU/EFF Reply).

The Commission's answer is that encryption is "not yet *ubiquitous*," and that "many sites still do not encrypt." *2018 Order* ¶ 42 n.147 (emphasis added) (quoting *Protecting the Privacy of Customers of Broadband and Other Telecommunications Services, Report and Order*, 31 FCC Rcd. 13911, 13922, ¶ 34 (2016), *nullified by* Pub. L. No. 115-22, 131 Stat. 88 (2017)). But that response concedes that caching no longer enjoys the pride of place ascribed to it by the Supreme Court in 2005. *See* Mozilla's Br. 46–47. Whether or not encryption is "truly" "ubiquitous" is entirely beside the point, *2018 Order* ¶ 42 n.147. Caching is no longer even dominant.

These new factual developments call for serious technological reconsideration and engagement through expert judgment. Instead, the Commission's exclusive reliance on DNS and caching blinkered itself off from modern broadband reality, and untethered the service "offer[ed]" from both the real-world marketplace and the most ordinary of linguistic conventions.

B

The structure of the Communications Act fortifies this conclusion. The Act announces a clear intention to regulate market dynamics and to correct for the problems of monopoly power in the telecommunications industry. *See* 47 U.S.C. § 160(b) (directing the Commission to consider "whether forbearance [from common carriage regulations] will promote competitive market conditions"); *id.* § 572(a) (prohibiting carriers from "purchas[ing] or otherwise acquir[ing] directly or indirectly more than a 10 percent financial interest, or any management interest, in any cable operator providing cable service within the local exchange carrier's telephone service area"); *id.* § 548(a) (aiming to "promote the public interest, convenience, and necessity by increasing competition and diversity in the multichannel video programming market"). Hence, the Commission's reasonable decision to define "functional equivalent" in 47 U.S.C. § 332(d)(3) in terms of market "substitutability." *2018 Order* ¶ 85.

These structural considerations ought to weigh heavily in classifying what it is that broadband providers truly "offer" in the marketplace. The Commission's analysis should key to the *value* added to the consumer—and any monopoly rents it might enable—rather than to any tagalong item that happens to promote its policy preferences. In this case, the central and valued "offer" is transmission—technologically taking the user to and from third-party information providers. To construe and apply the term as the Commission has, divorced from basic market realities, is tantamount to "perform[ing] *Hamlet* without the Prince"— understanding and applying the key statutory term without regard for the statute's internal logic and purposes, *USTA*, 825 F.3d at 749 (Williams, J., concurring); *see also Verizon v. FCC*, 740 F.3d 623, 661–662 (2014) (Silberman, J., concurring) (emphasizing that the Act is designed to combat the monopolistic nature of the telecommunications market).

C

The parties also debate the "telecommunications management exception." 47 U.S.C. § 153(24) (excluding from an "information service" "any use [of an information service] for the management, control, or operation of a telecommunications system or the management of a telecommunications service"). As Justice Scalia explained in *Brand X*, that exception may well support excluding broadband from the information service category. *See Brand X*, 545 U.S. at 1012–1013 (Scalia, J., dissenting) (arguing that DNS "is scarcely more than routing information, which is expressly excluded from the definition of 'information service'") (citing 47 U.S.C. § 153(20)). The Commission's two major Orders in this area—the Title II Ord*er* and the 2018 Order—labor at length to reconcile their preferred classifications with the text and history of the telecommunications management exception. *Compare Title II Order* ¶ 356, *with 2018 Order* ¶ 36.

But ambiguity in the telecommunications management exception does not mean that anything goes. Ambiguity alone is virtually never enough to sustain agency action. *See Brand X*, 545 U.S. at 985 (asking whether the agency has "*reasonabl[y]*" filled the textual gap). Here, as the court's opinion recognizes, the exception is fluid by design—it operates as a means of catching data-processing tools that are, at most, incidental to the core transmission service.

So when framed in *Chevron*'s terms, the Commission faced a choice between classifying the combination of transmission and DNS/caching as an integrated "information service" offering, or classifying that package as a telecommunications service, with DNS/caching falling within the telecommunications management exception. In my view, the reasonableness of *that choice* should turn, at least in part, upon the "relative importance" of the different capabilities in the marketplace. So, while the two sides argue at length over whether functions like DNS and caching should fall within the exception, the important analytical work should really occur at the antecedent step when deciding whether the transmission element is so dominant that it would be unreasonable not to apply the exception to DNS and caching. If precedent did not dictate otherwise, the answer to that antecedent inquiry would put DNS and caching squarely into the telecommunications management exception.

III

According to the Commission, even putting *Brand X* aside, broadband is an information service for a new reason—one that is immune to changes in the "factual particulars of how Internet technology works and how it is provided." *Brand X*, 545 U.S. at 991. Broadband connection is an information service, the Commission tells us, because it is "designed and intended" with the "fundamental purpose[]" of facilitating access to *third-party information services*. *2018 Order* ¶ 30. In other words, in the Commission's view, broadband itself need not include any data processing at all to satisfy the information-service definition. It is enough that broadband is a designated transmission pathway to third-party content—that is, that it "has the capacity or potential ability to be used to engage in the activities within the information service definition[.]" *Id*.

That move is incompatible with *Brand X*, the basic mechanics of Title II, and the texts of the relevant definitional provisions.

For starters, the Commission's novel interpretation effectively abrogates the *Brand X* blueprint. *Brand X* prized above all else "consumer perce[ption]" and "functional[] integration," leaving those inquiries to the Commission's technocratic judgment. *Brand X*, 545 U.S. at 990–991. But if the Commission is right today, and pure data transmission is an information service just because its "purpose" is to facilitate access to other information services, then there would be no combination of services left for expert technical analysis. "The entire question," *Brand X* tells us, "is whether the products here are functionally integrated (like the components of a car) or functionally separate (like pets and leashes)." *Brand X*, 545 U.S. at 991. The Commission's approach abandons that test by simply redesignating the transmission component itself as also an information service.

The problems with the Commission's position do not stop there. As numerous commenters warned, the Commission's capacious view of "information service" would imperil the one proposition on which everyone has so far been able to agree: traditional telephony belongs within Title II. That worrisome implication suggests the Commission has drifted far beyond the statutory design and exceeded its interpretive discretion.

To appreciate why, consider the most ordinary uses of telephone and broadband service. Both enable casual conversation—whether via a traditional phone call or voice-over-Internet protocol. Both also provide the user access to a wealth of information (in the form of automated information systems or websites). *See* Amicus Br. of Members of Congress at 21–22 (citing the example of "Julie," Amtrak's automated reservation service). And because these overlapping functions are non-accidental (*i.e.*, by "design"), presto: the old touchtone phone is now immune from common-carriage regulation.

That definition, though, would render Title II an empty basket. Nothing of any meaning would be left to qualify as a telecommunications service. *See Mackey v. Lanier Collection Agency & Serv., Inc.*, 486 U.S. 825, 837 (1988) ("[W]e are hesitant to adopt an interpretation of a congressional enactment which renders superfluous another portion of that same law.").

The Commission says it has "*always* understood traditional telephone service 'to provide basic transmission—a fact not changed by its incidental use, on occasion, to access information services.'" FCC's Br. 34 (emphasis added) (quoting *2018 Order* ¶ 56). But that response avoids the key question: Whether the Commission's *new* position can be squared with what it has always understood. Historically, the Commission has viewed telephony as pure transmission because that is exactly what it is. Any information services—from directory assistance to automated ordering systems—to which the phone provided access were never thought to bear upon telephony's classification status as a telecommunications service, and not an information service.

At least not until now. The Commission's novel and utterly capacious definition of information services as just providing the user transmissive access to information requires that it contend with the traditional use of telephones "to generate, acquire, store, transform, process, retrieve, utilize, and make available information." *2018 Order* ¶ 56. An announced fealty to prior agency practice is no help when the whole question is whether the new approach imperils the foundation of that pedigree.

The Commission's position fares no better when measured against the text of the statute. The Commission claims broadband offers the relevant "capabilities" of an information service because it is "designed" or "intended" to achieve the "fundamental purpose[]" of acquiring and retrieving information. *2018 Order* ¶ 30. But those purposive qualifiers are nowhere to be found in the statutory text.

The Commission's position also requires it to carve out an unenumerated exception to the statute's straightforward definition of "telecommunications service."

"Telecommunications service" is "the offering of telecommunications"—that is, "the transmission, between or among points specified by the user, of information of the user's choosing, without change in [its] form or content," 47 U.S.C. § 153(50)—"for a fee directly to the public," *id*. § 153(53). On the Commission's view, a telecommunications pathway that is "designed" to facilitate information acquisition and manipulation does not meet the telecommunications definition and is instead an information service. *2018 Order* ¶ 56 (distinguishing broadband from a telecommunications service because it is "*designed* * * * to electronically create, retrieve, modify and otherwise manipulate information").

The problem is the statute does not include a *mens rea* "design" exception. Presumably because every transmission pathway is designed on some level to acquire and retrieve data. What would be the point of transmission otherwise? So following the Commission's view to its logical conclusion, everything (including telephones) would be an information service. The only thing left within "telecommunications service" would be the proverbial road to nowhere.

So, in addition to upending the only fixed point in our post-*Brand X* world (that is, traditional telephony as a telecommunications service), the Commission's position treats the statutory text as an afterthought. Yet agencies are not supposed to "rewrite clear statutory terms to suit [their] own sense of how the statute should operate." *Utility Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2446 (2014).

* * * * *

In an area so fraught with political contest and technical complexity, we ordinarily grant the administering agency the widest possible berth in interpreting and administering a technical statutory scheme. But that discretion is not unlimited, and it cannot be invoked to sustain rules fundamentally disconnected from the factual landscape the agency is tasked with regulating. By putting singular and dispositive regulatory weight on broadband's incidental offering of DNS and caching, the Commission misses the technological forest for a twig.

Yet, as a lower court, we are bound to "the [Supreme Court] case which directly controls," and so we must follow *Brand X*, as the court's opinion does. *Agostini v. Felton*, 521 U.S. 203, 237 (1997). It is the Supreme Court's sole "prerogative" to read *Brand X* in light of the facts of its day, *id.*, and to require the Commission to bring the law into harmony with the realities of the modern broadband marketplace. Until it does—or until Congress steps up to the legislative plate—I am bound to concur in sustaining the Commission's action.

WILKINS, *Circuit Judge*, concurring:

I too join the Court's opinion in full. As Judge Millett's concurring opinion persuasively explains, we are bound by the Supreme Court's decision in *National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 545 U.S. 967 (2005), even though critical aspects of broadband Internet technology and marketing underpinning the Court's decision have drastically changed since 2005. But revisiting *Brand X* is a task for the Court – in its wisdom – not us.

WILLIAMS, *Senior Circuit Judge*, concurring in part and dissenting in part:

> And be these juggling fiends no more believed,
> That palter with us in a double sense;
> That keep the word of promise to our ear,
> And break it to our hope.

So says Macbeth, finding that the witches' assurances were sheer artifice and that his life is collapsing around him. The enactors of the *2018 Order*, though surely no Macbeths, might nonetheless feel a certain kinship, being told that they acted lawfully in *rejecting* the heavy hand of Title II for the Internet, but that each of the 50 states is free to impose just that. (Many have already enacted such legislation. See, e.g., Cal. S. Comm. on Judiciary, SB 822 Analysis 1 (2018) (explaining that California has expressly "codif[ied] portions of the recently-rescinded . . . rules").) If Internet communications were tidily divided into federal markets and readily severable state markets, this might be no problem. But no modern user of the Internet can believe for a second in such tidy isolation; indeed, the Commission here made an uncontested finding that it would be "impossible" to maintain the regime it had adopted under Title I in the face of inconsistent state regulation. On my colleagues' view, state policy trumps federal; or, more precisely, the most draconian state policy trumps all else. "The Commission may lawfully decide to free the Internet from Title II," we say, "It just can't give its decision any effect in the real world."

The Commission has invoked the "impossibility exception," a well-established ground of FCC preemption. (It is an "exception" to 47 U.S.C. § 152(b)'s otherwise existing barrier to Commission jurisdiction over any charges, etc., "in connection with *intrastate* communication service by wire or radio of any carrier" (emphasis added).) As formulated by our circuit, the exception permits the Commission to preempt state regulation "when (1) the matter to be regulated has both interstate and intrastate aspects . . . ; (2) FCC preemption is necessary to protect a valid federal regulatory objective . . . ; and (3) state regulation would 'negate[] the exercise by the FCC of its own lawful authority' because regulation of the interstate aspects of the matter cannot be 'unbundled' from regulation of the intrastate aspects." *Public Service Comm'n of Maryland v. FCC*, 909 F.2d 1510, 1515 (D.C. Cir. 1990).

Prong (1) is obviously satisfied, and petitioners bring no challenge under prong (2)—that "preemption is necessary to protect a valid federal regulatory objective," or the all-important final part of prong (3)—that "regulation of the interstate aspects of the matter cannot be 'unbundled' from regulation of the intrastate aspects." *Id*. The *2018 Order* reasoned that trying to segregate flows of Internet data into discrete intrastate and interstate components for regulatory purposes would be quite hopeless:

> Because both interstate and intrastate communications can travel over the same Internet connection (and indeed may do so in response to a single query from a consumer), it is impossible or impracticable for ISPs to distinguish between intrastate and interstate communications over the Internet or to apply different rules in each circumstance. Accordingly, an ISP generally could not comply with state or local rules for intrastate communications without applying the same rules to interstate communications. Thus, because any effort by states to regulate intrastate traffic would interfere with the Commission's treatment of interstate traffic, the first condition for conflict preemption is satisfied.

2018 Order ¶ 200. Although petitioners posed objections to such findings before the agency, they make none here, despite the high bar our cases set for the agency on such issues. See, e.g., *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 880 F.2d 422, 430 (D.C. Cir. 1989) (stating that "a valid FCC preemption order must be limited to [activities] that would *necessarily* thwart or impede the operation of a free market in the [relevant area]" (emphasis added)). Thus the proposition that disallowance of preemption would thoroughly frustrate the application of the Commission's decision is uncontested.

Nor is the preemptive language broader than the Commission has historically used in exercising impossibility preemption. See, e.g., *Second Computer Inquiry, Memorandum Opinion and Order*, 84 F.C.C. 2d 50 ¶ 155 (1980) ("While this requirement may impair the states' ability to establish charges for intrastate service, we have imposed it only to best implement our jurisdiction under Sections 1 and 2(a) over interstate service. When the exercise of our jurisdiction over interstate services requires the imposition of requirements for unbundling and nonusage sensitive charges, however, inconsistent state regulations must yield to preeminent claims of the federal regulatory scheme.").

Given the uncontested findings, petitioners and the majority rest the case against preemption entirely on the theory that the Commission lacks authority to preempt. Of course authority is essential. Preemption by an agency without authority to preempt would be a contradiction in terms under our constitutional system, where Congress makes the laws. It is also uncontested here that Congress did not afford the FCC *express* authority to preempt.

But Supreme Court decisions make clear that a federal agency's authority to preempt state law *need not be expressly granted*. When a federal agency "promulgates regulations intended to pre-empt state law [i.e., with an express statement of agency intent], the court's inquiry is . . . limited," *Fidelity Fed. Sav. & Loan Ass'n v. de la Cuesta*, 458 U.S. 141, 154 (1982):

> If [the agency's] choice represents a reasonable accommodation of conflicting policies that were committed to the agency's care by the statute, we should not disturb it unless it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned.

Id. (quoting *United States v. Shimer*, 367 U.S. 374, 383 (1961)).

Given the Commission's undisputed findings here, the only vulnerability of its position is the possibility suggested in the last clause—whether "it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned." Inquiry into that question proceeds in the usual way of discerning congressional intent, exemplified by *City of New York v. FCC*, 486 U.S. 57 (1988). There the Court found that Congress had empowered the FCC to adopt a prophylactic rule preempting state attempts to impose on certain cable operators "more stringent" technical standards than those imposed by the Commission, *id*. at 63, regardless of "whether . . . an actual conflict" existed between the state standards and any federal law or regulation, *id*. at 65-66. The Court located that broad pre-emptive authority in § 624(e) of the Cable Act, 47 U.S.C. § 544(e) (1982), *id*. at 70 n.6, even though that section said nothing about preemption. It rested the inference on the fact that "[w]hen Congress enacted the Cable Act [of 1984] . . . it acted against a background of federal pre-emption on [the cable standards] issue." *Id.* at 66. As we shall see, the background of pre-1996 preemption provides less obvious and emphatic support; only one decision, *California v. FCC*, 39 F.3d 919 (9th Cir. 1994), expressly rested on the Commission's interest in protecting the open market in services under Title I from state or local frustration. See below, pp. 16–17. Nonetheless, the statute, its history and its interpretation give ample reason to infer a congressional intent that the Commission be authorized to preempt state laws that would make it "impossible or impracticable" (see ¶ 200, above) for ISPs to exercise the freedom that the Commission meant to secure by classifying broadband under Title I.

We start with *Chevron*'s understanding that where "Congress has explicitly left a gap for the agency to fill, there is an express delegation of authority." *Chevron, U.S.A., Inc. v. Nat'l Res. Def. Council, Inc.*, 467 U.S. 837, 843–44 (1984). "Sometimes the legislative delegation to an agency on a particular question is implicit rather than explicit." *Id*. at 844. In the case of the 1996 Act, via ambiguity in the word "offer," see *Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 989–92 (2005), Congress implicitly delegated to the FCC the power to determine whether to locate broadband under Title II, where it would be potentially subject to the full gamut of regulations designed for natural monopoly, or under Title I, which itself authorizes virtually no federal regulation. (An exception is 47 U.S.C. § 257, which though located in Title II was expressly written to apply to all of Chapter 5, which encompasses Titles I through VI.) All members of the panel agree that here as in *Brand X* the Commission lawfully placed broadband service under Title I of the 1996 Act and lawfully rejected placing it under Title II.

The consequences of the Commission's choice of Title I depend on its having authority to preempt. One possible outcome is that the choice did little more than flick the federal regulatory switch into the off position, with narrow exceptions such as authority under § 257, which the Commission has exercised to assure transparency in ISP behavior. On that view, the Commission's choice of Title I essentially turned the field over to states and localities, leaving each free to select as prescriptive control over broadband as it might think best. Of course the individual state or locality, if inclined to a genuinely light-touch regime, would have to face the reality that the Commission addressed in ¶ 200 of the *Order*, quoted just above. Just as an ISP cannot "comply with state or local rules for intrastate communications without applying the same rules to interstate communications," it seems safe to say that an ISP bound to apply the rules of California to any of its service will also need—because of the impossibility of "distinguish[ing] between intrastate and interstate communications over the Internet," *2018 Order* ¶ 200—to apply those heavy-handed rules to *all* its service.

The other possible outcome is that the congressional grant of power to choose Title I entailed Commission authority to choose a genuinely light-touch *national* regime—for all broadband in the United States. On this view, the choice of Title I, coupled with preemption of inconsistent state and local regulation, allows establishment of a genuinely federal policy for broadband, with service based primarily on consumer and provider response to market forces.

Under the first view, the feds step aside and leave the matter to the states (or, more realistically, to the most ardently regulatory state). Under the second, federal law adopts a nationwide regime governed primarily by market forces.

As Congress did not specifically grant or withhold preemption authority in the context of Title I, we must look for other clues. The strongest (invoked by the Commission, see *2018 Order* ¶ 204) is the provision flat-out preempting state authority to enforce any of the Title II provisions "that the Commission has determined to forbear from applying." 47 U.S.C. § 160(e). Within the Title II realm, the statute automatically requires state congruence with the Commission's choices as to regulatory stringency (at least to the extent that choices are made by forbearance or refraining from forbearance). As the Commission exercises discretion to go down the scale of dirigisme, Congress requires the states to trail along.

Yet petitioners tell us not only that *mandatory* state congruence collapses automatically once the Commission steps off the Title II escalator and chooses Title I, but that the Commission is left with *no authority* to make its policy choice a national one. Such a view would put the Commission in paradoxical bind. The Commission could create an effective federal policy controlling communications brought under Title II, within a considerable range of intrusiveness, but if it finds the light-touch associated with Title I more apt, it then de facto yields authority over interstate communications to the states.

Of course this inference from statutory forbearance preemption automatically encounters the maxim *expressio unius est exclusio alterius*: Congress's direction of preemption for all lawful exercises of forbearance from Title II authority, with no parallel provision for the Commission's choice of Title I, might be taken to exclude any preemption once the Commission chooses Title I (putting aside preemption aimed at maintaining the effectiveness of regulation under Title II, see *Comcast Corp. v. FCC*, 600 F.3d 642, 654 (D.C. Cir. 2010)).

Such a congressional intent seems improbable. First, the *expressio unius* maxim doesn't really fit: § 160(e) operates to preempt as a matter of law, whereas here we are talking of whether the Commission has a discretionary choice to preempt. The existence of an orange doesn't imply the absence of an apple. Second, under *Brand X*'s reading of the 1996 Act, we have to infer a congressional belief that the very light touch associated with Title I would be a reasonable Commission choice. But we also know that Congress wanted a Commission choice among fine gradations of regulatory intrusiveness to be applied nationally (to the extent necessary for it to apply fully to all interstate communications)—by granting the forbearance power in Title II, coupled with automatic preemption. Accepting the *expressio unius* argument requires us to think that Congress intended to suspend Commission authority to implement its policy choice nationally just at the point where the agency's findings in favor of deregulation cease to be achievable under the combination of Title II-plus-forbearance.

This dilemma would disappear if the Commission could move down the forbearance escalator under Title II to a point very close to the ultra-light-touch of Title I. But it can't. No Commission, however intellectually gifted, could write an order explaining (a) why Title II was suitable because of serious market failures requiring corrective government action under its grants of authority, and simultaneously (b) why it was exercising its authority to forbear from exercising all those authorities. Section 160(a), after all, requires that in exercising forbearance the Commission determine that enforcement of the provision at issue isn't necessary to assure that rates are just and reasonable, or for the protection of customers, and that forbearance is consistent with the public interest. It would be a neat trick to explain how the "difficult policy choices" that *Brand X* said "agencies are better equipped to make than courts," 545 U.S. at 980, called for the imposition of Title II and—simultaneously—for forbearance from all its actual authorities. Under petitioners' view, as a practical matter, a Commission could create a *national* light-touch regime only by choosing a place on the escalator (materially more dirigiste than is implicit in Title I) where it could deftly but persuasively reconcile Title II with substantial forbearance. It is hard to imagine a rational Congress providing for use of Title I, but requiring that any *national* deregulatory policy be implemented only to the degree that it might prove achievable under the internal constraints of Title II.

The improbable idea that Commission development of a national telecommunications policy can occur only within the constraints of Title II would especially surprise the 1996 Act's joint House-Senate conference committee. In introducing the Act, the committee explained that it was "to provide for a *pro-competitive, de-regulatory national* policy framework." S. REP. NO. 104-230, at 1 (1996) (Conf. Rep.) (emphasis added). On petitioners' view, the committee indulged in a massive self-contradiction: The policies allowed by the bill could be deregulatory, or national, but not both—at least not beyond such deregulation as the Commission could coherently fit under Title II.

In the end the question turns on whether we see preemption as serving to protect the federal *regulations* from state frustration or to protect federal choice of a *regulatory regime* from state frustration. Suppose that the statute, instead of delegating authority to choose between the two titles via definitional ambiguity, had said bluntly, "The Commission shall in its reasonable discretion choose between applying the regulatory scheme applicable under Title II and the one applicable under Title I." And the Commission had responded by saying it chose the scheme available under Title I, offering as reasons the sort of policy analysis that it did here. Would any of the cases rejecting agency preemption efforts bar a Commission order preempting types of state regulation that would defeat the purposes the Commission invoked in its decision to place broadband under Title I?

The majority staunchly believes that preemption serves solely to protect *affirmative* federal *regulations*. Responding to the Commission's reliance on the preemption that automatically follows forbearance under Title II, it says, "the

Commission [has] broad authority over services classified under Title II, unlike those classified under Title I." *Maj. op*. 133. True enough. But the lesson it draws is a complete non sequitur: The broad authority under Title II, says the majority, is "why the Act carves out more space for federal objectives to displace those of the States in the Title II context." *Id*. This explanation assumes an *asymmetry* in preemption implications between (i) heavy-handed regulation and (ii) light-touch regulation. If an agency decides that a robust regulatory scheme is apt in a given sector (say, under Title II), the majority is ready to infer authority to preempt. But, the majority insists, if the agency determines that an industry will flourish best under competitive market norms and accordingly adopts a "light-touch" path, preemption is suddenly superfluous *because* the agency now has less "power to regulate services." A clearer insistence on the unsupported notion that preemption protects *only regulation* itself, *not* a regime of lawful regulatory choices, is hard to imagine.

Viewed as a matter of protecting a lawfully chosen federal regulatory scheme, an inference of preemptive authority is sound to the extent that the state action in question would frustrate an agency's authorized policy choices and actions. Dirigiste state regulation in a sector that an agency thinks works best under market norms would undercut the agency's aims, *no more, no less*, than state rules undermining the agency's affirmative regulations.

The majority's leitmotiv—indeed the entire foundation of its conclusion—is that *only* an agency's possession of affirmative regulatory authority can support authority to preempt state regulation (state regulation nominally applying only to intrastate communications, but because of the impossibility of separation, in practice engulfing interstate communications). See *Maj. op.* 123 ("[I]n any area where the Commission lacks the authority to regulate, it equally lacks the power to preempt state law."); *id*. at 128 ("In other words, the impossibility exception presupposes the existence of statutory authority to regulate; it does not serve as a substitute for that necessary delegation of power from Congress."); *id*. at 132 ("[P]reemption authority depends on the Commission identifying an applicable statutory delegation of regulatory authority . . . ."); *id*. at 134 (concluding that courts cannot evaluate if Congress provided preemption authority "if there is no legislative grant of authority against which to evaluate the preemptive rule, and certainly not when, as here, Congress expressly *withheld* regulatory authority over the matter"); *id*. at 138 ("[T]he dissenting opinion fails to explain how the Commission's interpretive authority under *Chevron* to *classify* broadband as a Title I information service could do away with the *sine qua non* for agency preemption: a congressional delegation of authority either to preempt or to *regulate*"). But reiteration is not proof—no matter how self-assured. The claim is wrong in its broad form and is inapplicable to the circumstances here.

I must speak of "the broad form" of the maxim because the majority offers two variations. Most take the broad form—denying *any* possibility of preemption in the absence of affirmative regulatory authority. But two expressions of the maxim are accompanied by an acknowledgement that Congress itself can allow such preemption with *express* statutory language. *Id.* at 123, 138. Thus even the narrow form tacks on a self-made and unexplained requirement that any such congressional decision can have legal effect *only* if it is *express*, despite our living in a world where judicial interpretation of statutes rarely insists on an express provision outside the context of a clear statement rule or its equivalent. This narrow version of the maxim, however, appears to be entirely the majority's handiwork and to rest entirely on its premise of asymmetry.

The majority's acknowledgment of congressional authority is necessary. Congress plainly has power itself to preempt state regulation interfering with the flow of market forces in a specified domain, without having regulated or afforded an agency parallel affirmative regulatory authority. See, e.g., 49 U.S.C. § 41713(b)(1) (preempting states from regulating airline prices and routes to protect the deregulation of the airline industry from state interference). The same principle undergirds a congressional choice (express or implied) to grant an agency equivalent preemptive authority without any parallel federal regulation (by Congress or a federal agency). See 47 U.S.C. §§ 253 (a), (d) (preempting and authorizing agency preemption of state and local regulations that "may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service").

Further, the majority's maxim is *inapplicable*. There is no doubt whatsoever that on December 13, 2017, the day before adoption of what we call the *2018 Order*, the Commission had authority to apply Title II to broadband. By its classification decision, it forswore any *current* intention to use Title II vis-à-vis broadband. But the authority to reclassify broadband back under Title II, and thus to subject it to all the authorities granted under Title II, remained. Under the 1996 Act the Commission's choice not to exercise a power is not a permanent renunciation of that power.

We see this rather obviously in relation to forbearance. When the Commission adopted the *Title II Order* it also elected to forbear from a slew of the powers available under Title II. But everyone recognized that these forbearance decisions were reversible at the Commission's election, plus, of course, its satisfying the usual requirements for regulatory change, most obviously those of *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009). There are two ways of characterizing the period of forbearance-and-preemption between the two orders: One could view the accompanying preemption (executed by Congress itself) either as explicit provision for preemption accompanying an *absence of regulatory power* (anathema to the majority), or as preemption accompanying the Commission's reserved, latent regulatory authority (thereby satisfying the majority's maxim). Either way, the current situation is parallel: Because preemption is necessary to make the agency's lawful exercise of power effective, it accompanies the agency decision to hold its Title II powers over broadband in abeyance.

The majority assumes without explanation that in allowing the Commission a choice between full-throttled regulation under Title II and very light regulation under Title I Congress had *no interest* in making sure that the Commission could, if it exercised the latter choice, establish an effective *national* broadband policy (applying directly to interstate communications and indirectly to intrastate regulations to the extent that it was impossible to distinguish between intrastate and interstate communications, i.e., to the extent that it was called for by the familiar impossibility exception). I can see no basis for imputing such an outlook to Congress.

The Supreme Court has clearly ruled that authority to preempt may be inferred to support an agency's regulatory scheme. In *City of New York*, as we've seen, the Court found that Congress had empowered the FCC to preempt state attempts to apply more stringent technical standards than those imposed by the Commission, regardless of any conflict between the federal and state standards. 486 U.S. at 63, 65-66. (That decision was under a statute enacted against a background of parallel Commission preemption, an issue I'll take up below at pp. 15–17.)

Similarly, the Court has said that a "federal decision to forgo regulation in a given area may imply an authoritative federal determination that the area is best left *un*regulated, and in that event would have as much pre-emptive force as a decision *to* regulate." *Arkansas Electric Co-op. Corp. v. Arkansas Public Service Comm'n*, 461 U.S. 375, 384 (1983); see *2018 Order* ¶ 194 & n.726. The majority points out that the Court found the statute at issue did not, in fact, "imply an authoritative federal determination that the area is best left unregulated," 461 U.S. at 384 (or, as here, a congressional delegation to the agency of authority to make that choice). But the reason for this does nothing to undermine the relevance of *Arkansas Electric*. The Federal Power Commission had determined as a jurisdictional matter that *another agency* had "exclusive authority" over rural power cooperatives, so that it in fact had no occasion to "determine that, as a matter of policy, rural power cooperatives that are engaged in sales for resale should be left unregulated." *Id.* The FCC's choice of Title I in the *2018 Order* was of course *exactly* a determination that broadband should be left free of the burdens of Title II.

And in *Ray v. Atlantic Richfield Co.*, 435 U.S. 151, 178 (1978), the Court held that "the Secretary [of Transportation]'s failure to promulgate a ban on the operations of oil tankers in excess of 125,000 [deadweight tons] [a ceiling that the State of Washington purported to impose] . . . takes on . . . [the] character" of a ruling "'that no such regulation is appropriate'" and thus "States are not permitted to use their police power to enact such a regulation" (quoting *Bethlehem Steel Co. v. N.Y. State Labor Relations Bd.*, 330 U.S. 767, 774 (1947)). The majority brushes *Ray* aside because, while the Court blessed agency preemption, it had made an antecedent finding that the statute in question "delegat[ed] regulatory power to the agency," that is, power to make rules concerning vessel sizes and speeds. *Maj. op.* 140. But the Court's relevant decision was that the statute contemplated "a single decisionmaker" on the regulation of supertankers, 435 U.S. at 177, just as, given the historic use of the "impossibility exception," it is a safe conclusion that the 1996 Act contemplated "a single decisionmaker" for interstate services located under Title I, protected from state interference to the extent necessary for its effectiveness, e.g., where, as the Commission found here, "an ISP generally could not comply with state or local rules for intrastate communications without applying the same rules to interstate communications." *2018 Order* ¶ 200.

I mentioned above that pre-1996 exercises of preemptive authority by the Commission have generally not rested (or at least have not rested exclusively) on an implication of power from the Commission's election to place services under Title I and concomitant power to keep states from thwarting the Commission's adoption of an ultra-light-touch regulatory policy. The reason is fundamentally that the Commission, in implementing its decisions to remove certain services from Title II, namely customer premises equipment ("CPE") and "enhanced services" (the precursor of information services), has been able to rely on authority ancillary to Title II. Thus in *Computer II* it required AT&T to offer enhanced services and CPE only through a separate subsidiary and required all common carriers to unbundle charges for CPE from their charges for telecommunications services. *Second Computer Inquiry, Final Decision*, 77 F.C.C. 2d 384 ¶¶ 9, 12 (1980); *Second Computer Inquiry, Memorandum Opinion and Order*, 84 F.C.C. 2d at ¶ 66. We upheld these requirements in *Computer & Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982) ("*CCIA*"), resting on the Commission's interest in preventing cross-subsidization of the competitive services with revenue from the common carrier services. These requirements at once enabled the Commission to prevent distortion of the free market for enhanced services and CPE by carriers' revenue from monopoly services, *id*. at 211, and to protect consumers of the monopoly services from higher rates on those services (that's the source of the revenue for cross-subsidization), *id*. at 213. In *Comcast*, we expressly tethered this exercise of power to the Commission's role in protecting the consumers of monopoly services. 600 F.3d at 655-56.

CCIA also upheld the Commission's preemption of any state inclusion of CPE charges in their tariffs for monopoly communications services (a similar preemption to assure structural separation for enhanced services went unchallenged), resting on the Commission's exercise of ancillary power to ban the unbundling. 693 F.2d at 214–18. Thus the preemptions under *Computer II* raised no question entirely dependent on the authority of the Commission to protect its choice of non-regulation for the services newly removed from Title II. Similar reasoning governed our approval of the Commission's preemption of any state failure to remove "inside wiring" from common carrier tariffs. *National Ass'n of Regulatory Commissioners v. FCC*, 880 F.2d 422 (D.C. Cir. 1989).

When the Commission in *Computer III* reversed its position on structural separation, requiring its *elimination* for the Bell Operating Companies that succeeded AT&T, its preemption of contrary state common carrier rules could have been sustained on the same basis. *California v. FCC*, 39 F.3d 919, 923–25, 931–33 (9th Cir. 1994); see also *California v. FCC*, 905 F.2d 1217, 1243 (9th Cir. 1990). Nonetheless—and quite logically, because the Commission's *Computer III* preemption rested in part on the Commission's interest in assuring fair competition in the rising enhanced services market located under Title I, *California*, 39 F.3d at 924—the 9th Circuit decision upholding preemption went further. It noted petitioner State of New York's claims "that the FCC may preempt state action only when it is acting pursuant to specified regulatory duties under Title II of the Act," and that "no preemption authority exists" when "the FCC's action is intended to implement the more general goals of Title I." *Id.* at

932. It responded unequivocally, "This position must be rejected." *Id.*; see also *2018 Order* ¶ 198 & n.738; FCC Br. at 119.

Apart from the 9th Circuit's 1994 *California* decision, this pre-1996 litigation doesn't offer affirmative support for the inference of authority to preempt state regulation rendering impossible its achievement of a deregulatory regime for Title I services. But no case has *rejected* that inference—an entirely reasonable inference, in my view, for the reasons set out above. The majority appears to believe that the cases above reinforce its notion that an agency can exercise preemption *only* in support of currently deployed affirmative regulatory authority, *Maj. op.* 125, but the cases hold no such thing. All could uphold the Commission in reliance on its Title II authority. It is striking, however, that in 1994 in *California* the 9th Circuit went farther and rested expressly on the Commission's power to protect the unregulated market in enhanced services, created by locating such services under Title I, which the *Computer III* decision had sought to protect.

In addition to *California* (1994), a post-enactment circuit court decision touches on Commission authority to preempt state regulations inconsistent with the Commission's deregulatory regime for broadband. In *Minnesota Public Utilities Commission v. FCC*, 483 F.3d 570 (8th Cir. 2007), the Eight Circuit upheld an FCC order preempting state regulation of VoIP under the impossibility exception even *before* the agency had decided whether to classify VoIP as an information service or a telecommunications service. The agency rested on its view that the matter turned only on the practical issues revolving around the impossibility exception—whether separating the intrastate and interstate aspects of the service was possible or not. The answer in its view would not depend on the classification. *Id.* at 578.

As the majority points out, legal authority (as opposed to the facts essential for application of the impossibility exception) was not formally at issue. But the court's idea of what a "conflict" might be is radically different from the majority's here. In upholding the FCC's assertion of irreconcilable conflict *if* it later chose to classify VoIP as an information service, the court pointed to the agency's "long-standing," "market-oriented policy" of "nonregulation of information services" and upheld the FCC's bottom line: "[A]ny state regulation of an information service conflicts with the federal policy of nonregulation." *Id*. at 580. The decision seems wholly incompatible with the majority's idea that there is no Commission preemptive authority vis-à-vis a service located under Title I (with the narrow exception of regulatory authority expressly made applicable to Title I, such as that of § 257).

The majority says the agency did not adequately flesh out these arguments in the *2018 Order* or in its briefing here. Flattered as I am at the thought that I deserve credit for all or most of the thinking in this opinion, it isn't so.

As I do, the *2018 Order*'s section on preemption views the Commission as adopting an affirmative "federal regulatory regime" of deregulation, a regulatory regime that can *only* find its roots in the Commission's authority to classify the Internet under Title I or Title II. *2018 Order* ¶ 194; see also, e.g., *id*. (describing a "federal regulatory scheme"). As I do, the *2018 Order* argues that this "affirmative policy of *de*regulation is entitled to the *same* preemptive effect as a federal policy of regulation." *Id*. ¶ 194 (second emphasis added). The *2018 Order* also highlights the incongruity between finding an implied preemptive power when the Commission adopts an intrusive Title II regime but not when it adopts a national deregulatory framework. See *Id*. ¶ 204 ("It would be incongruous if state and local regulation were preempted when the Commission decides to forbear from a provision that would otherwise apply, or if the Commission adopts a regulation and then forbears from it, but not preempted when the Commission determines that a requirement does not apply in the first place."). It thus directly assails the key asymmetry on which the majority's opinion entirely depends—the notion that for affirmative regulation, preemptive power may be implied, but for a lawfully adopted deregulatory regime it must be stated by Congress expressly. And as I do, the *2018 Order* notes that "no express authorization or other specific statutory language is required for the Commission to preempt state law." *Id.* ¶ 204 & n. 749 (citing *City of New York v. FCC*, 486 U.S. 57 (1988)). To continue would tax the reader's patience, but the similarities do not end there. No matter how you slice it, the Commission rejected—and asserted ample grounds for doing so—the majority's novel notion that for an intrusive regulatory regime an agency's preemptive power can be inferred, while a deregulatory regime is a Cinderella-like waif, and can be protected from state interference only if Congress expressly reaches out its protective hand.

Moreover, even if the Commission had not laid this foundation below, the majority is mistaken in its assumption that our obligation to "judge the propriety of [agency] action solely by the grounds invoked by the agency," *Sec. & Exch. Comm'n v. Chenery Corp.*, 332 U.S. 194, 196 (1947) (*Chenery II*); see also *Sec. & Exch. Comm'n v. Chenery Corp.*, 318 U.S. 80, 87 (1943) (*Chenery I*), prevents our independent analysis of the legal issues undergirding preemptive authority. *Chenery* prevents a court from upholding agency action based on "*de novo* factual findings or independent policy judgments better left to agency experts." *Sierra Club v. Fed. Energy Regulatory Comm'n*, 827 F.3d 36, 49 (D.C. Cir. 2016); see *Canonsburg Gen. Hosp. v. Burwell*, 807 F.3d 295, 305 (D.C. Cir. 2015). But that principle does not apply when the issue turns on a purely legal question, such as, here, "our interpretation of [a statute] and binding Supreme Court precedent." See *Sierra Club*, 827 F.3d at 49.

Nor do the majority's concerns about the Commission's briefing hold water. The Commission noted that it had substituted "a light-touch regulatory regime under Title I for the utility-style Title II regulations that had been adopted in 2015," and that this light-touch regime could only survive if it preempted state law. FCC Br. 111. The Commission noted that its authority to classify supplied authority to preempt. See *id*. at 115 ("[T]o the extent the Commission could have read any ambiguous provisions of the Communications Act to give it authority to retain the former rules [i.e., persist in wielding the regulatory authorities supplied by Title II], the Commission's decision not to do so . . . supports preemption of state or local efforts to reinstate those requirements."). On appeal, as in the *2018 Order*, the Commission attacked the conclusion "that the Commission's determination that broadband Internet access is an information service . . . deprived it of the power to preempt contrary state regulations." *Id*. at 124. And the Commission argued that its "federal decision to deregulate preempts contrary state regulatory efforts just the same as a federal decision to regulate," *id.* at 130—again an assault on the linchpin of the majority's ruling: asymmetry. It would be the height of formalism to fault the Commission because, despite making all the correct moves, it didn't precisely enough (at least for the majority) articulate the link between its authority to adopt a deregulatory regime under Title I and its implied power to protect that regime.

Towards the end, though never acknowledging the Commission's finding that an internet service provider "generally could not comply with state or local rules for intrastate communications without applying the same rules to interstate communications," *2018 Order* ¶ 200, the majority hints that through case-by-case litigation of conflict preemption, the Commission might be able over the years to obtain relief against some state impositions of regulation inconsistent with the Commission's deregulatory scheme. *Maj. op.* 142–43 & n.4.

Though the majority never says so as explicitly, some of its concern appears to stem from the preemption directive's scope—its painting with (as they see it) too broad a brush. See, e.g., *id*. at 135. I disagree that the *2018 Order* sweeps too broadly; tellingly, the majority offers no examples of possible state rules, preempted by the *Order*'s language, that would not thwart the Commission's policy objectives. Even if it did, though, that is no reason to vacate the operative portion of the order now. Rather, we should wait until a concrete case of alleged overreach presents itself, at which point the party adversely affected by preemption of the state law may challenge the preemption directive as applied in that case. See *Weaver v. Fed. Motor Carrier Safety Admin.*, 744 F.3d 142, 145 (D.C. Cir. 2014) ("[W]hen an agency seeks to apply the rule, those affected may challenge that application on the grounds that it conflicts with the statute from which its authority derives." (quotation omitted)).

In any event, the majority's view of preemption seems to render any conflict unimaginable (other than a conflict with the Commission's affirmative exercise of authority under § 257). In the majority view, preemption is utterly dependent on the Commission's affirmative regulatory authority and cannot depend on its authority to apply a deregulatory regime to broadband. Although the majority says that "conflict preemption" can apply against a state law that "stands as an obstacle to the accomplishment and execution of the [federal law's] full purposes and objectives," *Maj. op.* 143 n.4, this would be of no use to the Commission: The majority rejects the idea that the Commission has exercised authority as to which, say, California's enforcement of a Title II equivalent *could* "stand[] as an obstacle." In the majority's view, when the Commission adopts a deregulatory regime under Title I, there's no there there.

Similarly, the majority's suggestion that it isn't *really* eviscerating the *2018 Order*—it says a Commission explanation of "how a state practice actually undermines the *2018 Order*" would enable it to invoke conflict preemption, *Maj. op.* 142–43—magically coexists with its complete disregard of the Commission's explanation in ¶ 200 of the way contrary state regulation would be impossible to exclude from the interstate market, and with California's legislation adopting an equivalent of Title II (see p. 1 above). Of course no one wants the majority to decide a case not before it; but if the handwaving toward conflict preemption is to mean anything, it requires a vision of a Commission exercise of power with which some state regulation could actually conflict. This the majority denies absolutely.

Rather, the majority insists that power to preempt (indeed the Commission's "jurisdiction," but see 47 U.S.C. § 152(a)) depends either on the Commission's "express and expansive authority" "to regulate certain technologies," *Maj. op.* 124, or on "ancillary authority." The latter in turn requires that the Commission's action be "reasonably ancillary to the Commission's effective performance of its statutorily mandated responsibilities," *id.*, which are *exclusively* its responsibilities under Title II, III, at VI of the Act, see also *Comcast*, 600 F.3d at 654. There is no room in this concept for authority to establish a regulatory regime for broadband as an information service—meaning, given the extreme paucity of affirmative regulatory authority under Title I, a highly deregulatory regime. For the majority, the observation that by "reclassifying broadband as an information service, the Commission placed broadband *outside* of its Title II jurisdiction," *Maj. op.* 124, is pretty much the end of the game.

The majority conspicuously never offers an explanation of how a state regulation could ever conflict with the federal white space to which its reasoning consigns broadband.

* * *

I pause to make an entirely unrelated observation. The petitioners advance a bevy of attacks against the Commission's conclusion that the market for broadband internet is fairly competitive—attacks that the majority correctly dismisses. See Part V.B.2. But the Commission's case is stronger than the majority lets on: The petitioners never contest the Commission's findings on market concentration as measured by the familiar HHI for residential fixed broadband service. *2018 Order* ¶ 132. Even the HHI for the fastest speed category (25 Mbps down and 3 Mbps up) "meets the Department of Justice . . . designation of 'moderately concentrated'" (2,208, with the DOJ range being 1500 to 2500). *2018 Order* ¶ 132 & n.478. Those findings, which though doubtless subject to contextual analysis have gone uncriticized by petitioners, seem highly relevant and deserving of mention.

* * *

My colleagues and I agree that the 1996 Act affords the Commission authority to apply Title II to broadband, or not. Despite the ample and uncontested findings of the Commission that the absence of preemption will gut the *Order* by leaving all broadband subject to state regulation in which the most intrusive will prevail, see above pp. 1, 2–3, 5–6, and despite Supreme Court authority inferring preemptive power to protect an agency's regulatory choices, they vacate the preemption directive. Thus, the Commission can choose to apply Title I and not Title II—but if it does, its choice will be meaningless. I respectfully dissent.

RECOMMENDED FOR PUBLICATION
Pursuant to Sixth Circuit I.O.P. 32.1(b)

File Name: 25a0002p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

IN RE: MCP NO. 185; FEDERAL COMMUNICATIONS COMMISSION, IN THE MATTER OF SAFEGUARDING AND SECURING THE OPEN INTERNET, DECLARATORY RULING, ORDER, REPORT AND ORDER, AND ORDER ON RECONSIDERATION, FCC 24-52, 89 FED. REG. 45404, PUBLISHED MAY 22, 2024.

OHIO TELECOM ASSOCIATION, et al.,

Petitioners,

v.

FEDERAL COMMUNICATIONS COMMISSION; UNITED STATES OF AMERICA,

Respondents.

Nos. 24-7000/3449/3450/3497/3504/3507/3508/3510/3511/3519/3538

Upon Multi-Circuit Petitions for Review of the Federal Communications Commission's Safegaurding and Securing the Open Internet Order, FCC 24-52.

Argued: October 31, 2024

Decided and Filed: January 2, 2025

Before: GRIFFIN, KETHLEDGE, and BUSH, Circuit Judges.

COUNSEL

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OPINION

GRIFFIN, Circuit Judge.

As Congress has said, the Internet has "flourished, to the benefit of all Americans, with a minimum of government regulation." 47 U.S.C. § 230(a)(4). The Federal Communications Commission largely followed this command from the Telecommunications Act of 1996 by regulating the Internet with a light touch for nearly 15 years after enactment. But since, the FCC's approach has been anything but consistent.

Beginning in the late 2000s, the FCC undertook several attempts to impose so-called "net neutrality policies," which prohibit Broadband Internet Service Providers from controlling users'

Internet access—by varying speeds or blocking connections to third-party websites, for example—based on content, commercial agreements, and other reasons a provider might want to manage a user's Internet experience. Those efforts culminated in 2015, when the FCC concluded for the first time that Broadband Internet Service Providers offer to consumers a "telecommunications service" and thus are common carriers—and subject to extensive regulation (including net-neutrality restrictions)—under Title II of the Communications Act. *Id.* § 153(51).

Corresponding with a change in administrations, in 2018, the FCC rescinded its 2015 determination and instead reverted to its historical hands-off approach to Internet regulation by concluding that Broadband Internet Service Providers offered only "information service." *Id.* § 153(24). That change lifted the net-neutrality requirements.

The D.C. Circuit heard substantial challenges to the 2015 and 2018 orders. It applied the now-overruled *Chevron* doctrine in each case and upheld both wholly inconsistent regulations as "permissible" under the Act.

Today we consider the latest FCC order, issued in 2024, which resurrected the FCC's heavy-handed regulatory regime. Under the present Safeguarding and Securing the Open Internet Order, Broadband Internet Service Providers are again deemed to offer a "telecommunications service" under Title II and therefore must abide by net-neutrality principles. 89 Fed. Reg. 45404 (May 22, 2024) (to be codified at 47 C.F.R. pts. 8, 20) [hereinafter Safeguarding Order]. But unlike past challenges that the D.C. Circuit considered under *Chevron*, we no longer afford deference to the FCC's reading of the statute. *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2266 (2024) (overruling *Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984)). Instead, our task is to determine "the best reading of the statute" in the first instance. *Id.*

Using "the traditional tools of statutory construction," *id.*, we hold that Broadband Internet Service Providers offer only an "information service" under 47 U.S.C. § 153(24), and therefore, the FCC lacks the statutory authority to impose its desired net-neutrality policies through the "telecommunications service" provision of the Communications Act, *id.* § 153(51).

Nor does the Act permit the FCC to classify mobile broadband—a subset of broadband Internet services—as a "commercial mobile service" under Title III of the Act (and then similarly impose net-neutrality restrictions on those services). *Id.* § 332(c)(1)(A). We therefore grant the petitions for review and set aside the FCC's Safeguarding Order.

I.

A.

The "Internet drives the American economy and serves, every day, as a critical tool for America's citizens to conduct commerce, communicate, educate, entertain, and engage in the world around them." In re Protecting and Promoting the Open Internet, 30 FCC Rcd. 5601, 5603 ¶ 1. (2015) [hereinafter Open Internet Order]; *see also* Safeguarding Order, 89 Fed. Reg. at 45405, ¶ 2. Broadband is the Internet's lynchpin. It enables our access to and usage of the Internet, acting as an international superhighway that rapidly transports requests for and receipt of electronic data from one point to another and back again. Whether from a push of a button on a computer, a smart TV remote, or a virtual keyboard on a mobile device, consumers instantly, reliably, and seamlessly experience the Internet thanks to Broadband Internet Service Providers like Spectrum, Xfinity, and AT&T Internet.[1]

In Internet parlance, Broadband Internet Service Providers connect "end users" (consumers) to "edge providers" (websites that generate their own content, such as video streaming services (Netflix), commercial marketplaces (Amazon), social media (Facebook), and search engines (Google)) via an interconnected network of fiber optic cables, high-speed routers, and other equipment. *U.S. Telecom Ass'n v. FCC*, 825 F.3d 674, 690 (D.C. Cir. 2016) [hereinafter *Telecom (panel)*]. Broadband is ubiquitous, with over 90% of all households in the

[1]The term Broadband Internet Service Providers refers to providers of what the FCC calls "broadband internet access service." In the Safeguarding Order, the FCC defined that phrase as "a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service." *See* 89 Fed. Reg. at 45441, ¶ 173. Notably, the FCC also includes providers within that definition "regardless of whether the . . . provider leases or owns the facilities used to provide the service." *Id.* at 45442, ¶ 174.

United States having a broadband Internet subscription. Daniela Mejia, *Computer and Internet Use in the United States: 2021*, U.S. Census Bureau (June 18, 2024).

B.

Today's dispute concerns the degree to which the FCC can regulate Broadband Internet Service Providers under the authority granted to it by the Communications Act of 1934, as amended by the Telecommunications Act of 1996. Taking cues from other regulatory schemes concerning the transportation of goods or persons for a fee (like railroads and public utilities), the Federal Communications Act extends similar oversight to wire and radio communications. *See Glob. Crossing Telecomms., Inc. v. Metrophones Telecomms., Inc.*, 550 U.S. 45, 49 (2007). It empowers the FCC with regulatory authority that depends on the type of service the regulated entity provides. Communications Act of 1934, Pub. L. 73-416, 48 Stat. 1064 (1934). Generally, the Act favors light regulation under Title I, 47 U.S.C. §§ 154(i), 161, unless a provider qualifies as a "common carrier" under Title II of the Act, *id.* §§ 201–03. With the common-carrier designation comes significant regulatory oversight, such as requirements to "charge just and reasonable, nondiscriminatory rates to their customers, design . . . systems so that other carriers can interconnect with their communications networks, and contribute to the federal 'universal service' fund." *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 975 (2005) (citing 47 U.S.C. §§ 201–09, 251(a)(1), and 254(d)).

The emergence of the Internet brought an update to this scheme, the Telecommunications Act of 1996. Pub. L. 101-104, 110 Stat. 56 (1996). Significant for our purpose is its specification of two new services that the FCC may regulate: "information service," 47 U.S.C. § 153(24), and "telecommunications service," *id.* § 153(53). In short, an "information service" manipulates data, while a "telecommunications service" does not. The core of the dispute here is whether Broadband Internet Service Providers offer the former or the latter, which is important because the Act instructs that a telecommunications carrier "shall be treated as a common carrier . . . to the extent that it is engaged in providing telecommunications services." *Id.* § 153(51). And it is through this designation that the FCC has inconsistently pushed its net-neutrality policies. If, however, Broadband Internet Service Providers offer an "information service," they are not subject to common-carrier regulations.

C.

For almost 20 years after Congress enacted the Telecommunications Act, the FCC's position was that companies providing access to the Internet offered information—not telecommunications—services, and thus, Title II's common-carrier regulations did not apply. *See* In the Matter of Appropriate Regul. Treatment for Broadband Access to the Internet over Wireless Networks, 22 FCC Rcd. 5901, 5908–14, ¶¶ 18–34 (2007); In the Matter of United Power Line Council's Petition for Declaratory Ruling, 21 FCC Rcd. 13281, 13285–90, ¶¶ 7–15 (2006); In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 FCC Rcd. 14853, 14858, ¶ 5 (2005); In re Inquiry Concerning High-Speed Access to Internet Over Cable & Other Facilities, 17 FCC Rcd. 4798, 4823, ¶¶ 38–40 (2002) [hereinafter 2002 Internet Over Cable Declaratory Ruling]; In re Deployment of Wireline Services Offering Advanced Telecommunications Capability, 13 FCC Rcd. 24012, 24030, ¶ 36 (1998) [hereinafter Advanced Services Order]; *see also* In the Matter of Fed.-State Joint Bd. on Universal Serv., 13 FCC Rcd. 11501, 11536 (1998) [hereinafter Stevens Report] ("Internet access services are appropriately classed as information, rather than telecommunications, services."). Applying the now-defunct *Chevron* framework, the Supreme Court upheld one of these determinations, in which the FCC found that cable companies providing cable modem service—a precursor to the service that Broadband Internet Access Providers provide—offered only an information service and thus could not be regulated as Title II common carriers. *Brand X*, 545 U.S. at 986 (upholding the 2002 Internet Over Cable Declaratory Ruling).

Changes in the FCC's composition, with a new administration, upset the FCC's then-consistent interpretation. During President Obama's tenure, the FCC undertook several efforts to impose net-neutrality policies. Relevant here is the FCC's 2015 Open Internet Order, which reclassified Broadband Internet Service Providers as offering a telecommunications service subject to common-carrier regulation under Title II and then imposed net-neutrality regulations on them. 30 FCC Rcd. 5601.[2] The D.C. Circuit found this interpretation permissible under *Chevron*. *Telecom (panel)*, 825 F.3d at 689. It then, with several notable writings, denied en banc review. *See U.S. Telecom Ass'n v. FCC*, 855 F.3d 381, 382 (D.C. Cir. 2017) [hereinafter *Telecom (en banc)*]; *id.* at 382–93 (Srinivasan, J., concurring in the denial of rehearing en banc); *id.* at 393–417 (Brown, J., dissenting from the denial of rehearing en banc); *id.* at 417–35 (Kavanaugh, J., dissenting from the denial of rehearing en banc). And over the dissent of Justices Thomas, Alito, and Gorsuch, the Supreme Court denied certiorari. 586 U.S. 994 (2018).

During the *Telecom* litigation and after President Trump first took office, the FCC changed course. With its In re Restoring Internet Freedom Order, the FCC returned to its view that broadband Internet is an information service. 33 FCC Rcd. 311 (2018) [hereinafter RIF Order]. The D.C. Circuit yet again upheld this determination under *Chevron*. *See Mozilla Corp. v. FCC*, 940 F.3d 1 (D.C. Cir. 2019) (per curiam).

That brings us to today. The Safeguarding Order once more imposes net-neutrality policies on Broadband Internet Service Providers by reclassifying broadband Internet as a telecommunications service subject to common-carrier regulation under Title II. 89 Fed. Reg. at 45404.[3] This order—issued during the Biden administration—undoes the order issued during the first Trump administration, which undid the order issued during the Obama administration, which undid orders issued during the Bush and Clinton administrations. *Cf. Loper Bright*, 144 S. Ct. at 2288 (Gorsuch, J., concurring) (lamenting that "*Chevron* deference engender[ed] constant uncertainty and convulsive change even when the statute at issue itself remains unchanged"). Applying *Loper Bright* means we can end the FCC's vacillations.

[2]This order followed earlier endeavors by the FCC to impose net-neutrality policies similar to those at issue today, including one in 2010 that attempted to rely on Title I. *See* In re Preserving the Open Internet, 25 FCC Rcd. 17905 (2010). The D.C. Circuit rejected this approach, holding the FCC could only impose such regulations on Title II common carriers. *See Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014); *accord Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010) (vacating In re Formal Compl. of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer–to–Peer Applications, 23 FCC Rcd. 13028 (2008)).

[3]Yet it declines to enforce, through the FCC's forbearance power, several traditional Title II requirements (like rate regulation, tariffing, and certain enforcement and information collection and reporting mandates) because, in the FCC's view, such regulatory powers were unnecessary, and that forbearance was in the public interest under 47 U.S.C. § 160. 89 Fed. Reg. at 45468–99. In the government's own words, the Safeguarding Order forbears "the bulk" of Title II's requirements.

Various Broadband Internet Service Provider associations filed petitions across the circuits challenging the Safeguarding Order. The Judicial Panel on Multidistrict Litigation thereafter chose the Sixth Circuit to hear these consolidated petitions for review. *See* 28 U.S.C. § 2112(a)(1), (3). A panel of this court denied motions by the FCC and one petitioner to transfer these petitions to the D.C. Circuit. It then stayed the Order pending review. *In re MCP No. 185*, 2024 WL 3650468, at *1, *5 (6th Cir. Aug. 1, 2024) (per curiam). In the panel's view, whether Broadband Internet Service Providers are Title II common carriers and subject to net-neutrality policies is "likely a major question requiring clear congressional authorization," and the Communications Act "likely does not plainly authorize the Commission to resolve this signal question." *Id.* at *3; *see, e.g.*, *West Virginia v. E.P.A.*, 597 U.S. 697, 724–32 (2022) (reviewing the major questions doctrine). Chief Judge Sutton, writing separately, would have granted the stay for the additional reason that "[t]he best reading of the statute, and the one in place for all but three of the last twenty-eight years, shows that Congress likely did not view broadband providers as common carriers under Title II of the Telecommunications Act." *In re MCP No. 185*, 2024 WL 3650468, at *5 (Sutton, C.J., concurring).

II.

With the Order stayed, we now consider the merits of petitioners' challenges. The Administrative Procedure Act mandates that courts "hold unlawful and set aside agency action" that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or "in excess of statutory jurisdiction, authority, or limitations." 5 U.S.C. § 706(2)(A), (C). And through that lens, we conclude that the Safeguarding Order misreads the text of the Communications Act as it applies to Broadband Internet Service Providers and mobile broadband services. For the reasons that follow, we hold that Broadband Internet Service Providers offer an information service and that mobile broadband is a private mobile service. Therefore, the FCC exceeded its statutory authority by issuing the Safeguarding Order.

A.

"[T]he very core of the Internet and its associated services is the ability to 'retrieve' and 'utilize' information." Stevens Report, 13 FCC Rcd. at 11540 n.165, ¶ 80 (citation omitted). Broadband Internet Service Providers, of course, "offer to members of the public . . . Internet access." *Brand X*, 545 U.S. at 1000 (quoting Stevens Report, 13 FCC Rcd. at 11539, ¶ 79). The question is whether, in so doing, they are merely a conduit for data transmission (a so-called "dumb pipe") and thus offer consumers a telecommunications service (as the Safeguarding Order concludes); or whether, instead, Broadband Internet Service Providers offer consumers the capability to acquire, store, and utilize data—and thus offer consumers an information service. In our view, the latter is the best reading of the Act.

1.

"Statutory construction must begin with the language employed by Congress and the assumption that the ordinary meaning of that language accurately expresses the legislative purpose." *Gross v. FBL Fin. Servs., Inc.*, 557 U.S. 167, 175 (2009) (citation omitted). We give the text its "ordinary meaning at the time Congress adopted" the statute, *Niz-Chavez v. Garland*, 593 U.S. 155, 160 (2021), reading it not in isolation but rather "in context," *Loper Bright*, 144 S. Ct. at 2261 n.4 (citation omitted).

A series of interdependent definitions frame our inquiry here. Title II provides that a "telecommunications carrier shall be treated as a common carrier . . . only to the extent that it is engaged in providing telecommunications services." 47 U.S.C. § 153(51). A "'telecommunications carrier' means any provider of telecommunications services." *Id.* "The term 'telecommunications service' means 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." *Id.* § 153(53). "Telecommunications," in turn, "means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." *Id.* § 153(50).

By contrast, "[t]he term 'information service' means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications." *Id.* § 153(24). A provider that offers information service may not be classified as a common carrier. *See id.* § 153(11), (51).

2.

Preliminarily, we must consider if *Brand X* binds our statutory-interpretation analysis, given that the Supreme Court overruled *Chevron* in *Loper Bright*. Noted above, *Brand X* involved a challenge to an FCC ruling determining that cable companies that owned cable lines used to provide broadband Internet service offered only an information service, not a telecommunications service as well. 545 U.S. at 978. Applying *Chevron*, the Court held that the Act's use of the term "offering of telecommunications" as used in § 153(53) was ambiguous and that the FCC's construction was therefore permissible. *Id.* at 986–1000. In the Court's view, the FCC reasonably chose to define "offering" to mean offering "consumers an information service in the form of Internet access . . . via telecommunications" instead of more broadly construing it as offering "consumers the high-speed data transmission (telecommunications) that is an input used to provide this service." *Id.* at 989 (citations omitted).

But *Loper Bright* ended *Chevron*'s mandated deference to an agency's statutory interpretation upon a finding of ambiguity. In overruling *Chevron*, the Court found such a view of implicit delegation inconsistent with the Administrative Procedure Act's command that courts "decide *all* relevant questions of law and interpret statutory provisions." *Loper Bright*, 144 S. Ct. at 2255 (internal quotation marks and ellipsis omitted). Now, "[c]ourts must exercise their independent judgment in deciding whether an agency has acted within its statutory authority" by "us[ing] every tool at their disposal to determine the best reading of the statute and resolve the ambiguity." *Id.* at 2266, 2273.

Although the Court discarded the decades-old *Chevron* approach, it assured that "we do not call into question prior cases that relied on the *Chevron* framework. The holdings of those cases that *specific agency actions are lawful* . . . are still subject to statutory *stare decisis* despite our change in interpretive methodology." *Id.* at 2273 (citations omitted and emphasis added). In other words, *Chevron* did not invalidate "specific agency actions" that the Supreme Court has already found lawful.

Following *Loper Bright*, we cannot agree with petitioners that *Brand X* expressly bars the FCC's order at issue. The "specific agency action" that the Court approved in *Brand X* was the FCC's 2002 Internet Over Cable Declaratory Ruling. The specific action before us here is the FCC's 2024 Safeguarding Order, which came 22 years later. The Safeguarding Order therefore is not the "specific agency action" that the Court approved in *Brand X*. And that means we are not bound by *Brand X*'s holding as a matter of statutory *stare decisis*.

3.

a.

We now turn to the merits, which the parties have argued here in exemplary fashion. But the key flaw in the FCC's arguments throughout is that the FCC elides the phrase "offering of a capability" as used in § 153(24). That phrase makes plain that a provider need not *itself* generate, process, retrieve, or otherwise manipulate information in order to provide an "information service" as defined in § 153(24). Instead, a provider need only offer the "*capability*" of manipulating information (in the ways recited in that subsection) to offer an "information service" under § 153(24). Even under the FCC's narrower interpretation of "capability," Broadband Internet Access Providers allow users, at minimum, to "retrieve" information stored elsewhere. And we think it equally plain, for the reasons recited below, that Broadband Internet Service Providers offer at least that capability.

Start with "offering" as used in § 153(24). "It is common usage to describe what a company 'offers' to a consumer as what the consumer perceives to be the integrated finished product." *Brand X*, 545 U.S. at 990. As for "capability," "contemporaneous dictionaries are the best place to start." *Keen v. Helson*, 930 F.3d 799, 802 (6th Cir. 2019). And they define "capability" as "having traits conducive to or features permitting," Merriam-Webster's Collegiate Dictionary 168 (10th ed. 1997), the "power or ability in general" and "the quality of being susceptible of," A Dictionary of Modern Legal Usage 129 (2d ed. 1995), or "having the ability or capacity for," Random House Unabridged Dictionary 308 (2d ed. 1993); *see also Spectrum Five LLC v. FCC*, 758 F.3d 254, 261 (D.C. Cir. 2014) (defining "capability" as "power or ability"); RIF Order, 33 FCC Rcd. at 322, ¶ 30 ("[T]he Commission has looked to dictionary definitions and found the term 'capability' to be 'broad and expansive,' including the concepts of 'potential ability' and 'the capacity to be used, treated, or developed for a particular purpose.'" (citation omitted)).

In the view of the current Commission, Broadband Internet Service Providers offer a telecommunications service that merely connects consumers to edge providers (like Netflix, Amazon, Facebook, and Google). Safeguarding Order, 89 Fed. Reg. at 45425, ¶ 99 ("[C]onsumers today perceive [Broadband Internet Service Providers to offer] . . . a telecommunications service that is primarily a transmission conduit used as a means to send and receive information to and from third-party services."). In essence, the FCC contends that edge providers offer an "information service" but that Broadband Internet Service Providers do not.

Everyone agrees with the Commission's classification of edge providers as offering an information service. Those providers indisputably "'generate' and 'make available' information to others through email and blogs; 'acquire' and 'retrieve' information from sources such as websites, online streaming services, and file sharing tools; 'store' information in the cloud; 'transform' and 'process' information through image and document manipulation tools, online gaming, cloud computing, and machine learning capabilities; 'utilize' information by interacting with stored data; and publish information on social media sites." *Id.* at 45426, ¶ 105.

Yet, by connecting consumers to edge providers' information, Broadband Internet Service Providers plainly provide a user with the "capability" to, at minimum, "retrieve" third-party content. 47 U.S.C. § 153(24); *see also Telecom (en banc)*, 855 F.3d at 395 (Brown, J., dissenting from the denial of rehearing en banc) ("The 'offering of a capability' for engaging in all [Internet] activities is exactly what is provided by broadband Internet access."). That is, they offer a "feature[] permitting" consumers to stream videos stored on Netflix's servers, Merriam-Webster's Collegiate Dictionary 168 (10th ed. 1997), the "ability" to purchase gifts from information stored on Amazon's servers, Random House Unabridged Dictionary 308 (2d ed. 1993), the "capacity" to view posts stored on Facebook's servers, *id.*, and the "power" to conduct a search using Google's servers, A Dictionary of Modern Legal Usage 129 (2d ed. 1995). By utilizing high-speed Internet offered by Broadband Internet Service Providers, consumers are *capable* of obtaining edge providers' information. In our view, then, the Safeguarding Order reads out the key phrase—"offering of a capability"—that precedes the gerunds ("generating," "acquiring," "storing," "transforming," "processing," "retrieving," "utilizing," and "making available information") set forth in § 153(24).[4]

"While the statute's language spells trouble for the Government's position, a wider look at the statute's structure gives us even more reason for pause." *Van Buren v. United States*, 593 U.S. 374, 389 (2021) (internal quotation marks omitted). Specifically, Congress emphasized the importance of deregulating the "Internet and other interactive computer systems," finding in the Telecommunications Act of 1996 that "[t]he Internet and other interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation." 47 U.S.C. § 230(a)(4). Thus, the policy of the United States is "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." *Id.* § 230(b)(2). It would be strange for Congress to enact this policy while, in the same bill, shackling Internet access providers with onerous Title II regulation.

Further, Congress defined "interactive computer service" as an "information service . . . that provides access to the Internet," *id.* § 230(f)(2), and specified that "[n]othing in th[at] section shall be construed to treat interactive computer services as common carriers or telecommunications carriers," *id.* § 223(e)(6). True, as the FCC points out, the definition of

[4]Ironically, the Commission used this very view of "capability" when it first imposed common-carrier regulation on mobile broadband services. We discuss that issue in detail below but highlight here the FCC's finding in the Open Internet Order "that mobile broadband . . . gives its users the *capability* to send and receive communications from all other users of the Internet." 30 FCC Rcd. at 5785, ¶ 398 (emphasis added); *see also Telecom (panel)*, 825 F.3d at 719 (accepting this assertion as "undisputed"). Its Safeguarding Order readopts this reading. 89 Fed. Reg. at 45449, ¶ 209 ("Mobile [broadband] . . . is a broadly available mobile service that gives users the *ability* to send and receive communications to and from all other users of the internet.") (emphasis added).

"interactive computer service" applies to that term as it is "used in" § 230 itself. *Id.* § 230(f). But that means the definition of "interactive computer service" *as a whole* is limited to § 230—not that the meaning of every word or phrase within that definition likewise has a meaning peculiar to that subsection. (In that case, § 230 itself would have to define every word used within it.) And the usage of the term "information service" in §230(f)(2) takes for granted that "information service" includes Internet providers. We see no reason why that usage should be understood as peculiar to § 230—any more than its usage of, say, "transmit" or "receive" is. *Id.* § 230(f)(4)(C). The Act's structure thus favors petitioners' position, not the FCC's.

So too does history. *Brand X* persuasively posits that we should view the definitions of "telecommunications service" and "information service" "against the background of" the FCC's pre-Telecommunications Act's regulatory efforts. 545 U.S. at 992–93. In its 1980 Computer II decision, the FCC "distinguished between 'basic' service (like telephone service) and 'enhanced' service (computer-processing service offered over telephone lines)." *Id.* at 976. It noted that "in an enhanced service the content of the information need not be changed and may simply involve subscriber interaction with stored information." *See* In re Amendment of Section 64.702 of the Comm'rs Rules and Regs. (Second Computer Inquiry), 77 F.C.C.2d 384, 421, ¶ 97 (1980) [hereinafter Computer II]. The Telecommunications Act of 1996 codified these distinctions: "telecommunications service" is "the analog to basic service," and "information service" is "the analog to enhanced service." *Brand X*, 545 U.S. at 977 (quotation marks omitted). When Congress borrows long-existing regulatory history, "it brings the old soil with it." *George v. McDonough*, 596 U.S. 740, 746 (2022) (citation omitted). And when Congress approvingly adopted the FCC's prior regulatory approach, it "placed Internet access on the 'enhanced service' side, and thus prohibited the FCC from construing the 'offering' of 'telecommunications service' to be the 'information service' of Internet access." *Telecom (en banc)*, 855 F.3d at 405 (Brown, J., dissenting) (ellipsis and internal citations omitted).

Following enactment, various historical datapoints indicate that treating broadband Internet as a telecommunications service under Title II contradicts the Act. The FCC has hewed to this view from enactment until recent administration changes, which is "especially useful in determining the statute's meaning." *Loper Bright*, 144 S. Ct. at 2262.

Begin in 1998 with the Commission's Stevens Report, which stated that "Internet access services are appropriately classed as information, rather than telecommunications, services." 13 FCC Rcd. at 11536, ¶ 73. In the late 1990s, the companies providing Internet access service were usually not the ones providing data transmission. "Most" Internet access providers offered Internet access through dial-up calls sent via the local telephone company to the provider. Barbara Esbin, *Internet Over Cable: Defining the Future in Terms of the Past*, FCC OPP Working Paper No. 30, 1998 WL 567433, at *71 (Aug. 1, 1998). The dial-up telephone call from the consumer's house to the Internet access provider was known as the "last mile" of transmission. Advanced Services Order, 13 FCC Rcd. at 24016, ¶ 8. The provider, in turn, "rout[ed] the call to the Internet." Esbin, 1998 WL 567433, at *71; *see also* In re Fed-State Joint Bd. on Universal Serv., 12 FCC Rcd. 8776, 8822, ¶ 83 (1997) [hereinafter Universal Service Order] ("[W]e recognize that Internet access includes . . . the connection over a [telephone company's] network from a subscriber to an Internet Service Provider . . . . [V]oice grade access to the public switched network usually enables customers to secure access to an Internet Service Provider, and, thus, to the Internet."). "Internet access providers, typically, own[ed] no telecommunications facilities." Stevens Report, 13 FCC Rcd. at 11540, ¶ 81. The FCC concluded that Internet access providers offered information services because "the very core of the Internet and its associated services is the ability to 'retrieve' and 'utilize' information." *Id.* at 11539–40, ¶ 80 n.165. "Subscribers can retrieve files from the World Wide Web, and browse their contents, because their service provider offers the 'capability for acquiring, retrieving and utilizing information.'" *Id.* at 11537–38, ¶ 76 (ellipses and brackets omitted).

In the same year, the FCC's Advanced Services Order classified the first type of broadband transmission, Digital Subscriber Lines (DSL) (a faster method for transmitting data across last mile phone lines) as a "telecommunications service." 13 FCC Rcd. at 24029–30, ¶ 35. That did not strike the industry as odd in an era when different companies usually provided Internet access and last mile transmission. *See id.* at 24030, ¶ 36 ("Neither the petitioners, nor any commenter, disagree with our conclusion that a carrier offering such a service is offering a 'telecommunications service.'"). In that context, the FCC noted that DSL is "simply [a] transmission technolog[y]" because it transported user-chosen information between or among user-specified points "without change in the form or content of the information as sent and received." *Id.*, ¶ 35 (referencing the "telecommunications" definition in 47 U.S.C. § 153(50)). More specifically, the FCC explained that "two []DSL modems are attached to each telephone loop: one at the subscriber's premises, and one at the telephone company's central office . . . . [The DSL provider] sends the customer's data traffic . . . to a packet-switched data network. Once on the packet-switched network, the data traffic is routed to the location selected by the customer, for example . . . an Internet service provider. That location may itself be a gateway to a new packet-switched network or set of networks, like the Internet." *Id.* at 24027, ¶¶ 30–31. The important upshot is that a phone company's DSL service, as described in the Advanced Services Order, did not provide Internet access itself, just high-speed last mile transmission. The FCC therefore did not take a position on how to classify providers who offered Internet access, let alone those who combined Internet access with last mile transmission.

The FCC addressed that latter scenario in its 2002 Internet Over Cable Declaratory Ruling, which the Court upheld in *Brand X*. That Ruling extended the Stevens Report's information-service conclusion to cable companies providing an Internet access service despite their ownership of the cable lines used to provide data transmission across the "last mile" from a consumer's home to the site where Internet access occurred. 2002 Internet Over Cable Declaratory Ruling, 17 FCC Rcd. at 4821–24, ¶¶ 36-41. There was no basis, in the FCC's view, to distinguish the two: Together they form a "single, integrated service that enables the subscriber to utilize Internet access service . . . and to realize the benefits of a comprehensive service offering." *Id.* at 4822, ¶ 38. Nobody challenged the Ruling's conclusion that Internet access service constitutes an information service when considered apart from last mile transmission. *Brand X*, 545 U.S. at 987; *see also In re MCP No. 185*, 2024 WL 3650468, at *5 (Sutton, C.J., concurring) ("All nine justices in *Brand X* agreed that broadband internet access—the same issue in front of us—provides an information service as the Act defines that term under Title I."); *Telecom (en banc)*, 855 F.3d at 399 (Brown, J., dissenting) ("*No* member of the *Brand*

X Court disputed that what occurred at the Internet Service Providers' computer-processing facilities constituted an 'information service.'"). The Court considered only whether a service's integration of last mile transmission constituted "a stand-alone, transparent offering of telecommunications," *Brand X*, 545 U.S. at 988 (internal quotation omitted), and upheld the Ruling's determination that it did not and that the integrated service offered by cable companies was an information service only, *id.* at 990.

For these reasons, then, it makes sense to exclusively classify integrated services, including those offered by Broadband Internet Service Providers, as information services because the definition expressly contemplates telecommunications usage, tying the "offering of a capability" to utilize (for example) information "*via telecommunications.*" 47 U.S.C. § 153(24) (emphasis added); *see also Vonage Holdings Corp. v. FCC*, 489 F.3d 1232, 1241 (D.C. Cir. 2007) ("Indeed, the Act clearly contemplates that 'telecommunications' may be a component of an 'information service.'"); Stevens Report, 13 FCC Rcd. at 11529, ¶ 57 ("Because information services are offered 'via telecommunications,' they necessarily require a transmission component in order for users to access information."); *United States v. W. Elec. Co.*, 552 F. Supp. 131, 189 (D.D.C. 1982) [hereinafter AT&T Consent Decree] ("All information services are provided directly via the telecommunications network."). The key here is not whether Broadband Internet Service Providers utilize telecommunications; it is instead whether they do so while offering to consumers the capability to do more. *See* Computer II, 77 F.C.C.2d at 420, ¶ 97 ("An enhanced service is any offering over the telecommunications network which is more than a basic transmission service."). And as set forth above, they do. *See Brand X*, 545 U.S. at 1000. The *Brand X* Court made an observation that remains apposite here: "Cable modem service"—a precursor to the service that Broadband Internet Access Providers offer—"is an information service . . . because it provides consumers with a comprehensive capability for manipulating information using the Internet via high-speed telecommunications." *Id.* at 987.

b.

In the face of the statutory text, context, and history, the FCC largely resists our reading of what "offering of a capability" means because of how that reading would affect telephone services—the paradigmatic example of telecommunications service. If Broadband Internet Service Providers fall within "information services" given their facilitation of access to third-party content, the argument goes, so too would telephone services. *See also Mozilla*, 940 F.3d at 93 (Millett, J., concurring). It is true, in one sense, that a telephone user retrieves information from a third-party in a phone conversation with a friend or customer-service agent. But that is not the sense meant by the statute.

The existence of a fact or a thought in one's mind is not "information" like 0s and 1s used by computers. The former implies knowledge qua knowledge, while the latter is knowledge reduced to a tangible medium. Consider the acts of speaking and writing. Speaking reduces a thought to sound, and writing reduces a thought to text. Both sound and text can be stored: a cassette tape for audio information, a journal for written information, or a computer for both. But during a phone call, one creates audio information by speaking, which the telephone service transmits to an interlocutor, who responds in turn. Crucially, the telephone service merely transmits that which a speaker creates; it does not access information.

The Act's text and its pre-enactment history demonstrate that the definition of information service incorporates the narrower sense of "information." Computer II defined basic service in part as "limited to the common carrier offering of . . . the analog or digital transmission of voice, data, video, etc., *information*." 77 F.C.C.2d at 419, ¶ 93 (emphasis added). The AT&T Consent Decree, which defined information service in language almost identical to the Act, said "'[i]nformation' means knowledge or intelligence represented by any form of writing, signs, signals, pictures, sounds, or other symbols." 552 F. Supp. at 229. Reducing knowledge to a tangible medium explains how an information service "generates" information, but computers themselves do not "generate" ideas or thoughts as such. Further, this understanding of "information" permeates other sections of the Act, where it would be absurd to interpret information as equivalent to intangible thoughts or ideas. *See* 47 U.S.C. § 153(50) ("'telecommunications' means the transmission . . . of information of the user's choosing without change in the form or content of the information as sent and received"); *id.* § 256(a)(2) ("ensure the ability of users and information providers to seamlessly and transparently transmit and receive information between and across telecommunications networks"); *id.* § 256(d) ("exchange information without degeneration"); *id.* § 271(g)(4) ("retrieve stored information from, or file information for storage in, information storage facilities"); *id.* § 274(h)(2)(C) ("the transmission of information as part of a gateway to an information service that does not involve the generation or alteration of the content of information"). In sum, the "capability" of "retrieving" "information" does not refer to a phone call with a friend; it refers to an interaction with data stored on a computer. *Id.* § 153(24).

The FCC counters that telephone service enables users to interact with stored data, citing voicemail and call menus. Computer II considered this argument for answering machines in 1980 and the Stevens Report did the same for voicemail in 1998. Computer II, 77 F.C.C.2d at 421, ¶ 98; Stevens Report, 13 FCC Rcd. at 11530, ¶ 60. The answer remains the same. These ancillary services may themselves be information services. But they do not transform the categorization of telephone service because its core standalone offering is the transparent transmission of telecommunications.

Nor do the FCC's other counterarguments hit the mark. The FCC points to the Act's "advanced telecommunications incentives" section. Known as Section 706(a), it "encourage[s]" the FCC and its state analogues to "deploy[] . . . advanced telecommunications capability to all Americans . . . by utilizing" certain regulatory measures, including "price cap regulation" and "regulatory forbearance." 47 U.S.C. § 1302(a). In the FCC's view, this section's mention of those terms—which are associated with common-carrier regulation under Title II—demonstrate that broadband can be a telecommunications service. That is too sweeping of a reading of the statute. *In re MCP No. 185*, 2024 WL 3650468, at *6 (Sutton, C.J., concurring) ("[T]his authorization under Title VII to impose some regulations on broadband providers does not provide the Commission with the power to regulate all broadband providers as common carriers under Title II.").

Moreover, in the late 1990s, when greater than 90% of households accessed the Internet through dial-up, Universal Service Order, 12 FCC Rcd. at 8823, ¶83 n.154, there was a distinct possibility that advanced services would improve the last mile of transmission, which telecommunications carriers provided across notoriously slow copper phone lines, Advanced Services Order, 13 FCC Rcd. at 24016, ¶ 8. Indeed, the Advanced Services Order shows that this possibility came to fruition with the introduction of DSL. And in line with Section 706(a), the FCC categorized this improvement over dial-up as a telecommunications service when offered for a fee directly to the public. *Id.* at 24029–30, ¶ 35. But that tells us nothing about how to treat Broadband Internet Service Providers, which offer a service integrating the last mile of transmission in addition to Internet access. And to be clear, the Advanced Services Order reiterated that Internet access is an information service. *See id.* at 24030, ¶ 36.

One final response. We acknowledge that the workings of the Internet are complicated and dynamic, and that the FCC has significant expertise in overseeing "this technical and complex area." *Brand X*, 545 U.S. at 992. Yet, post-*Loper Bright*, that "capability," if you will, cannot be used to overwrite the plain meaning of the statute.

4.

In sum, applying the plain meaning of § 153(24) to the interconnected nature of the Internet, we conclude that Broadband Internet Service Providers at the very least "offer[]" consumers the "capability" of "retrieving" "information via telecommunications." Accordingly, the FCC's contrary conclusion is unlawful.

Given our conclusion that the FCC's reading is inconsistent with the plain language of the Communications Act, we see no need to address whether the major questions doctrine also bars the FCC's action here. *See In re MCP No. 185*, 2024 WL 3650468, at *1, *5. Nor do we consider petitioners' additional arguments, including that their provision of Domain Name Services and caching—which they contend are integrated products to the offering of Internet access services—further (or independently) demonstrate that they qualify as offering an information service to end users, *cf. Brand X*, 545 U.S. at 987, and that the Safeguarding Order is arbitrary and capricious.

B.

Finally, we turn to the Safeguarding Order's related provisions concerning mobile broadband. Because users can access broadband Internet when using mobile devices connected to cellular networks like 5G, separate from wired (or Wi-Fi) connections, the Safeguarding Order similarly imposes net-neutrality policies on those so-called "mobile broadband services" through the Act's "commercial mobile service" provision. 47 U.S.C. § 332(c)(1)(A). Although comparable, our conclusion that Broadband Internet Service Providers offer only an "information service" under § 153(24) does not govern our resolution of this related issue, for we deal here with separate statutory provisions that do not automatically operate in tandem. As explained below, the plain text of the statute forecloses the FCC's position on mobile broadband as well.

1.

In 1993, Congress added a "mobile services" provision to the radio-transmission part of the Communications Act (Title III). Pub. L. No. 103-66, § 60001, 107 Stat. 379. Three definitions are pertinent:

> (1) the term "commercial mobile service" means any mobile service . . . that is provided for profit and *makes interconnected service available* (A) to the public or (B) to such classes of eligible users as to be effectively available to a substantial portion of the public, as specified by regulation by the Commission;
>
> (2) the term "interconnected service" means service that is *interconnected with the public switched network* (as such terms are defined by regulation by the Commission) or service for which a request for interconnection is pending pursuant to subsection (c)(1)(B); and
>
> (3) the term "private mobile service" means any mobile service . . . that is not a commercial mobile service or the functional equivalent of a commercial mobile service, as specified by regulation by the Commission.

47 U.S.C. § 332(d) (emphases added). A commercial mobile service (think today's cellular telephone networks like AT&T, Verizon, or T-Mobile) is subject to Title II common-carrier regulation, *id.* § 332(c)(1)(A), while a private mobile service (such as a trucking company's private dispatch radio system) is not, *id.* § 332(c)(2). The dispute here lies in the language

emphasized above—whether mobile broadband is "interconnected with the public switched network." *Id.* § 332(d)(2).

Mobile-broadband services emerged in the mid-2000s. At that time (when BlackBerry dominated the market and Apple had just introduced its iPhone), the FCC classified mobile broadband as a private mobile service not subject to common-carrier regulation. In the Matter of Appropriate Regul. Treatment for Broadband Access to the Internet over Wireless Networks, 22 FCC Rcd. 5901, 5901 (2007).

That changed with the FCC's 2015 Open Internet Order, which "classif[ied] mobile broadband Internet access as a commercial mobile service." 30 FCC Rcd. at 5786, ¶ 399. As it did with broadband, the D.C. Circuit in *Telecom* approved this reclassification. *Telecom (panel)*, 825 F.3d at 713–24.

After an administration change, the FCC flipped its position in 2018 back to its original understanding. That is, "mobile broadband Internet access should not be classified as a commercial mobile service." RIF Order, 33 FCC Rcd. at 352, ¶ 65. The D.C. Circuit again upheld this determination under *Chevron*. *Mozilla*, 940 F.3d at 35–45.

Corresponding with another change in administration, today's Safeguarding Order again attempts to regulate mobile broadband as a "commercial mobile service." 89 Fed. Reg. at 45447–52, ¶¶ 198–220.

2.

There is no disputing that mobile broadband is a "mobile service" "provided for profit" "to the public" (or a "substantial portion of the public."). 47 U.S.C. § 332(d)(1). Instead, whether mobile broadband is a "commercial mobile service" that is subject to Title II common-carrier regulation depends on if mobile broadband is an "interconnected service," which in turn means a "service that is interconnected with the public switched network." *Id.* § 332(d)(1), (2). Mobile broadband does not satisfy this definition.

We start with the text's use of a definite article. It would be one thing if the statute said, "interconnected with *a* public switched network," for that would connote *multiple* networks. But § 332(d)(2) does not do so; it uses "the," a fixed, singular reference. *See Rumsfeld v. Padilla*, 542 U.S. 426, 434 (2004) (explaining that the "use of the definite article . . . indicates that there is generally only one" noun covered); *see also Corner Post, Inc. v. Bd. of Governors of Fed. Rsrv. Sys.*, 603 U.S. 799, 817 (2024) ("[T]he statute's use of the definite article 'the' takes precedence" over an indefinite reading to the contrary.); *Slack Techs., LLC v. Pirani*, 598 U.S. 759, 767 (2023) (a statute's use of a definite article signals "particular[ity]").

So what is "*the* public switched network"? In basic terms, it is the patchwork of telecommunication services that consumers use to place and receive calls from their telephone. More technically, it is "[a]ny common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use the North American Numbering Plan [(NANP)] in connection with the provision of switched services." In the Matter of Implementation of Sections 3(n) & 332 of the Commc'ns Act, 9 FCC. Rcd. 1411, 1517 (1994); *see also* Newton's Telecom Dictionary 799 (6th ed. 1993) (defining "public switched network" as "Any common carrier network that provides circuit switching between public users. The term is usually applied to the public telephone network but it could be applied more generally to other switched networks such as Telex, MCI's Executnet, etc."). Importantly, then, "the public switched network" means a network interconnected to the NANP's 10-digit system of telephone switching. *Cf. Mozilla*, 940 F.3d at 37–38 (approving the RIF Order's similar reasoning under *Chevron* deference).

History supports this reading. When Congress added "the public switched network" to Title III in 1993, it legislated against a backdrop that included "contemporaneous understandings of 'public switched network' by the Commission and the courts suggesting that it was commonly understood to refer to the 'public switched telephone network.'" *Id.* at 38; *see also Telecom (en banc)*, 855 F.3d at 396 (Brown, J., dissenting). As the RIF Order cogently summarizes, "[o]n multiple occasions before 332(d)(2) was enacted, the [FCC and the courts] used the term 'public switched network' to refer to the traditional public switched telephone network." 33 FCC Rcd.

at 356, ¶ 75 (citing *Ad Hoc Telecomms. Users Comm. v. FCC*, 680 F.2d 790, 793 (D.C. Cir. 1982); *Pub. Util. Comm'n v. FCC*, 886 F.2d 1325, 1327, 1330 (D.C. Cir. 1989)). And the FCC's contemporaneous interpretations—which *Loper Bright* says "may be especially useful in determining the statute's meaning," 144 S. Ct. at 2262—track this original understanding, *see, e.g.*, In the Matter of Implementation of Sections 3(n) & 332 of the Commc'ns Act, 9 FCC Rcd. at 1517; In the Matter of Appropriate Regul. Treatment for Broadband Access to the Internet over Wireless Networks, 22 FCC Rcd. at 5916–17, ¶¶ 43–45.

To its credit, the FCC concedes that the public switched network means the 10-digit telephone system, but the FCC argues that the public switched network also encompasses Internet Protocol (IP) addresses. In support, it points to the statute's delegation provision to assert that Congress intentionally drafted a dynamic statute. In its view, § 332(d)(2) permits the FCC to say again what it said in the 2015 Open Internet Order: "the network that includes any common carrier switched network, whether by wire or radio, including local exchange carriers, interexchange carriers, and mobile service providers, that use[s] the North American Numbering Plan, *or public IP addresses*, in connection with the provision of switched services." Safeguarding Order, 89 Fed. Reg. at 45448, ¶ 203 (emphasis added). By adding IP addresses, the FCC says, it permissibly updated the definition of public switched network to account for technological changes—e.g., Voice over Internet Protocol (VoIP) services like Skype, Google Voice, and Apple Facetime, which allow mobile broadband users to effectively connect with the 10-digit system by placing and receiving phone calls. The D.C. Circuit accepted this argument strain when, in *Telecom*, it found for the FCC's position in its 2015 Open Internet Order that "mobile broadband is a commercial mobile service." *Telecom (panel)*, 825 F.3d at 718.

But delegation is not unfettered, and it is still our task to "fix the boundaries of the delegated authority." *Loper Bright*, 144 S. Ct. at 2263 (brackets and internal quotation marks omitted). And we see nothing in the statute that permits the FCC to effectively change the statute's original meaning of "the public switched network" as set forth above by adding "public

IP addresses" to adapt to new technology.[5] Nor can we agree with our colleagues on the D.C. Circuit, who apparently did not consider the contemporaneous meaning or the definite-versus-indefinite-article analysis set forth above.

With this understanding of "the public switched network," we cannot agree with the FCC's assertion that the telephone network and the Internet are "interconnected" due to commingling of facilities and the use of VoIP technology.[6] This is for the simple reason that the definition of "commercial mobile service" focuses on the whole (mobile broadband) and not the part (a third-party provided service, VoIP). *See Mozilla*, 940 F.3d at 43 ("The gap in [this] theory is shown most clearly in the obvious inability of a would-be caller from a NANP number who seeks to reach a person with mobile broadband but no form of VoIP (or mobile voice service)."); *see also Telecom (en banc)*, 855 F.3d at 407 (Brown, J., dissenting) ("Nothing about the increase of consumers accessing mobile broadband Internet service via smart phones, the speed of Internet connection, or the 'bundling' of VoIP applications with smart phones, undermines the . . . distinction between the *transmission* of VoIP traffic and the VoIP *service* to the end user. Mobile broadband Internet access simply does not constitute a service interconnected with '*the* public switched network.'" (internal citations omitted)). *But see Telecom (panel)*, 825 F.3d at 722–23 (coming to the opposite conclusion under *Chevron*).

Finally, the FCC says it "makes little sense" to classify mobile broadband as a "private mobile service," which "stands in marked contrast to 'the private mobile services of 1994, such as a private taxi dispatch service, services that offered users access to a discrete and limited set of endpoints.'" *See id.* at 715 (brackets omitted). But that point is lost because the definitions of

[5]Indeed, Congress subsequently demonstrated it knows how to differentiate between "the public Internet" and "the public switched network" when it created the First Responder Network Authority in 2012. Spectrum Act of 2012, Pub L. 112-96, § 6202. That statute set forth a "public safety broadband network" that provided "connectivity between . . . (i) the radio access network; and (ii) the public Internet or the public switched network, or both." 47 U.S.C. § 1422(b)(1)(B)(i–ii); *see also Telecom (en banc)*, 855 F.3d at 406–07 (Brown, J., dissenting) ("This subsequent, specific distinction can inform what 'the public switched network' meant to Congress in 1996.").

[6]The FCC does not otherwise claim mobile broadband is "interconnected" with the 10-digit telephone plan. Nor could it, for there are no internal connections between the Internet and the telephone network. *See* Merriam-Webster's Collegiate Dictionary 609 (10th ed. 1993) (defining "interconnected" as "having internal connections between the parts and elements").

"commercial" and "private" mobile services are mutually exclusive, with "the latter [being] defined negatively, as 'any mobile service that is not a commercial service.'" *Mozilla*, 940 F.3d at 35 (emphasis and ellipsis omitted, quoting 47 U.S.C. § 332(d)(3)). Because mobile broadband is not a commercial mobile service, it necessarily is a private mobile service.[7]

3.

In sum, mobile broadband does not qualify as "commercial mobile service" under § 332(d)(1) and therefore may not be regulated as a common carrier.

III.

For these reasons, we grant the petitions for review and set aside the FCC's Safeguarding Order.

[7] We likewise reject the FCC's fallback position that mobile broadband is a "functional equivalent" of a commercial mobile service under 47 U.S.C. § 332(d)(3) given the significant service disparity offered by broadband and mobile services. *Cf. Mozilla*, 940 F.3d at 44–45 ("[M]obile voice and mobile broadband 'have different service characteristics and intended uses and are not closely substitutable for each other.'") (quoting RIF Order, 33 FCC Rcd. at 361–62, ¶ 85); *Aegerter v. City of Delafield*, 174 F.3d 886, 891 (7th Cir. 1999) ("functionally equivalent" means "services (or products) [that] are direct substitutes for one another").