

Before the  
**Federal Communications Commission**  
 Washington D.C. 20554

In the Matter of ) CC Docket No. 95-116  
 )  
 Telephone Number Portability ) RM 8535

**Third Report and Order**

Adopted: May 5, 1998

Released: May 12, 1998

By the Commission: Chairman Kennard and Commissioner Tristani issuing separate statements;  
 Commissioners Ness and Furchtgott-Roth approving in part, concurring in part, and issuing statements.

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### I. INTRODUCTION

1. Section 251(e)(2) of the Communications Act of 1934 (1934 Act), as amended, requires that "[t]he cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."<sup>1</sup> In this *Third Report and Order*, we implement section 251(e)(2) with regard to the costs of providing long-term number portability.

2. The Telecommunications Act of 1996 (1996 Act) amends the 1934 Act "to provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition."<sup>2</sup> In particular, section 251(b) of the amended 1934 Act imposes specific obligations on all local exchange carriers (LECs) to open their networks to competitors.<sup>3</sup>

3. Congress recognized that the inability of customers to retain their telephone numbers when changing local service providers hampers the development of local competition.<sup>4</sup> To address this concern,

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<sup>1</sup> 47 U.S.C. § 251(e)(2).

<sup>2</sup> S. CONF. REP. NO. 104-230, at 1 (1996). *See also* Iowa Utils. Bd. v. FCC, 120 F.3d 753, 791 (8th Cir. 1997) (stating that Congress passed the 1996 Act, in part, "to erode the monopolistic nature of the local telephone service industry by obligating [incumbent LECs] to facilitate the entry of competing companies into local telephone service"), *cert. granted on other grounds sub nom.* AT&T Corp. v. Iowa Utils. Bd., 118 S. Ct. 879 (1998).

<sup>3</sup> *See* 47 U.S.C. § 251(b).

<sup>4</sup> *See, e.g.*, H. COMMERCE COMM. REP. NO. 104-204, pt. 1, at 72 (1995) (to accompany H.R. 1555) (stating that "[t]he ability to change service providers is only meaningful if a customer can retain his or her local telephone number"), *reprinted* in 1996 U.S.C.C.A.N. 10, 37. *See also In re Telephone Number Portability*, First Report and Order & Further Notice of Proposed Rulemaking, 11 FCC Rcd. 8352, 8367-68 (1996) (Order & Further Notice) (citing evidence that business and residential customers are reluctant to switch carriers if they must change telephone numbers, and stating that "[t]o the extent that customers are reluctant to change service providers due to the absence of number portability, demand for services provided by new entrants will be depressed. This could well discourage entry by new service providers and thereby frustrate the pro-competitive goals of the 1996 Act."), *appeals pending on other grounds sub nom.* U S WEST v. FCC, No. 97-9518 (10th Cir. held in abeyance Sept. 12, 1997) and Bell Atlantic NYNEX Mobile v. FCC, No. 97-955 (10th Cir. filed May 30, 1997).

Congress added section 251(b)(2) to the 1934 Act,<sup>5</sup> which requires all LECs, both incumbents and new entrants,<sup>6</sup> "to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission."<sup>7</sup> The amended Communications Act defines number portability as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."<sup>8</sup> This "service provider portability" differs from "location portability," which is the ability to keep the same telephone number when moving to a new location, and from "service portability," which is the ability to keep the same telephone number when subscribing to new services. In light of the statutory definition, section 251(b)(2) requires service provider portability but not location or service portability.

4. Section 251(b)(2) removes a significant barrier to competition by ensuring that consumers can change carriers without forfeiting their existing telephone numbers.<sup>9</sup> The Commission has noted that the absence of number portability "likely would deter entry by competitive providers of local service because of the value customers place on retaining their telephone numbers. Business customers, in particular, may be reluctant to incur the administrative, marketing, and goodwill costs associated with changing telephone numbers."<sup>10</sup> Although telecommunications carriers, both incumbents and new entrants, must incur costs to implement number portability, the long-term benefits that will follow as number

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<sup>5</sup> See Telecommunications Act of 1996, sec. 101(a), § 251(b)(2), Pub. L. No. 104-104, 110 Stat. 56 (1996).

<sup>6</sup> See S. CONF. REP. NO. 104-230, at 121 (stating that section 251(b) requires all local exchange carriers, "including the 'new entrants' into the local exchange market," to provide number portability).

<sup>7</sup> 47 U.S.C. § 251(b)(2). See 141 CONG. REC. H8269 (daily ed. Aug. 2, 1995) (statement of Rep. Hastert) (stating that requirements such as number portability would "allow real competition in the local loop"); *Communications Law Reform: Hearing on H.R. 1555 Before the Subcomm. on Telecomm. and Fin. of the Comm. on Commerce*, 104th Cong. 18 (1995) (statement of Rep. Manton) (expressing "skeptic[ism] as to whether local competition can actually flourish without a number portability requirement"); S. COMMERCE COMM. REP. NO. 104-23, at 52 (1995) (to accompany S. 652) (stating that "Congress believes that the implementation of final number portability is an important element in the introduction of local competition"); H.R. COMMERCE COMM. REP. NO. 103-560, at 67 (1994) (to accompany H.R. 3636) (finding "number portability to be one of the fundamental building blocks upon which a competitive market for telephone exchange service will be built"). See also *Order & Further Notice*, 11 FCC Rcd. at 8354 (stating that "[n]umber portability is one of the obligations that Congress imposed on all local exchange carriers ... to promote the pro-competitive, deregulatory markets it envisioned. Congress has recognized that number portability will lower barriers to entry and promote competition in the local exchange marketplace.").

<sup>8</sup> 47 U.S.C. § 153(30).

<sup>9</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8367 (stating that "number portability is essential to meaningful competition in the provision of local exchange services. ... [N]umber portability provides consumers flexibility in the way they use their telecommunications services and promotes the development of competition among alternative providers of telephone and other telecommunications services.").

<sup>10</sup> *Id.* at 8368 (citations omitted).

portability gives consumers more competitive options outweighs these costs. As the Commission has stated:

The ability of end users to retain their telephone numbers when changing service providers gives customers flexibility in the quality, price, and variety of telecommunications services they can choose to purchase. Number portability promotes competition between telecommunications service providers by, among other things, allowing customers to respond to price and service changes without changing their telephone numbers. The resulting competition will benefit all users of telecommunications services. Indeed, competition should foster lower local telephone prices and, consequently, stimulate demand for telecommunications services and increase economic growth.<sup>11</sup>

To prevent the initial cost of providing number portability from itself becoming a barrier to local competition, section 251(e)(2) requires that "[t]he cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."<sup>12</sup>

5. In light of Congress' number portability mandate, the Commission released a combined *First Report and Order (Order) & Further Notice of Proposed Rulemaking (Further Notice)* in July 1996 to begin implementing number portability.<sup>13</sup> In the *Order*, the Commission directed LECs to use currently available techniques such as call forwarding to offer an interim form of number portability (interim number

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<sup>11</sup> *Id.*

<sup>12</sup> 47 U.S.C. § 251(e)(2). The legislative history suggests that Congress was aware even in earlier legislative drafts that the cost of providing number portability could defeat the purpose of number portability in the first place. S. 652 as passed by the Senate provided that interconnection agreements should require LECs to provide number portability "in a manner that ... provides for a reasonable allocation of costs among the parties to the agreement." S. 652, 104th Cong., § 251(b)(6)(C) (1995) (as passed the Senate June 15, 1995), *reprinted in* 141 CONG. REC. H8570 (daily ed. June 16, 1995).

S. 652 as passed by the House would have required that "the costs that a carrier incurs in offering ... number portability ... be borne by the users of such ... number portability." S. 652, 104th Cong., § 242(b)(4)(D) (1995) (as passed by the House and sent to conference Oct. 12, 1995), *reprinted in* 141 CONG. REC. H9954 (daily ed. Oct. 12, 1995). *See also* S. CONF. REP. 104-230, at 120-21 (stating that section 242(b)(4) of the House amendment "directs the Commission to establish regulations requiring full compensation to the LEC for costs of providing services related to ... number portability").

H.R. 1555, as introduced, would have required LECs to provide number portability only "to the extent technically feasible and economically reasonable." H.R. 1555, 104th Cong., § 242(a)(4) (1995) (as introduced May 3, 1995). *See also Communications Law Reform: Hearing on H.R. 1555 Before the Subcomm. on Telecomm. and Fin. of the Comm. on Commerce*, 104th Cong. at 18 (1995) (statement of Rep. Manton) (expressing concern that "economically reasonable" language might create a loophole that will delay competition); *Communications Law Reform: Hearing on H.R. 1555 Before the Subcomm. on Telecomm. and Fin. of the Comm. on Commerce*, 104th Cong. at 203 (1995) (statement of Rep. Fields) (stating that the "economically reasonable" language was intended to ensure that "some demand was not made of someone that just honestly could not be met").

<sup>13</sup> *Order & Further Notice*, 11 FCC Rcd. at 8352.

portability).<sup>14</sup> Under call-forwarding techniques, a customer's former carrier forwards that customer's calls to the customer's new carrier, enabling people to continue reaching the customer at the original number.<sup>15</sup> Although this approach serves the pro-competitive goals of number portability, it requires two telephone numbers for each customer who changes carriers.<sup>16</sup> To ensure a more efficient use of telephone numbers, the *Order* required carriers to develop and implement a long-term solution that does not use two telephone numbers for each customer.<sup>17</sup>

6. Based on the record, the Commission concluded that "none of the currently supported methods [of providing long-term number portability] has been tested or described in sufficient detail to permit the Commission to select the particular architecture without further consultation with the industry."<sup>18</sup> The Commission also noted that prescribing a particular architecture at the time might hinder the efforts of the carriers, switch vendors, and state commissions that were in the process of developing long-term number portability solutions.<sup>19</sup> Consequently, the Commission promulgated performance criteria that the industry's long-term number portability solutions must meet,<sup>20</sup> required local exchange carriers to implement long-term number portability through a system of regional databases managed by neutral third party administrators,<sup>21</sup> and established a phased timetable for the implementation of long-term number portability.<sup>22</sup>

7. Because of the myriad questions regarding the design and deployment of a long-term number portability system, the *Order* could not and did not resolve how carriers would bear the costs of providing long-term number portability. Instead, the Commission sought comment in the *Further Notice* on the costs associated with implementing long-term number portability.<sup>23</sup> The Commission tentatively identified three categories of costs: (1) shared industry costs, such as the costs of third-party administrators

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<sup>14</sup> *Id.* at 8355-56.

<sup>15</sup> *See id.* at 8361-62.

<sup>16</sup> *See id.* at 8405 n.295.

<sup>17</sup> *Id.* at 8411-12.

<sup>18</sup> *See id.* at 8377. *See also id.* at 8359-62, 8494-8500 (describing variety of industry proposals for number portability).

<sup>19</sup> *See id.* at 8377.

<sup>20</sup> *See id.* at 8355, 8371-85.

<sup>21</sup> *Id.* at 8355-56, 8399-8404.

<sup>22</sup> *Id.* at 8355, 8393-96, 8501-02, *modified*, *In re Telephone Number Portability*, First Memorandum Opinion and Order on Reconsideration, 12 FCC Rcd. 7236, 7283, 7346-47 (1997).

<sup>23</sup> *See Order & Further Notice*, 11 FCC Rcd. at 8459-66.

to build and operate the regional databases;<sup>24</sup> (2) carrier-specific costs directly related to providing number portability, such as the cost of portability capable switch software;<sup>25</sup> and (3) carrier-specific costs not directly related to providing number portability, such as network upgrades that involve Advanced Intelligent Network (AIN) and Signaling System 7 (SS7) technologies.<sup>26</sup> The Commission also sought comment on the distribution of these costs among carriers, and possible carrier cost-recovery mechanisms.<sup>27</sup>

8. In this *Third Report and Order*, we conclude that section 251(e)(2) requires the Commission to ensure that all telecommunications carriers bear in a competitively neutral manner the costs of providing long-term number portability for interstate and intrastate calls.<sup>28</sup> We adopt as the governing principles for our determinations with respect to those costs the interpretations of competitive neutrality that the Commission developed in the *Order*.<sup>29</sup> We conclude that "the cost[s] of ... number portability" that carriers must bear on a competitively neutral basis include the costs that LECs incur to meet the obligations imposed by section 251(b)(2), as well as the costs other telecommunications carriers—such as interexchange carriers (IXCs) and commercial mobile radio service (CMRS) providers—incur for the industry-wide solution to providing local number portability.<sup>30</sup> We also conclude that carrier-specific costs not directly related to providing number portability are not costs of number portability and, consequently, are not subject to section 251(e)(2) and its competitive neutrality mandate.<sup>31</sup> Furthermore, we conclude that the costs of establishing number portability include not just the costs associated with the creation of the regional databases and the initial physical upgrading of the public switched telephone network for the provision of number portability, but also the continuing costs necessary to provide number portability.<sup>32</sup>

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<sup>24</sup> *Id.* at 8459, 8461, 8463.

<sup>25</sup> *Id.* at 8459, 8464.

<sup>26</sup> *Id.* at 8459, 8465. AIN, a telecommunications network architecture that uses databases to facilitate call processing, call routing, and network management, allows carriers to change the routing of both inbound and outbound calls from moment to moment based on criteria they develop. *See* 47 C.F.R. § 51.5 (defining "advanced intelligent network"); HARRY NEWTON, *NEWTON'S TELECOM DICTIONARY* 32-33 (11th ed. 1996). SS7 is a digital, packet-switched, carrier-to-carrier signaling system used for call routing, billing, and management that occurs "out-of-band," which means the call routing information is transmitted in separate circuits from the conversation. *See* 47 C.F.R. § 64.1600(f) (defining "signaling system 7"); NEWTON, *supra*, at 545. This offers additional speed, control, and other advantages not available with "in-band" signalling systems. NEWTON, *supra*, at 545.

<sup>27</sup> *Order & Further Notice*, 11 FCC Rcd. 8459-66.

<sup>28</sup> *See infra* paragraph 28.

<sup>29</sup> *See infra* paragraphs 52-60.

<sup>30</sup> *See infra* paragraph 36.

<sup>31</sup> *See infra* paragraph 37.

<sup>32</sup> *See infra* paragraph 38.

We also conclude that section 251(e)(2) applies to any distribution of number portability costs among carriers as well as the recovery of those costs by carriers.<sup>33</sup>

9. We apply the Commission's competitive neutrality rules to distribute among telecommunications carriers the shared costs of each regional database based on carriers' intrastate, interstate, and international end-user telecommunications revenues for each region.<sup>34</sup> Once the shared regional database costs have been distributed among carriers, we treat each carrier's portion of the shared costs as another carrier-specific cost directly related to providing number portability.<sup>35</sup> We conclude that it is competitively neutral for carriers to bear their own carrier-specific costs directly related to providing number portability.<sup>36</sup> Beginning February 1, 1999, we will allow—but not require—rate-of-return and price-cap LECs to recover their carrier-specific costs directly related to providing long-term number portability through a federally tariffed, monthly number-portability charge that will apply to end users for no longer than five years, as well as through a federally tariffed intercarrier charge for long-term number portability query services they perform for other carriers; other telecommunications carriers may recover their carrier-specific costs directly related to providing long-term number portability in any lawful manner.<sup>37</sup>

10. We recognize consumers' sensitivity to end-user charges. As discussed below,<sup>38</sup> we conclude that allowing carriers to recover in this manner will best serve the goals of the statute. We anticipate that the benefits of number portability, namely the increased choice and lower prices that result from the competition that number portability helps make possible, will far outweigh the initial costs.

## II. BACKGROUND

### A. The Provision of Long-Term Number Portability

11. Without number portability, customers ordinarily cannot change their local telephone companies unless they change telephone numbers. Under the existing network architecture and the North American Numbering Plan (NANP), a telephone number functions like an address: every number is associated with an individual switch operated by a particular local telephone company in a specific

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<sup>33</sup> See *infra* paragraph 39.

<sup>34</sup> See *infra* paragraphs 87-92, 105-110, 116-117.

<sup>35</sup> See *infra* paragraphs 69, 87.

<sup>36</sup> See *infra* paragraphs 135-141.

<sup>37</sup> See *infra* paragraphs 135-149.

<sup>38</sup> *Id.*

geographic area.<sup>39</sup> The area code, also called the Numbering Plan Area (the NPA), identifies the general geographic area within which the switch provides service.<sup>40</sup> The next three digits of the telephone number (the NXX) identify the switch that serves the customer.<sup>41</sup> The last four digits identify the specific telephone line serving the customer's location.<sup>42</sup> Carriers use this ten-digit number to connect a telephone call to the called party.<sup>43</sup> Thus, if a customer changes local telephone companies and receives service at the same location from a different telephone company providing service from a different switch, the customer's new local telephone company typically must assign the customer a new seven-digit number (NXX code plus line number) associated with the new switch and new telephone line.

12. Number portability technology allows customers to retain their telephone numbers when changing local service providers. Although the Commission did not mandate a specific long-term number portability method, most carriers intend to provide long-term number portability through a location routing number (LRN) architecture.<sup>44</sup> Under an LRN architecture, each switch is assigned a unique ten-digit LRN, the first six digits of which identify the location of that switch.<sup>45</sup> Each customer's telephone number is matched in a regional database with the LRN for the switch that currently serves that telephone number.<sup>46</sup> Each database serves an area that corresponds to one of the original regional Bell Operating Company (RBOC) service territories.<sup>47</sup>

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<sup>39</sup> See AIN PROGRAM, NATIONAL COMMUNICATIONS SYSTEM, LOCAL NUMBER PORTABILITY: AIN AND NS/EP IMPLICATIONS, §§ 2.0-2.5 (July 1996) [hereinafter LOCAL NUMBER PORTABILITY REPORT].

<sup>40</sup> See *id.* at § 2.1.

<sup>41</sup> See *id.*

<sup>42</sup> See *id.*

<sup>43</sup> See *id.* at §§ 2.3, 5.

<sup>44</sup> See *In re Telephone Number Portability*, Second Report and Order, 12 FCC Rcd. 12281, 12287-88 (1997) (Second Report and Order).

<sup>45</sup> NORTH AMERICAN NUMBERING COUNCIL, LOCAL NUMBER PORTABILITY ADMINISTRATION SELECTION WORKING GROUP REPORT [hereinafter NANC RECOMMENDATION] App. D (Architecture & Administrative Plan for Local Number Portability), ¶ 7.2, at 6 (April 25, 1997), *adopted*, *Second Report and Order*, 12 FCC Rcd. at 12283-84; LOCAL NUMBER PORTABILITY REPORT, *supra* note 39, at § 6.1. The industry has not yet decided a use for the last four digits. NANC RECOMMENDATION, *supra*, App. D (Architecture & Administrative Plan for Local Number Portability), ¶ 7.2, at 6.

<sup>46</sup> See *In re Telephone Number Portability*, First Report and Order & Further Notice of Proposed Rulemaking, 11 FCC Rcd. 8352, 8359-60, 8399-8400, 8494-95 (1996) (Order & Further Notice); LOCAL NUMBER PORTABILITY REPORT, *supra* note 39, at § 6.1.

<sup>47</sup> See NANC RECOMMENDATION, *supra* note 45, App. D (Architecture & Administrative Plan for Local Number Portability), at 11-12, ¶ 9. U.S. states, possessions, and territories that are not served by RBOCs—such as Alaska, Guam, Hawaii, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands—have been incorporated into other regions' databases. Thus the Mid-Atlantic region is composed of Delaware, the District of



13. Neutral third parties, called local number portability administrators (LNPAs), will administer these regional databases.<sup>48</sup> The telecommunications carriers within each particular region have formed a limited liability corporation (LLC) to negotiate service contracts with the LNPA for that region. Additional telecommunications carriers may join an LLC at any time. On the recommendation of the North American Numbering Council (NANC)—a federal advisory committee made up of industry, state regulatory, and consumer representatives—the Commission approved the LNPAs that the seven regional LLCs endorsed for each region.<sup>49</sup> The Commission also adopted the NANC's recommendation that the administrative functions of the LNPAs include all management tasks required to run the regional databases.<sup>50</sup> The Mid-Atlantic, Mid-West, Northeast, and Southwest LLCs each separately endorsed Lockheed-Martin IMS.<sup>51</sup> The Southeast, Western, and West Coast LLCs each separately endorsed Perot Systems Inc.<sup>52</sup> The LLCs for the Southeast, Western, and West Coast regions have since reported that performance problems prompted them to terminate their contracts with Perot in favor of Lockheed.<sup>53</sup>

14. When a customer changes from one LEC to another, the carrier that wins the customer will "port" the customer's number from the former carrier by electronically transmitting (uploading) the new LRN to the administrator of the relevant regional database.<sup>54</sup> This will pair the customer's original

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Columbia, Maryland, New Jersey, Pennsylvania, Virginia, and West Virginia. *Id.* The Mid-West region is composed of Illinois, Indiana, Michigan, Ohio, and Wisconsin. *Id.* The Northeast region is composed of Connecticut, Maine, New Hampshire, Massachusetts, New York, Rhode Island, and Vermont. *Id.* The Southeast region is composed of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, and the Virgin Islands. *Id.* The Southwest region is composed of Arkansas, Kansas, Missouri, Oklahoma, and Texas. *Id.* The West Coast region is composed of California, Guam, Hawaii, Nevada, and the Northern Mariana Islands. *Id.* The Western region is composed of Alaska, Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. *Id.*

<sup>48</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8400-02.

<sup>49</sup> *Second Report and Order*, 12 FCC Rcd. at 12303; NANC RECOMMENDATION, *supra* note 45, § 6.2, at 18-19.

<sup>50</sup> *Second Report and Order*, 12 FCC Rcd. at 12306-09.

<sup>51</sup> NANC RECOMMENDATION, *supra* note 45, § 6.2, at 18-19.

<sup>52</sup> *Id.*

<sup>53</sup> See Letter from West Coast Portability Services, LLC, to A. Richard Metzger, Jr., Chief, Common Carrier Bureau, FCC (January 23, 1998); Letter from Alan C. Hasselwander, Chairman, North American Numbering Council, to A. Richard Metzger, Jr., Chief, Common Carrier Bureau, FCC (February 20, 1998); *Common Carrier Bureau Seeks Comment on Petitions For Extension of Time of the Local Number Portability Phase I Implementation Deadline*, CC Docket No. 95-116, Public Notice, DA 98-449 (rel. March 4, 1998); Public Notice, DA 98-451 (rel. March 5, 1998).

<sup>54</sup> See *id.* at App. E (LNPA Technical & Operational Requirements Task Force Report), app. a (Issues & Resolutions), p. 1, and app. b (Inter-Service Provider LNP Operations Flows), fig. 1 (Provisioning) & p. 2. The

telephone number with the LRN for the switch of the new carrier, allowing the customer to retain the original telephone number. The regional database administrators will then electronically transmit (download) LRN updates to carrier-operated local service management systems (LSMSs).<sup>55</sup> Each carrier will distribute this information to service control points (SCPs) or signal transfer points (STPs) that the carrier will use to store and process data for providing number portability.<sup>56</sup>

15. For a carrier to route an interswitch telephone call to a location where number portability is available, the carrier must determine the LRN for the switch that serves the terminating telephone number of the call.<sup>57</sup> Once number portability is available for an NXX, carriers must "query" all interswitch calls to that NXX to determine whether the terminating customer has ported the telephone number.<sup>58</sup> Carriers will accomplish this by sending a signal over the SS7 network to retrieve from an SCP or STP the LRN associated with the called telephone number. The industry has proposed, and the

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former carrier may, at its option, also transmit this information. *Id.*

<sup>55</sup> See *id.* at App. E (LNPA Technical & Operational Requirements Task Force Report), app. b (Inter-Service Provider LNP Operations Flows), fig. 2 (Provisioning Without Unconditional 10-Digit Trigger) & p. 1, step 4, and fig. 3 (Provisioning With Unconditional 10-Digit Trigger) & p. 1, step 5.

<sup>56</sup> See *id.* at App. E (LNPA Technical & Operational Requirements Task Force Report), app. b (Inter-Service Provider LNP Operations Flows), fig. 2 (Provisioning Without Unconditional 10-Digit Trigger) & p. 2, step 8, and fig. 3 (Provisioning With Unconditional 10-Digit Trigger) & p. 2, step 8.

An SCP is a computer-like device in the public switched network that contains a database of information and call processing instructions needed to process and complete a telephone call. See 47 C.F.R. §§ 51.5, 52.21(m) (defining "service control point"). An STP is a packet switch that acts as a routing hub for a signaling network and transfers messages between various points in and among signaling networks. See 47 C.F.R. § 51.5 (defining "signal transfer point").

Although carriers originally envisioned number portability as SCP-based, at least one manufacturer purports to be offering an STP-based network technology to implement LRN more efficiently than the SCP-based solution. See *Ex Parte* Letter from Sylvia Lesse, Attorney, Kraskin & Lesse, to William Caton, Acting Secretary, FCC (Feb. 19, 1997) (on file with Secretary of the FCC). At least one third-party provider says it plans to use this technology to provide number portability services. See *Ex Parte* Letter from Richard R. Wolf, Director of Legal & Regulatory Affairs, Illuminet, to Jeannie Su, Attorney, FCC, attach. (Oct. 16, 1997) (on file with Secretary of the FCC). GTE, Cincinnati Bell, Bell Atlantic, and NYNEX also appear to be considering an STP-based solution for at least part of their implementation of number portability. See Tekelec, GTE INS Chooses Eagle STP for LNP/LSMS Solution (Dec. 8, 1997), Cincinnati Bell Chooses Tekelec Local Number Portability Solution (Nov. 17, 1997), Tekelec and Bell Atlantic Conclude Agreement (May 30, 1997), Tekelec Details Recent Agreement with NYNEX (April 22, 1997) (press releases available at <<http://www.tekelec.com/>>).

<sup>57</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8359-60; LOCAL NUMBER PORTABILITY REPORT, *supra* note 39, at §§ 2.3, 5.

<sup>58</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8463. Carriers need not query calls that originate and terminate on the same switch. See NANC RECOMMENDATION, *supra* note 45, App. D (Architecture & Administrative Plan for Local Number Portability), ¶ 8, at 10 & fig. 2, scenarios 1 & 2.

Commission has endorsed, an "N minus one" (N-1) querying protocol.<sup>59</sup> Under this protocol, the N-1 carrier will be responsible for the query, "where 'N' is the entity terminating the call to the end user, or a network provider contracted by the entity to provide tandem access."<sup>60</sup> Thus the N-1 carrier (*i.e.* the last carrier before the terminating carrier) for a local call will usually be the calling customer's local service provider; the N-1 carrier for an interexchange call will usually be the calling customer's interexchange carrier (IXC).<sup>61</sup> An N-1 carrier may perform its own querying, or it may arrange for other carriers or third parties to provide querying services on its behalf.<sup>62</sup>

16. To route a local call under this system, the originating local service provider will examine the seven-digit number that its customer dialed, for example "456-7890." If the called telephone number is on the originating switch (*i.e.* an intraswitch call), the originating local service provider will simply complete the call. If the call is interswitch, the originating local service provider will compare the NXX, "456," with its table of NXXs for which number portability is available. If "456" is not such an NXX, the originating local service provider will treat the call the same as it did before the existence of long-term number portability. If it is an NXX for which portability is available, the originating local service provider will add the NPA, for instance "123," to the dialed number and query "(123) 456-7890" to an SCP containing the LRNs downloaded from the relevant regional database. The SCP will return the LRN for "(123) 456-7890" (which would be "(123) 456-XXXX" if the customer has not changed carriers, or something like "(123) 789-XXXX" if the customer has changed carriers), and use the LRN to route the call to the appropriate switch with an SS7 message indicating that it has performed the query. The terminating carrier will then complete the call. To route an interexchange call, the originating local service provider will hand the call off to the IXC and the IXC will undertake the same procedure.

## B. Prior Commission Decisions

17. The *Order*, as modified by the *First Memorandum Opinion and Order on Reconsideration* (First Reconsideration Order), requires LECs to implement long-term number portability: (1) in Chicago, Philadelphia, Atlanta, New York, Los Angeles, Houston, and Minneapolis—the largest metropolitan statistical area (MSA) in each of the seven RBOC regions—between October 1, 1997, and March 31, 1998; (2) in the rest of the 100 largest MSAs in quarterly stages between January 1, 1998, and December 31, 1998; and (3) thereafter in switches outside the 100 largest MSAs, within six months of a

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<sup>59</sup> See *Second Report and Order*, 12 FCC Rcd. at 12323.

<sup>60</sup> NANC RECOMMENDATION, *supra* note 45, app. D (Architecture & Administrative Plan for Local Number Portability), ¶ 7.8, at 8.

<sup>61</sup> *Id.* app. D (Architecture & Administrative Plan for Local Number Portability), attachment A (Example N-1 Call Scenarios); LOCAL NUMBER PORTABILITY REPORT, *supra* note 39, at § 9.1.3. & fig. 9-3 (N-1 Network Query).

<sup>62</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8404.

request by a telecommunications carrier.<sup>63</sup> A number of carriers have received extensions of the March 31, 1998, implementation deadline for certain areas ranging from two to five months.<sup>64</sup>

18. The Commission explained that the statutory definition of number portability requires LECs to implement number portability in such a way that LEC customers can keep their telephone numbers when they switch to any other telecommunications carrier, including, therefore, when they switch to a commercial mobile radio services (CMRS) provider.<sup>65</sup> The Commission also required in the *Order* that certain types of CMRS providers be able by December 31, 1998, to route calls to any ported numbers and be able by June 30, 1999, to allow their own customers to take their telephone numbers to other carriers.<sup>66</sup> By its language, section 251(b)(2) requires only that LECs provide number portability,<sup>67</sup> and the 1934 Act, as amended, excludes from the definition of "local exchange carrier" those entities "engaged in the provision of a commercial mobile service under section 332(c), except to the extent that the

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<sup>63</sup> See *In re Telephone Number Portability*, First Memorandum Opinion and Order on Reconsideration, 12 FCC Rcd. 7236, 7283, 7326-27, 7346-47 (1997) (First Reconsideration Order), *modifying Order & Further Notice*, 11 FCC Rcd. at 8355, 8393-96, 8482-85. Section 251(f)(2), however, allows a LEC "with fewer than 2 percent of the Nation's subscriber lines installed in the aggregate nationwide" to petition a State commission to suspend or modify its section 251(b)(2) obligation to provide number portability. 47 U.S.C. § 251(f)(2).

<sup>64</sup> See *In re Telephone Number Portability, Petition for Extension of the Deployment Schedule for Long-Term Database Methods for Local Number Portability, Phase I*, CC Docket No. 95-116, Order, DA 98-613 (Network Servs. Div. rel. March 31, 1998) (extending SBC Companies' deadline to implement long-term number portability in Houston from March 31, 1998, to May 26, 1998); Order, DA 98-614 (Network Servs. Div. rel. March 31, 1998) (granting carriers a time extension ranging from two to five months for Atlanta, Los Angeles, and Minneapolis because of the switch from Perot to Lockheed as the database administrator of the Southeast, Western, and West Coast regions); Order, DA 98-729 (Network Servs. Div. rel. April 16, 1998) (extending Sprint's deadline to implement long-term number portability in Houston from March 31, 1998, to May 26, 1998). See also *supra* note 52 and accompanying text.

<sup>65</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8355, 8357 (citing 47 U.S.C. § 153(30) (defining number portability as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience *when switching from one telecommunications carrier to another*") (emphasis added)). See also 47 U.S.C. §§ 153(43), (44), (46) (defining "telecommunications," "telecommunications carrier," and "telecommunications service," in such a way that includes CMRS providers).

<sup>66</sup> *Order & Further Notice*, 11 FCC Rcd. at 8355, 8439-40. The Cellular Telecommunications Industry Association (CTIA) filed a petition November 24, 1997, asking the Wireless Telecommunications Bureau to delay until March 31, 2000, the requirement that wireless carriers be able to port their own numbers by June 30, 1999. See *Wireless Telecommunications Bureau Seeks Comment on CTIA Petition for Waiver to Extend the Implementation Deadlines of Wireless Number Portability*, CC Docket No. 95-116, Public Notice, DA 97-2579 (rel. Dec. 9, 1997). CTIA subsequently asked the Commission to delay wireless number portability until PCS carriers complete their 5-year build-out schedule. See *Petition for Forbearance of the Cellular Telecommunications Industry Association*, CC Docket No. 96-116 (filed Dec. 16, 1997).

<sup>67</sup> 47 U.S.C. § 152(b) (stating that "[e]ach local exchange carrier has the . . . duty to provide . . . number portability") (emphasis added).

Commission finds that such service should be included in the definition of such term."<sup>68</sup> Although the Commission declined in the *Order* to address whether CMRS providers are LECs,<sup>69</sup> the Commission exercised authority under sections 1, 2, 4(i), and 332 to require three categories of CMRS providers—cellular providers, broadband personal communications service (PCS) providers, and covered specialized mobile radio (SMR) providers<sup>70</sup>—to provide number portability.<sup>71</sup> The Commission concluded that requiring these CMRS providers to provide number portability would serve the public interest by promoting competition between and among local wireless and wireline carriers, as well as among providers of interstate access service.<sup>72</sup>

19. In the *Order*, the Commission exempted some CMRS providers from the obligation to provide number portability: paging and other messaging service providers, private paging service providers, business radio service providers, providers of land mobile service on 220-222 MHz, public coast stations, public land mobile service providers, 800 MHz air-ground radio-telephone service providers, offshore radio service providers, mobile satellite service providers, narrowband PCS service providers,

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<sup>68</sup> 47 U.S.C. § 251(26). *See also Order & Further Notice*, 11 FCC Rcd. at 8355 (stating that the statute excludes CMRS providers from the definition of local exchange carriers, and therefore from the section 251(b) obligations to provide number portability, unless the Commission takes action to include CMRS providers in the definition of local exchange carrier).

<sup>69</sup> *Order & Further Notice*, 11 FCC Rcd. at 8355, 8431.

<sup>70</sup> The Commission's rules states that:

[t]he term "covered SMR" means either 800 MHz and 900 MHz SMR licensees that hold geographic area licenses or incumbent wide area SMR licensees that offer real-time, two-way switched voice service that is interconnected with the public switched network either on a stand-alone basis or packaged with other telecommunications services. This term does not include local SMR licensees offering mainly dispatch services to specialized customers in a non-cellular configuration, licensees offering only data, one-way, or stored voice services on an interconnected basis, or any SMR provider that is not interconnected to the public switched network.

47 C.F.R. § 52.21(c).

<sup>71</sup> *Order & Further Notice*, 11 FCC Rcd. at 8355, 8431-33. *See* 47 U.S.C. § 151 (creating the Commission to regulate "interstate and foreign commerce in communication by wire and radio so as to make available ... a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges"), § 152(b) (excluding from Commission jurisdiction regulation of intrastate communication by wire or radio, except as provided in certain sections of the 1934 Act, including section 332 on mobile services), § 154(i) (authorizing the Commission to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions"), and § 332(c)(1) (granting the Commission authority to regulate any entity "engaged in the provision of mobile service ... as a common carrier").

<sup>72</sup> *Order & Further Notice*, 11 FCC Rcd. at 8431-38.

local SMR licensees, and local multipoint distribution service (LMDS) providers.<sup>73</sup> The Commission reasoned that such carriers currently have little impact on competition for local service.<sup>74</sup>

20. In the *First Reconsideration Order*, the Commission concluded that within the 100 largest MSAs, LECs must provide number portability only in switches for which another carrier has specifically and reasonably requested the provision of number portability.<sup>75</sup> The Commission reasoned that such an approach allows carriers to focus their resources where competitors plan to enter, which is where number portability is likely to have the most impact in the short run on the development of competition for local services.<sup>76</sup> Structuring implementation in this fashion reduces costs, eases the demands on software vendors, and encourages efficient deployment, network planning, and testing.<sup>77</sup> The Commission emphasized, however, that all carriers, even those operating portability-incapable switches, are still responsible for properly routing calls to telephone numbers in locations where number portability is available.<sup>78</sup> Carriers can meet that responsibility either by routing the call to one of their switches that is capable of performing the necessary database query, or by arranging for another carrier or a third party to query the database or route the call.<sup>79</sup>

21. In the *Second Report and Order*, the Commission determined that if an N-1 carrier arranges with another entity to perform queries on the carrier's behalf, that other entity may charge the N-1 carrier in accordance with requirements to be established in this *Third Report and Order*.<sup>80</sup> The Commission also noted that when an N-1 carrier fails to ensure that a call is queried, the call might inadvertently be routed by default to the LEC that originally served the telephone number.<sup>81</sup> If the number was ported, the LEC incurs costs in redirecting the call. This could happen, for example, if there is a technical failure in the N-1 carrier's ability to query, or if the N-1 carrier fails to ensure that its calls are queried, either through its own query capability or through an arrangement with another carrier or third-party.<sup>82</sup> The Commission determined in the *Second Report and Order* that if a LEC performs queries on

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<sup>73</sup> *Id.* at 8433-34.

<sup>74</sup> *Id.* at 8433-34 & n. 451.

<sup>75</sup> *First Reconsideration Order*, 12 FCC Rcd. at 7272-7277.

<sup>76</sup> *Id.* at 7272-73.

<sup>77</sup> *Id.*

<sup>78</sup> *Id.* at 7277.

<sup>79</sup> *Id.*

<sup>80</sup> *Second Report and Order*, 12 FCC Rcd. at 12324.

<sup>81</sup> *Id.* at 12324-25.

<sup>82</sup> As noted, CMRS carriers are not required to have the capability to query calls before December 31, 1998. *See supra* paragraph 18. They will, nonetheless, be N-1 carriers once LECs begin providing number portability,

default-routed calls, the LEC may charge the N-1 carrier in accordance with requirements to be established in this *Third Report and Order*.<sup>83</sup> The Commission determined further that it would "allow LECs to block default-routed calls, but only in specific circumstances when failure to do so is likely to impair network reliability."<sup>84</sup> The Commission also said that it would "require LECs to apply this blocking standard to calls from all carriers on a nondiscriminatory basis."<sup>85</sup>

22. The Competitive Pricing Division (Division) of the Common Carrier Bureau issued two *Memorandum Opinions and Orders* on October 30, 1997, and December 30, 1997, granting petitions by Ameritech, Bell Atlantic, Southwestern Bell, and Pacific Bell to establish new service rate elements for the provision of long-term number portability query services to other carriers.<sup>86</sup> The Division required all four carriers, however, to conform their rates, rate structures, regulations, and services offered under these rate elements to any determinations made by the Commission in CC Docket No. 95-116.<sup>87</sup> The Division further concluded that the tariff revisions the carriers filed implementing the rate elements raised substantial questions of lawfulness.<sup>88</sup> Consequently, the Division suspended the tariff revisions for one day and set them for investigation.<sup>89</sup> The Division also imposed accounting orders, which remain pending, for the duration of the investigation.<sup>90</sup> The Division issued an order January 30, 1998, designating issues for investigation.<sup>91</sup>

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even before December 31, 1998. For an explanation of the N-1 protocol, see paragraph 15, *supra*.

<sup>83</sup> *Second Report and Order*, 12 FCC Rcd. at 12325-26.

<sup>84</sup> *Id.* at 12324-25.

<sup>85</sup> *Id.* at 12325-26.

<sup>86</sup> *See In re Petition of Ameritech to Establish a New Access Tariff Service and Rate Elements Pursuant to Part 69 of the Commission's Rules*, CCB/CPD Docket No. 97-46, Memorandum Opinion and Order, DA 97-2294, at ¶¶ 1, 13-17 (Comp. Pricing Div. Comm. Car. Bur. rel. Oct. 30, 1997) (Ameritech and Bell Atlantic Order); *In re Petition of Southwestern Bell Telephone Company Under Section 69.4(g)(1)(ii) of the Commission's Rules for Establishment of New Service Rate Elements*, CCB/CPD Docket No. 97-64, Memorandum Opinion and Order, DA 97-2725 (Comp. Pricing Div. Comm. Car. Bur. rel. Dec. 30, 1997) (Southwestern Bell and Pacific Bell Order). The Division also suspended for one day and incorporated into the investigation Ameritech revisions to its long-term number portability query service purporting to clarify in certain circumstances Ameritech's right to block unqueried traffic that carriers deliver to Ameritech's network. *See In re Ameritech Revisions to Tariff F.C.C. No. 2*, CCB/CPD 97-46, Memorandum Opinion and Order, DA 97-2353 (rel. Nov. 7, 1997).

<sup>87</sup> *Ameritech and Bell Atlantic Order* at ¶ 17; *Southwestern Bell and Pacific Bell Order* at ¶ 9.

<sup>88</sup> *Ameritech and Bell Atlantic Order* at ¶ 18; *Southwestern Bell and Pacific Bell Order* at ¶ 10.

<sup>89</sup> *Ameritech and Bell Atlantic Order* at ¶ 18; *Southwestern Bell and Pacific Bell Order* at ¶ 11.

<sup>90</sup> *Ameritech and Bell Atlantic Order* at ¶ 18; *Southwestern Bell and Pacific Bell Order* at ¶ 11.

<sup>91</sup> *In re Number Portability Query Services*, CC Docket No. 98-14, Designation Order, DA 98-182 (rel. Jan. 30, 1998).

23. On March 30, 1998, the Commission terminated as moot the investigation of the tariff revisions of Pacific Bell and Southwestern Bell because both carriers filed superseding tariff revisions and neither carrier had customers under the initial tariff revisions designated for investigation.<sup>92</sup> The Commission also terminated as moot the investigation of Bell Atlantic's tariff revisions because Bell Atlantic had also filed superseding tariff revisions, and because it planned to refund all charges imposed on customers under the initial tariff revisions.<sup>93</sup> The Commission found Ameritech's tariff revisions unlawful for lack of adequate cost support.<sup>94</sup> Because Ameritech had not provided query services to any customers under the tariff revisions, it was not necessary to require refunds.<sup>95</sup> The Commission has suspended and set for investigation all four carriers' refiled tariff revisions.<sup>96</sup>

### III. THE STATUTORY FRAMEWORK

#### A. Federal/State Jurisdiction

##### 1. Background

24. In the *Further Notice*, the Commission sought comment on its role under section 251(e)(2) in determining the distribution and recovery of number portability costs.<sup>97</sup> The Commission also sought comment on whether portability costs should be recovered through a tariff filed at the federal or state

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<sup>92</sup> *In re Number Portability Query Services*, CC Docket No. 98-14, Tariff Investigation and Termination Order, FCC 98-50, at ¶¶ 1, 8-9, 16 (rel. March 30, 1998) (Tariff Investigation and Termination Order).

<sup>93</sup> *Id.* at ¶¶ 1, 10-11, 16.

<sup>94</sup> *Id.* at ¶¶ 1, 13, 16.

<sup>95</sup> *Id.* at ¶ 13.

<sup>96</sup> *See In re Southwestern Bell Tariff F.C.C. No. 73*, CCB/CPD 98-17, Memorandum Opinion and Order, DA 98-530 (Comp. Pricing Div. Comm. Car. Bur. rel. March 18, 1998); *In re Pacific Bell Tariff F.C.C. No. 128*, CCB/CPD 98-23, Memorandum Opinion and Order, DA 98-598 (Comp. Pricing Div. Comm. Car. Bur. rel. March 27, 1998); *In re Ameritech Long-Term Number Portability Query Services*, CCB/CPD 98-26, Memorandum Opinion and Order, DA 98-648 (Comp. Pricing Div. Comm. Car. Bur. rel. April 3, 1998); *In re Bell Atlantic Tariff F.C.C. No. 1*, CCB/CPD 98-25, Memorandum Opinion and Order, DA 98-686 (Comp. Pricing Div. Comm. Car. Bur. rel. April 9, 1998).

<sup>97</sup> *In re Telephone Number Portability*, First Report and Order & Further Notice of Proposed Rulemaking, 11 FCC Rcd. 8352, 8462, 8464-66 (1996) (Order & Further Notice) (seeking comment on whether the Commission should create mechanisms by which carriers recover from end users or other carriers the shared and carrier-specific costs of providing number portability, and if so, what form those mechanisms should take). In the Notice of Proposed Rulemaking that the Commission issued prior to the *Order & Further Notice*, the Commission also requested comment on how carriers should allocate the costs of long-term number portability between federal and state jurisdictions. *In re Telephone Number Portability*, Notice of Proposed Rulemaking, 10 FCC Rcd. 12350, 12368 (1995).



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## 2. Positions of the Parties<sup>99</sup>

25. Commenters disagree on the appropriate Commission role with respect to the distribution and recovery of the costs of providing number portability.<sup>100</sup> Ameritech, MCI, and NARUC, as well as the California, Colorado, Florida, Illinois, New York, Ohio, and Washington state utility commissions, ask us to establish general guidelines, but to allow local commissions to develop detailed, state-specific mechanisms.<sup>101</sup> They argue that such an arrangement will balance the Commission's section 251(e)(2) responsibility of ensuring competitive neutrality, with the local commissions' needs for flexibility to address state-specific circumstances.<sup>102</sup>

26. NARUC, as well as the California, Colorado, Illinois, Missouri, New York, Ohio, and Washington state commissions, also argue that section 251(e)(2) gives the Commission authority over the distribution of number portability costs among carriers, but that the states still have local ratemaking authority over recovery of the intrastate costs from end users.<sup>103</sup> NARUC and the Missouri Public Service

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<sup>98</sup> *Order & Further Notice*, 11 FCC Rcd. at 8465.

<sup>99</sup> Appendix A of this *Third Report and Order* lists the commenters and reply commenters in this proceeding. The comment deadline was August 16, 1996. The reply deadline was September 16, 1996. The Illinois Commerce Commission and the Telecommunications Resellers Association filed late comments, and GST Telecom Inc. and WinStar Communications Inc. filed late replies. We grant these commenters' motions to accept their late-filed pleadings. *See* 47 C.F.R. § 1.3 (stating that "[a]ny provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown").

<sup>100</sup> Many commenters use the phrase "cost recovery" in some contexts to refer to the distribution among carriers of the costs of providing number portability, and in other contexts to refer to the collection of funds by carriers to meet those costs. For purposes of clarity, we define "cost recovery" as the collection of funds by carriers to cover some or all of their costs of providing number portability. *Cf.* Ill. Commerce Comm'n Comments at 3-4. "Cost distribution" refers to the division among carriers of responsibility to recover number portability costs. "Cost allocation" is one method of distributing number portability costs, through the use of some allocator such as share of telecommunications revenues. Another distribution method might be to make carriers responsible for their own costs of providing number portability, *i.e.*, the costs that they themselves incur in the first instance.

<sup>101</sup> Ameritech Reply at 3-5; Calif. Pub. Utils. Comm'n Reply at 1; Colo. Pub. Utils. Comm'n Comments at 5-11; Fla. Pub. Servs. Comm'n Comments at 3; Ill. Commerce Comm'n Comments at i-ii, 3-5; MCI Comments at 8-9; N.Y. Dep't Pub. Servs. Comments at 1-2; NARUC Reply at 2; Ohio Pub. Utils. Comm'n Comments at 1-3, 7, 10-11; Wash. Utils. Transp. Comm'n Reply at 3-8.

<sup>102</sup> Ameritech Reply at 3-5; Colo. Pub. Utils. Comm'n Comments at 7-10; Ill Commerce Comm'n Comments at 4-5; NARUC Reply at 2; Ohio Pub. Utils. Comm'n Comments at 10; Wash. Utils. Transp. Comm'n Reply at 4, 7.

<sup>103</sup> Calif. Pub. Utils. Comm'n Reply at 6-9; Colo. Pub. Utils. Comm'n Comments at 5-11; Ill. Commerce Comm'n Comments at 3-7; Mo. Pub. Servs. Comm'n Comments at 2, 5; NARUC Reply at 2; N.Y. Dep't Pub. Serv. Comments at 2; Ohio Pub. Utils. Comm'n Comments at 1, 3, 11; Wash. Utils. Transp. Comm'n Reply at 3-8. *See*

Commission explicitly argue that number portability costs should be subject to the FCC's separations rules, and that the states are responsible for designing rates to recover the intrastate portion.<sup>104</sup>

27. Bell Atlantic, NYNEX, PacTel, SBC, U S WEST, Time Warner, AirTouch Communications, and Omnipoint oppose allowing state commissions to establish state-specific number portability mechanisms, and argue that we should create an exclusively federal mechanism.<sup>105</sup> They argue that the Commission has exclusive jurisdiction over number portability,<sup>106</sup> that a uniform methodology is necessary to ensure that nationwide competition develops,<sup>107</sup> that state-by-state mechanisms would be

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*also* Calif. Dep't Consumer Affairs Comments at 10, 21-24 (arguing that section 251(e)(2) does not apply to recovery from end users, but nonetheless advocating an end-user charge for the costs of *establishing* number portability; arguing that carriers should recover the ongoing costs of number portability as they see fit); Fla. Pub. Servs. Comm'n Comments at 3, 5-6 (arguing that carriers should recover their costs as they see fit, subject to any state regulations, such as price caps).

<sup>104</sup> Mo. Pub. Servs. Comm'n Comments at 2, 5; NARUC Reply at 2. *Cf.* Colo. Pub. Utils. Comm'n Comments at 6 (arguing that "[i]t is inappropriate for the FCC to get into the business of ratemaking for local service"); Ill. Commerce Comm'n Comments at 5-7 & n.2 (arguing that "the Act did not remove or reduce state jurisdiction over intrastate rate design" and that "[t]he FCC should not impose requirements regarding intrastate consumer rates, except to the limited extent needed to ensure competitive neutrality among carriers"); N.Y. Dep't Pub. Serv. Comments at 2 (arguing that recovery of the intrastate portion of the number portability costs from customers through intrastate service rates is subject to state, not federal, jurisdiction).

<sup>105</sup> AirTouch Communications Reply at 10; Bell Atlantic Comments at 3-4; NYNEX Comments at 10-11 & n.22; Omnipoint Communications Reply at 8-9; PacTel Reply at 7-8; SBC Reply at 5-7 & nn.16, 18; Time Warner Reply at 16 & n.42; U S WEST Reply at 2-4.

<sup>106</sup> AirTouch Communications Reply at 10 (arguing that although section 251(e)(1) permits the Commission to delegate its authority over number administration, section 251(e)(2) does not have a similar provision permitting the Commission to delegate authority over number portability); NYNEX Comments at 10-11 & n.22 (pointing to sections 1, 251(b)(2), and 251(e) to argue that the Commission has "exclusive" jurisdiction over long-term number portability and cost support); PacTel Reply at 7-8 (arguing that section 251(e) gives the Commission exclusive authority to make rules for portability cost recovery); SBC Reply at 5-7 & nn. 16, 18 (arguing that sections 251(b)(2) and 251(e) give the Commission exclusive jurisdiction over number portability and that number portability affects both state and federal jurisdictions); U S WEST Reply at 2-4 (arguing that number portability falls under an exclusively federal jurisdiction because carriers must provide it pursuant to a federal mandate and federal requirements, as well as in accordance with federal interests in network interoperability, conservation of numbers, and the promotion of competition). *Cf.* Omnipoint Communications Reply at 8-9 (arguing that for control over the way costs are allocated among competing carriers, the Commission rather than the states should create a comprehensive allocation mechanism).

<sup>107</sup> AirTouch Communications Reply at 10; Omnipoint Communications Reply at 8-9; PacTel Reply at 7-8; Time Warner Reply at 16 & n.42. *Cf.* Bell Atlantic Comments at 3-4 (arguing that separate cost recovery mechanisms in every state would needlessly complicate matters and serve no public good).

administratively and financially burdensome, especially for smaller carriers and new entrants,<sup>108</sup> and that the Commission must ensure that carriers recover their portability costs.<sup>109</sup> AirTouch Paging asks us to preempt inconsistent state mechanisms.<sup>110</sup>

### 3. Discussion

28. We conclude that section 251(e)(2) requires the Commission to ensure that carriers bear the costs of providing long-term number portability on a competitively neutral basis for both interstate and intrastate calls. In reaching this conclusion, we note that section 251(e)(2) expressly and unconditionally grants the Commission authority to ensure that carriers bear the costs of providing number portability on a competitively neutral basis. We recognize that the United States Court of Appeals for the Eighth Circuit concluded that the Commission lacked jurisdiction under section 251 to promulgate pricing rules for interconnection, unbundled access, and resale.<sup>111</sup> The Eighth Circuit distinguished, however, the Commission's authority governing number portability, noting that section 251(e) contains a specific grant of authority to the Commission.<sup>112</sup> Section 251(e)(2) states that carriers shall bear the costs of number portability "as determined by the Commission," and does not distinguish between costs incurred in connection with intrastate calls and costs incurred in connection with interstate calls. Thus, we conclude that section 251(e)(2) addresses both interstate and intrastate matters and overrides section 2(b)'s reservation of authority to the states over intrastate matters.

29. Consequently, we find that section 251(e)(2) authorizes the Commission to provide the distribution and recovery mechanism for all the costs of providing long-term number portability. We conclude that an exclusively federal recovery mechanism for long-term number portability will enable the Commission to satisfy most directly its competitive neutrality mandate, and will minimize the

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<sup>108</sup> AirTouch Communications Reply at 10 (arguing that the transaction costs of dealing with as many as 51 different locally designed allocation mechanisms would burden smaller carriers and new entrants). *Cf.* Bell Atlantic Comments at 3-4 (arguing that the Commission should create a simple national cost allocation mechanism); Omnipoint Communications Reply at 8-9 (arguing that for expeditious deployment, the Commission rather than each state should create the allocation mechanism); SBC Reply at 5-7 & n.18 (arguing that state-specific allocation mechanisms would prove problematic).

<sup>109</sup> U S WEST Reply at 2-4 (arguing that the Commission may not rely on state mechanisms to make up any recovery shortfall).

<sup>110</sup> AirTouch Paging Comments at 6-9.

<sup>111</sup> *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 792-800 & n. 21 (8th Cir. 1997), *cert. granted sub nom. AT&T Corp. v. Iowa Utils. Bd.*, 118 S. Ct. 879 (1998).

<sup>112</sup> *See Iowa Utils. Bd. v. FCC*, 120 F.3d at 792, 794 & n.10, 795 & n.12, 802 & n.23, 806 (stating that "the FCC is specifically authorized to issue regulations under subsections 251(b)(2) [and] ... 251(e)"). *See also Order & Further Notice*, 11 FCC Rcd. at 8417 (explaining that unlike the interconnection order, the number portability proceeding need not reach the issue whether section 251 gives the Commission general pricing authority because the statute grants the Commission the express authority to set competitively neutral pricing principles for number portability).

administrative and enforcement difficulties that might arise were jurisdiction over long-term number portability divided. Further, such an approach obviates the need for state allocation of the shared costs of the regional databases, a task that would likely be complicated by the databases' multistate nature. Under the exclusively federal number portability cost recovery mechanism, incumbent LECs' number portability costs will not be subject to jurisdictional separations. Instead, we will allow incumbent LECs to recover their costs pursuant to requirements we establish in this *Third Report and Order*.

## **B. Scope of Section 251(e)(2)**

### **1. Background**

30. Section 251(e)(2) states that "[t]he cost of establishing ... number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."<sup>113</sup> The Commission tentatively concluded in the *Further Notice* that the competitive neutrality requirements of section 251(e)(2) apply to shared costs and carrier-specific costs directly related to providing number portability, but not to costs not directly related to providing number portability.<sup>114</sup> The Commission tentatively concluded that it would not create a particular recovery mechanism for carrier-specific costs not directly related to providing number portability.<sup>115</sup> Instead, the Commission tentatively concluded that carriers would bear such costs as network upgrades.<sup>116</sup> The Commission also tentatively concluded that section 251(e)(2) governs the distribution of costs among carriers, but not the recovery of those costs from end-users.<sup>117</sup> The Commission reasoned that "[t]his interpretation is borne out by the plain language of the statute, which only requires that telecommunications carriers bear the costs of number portability."<sup>118</sup> The Commission sought comment on these tentative conclusions.<sup>119</sup>

### **2. Positions of the Parties**

31. Bell Atlantic argues that section 251(e)(2) applies to only the costs that LECs incur to meet their number portability obligations under section 251(b)(2), and does not govern number portability costs of other telecommunications carriers because such carriers are not subject to 251(b)(2).<sup>120</sup>

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<sup>113</sup> 47 U.S.C. § 251(e)(2).

<sup>114</sup> *Order & Further Notice*, 11 FCC Rcd. at 8460, 8465-66.

<sup>115</sup> *Id.* at 8465.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.* at 8460.

<sup>118</sup> *Id.*

<sup>119</sup> *Id.* at 8460, 8465-66.

<sup>120</sup> Bell Atlantic Comments at 2-3.

32. Bell Atlantic, PacTel, SBC, AT&T, MCI, and GSA, as well as a number of competitive LECs, CMRS providers, and state commissions, agree with the Commission's tentative conclusion that section 251(e)(2) does not apply to costs not directly related to number portability. They argue that because network upgrade costs are associated with the provision of a wide range of services, such expenditures are not costs of establishing number portability.<sup>121</sup> These parties further argue that identifying costs for section 251(e)(2) treatment other than those necessary to implement number portability would artificially raise the costs not only of number portability, but of local competition in general,<sup>122</sup> that carriers should not be required to subsidize nonportability-related improvements of other carriers' networks,<sup>123</sup> and that excluding such costs encourages carriers to upgrade their networks efficiently based on market forces and customer demand.<sup>124</sup> The California Department of Consumer Affairs agrees that section 251(e)(2) does not apply to indirect costs,<sup>125</sup> but also argues that section 251(e)(2) governs only the implementation costs of establishing number portability, and not the ongoing costs of portability once it is in place.<sup>126</sup>

33. A number of small LECs, competitive LECs, and state commissions, as well as MCI and the TRA, argue that section 251(e)(2) applies only to the distribution of number portability costs among telecommunications carriers, and not to the recovery of those costs from end-users, because the statute discusses how carriers should bear costs but makes no mention of end-user customers.<sup>127</sup> AirTouch

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<sup>121</sup> ALTS Comments at 2; Bell Atlantic Comments at 2; Calif. Pub. Utils. Comm'n Comments at 15; Colo. Pub. Utils. Comm'n Comments at 5; Florida Pub. Servs. Comm'n Comments at 5-6; Frontier Comments at 3; GSA Comments at 2-3; MCI Comments at 10-11; Ohio Pub. Utils. Comm'n Comments at 3; PacTel Comments at 11-12; SBC Comments at 9 n.15; TRA Comments at 4, 12-13; Time Warner Comments at 2-3; Wash. Utils. Transp. Comm'n Reply at 3. *Cf.* AirTouch Paging Reply at 2 (arguing that carriers should bear their own costs not directly related to number portability, and should treat them as network upgrade costs, because these costs would have been incurred even absent the number portability requirement); AT&T Comments at 17 (arguing that even absent a number portability requirement carriers regularly undertake network modifications, such as the installation of SS7 capability, that allow carriers to offer new services or improve existing ones); Mo. Pub. Servs. Comm'n Comments at 5 (arguing that carriers should bear their own upgrade costs because such upgrades permit carriers to provide advanced services unrelated to number portability).

<sup>122</sup> AT&T Comments at 4-5, 17; Scherers Communications Group Comments at 2.

<sup>123</sup> AT&T Comments at 17; GSA Comments at 2-3; Omnipoint Comments at 4-6; Scherers Communications Group Comments at 2; TRA Comments at 4, 12-13; WinStar Comments at 6-8. *Cf.* Time Warner Reply at 12-13 (arguing that carriers should bear their own costs not directly related to number portability because the industry should not be required to pay for basic network upgrades that can be used for revenue-generating services).

<sup>124</sup> AT&T Comments at 17; NCTA Reply at 4; Omnipoint Comments at 4-6; PCIA Comments at 8; WinStar Comments at 6-8. *Cf.* Time Warner Reply at 12-13 (arguing that carriers would overstate their costs not directly related to number portability if they could recover some of them from other carriers).

<sup>125</sup> Calif. Dep't Consumer Affairs Comments at 9-10, 25.

<sup>126</sup> *Id.* at 3 & n.1, 14, 17-18.

<sup>127</sup> ALTS Comments at 2; Calif. Pub. Utils. Comm'n Comments at 4; Colo. Pub. Utils. Comm'n Comments at 5; Ill. Commerce Comm'n Comments at 3-4; MCI Reply at 12-13; Ohio Pub. Utils. Comm'n Comments at 3; Time

Communications, USTA, and a number of incumbent LECs, on the other hand, argue that section 251(e)(2) applies to recovery, as well.<sup>128</sup>

34. Most commenters that address the issue argue that we should apply to section 251(e)(2) the definition of "telecommunications carrier" found in section 3 of the Act.<sup>129</sup> The California Public Utilities Commission, on the other hand, argues that the definition of telecommunications carriers should be different for different cost categories and, at least for shared costs, should include carriers that appear on end-user's bills because all such carriers will need to obtain access to the regional databases to terminate calls.<sup>130</sup>

### 3. Discussion

35. The language and legislative history of section 251(e)(2) provides only limited guidance concerning the meaning of section 251(e)(2).<sup>131</sup> Accordingly, we interpret the terms of section 251(e)(2) in ways that will best implement its goals. The 1996 Act amended the 1934 Act "to provide for a pro-competitive, de-regulatory national policy framework [and to open] all telecommunications markets to

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Warner Comments at 5-6; TRA Comments at 4; Wash. Utils. Transp. Comm'n Reply at 3. Cf. NTCA/OPASTCO Comments at 11-12 (arguing that by referring only to carriers in section 251(e)(2), Congress intended service providers, and not subscribers directly, to bear the costs of number portability).

<sup>128</sup> AirTouch Communications Reply at 13-14 (arguing that to be competitively neutral the Commission must neither mandate nor prohibit any particular recovery mechanism); Ameritech Reply at 6-8 & nn.10-11 (arguing that competitive neutrality requires a uniform end-user surcharge); Bell Atlantic Comments at 7-8 (arguing that to be competitively neutral, the Commission must require all telecommunications carriers to recover their costs in proportion to the revenues they bill); GTE Comments at 8-9, 11 (arguing that competitive neutrality requires that carriers recover all their number portability costs through a uniform, explicit, mandatory end-user charge); NYNEX Comments at 10-11 (arguing that distribution and recovery are inseparable, and that competitive neutrality requires a fair and reasonable recovery mechanism); USTA Comments at 16 n.12 (arguing that competitive neutrality should apply to distribution and recovery).

<sup>129</sup> ALTS Comments at 2; Calif. Dep't Consumer Affairs Comments at 3 & n.2; Colo. Pub. Utils. Comm'n Comments at 5; NYNEX Comments at 5 (citing paragraph in *Order & Further Notice* that references definitions in 1934 Act); Ohio Pub. Utils. Comm'n Comments at 4; SBC Comments at 3-4; Time Warner Comments at 5; U S WEST Reply at 12-13; USTA Reply at 3; Wash. Utils. Transp. Comm'n at 3. See also *Order & Further Notice*, 11 FCC Rcd. at 8357, 8419 (1996) (using definitions in section 3 to interpret the meaning of the "all telecommunications carriers" language of section 251(e)(2) for purposes of the interim portability cost recovery mechanism).

<sup>130</sup> Calif. Pub. Utils. Comm'n Comments at 1-2, 5.

<sup>131</sup> With respect to number portability, the conference agreement states only that "[t]he costs for numbering administration and number portability shall be borne by all providers on a competitively neutral basis." S. CONF. REP. NO. 104-230, at 122 (1996). Investigation of the bills in which these terms originate, and the floor debate surrounding them, does not resolve the issue.

competition."<sup>132</sup> Section 251(b)(2) furthers those congressional goals by requiring all LECs to provide number portability so that subscribers of local telephone service can retain their telephone numbers when changing carriers.<sup>133</sup> At the same time, by requiring the Commission to ensure that all telecommunications carriers bear on a competitively neutral basis the costs of providing number portability, section 251(e)(2) seeks to prevent those costs from themselves undermining competition.<sup>134</sup>

36. We conclude that "the cost[s] of establishing ... number portability" to be borne on a competitively neutral basis include the costs that LECs incur to meet the obligations imposed by section 251(b)(2), as well as the costs other telecommunications carriers—such as IXCs and CMRS providers—incur for the industry-wide solution to local number portability.<sup>135</sup> The Act defines number portability as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."<sup>136</sup> Thus, "the costs of number portability" are the costs of enabling telecommunications users to keep their telephone numbers without degradation of service when they switch carriers. Such costs include the costs a carrier incurs to make it possible to transfer a telephone number to another carrier, as well as the costs involved in making it possible to route calls to customers who have switched carriers (*i.e.*, the costs involved in making the N-1 querying protocol possible). IXCs and CMRS providers, as well as LECs, incur these costs. Consequently, requiring the number portability costs of all carriers to be borne on a competitively neutral basis is a more reasonable reading of the statute than the narrower reading advocated by Bell Atlantic.<sup>137</sup> Furthermore, if Congress had intended the costs that were to be borne on a competitively neutral basis to be the costs of a subset of carriers, we believe it would have done so explicitly.<sup>138</sup>

37. We also adopt the tentative conclusion in the *Further Notice* that costs not directly related

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<sup>132</sup> *Id.* at 1.

<sup>133</sup> See 47 U.S.C. § 251(b)(2). For further discussion of the goals of section 251(b)(2), see notes 2-12, *supra*, and accompanying text.

<sup>134</sup> See 47 U.S.C. § 251(e)(2). For further discussion of the goals of section 251(e)(2), see notes 2-12, *supra*, and accompanying text.

<sup>135</sup> Under the N-1 protocol recommended by the industry under the auspices of the NANC, and the Commission's requirements for the provision of long-term number portability, almost all telecommunications carriers—including LECs, IXCs, and CMRS providers—will incur costs of number portability. See *supra* paragraphs 15 and 18.

<sup>136</sup> 47 U.S.C. § 153(30).

<sup>137</sup> See *supra* text accompanying note 120 for Bell Atlantic's argument.

<sup>138</sup> Compare 47 U.S.C. § 251(b)(2) (explicitly limiting to LECs the statutory obligation to provide number portability).

to providing number portability, as defined further below,<sup>139</sup> are not costs of providing number portability.<sup>140</sup> Consequently, such costs need not "be borne by all telecommunications carriers on a competitively neutral basis" under section 251(e)(2). Section 251(e)(2) requires that the costs of providing number portability be borne on a competitively neutral basis. Costs not directly related to providing number portability encompass a wide range of costs that carriers incur to provide telecommunications functions unrelated to number portability. We find no indication that Congress intended to place such costs within the scope of the competitive neutrality requirement of section 251(e)(2). Because costs not directly related to providing number portability are not subject to 251(e)(2), the Commission is not obligated under that section to create special provisions to ensure that they are borne on a competitively neutral basis.

38. The California Department of Consumer Affairs interprets "the costs of establishing ... number portability" in section 251(e)(2) narrowly, limiting it to mean only the costs that carriers initially incur to upgrade the public switched telephone network and create the databases.<sup>141</sup> This interpretation is overly restrictive. Transferring numbers and querying calls is what "establishes," *i.e.* "creates" or "brings into existence," long-term number portability for each successive end-user who wishes to switch carriers.<sup>142</sup> Although the majority of the costs of providing number portability are initial, one-time costs of reconfiguring carrier networks, carriers will incur other costs—such as upload, download, and query costs—on an ongoing basis. As discussed above, the Act defines number portability as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."<sup>143</sup> We conclude, therefore, that "the costs of establishing number portability" include not just the costs associated with the creation of the regional databases and the initial physical upgrading of the public switched telephone network, but also the ongoing costs, such as the costs involved in transferring a telephone number to another carrier and routing calls under the N-1 protocol.<sup>144</sup>

39. We also conclude that section 251(e)(2) requires the Commission to ensure that number portability costs are distributed among, as well as recovered by, carriers on a competitively neutral basis.

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<sup>139</sup> See *infra* Part IV.

<sup>140</sup> See *supra* note 114 and accompanying text.

<sup>141</sup> See *supra* text accompanying note 126 for the argument of the California Department of Consumer Affairs.

<sup>142</sup> Common dictionary definitions define the term "establish" as "to found or create" or "to bring into existence." See *The American Heritage Dictionary of the English Language* 246 (1980). See also *Webster's Ninth New Collegiate Dictionary* 425 (1984).

<sup>143</sup> See *supra* text accompanying note 8.

<sup>144</sup> Cf. *Order & Further Notice*, 11 FCC Rcd. at 8415 (arguing that the "statutory mandate that local exchange carriers provide number portability through [remote call forwarding, direct inward dialing], or other comparable arrangements until a long-term number portability approach is implemented" requires the Commission to "adopt cost recovery principles for currently available number portability that satisfy the 1996 Act").



Despite the Commission's tentative conclusion that section 251(e)(2) only applies to the distribution of number portability costs,<sup>145</sup> we now find ambiguous the scope of the language requiring that costs "be borne ... on a competitively neutral basis." We find further that reading section 251(e)(2) as applying to both distribution and recovery best achieves the congressional goal of ensuring that the costs of providing number portability do not restrict the local competition that number portability is intended to encourage. Because the manner in which carriers recover the costs of providing number portability could affect their ability to compete, we cannot ensure that number portability costs are "borne by all telecommunications carriers on a competitively neutral basis" unless we address both distribution and recovery.<sup>146</sup> If the Commission ensured the competitive neutrality of only the distribution of costs, carriers could effectively undo this competitively neutral distribution by recovering from other carriers. For example, an incumbent LEC could redistribute its number portability costs to other carriers by seeking to recover them in increased access charges to IXCs. Therefore, we find that section 251(e)(2) requires the Commission to ensure that both the distribution and recovery of intrastate and interstate number portability costs occur on a competitively neutral basis.

40. The provisions of section 3 of the Act, when read together, define "all telecommunications carriers" as all persons or entities other than aggregators that charge to transmit information for the public without changing the form or content of the information, regardless of the facilities they use.<sup>147</sup> Thus, we reject the California commission's definition of "all telecommunications carriers" as carriers of record on an end-user's bill, as well as with its contention that the definition should be different for different categories of costs.<sup>148</sup> Applying the statutory definition to section 251(e)(2), we conclude that the way all telecommunications carriers bear the costs of providing number portability—including incumbent LECs, competitive LECs, CMRS providers, IXCs, and resellers—must be competitively neutral as determined by the Commission.

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<sup>145</sup> See *supra* note 117 and accompanying text.

<sup>146</sup> We note that commenters that urge the Commission to require certain types of recovery, such as end-user charges, apparently assume that recovery falls within the scope of section 251(e)(2).

<sup>147</sup> See 47 U.S.C. § 153(44) (defining "telecommunications carrier" as "any provider of telecommunications services, except that such term does not include aggregators of telecommunications services"), § 153(46) (defining "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"), § 153(43) (defining "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"). The Act defines "aggregator" as any person or entity "that, in the ordinary course of its operations, makes telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services." 47 U.S.C. § 226(a)(2).

<sup>148</sup> See *supra* text accompanying note 130 for the California commission's argument.

## C. Competitive Neutrality

### 1. Background

41. The Commission noted in the *Order* that, in evaluating the costs and rates of telecommunications services, the Commission ordinarily applies principles of cost causation, under which the purchaser of a service pays at least the incremental cost of providing that service.<sup>149</sup> The Commission also recognized, however, that Congress intended number portability to remove the barrier to local competition created by end-user reluctance to change carriers when such a change requires obtaining a new telephone number.<sup>150</sup> Pricing number portability on a cost-causative basis could defeat this purpose because the nature of the costs involved with some number portability solutions might make it economically infeasible for some carriers to compete for a customer served by another carrier.<sup>151</sup> Consequently, the Commission interpreted Congress's competitive neutrality mandate to require the Commission to depart from cost-causation principles when doing so is necessary to ensure "that the cost of number portability borne by each carrier does not affect significantly any carrier's ability to compete with other carriers for customers in the marketplace."<sup>152</sup>

42. The Commission observed in the *Order* that interim number portability costs arise only when an end-user calls a customer who has changed from a local service provider using one switch to another local service provider using another switch.<sup>153</sup> These interim costs are initially incurred primarily by the local carrier that loses the customer, because that carrier must provide services such as call-forwarding to route calls to the customer on the acquiring carrier's switch.<sup>154</sup> Observing that some states had already adopted cost recovery mechanisms for interim number portability,<sup>155</sup> the Commission specified that to be competitively neutral any state-designed allocators for sharing the incremental costs of interim number portability: (1) must not give one service provider an appreciable, incremental cost advantage over another service provider when competing for a specific subscriber, and (2) must not disparately affect the ability of competing service providers to earn a normal return.<sup>156</sup>

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<sup>149</sup> *Order & Further Notice*, 11 FCC Rcd. at 8419-20.

<sup>150</sup> *See id.* (stating that "Congress mandated the use of number portability so that customers could change carriers with as little difficulty as possible").

<sup>151</sup> *See id.*

<sup>152</sup> *Id.*

<sup>153</sup> *Id.* at 8420.

<sup>154</sup> *Id.* at 8415-16.

<sup>155</sup> *Id.* at 8417.

<sup>156</sup> *Id.* at 8420-21. The Commission is currently considering a number of reconsideration petitions on this issue. *See, e.g., Bell South Petition for Reconsideration* (filed Aug. 26, 1996); *Cincinnati Bell Petition for Reconsideration* (filed Aug. 26, 1996); *MCI Petition for Clarification* (filed Aug. 26, 1996).

43. The Commission explained in discussing the first of these two requirements that, if a facilities-based LEC wins another facility-based LEC's customer, an incremental cost of interim number portability is created that equals the cost of forwarding calls to that customer in the future.<sup>157</sup> At the outset, these incremental, interim number-portability costs will fall predominantly on incumbent LECs that lose customers to facilities-based entrants.<sup>158</sup> Shifting all these incremental costs to the competitive LEC would not be competitively neutral, however, because the competitive LEC could suffer a competitive disadvantage when competing with the incumbent LEC for that subscriber.<sup>159</sup> Thus, the Commission concluded that the first prong of the test should require that the costs of interim number portability not place any one carrier at an appreciable, incremental cost disadvantage when competing for a subscriber.<sup>160</sup>

44. The Commission stated in discussing the second prong of the test that, if a carrier's cost of providing number portability were too large in relation to its expected profits, it might choose not to participate in the local service market.<sup>161</sup> For example, if an incumbent LEC and a new entrant were to be assessed the same amount of number portability costs, the small entrant's costs might be sufficiently large when compared to its projected profit to drive the entrant out of the market or even prevent it from entering in the first place. Thus, the Commission concluded that the second prong should require that the costs of interim number portability not disparately affect the ability of competing carriers to earn a normal return.<sup>162</sup>

45. The Commission stated in the *Order* that, with regard to recovery of the incremental costs of interim portability, at least four allocation mechanisms would meet the two-part test: (a) assessing an annual charge based upon each carrier's number of ported telephone numbers, (b) allocating number portability costs based upon number of lines, (c) assessing a uniform percentage of carriers' gross revenues that do not include charges they pay to other carriers, and (d) requiring each carrier to pay its own costs.<sup>163</sup>

46. The *Order* indicated that long-term number portability costs appear fundamentally different than interim number portability costs.<sup>164</sup> First, long-term number portability involves the cost of redesigning current networks to handle the database query system (*e.g.*, the cost of creating the databases, upgrading switch software, and purchasing SCPs), as well as the incremental cost of winning a subscriber (*e.g.*, the cost of uploading that customer's new LRN to the regional database and querying future calls

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<sup>157</sup> *Order & Further Notice*, 11 FCC Rcd. at 8418-20.

<sup>158</sup> *Id.* at 8415-16.

<sup>159</sup> *Id.* at 8420-21.

<sup>160</sup> *Id.* at 8420.

<sup>161</sup> *Id.* at 8421.

<sup>162</sup> *Id.*

<sup>163</sup> *Id.* at 8422.

<sup>164</sup> *Id.* at 8415-16.

from that customer to NXXs where number portability is available).<sup>165</sup> By contrast, because interim number portability solutions already exist in today's networks, the *Order* observed that they only give rise to the incremental cost of porting the next customer (*i.e.*, the cost of forwarding future calls to the ported customer's new switch).<sup>166</sup> Second, long-term number portability requires large infrastructure investments.<sup>167</sup> The *Order* noted that interim number portability, on the other hand, requires little infrastructure investment and involves relatively small costs.<sup>168</sup> Third, long-term number portability requires almost all carriers to incur porting and querying costs.<sup>169</sup> The *Order* pointed out that the costs of interim number portability will fall solely on carriers that lose local customers: such carriers must provide services such as call forwarding to route traffic to customers they lose to facilities-based competitors.<sup>170</sup> At the outset, the carriers losing customers will most often be incumbent LECs.<sup>171</sup> In addition, long-term number portability requires N-1 carriers to incur query costs for all interswitch calls to an NXX once number portability is available for that NXX, whether or not the terminating customer has ported a number.<sup>172</sup> By contrast, the *Order* indicated that the costs of interim number portability arise only when one customer calls another customer who has taken a number to a new carrier.<sup>173</sup>

47. Because of the different nature of interim and long-term number portability costs, the *Order* applied the cost recovery principles only to interim number portability.<sup>174</sup> The Commission sought comment in the *Further Notice* on whether to apply the same principles to long-term number portability, and tentatively concluded that the same principles should apply.<sup>175</sup>

48. The Commission chose in the *Order* to adopt uniform national rules regarding the implementation of number portability to ensure efficient and consistent nationwide use of number

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<sup>165</sup> *Id.*

<sup>166</sup> *Id.*

<sup>167</sup> *Id.*

<sup>168</sup> *Id.*

<sup>169</sup> *Id.*

<sup>170</sup> *Id.*

<sup>171</sup> *Id.*

<sup>172</sup> *See id.* at 8463. Carriers need not query calls that originate and terminate on the same switch. *See* NANC RECOMMENDATION, *supra* note 45, App. D (Architecture & Administrative Plan for Local Number Portability), ¶ 8 at 10 & fig. 2, scenarios 1 & 2.

<sup>173</sup> *See id.* at 8361-62, 8418-19.

<sup>174</sup> *See id.* at 8415-16.

<sup>175</sup> *Id.* at 8460.

portability methods and numbering resources.<sup>176</sup> The Commission did, nonetheless, allow states to implement state-specific databases and "opt out" of the regional database plan for long-term number portability within sixty days from the release of a Public Notice by the Common Carrier Bureau identifying the LNPAs.<sup>177</sup> The Commission tentatively concluded in the *Further Notice* that the competitive neutrality principles would still apply to states that opt out.<sup>178</sup>

## 2. Positions of the Parties

49. MobileMedia Communications and PCIA explicitly agree with the Commission's tentative conclusion to apply to long-term number portability the interpretation that competitive neutrality requires that the costs of number portability not affect significantly any carrier's ability to compete for subscribers.<sup>179</sup> Although no commenters disagree with this definition, Cincinnati Bell and GTE argue that competitive neutrality also requires the Commission to provide carriers with an explicit mechanism to recover all their portability costs. They argue that leaving recovery of portability costs to rate increases would place incumbent LECs at a significant competitive disadvantage because competition and state regulation constrain the ability of incumbent LECs to raise their end-user rates,<sup>180</sup> and that failure to allow full cost recovery may result in an unconstitutional taking of property.<sup>181</sup>

50. Most commenters that address the issue also advocate applying to long-term number portability costs the Commission's two-part competitive neutrality test.<sup>182</sup> A few commenters, however, propose additional criteria. AT&T argues that any allocation must also not shift one carrier's number portability costs to another carrier,<sup>183</sup> and must encourage carriers to minimize portability costs.<sup>184</sup> The

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<sup>176</sup> *Id.* at 8370-71.

<sup>177</sup> *Id.* at 8402-03.

<sup>178</sup> *Id.* at 8460.

<sup>179</sup> MobileMedia Communications Reply at 3; PCIA Comments at 4.

<sup>180</sup> GTE Comments at 8-9.

<sup>181</sup> Cincinnati Bell Comments at 6; GTE Comments 9-10.

<sup>182</sup> AirTouch Communications Comments at 1, 2; ALTS Comments at 3; Ameritech Reply at 5; AT&T Comments at 6 n.5; Calif. Dep't Consumer Affairs Comments at 11; Calif. Pub. Utils. Comm'n Comments at 4-5; Cincinnati Bell Comments at 6; Colo. Pub. Utils. Comm'n Comments at 5-6; Fla. Pub. Servs. Comm'n Comments at 2; GST Reply at 3-4; GTE Comments at 7; MCI Comments at 2; MFS Reply at 9-10; MobileMedia Reply at 3; NCTA Reply at 3-4; Ohio Pub. Utils. Comm'n Comments at 5; PCIA Comments at 4-5; Sprint Comments at 4; TRA Comments at 6; Teleport Comments at 3; Time Warner Comments at 6; Wash. Utils. Transp. Comm'n Reply at 3-4; WinStar Reply at 2-4.

<sup>183</sup> AT&T Comments at 6 n.5.

<sup>184</sup> *Id. Cf.* Ameritech Reply at 5-8 (arguing competitive neutrality requires minimizing pooling).

California Department of Consumer Affairs, Cincinnati Bell, and GTE argue that any allocation must also not influence customer choice of service provider.<sup>185</sup>

51. BellSouth argues that the two-part test is inapplicable to the costs of long-term number portability because the Commission developed the test for the substantially different costs of interim number portability.<sup>186</sup> BellSouth also maintains that the "competing for a customer" part of the first prong does not coincide with the language of section 251(e)(2), which speaks of all telecommunications carriers, not just carriers that compete for customers.<sup>187</sup> Further, BellSouth contends that the "normal rate of return" language of the second prong "smacks of protectionist, rate of return regulation."<sup>188</sup> Instead, BellSouth argues that a competitively neutral mechanism must (1) equitably distribute among all carriers the shared costs and carrier-specific direct costs caused by the federal mandate, and not impose a disproportionately greater burden on any one telecommunications carrier relative to another; (2) not distort service prices so as to influence customer choice among alternative carriers; and (3) be characterized by administrative simplicity.<sup>189</sup> The United States Telephone Association (USTA) argues that the first prong should ensure that no service provider has an advantage based on *any* number portability costs, not just based on the incremental costs of serving a porting subscriber.<sup>190</sup>

### 3. Discussion

52. We adopt the Commission's tentative conclusion to apply to long-term number portability the Order's definition of competitive neutrality as requiring that "the cost of number portability borne by each carrier does not affect significantly any carrier's ability to compete with other carriers for customers in the marketplace."<sup>191</sup> Applying this definition will ensure that the cost of implementing number portability does not undermine the goal of the 1996 Act to promote a competitive environment for the provision of local communications services.

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<sup>185</sup> Calif. Dep't Consumer Affairs Comments at i, 11-12 (arguing competitive neutrality from a consumer standpoint means that the amount of portability costs for one LEC's customers is not disproportionately higher than for another LEC's customers, and no customers can avoid their portion by changing providers); Cincinnati Bell Comments at 6; GTE Comments at 7.

<sup>186</sup> BellSouth Comments at 2-3; BellSouth Reply at 2-4.

<sup>187</sup> BellSouth Comments at 3.

<sup>188</sup> *Id.* at 3-4. *Cf.* Fla. Pub. Servs. Comm'n Comments at 2 (arguing that a competitively neutral allocator could still affect the ability of less efficient carriers to earn a normal return).

<sup>189</sup> BellSouth Reply at 2-4; BellSouth Comments at 2-4.

<sup>190</sup> USTA Comments at 14-15.

<sup>191</sup> *See supra* note 152 and accompanying text.

53. We also adopt the Commission's tentative conclusion<sup>192</sup> to apply to long-term number portability the two-part test the Commission developed to determine whether carriers will bear the interim costs of number portability on a competitively neutral basis. Under this test, the way carriers bear the costs of number portability: (1) must not give one service provider an appreciable, incremental cost advantage over another service provider when competing for a specific subscriber, and (2) must not disparately affect the ability of competing service providers to earn a normal return.<sup>193</sup>

54. We find no merit in BellSouth's argument that the different nature of long-term number portability costs makes the two-part test inapplicable.<sup>194</sup> We see no reason why we should not use such a test to implement the single statutory competitive neutrality standard. Although the nature of the costs of long-term number portability differs from the nature of the costs of interim number portability, these differences do not alter Congress' competitive neutrality mandate. Thus, the analysis the Commission employed in the *Order & Further Notice* to develop the two-part test<sup>195</sup> is equally valid here, and we adopt the same competitive neutrality standards for the costs of long-term number portability as for the costs of interim number portability.

55. We disagree with USTA's proposal that the first prong of the competitive neutrality test should focus on all number portability costs, rather than just the incremental number portability costs of winning the next subscriber that ports a telephone number.<sup>196</sup> The second prong, which ensures that all portability costs do not disparately affect a carrier's ability to earn a normal return, addresses USTA's concern that the overall costs of number portability do not handicap certain carriers. The first prong ensures that the way costs are allocated does not disadvantage carriers when competing for a subscriber. Consequently, it appropriately focuses on the incremental cost of serving the next subscriber that ports a number.

56. We also disagree with BellSouth that the "normal return" prong of the two-part test somehow constitutes rate-of-return regulation.<sup>197</sup> The second prong does not guarantee any particular rate of return, but merely states that an allocator should not disparately affect a carrier's ability to earn a normal return. We further reject BellSouth's view that the "competing for a subscriber" part of the competitive neutrality test is invalid because section 251(e)(2) speaks of "all telecommunications carriers," rather than just carriers that compete for a subscriber.<sup>198</sup> Section 251(e)(2) requires the Commission to ensure that

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<sup>192</sup> See *supra* text accompanying note 175.

<sup>193</sup> See *supra* text accompanying note 156.

<sup>194</sup> See *supra* text accompanying note 186 for BellSouth's argument.

<sup>195</sup> See *supra* text accompanying notes 157-162.

<sup>196</sup> See *supra* note 190 and accompanying text for USTA's argument.

<sup>197</sup> See *supra* text accompanying note 188 for BellSouth's argument.

<sup>198</sup> See *supra* text accompanying note 187 for BellSouth's argument.

"[t]he costs of establishing ... number portability are borne by all telecommunications carriers on a competitively neutral basis." Thus, the statute requires us to ensure that the costs of number portability do not affect the ability of carriers to compete. Because the ability of a carrier to compete is measured largely by its ability to attract subscribers, we believe that the "competing for a customer" part of the competitive neutrality test is valid. Furthermore, we apply the "normal return" prong of the test to all carriers, not just carriers that compete for end-user customers.

57. We decline to adopt BellSouth's three-prong competitive neutrality test.<sup>199</sup> First, although we agree with BellSouth that number portability costs should not disproportionately burden one carrier over another, our test already ensures this by evaluating the effect on a carrier's abilities to compete and earn a normal return.<sup>200</sup> Second, we agree with BellSouth that an allocator should not encourage or discourage end-users to change service providers, but this criterion is effectively embodied in the first prong of the test. Third, we agree with BellSouth that administrative simplicity is a valid objective, but not in derogation of the competitive neutrality requirement of the statute.

58. We disagree with AT&T that section 251(e)(2) prohibits a distribution mechanism that shifts costs among carriers.<sup>201</sup> To the contrary, section 251(e)(2) requires the distribution of number portability costs among carriers if necessary to ensure competitive neutrality. We also disagree with AT&T's contention that section 251(e)(2) requires that any allocator encourage carriers to minimize costs.<sup>202</sup> Although minimizing costs is preferable, it is not a goal that stems from, or takes precedence over, the statutory mandate of competitive neutrality. We agree with the California Department of Consumer Affairs, Cincinnati Bell, and GTE that any allocation should not influence customer choice of service provider.<sup>203</sup> This is simply a restatement of the first prong of the test: that an allocator must not give one service provider an appreciable, incremental cost advantage over another service provider when competing for a specific subscriber.

59. We disagree with Cincinnati Bell and GTE that the "competitive neutrality" mandate requires the Commission to ensure that carriers recover all their number portability costs.<sup>204</sup> Nothing in section 251(e)(2) states that the Commission must guarantee recovery of such costs.<sup>205</sup> Instead, section

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<sup>199</sup> See *supra* note 189 and accompanying text for BellSouth's test.

<sup>200</sup> See GST Reply at 4-5 (arguing that the Commission's principles already address BellSouth's concerns); WinStar Reply at 3-4 (arguing that the Commission's principles already address the incumbent LECs' concerns).

<sup>201</sup> See *supra* text accompanying note 183 for BellSouth's argument.

<sup>202</sup> See *supra* text accompanying note 184 for AT&T's argument.

<sup>203</sup> See *supra* text accompanying note 185 for their arguments.

<sup>204</sup> See *supra* text accompanying notes 180-181 for their arguments.

<sup>205</sup> A House amendment to S. 652 not adopted in conference would have required the Commission to establish regulations ensuring that LECs receive full compensation for the cost of providing number portability.



251(e)(2) requires that the Commission ensure that the way all carriers bear the costs of providing number portability is competitively neutral. Even if a carrier does not recover all its costs, the Commission's rules will satisfy section 251(e)(2) so long as that carrier's ability to compete for subscribers is not significantly affected. Some parties have also raised Fifth Amendment concerns in connection with the inability of carriers to recover their costs.<sup>206</sup> We address recovery of number portability costs and the Fifth Amendment in Part VI.

60. Accordingly, we adopt for purposes of long-term number portability the Order's definition of competitive neutrality as requiring "that the cost of number portability borne by each carrier does not affect significantly any carrier's ability to compete with other carriers for customers in the marketplace."<sup>207</sup> We also adopt the two-part test for determining whether this definition is met.<sup>208</sup> We apply this interpretation of competitive neutrality to the shared costs of providing number portability in Part V. We find it unnecessary to address whether to apply our competitive neutrality principles to states that opt out of the regional database plan<sup>209</sup> because no state elected to opt out by the July 1, 1997, deadline.<sup>210</sup> We apply the interpretation of competitive neutrality to the carrier-specific costs directly related to providing number portability in Part VI.

#### IV. CATEGORIZATION OF COSTS

##### A. Background

61. In the *Further Notice*, the Commission tentatively divided the costs raised in this proceeding into three categories: "costs incurred by the industry as a whole" (*i.e.* shared costs), "carrier-specific costs directly related to providing number portability," and "carrier-specific costs not directly

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*See* S. CONF. REP. 104-230, at 120-21 (1996) (stating that section 242(b)(4) of the House amendment "directs the Commission to establish regulations requiring full compensation to the LEC for costs of providing services related to ... number portability"); S. 652, 104th Cong., § 242(b)(4)(D) (1995) (as passed by the House and sent to conference Oct. 12, 1995), *reprinted in* 141 CONG. REC. H9954 (daily ed. Oct. 12, 1995) (requiring "that the costs that a carrier incurs in offering ... number portability ... shall be borne by the users of such ... number portability").

<sup>206</sup> *See* notes 181, 425, and accompanying text.

<sup>207</sup> *See supra* note 152 and accompanying text.

<sup>208</sup> *See supra* paragraph 42 for the two-part test.

<sup>209</sup> *See supra* text accompanying notes 176-178 for discussion of opting out.

<sup>210</sup> *See 60 Day Time Period During Which States May Elect To Opt Out of Regional Database System Commences*, CC Docket No. 95-116, Public Notice, DA 97-916 (rel. May 2, 1997) (NANC Recommendations Phase Public Notice). A copy of the NANC Recommendations Phase Public Notice was published in the Federal Register on May 8, 1997. *See* 62 Fed. Reg. 25157 (1997).

related to number portability."<sup>211</sup> The Commission tentatively defined shared costs as "costs incurred by the industry as a whole, such as those incurred by the third-party administrator to build, operate, and maintain the databases needed to provide number portability."<sup>212</sup> The Commission subcategorized the number portability costs of facilities shared by all carriers into: "(a) non-recurring costs, including the development and implementation of the hardware and software for the database; (b) recurring (monthly or annually) costs, such as the maintenance, operation, security, administration, and physical property associated with the database; and (c) costs for uploading, downloading, and querying number portability database information."<sup>213</sup>

62. The Commission tentatively defined carrier-specific costs directly related to providing number portability as costs such as "the costs of purchasing the switch software necessary to implement a long-term number portability solution."<sup>214</sup> The Commission tentatively defined carrier-specific costs not directly related to providing number portability as costs such as "the costs of network upgrades necessary to implement a database method."<sup>215</sup> The Commission listed as examples of costs not directly related to providing number portability "the costs of upgrading SS7 capabilities or adding intelligent network (IN) or advanced intelligent network (AIN) capabilities," and explained that "[t]hese costs are associated with the provision of a wide variety of services unrelated to the provision of number portability, such as custom local area signaling service (CLASS) features."<sup>216</sup> The Commission sought comment on all of its tentative definitions.<sup>217</sup>

## B. Positions of the Parties

63. Most incumbent LECs, competitive LECs, IXC, and state commissions agree that the Commission should categorize the costs raised in this proceeding as shared costs, carrier-specific costs directly related to number portability, and carrier-specific costs not directly related to number portability, which they often designate as Type 1, Type 2, and Type 3 costs, respectively.<sup>218</sup> CTIA and CommNet

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<sup>211</sup> *In re Telephone Number Portability*, First Report and Order & Further Notice of Proposed Rulemaking, 11 FCC Rcd. 8352, 8459 (1996) (Order & Further Notice).

<sup>212</sup> *Id.* at 8459, 8461.

<sup>213</sup> *Id.* at 8463.

<sup>214</sup> *Id.* at 8459, 8464.

<sup>215</sup> *Id.* at 8459.

<sup>216</sup> *Id.* at 8465. CLASS services take advantage of interoffice signalling to offer advanced features such as call forwarding, caller identification (caller ID), call waiting, and callback. *See generally* HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 130-31 (11th ed. 1996).

<sup>217</sup> *Order & Further Notice*, 11 FCC Rcd. at 8459, 8463.

<sup>218</sup> Ameritech Comments at 3; AT&T Comments at 4-5; Bell Atlantic Comments at 2 & n.2; BellSouth Comments at 5-7; Calif. Dep't Consumer Affairs Comments at 8-9; Calif. Pub. Utils. Comm'n Comments at 4;

Cellular, however, argue that determining whether the tripartite division of long-term number portability costs will work in the wireless context is difficult because the wireless industry is still in the early stages of developing a number portability solution.<sup>219</sup>

64. Most commenters that address the issue also agree with the Commission's tentative definition of shared costs,<sup>220</sup> as well as with the Commission's proposed subcategorization of shared costs into nonrecurring costs and recurring costs, as well as upload, download, and query costs.<sup>221</sup> The Public Utilities Commission of Ohio, however, argues that the Commission should reclassify upload, download, and query costs as recurring shared costs because allocating the actual costs of carriers' uploads, downloads, and queries for a particular database does not appear necessary.<sup>222</sup> Other commenters argue that the costs of uploading, downloading, and querying are more appropriately considered carrier-specific costs directly related to number portability because these functions involve interaction with a carrier's network.<sup>223</sup>

65. U S WEST agrees with the Commission's tentative definition of shared costs, but argues that once portions of the shared costs are allocated to individual carriers, those portions should be treated as carrier-specific costs directly related to number portability. U S WEST reasons that once allocated,

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Cincinnati Bell Comments at 1-2; Colo. Pub. Utils. Comm'n Comments at 4-5; Frontier Comments at 1; GSA Comments at 2; GTE Comments at 3-4; Iowa Network Servs. Reply at 3-4; MCI Comments at 2; NYNEX Comments at 3; Ohio Pub. Utils. Comm'n Comments at 3; PacTel Comments at 4; PCIA Comments at 7; SBC Comments at 9 n.15; Scherers Communications Group Comments at 1; Sprint Comments at 1-2; Time Warner Comments at 2; TRA Comments at 3-4; U S WEST Comments at 3.

<sup>219</sup> CTIA Comments at 4-5 (arguing that the additional complexity of the wireless network is likely to blur the distinctions among categories, and that number portability may require CMRS providers to modify their existing network infrastructure in ways that will not enable them to provide additional service); CommNet Cellular Reply at 2-5.

<sup>220</sup> Ameritech Comments at 3; ALTS Comments at 1-2; AT&T Comments at i-ii, 4-7; Bell Atlantic Comments at 2 & n.2; BellSouth Comments at 5-6; Calif. Dep't Consumer Affairs Comments at 8-9; Calif. Pub. Utils. Comm'n Comments at 1, 4; Cincinnati Bell Comments at i, 1-2; Colo. Pub. Utils. Comm'n Comments at 4-5; Frontier Comments at 1; GSA Comments at 2; GTE Comments at 4; Iowa Net. Servs. Reply at 3-4; MCI Comments at 2; Nextel Comments at 1-2; NYNEX Comments at 3-4 & n.4; Ohio Pub. Utils. Comm'n Comments at 3; PacTel Comments at 4-5; SBC Comments at 1, 9 n.14; Scherers Communications Group Comments at 1; Sprint Comments at iii, 1-2; TRA Comments at 3-4, 6; Teleport Comments at i, 1; Time Warner Comments at 1 n.2, 2; U S WEST Comments at 3-4, 9-10; USTA Comments at iii, 1-2, 10.

<sup>221</sup> ALTS Comments at 5; BellSouth Comments at 5-6; Cincinnati Bell Comments at 2; GST Reply at 8; Iowa Network Servs. Reply at 6-7; MCI Comments at 3; PacTel Comments at 4-5; PCIA Comments at 7; TRA Comments at 10; WinStar Reply at 10.

<sup>222</sup> Ohio Pub. Utils. Comm'n Comments at 7-8.

<sup>223</sup> Ameritech Comments at 10; Calif. Dep't Consumer Affairs Comments at 16-17; Calif. Pub. Utils. Comm'n Comments at 8; Mo. Pub. Servs. Comm'n Comments at 3; Time Warner Comments at 10.

those costs become associated with specific carriers, and are no longer unattributable costs of the industry as a whole.<sup>224</sup>

66. Many commenters agree with the Commission's tentative definitions of carrier-specific costs directly and not directly related to number portability.<sup>225</sup> The California Department of Consumer Affairs, the California Public Utilities Commission, and Nextel, on the other hand, assert that the Commission should develop more precise definitions.<sup>226</sup> Ameritech argues that carrier-specific costs directly related to number portability should include the costs of network upgrades that are necessary to implement number portability.<sup>227</sup> Several incumbent LECs and Iowa Network Services contend that carrier-specific costs directly related to number portability should include both the costs of unplanned network upgrades that carriers would not have deployed but for number portability<sup>228</sup> as well as the costs associated with portability-related acceleration of planned upgrades that carriers would not have deployed

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<sup>224</sup> U S WEST Comments at 3-4, 10 n.19. *Cf.* Ameritech Reply at 6 (arguing that once the shared costs are allocated to specific carriers the carriers can recover them on the same basis as the carrier-specific costs directly related to number portability).

<sup>225</sup> AT&T Reply at 4-8 & n.9 (arguing that in the 800 number portability proceeding, the Commission defined SS7 upgrades as network upgrades not related to 800 number portability); Bell Atlantic Comments at 2 & n.2; Colo. Pub. Utils. Comm'n Comments at 4-5; GSA Comments at 2-3; MCI Comments at 2; Ohio Pub. Utils. Comm'n Comments at 3; SBC Comments at 9 n.15; Sprint Comments at 1-4; Teleport Comments at 7, 9; TRA Comments at 3-4 (but noting that it is difficult to draw a distinction between carrier-specific costs directly and not directly related to number portability).

<sup>226</sup> Calif. Dep't Consumer Affairs Comments at 9 (suggesting that the Commission confer with technology experts to determine which, if any, technology upgrades should be treated as carrier-specific costs directly related to number portability); Calif. Pub. Utils. Comm'n Reply at 3-4 (cautioning that the Commission needs to scrutinize portability costs further before determining which are directly and not directly related to number portability); Nextel Communications Comments at 2 (requesting that the Commission develop more precise definitions of carrier-specific costs directly and not directly related to number portability so that carriers know how their various costs will be treated).

<sup>227</sup> Ameritech Reply at 9-10 (characterizing as carrier-specific costs directly related to number portability any costs a carrier incurs to increase the capacity or enhance the capabilities of existing equipment, facilities, systems, and software to meet the demands of number portability).

<sup>228</sup> Cincinnati Bell Reply at 2-3; GTE Reply at 9-12 (arguing that any cost to modify an existing network function that a LEC can demonstrate was not part of its historical planning horizon either should be considered direct, or the carrier should be granted a waiver of the section 251(b)(2) portability requirement on the grounds that portability is not technically feasible for the carrier absent the upgrade); Iowa Network Servs. Reply at 4-5; PacTel Comments at 8-9; U S WEST Comments at 10-11. *Cf.* USTA Comments at 2-3 (advocating creation of a Type 2a category for carrier-specific costs incurred solely because of portability by carriers with universal service obligations and less than two percent of the nation's access lines). *But see* Time Warner Reply at 13 n.34 (arguing that the "but for" position essentially advocates recovering carrier-specific costs not directly related to number portability from the industry as a whole).

as early but for the Commission's schedule for deploying number portability.<sup>229</sup> U S WEST and USTA would exclude the value of any nonportability-related benefits from the planned or accelerated upgrades.<sup>230</sup>

67. USTA also asks us to create a separate category for carrier-specific costs that carriers with universal service obligations and less than two percent of the nation's access lines incur solely because of the number portability mandate and for which no business case can be made.<sup>231</sup> USTA argues that creating such a category would recognize the expense that number portability will impose on many small and rural LECs in the 100 largest MSAs that would not deploy advanced intelligent network technology if they were not required to provide number portability.<sup>232</sup> USTA further suggests that we create a category for portability-related costs carriers incur to continue certain services—such as Extended Area Service into a metropolitan area—near areas where portability has been implemented.<sup>233</sup> USTA argues that such a category would accommodate rural carriers not required to provide long-term number portability under the Commission's implementation schedule that may still incur "number portability costs" to continue services such as direct trunking to nearby areas where the Commission's implementation schedule does require long-term number portability.<sup>234</sup>

### C. Discussion

68. We adopt the Commission's tentative conclusion to divide the costs raised by this proceeding into three categories: (1) shared costs; (2) carrier-specific costs directly related to providing number portability; and (3) carrier-specific costs not directly related to providing number portability. Most commenters support this categorization.<sup>235</sup> The division of costs between shared costs and carrier-specific costs directly related to providing number portability recognizes that some costs of providing number portability are incurred by regional database administrators, while others are incurred by carriers in the first instance. The division between carrier-specific costs directly related to providing number portability

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<sup>229</sup> BellSouth Comments at 6 (defining as a carrier-specific cost directly related to number portability the lost time-value of money associated with number portability-related advancements of planned network modifications); Cincinnati Bell Reply at 2-3 (defining as a carrier-specific cost directly related to number portability the opportunity cost or increase in net present value attributable to making an investment sooner than otherwise would have occurred); PacTel Comments at 8-9; U S WEST Comments at 10-11. *But see* Time Warner Reply at 9 (arguing that even if a carrier must make an upgrade sooner than planned, the fact that a carrier had planned the upgrade demonstrates that it would support functionalities other than number portability, and thus should be considered a carrier-specific cost not directly related to number portability).

<sup>230</sup> U S WEST Comments at 10-11; USTA Comments at 5.

<sup>231</sup> USTA Comments at 2-3.

<sup>232</sup> *Id.* at 3-5.

<sup>233</sup> *Id.* at 2, 6.

<sup>234</sup> *Id.* at 6.

<sup>235</sup> *See supra* text accompanying note 218 for the carriers' arguments.

and carrier-specific costs not directly related to providing number portability recognizes that some component of the costs carriers incur will provide carriers with benefits unrelated to number portability.

69. We adopt the Commission's tentative definition of shared costs as "costs incurred by the industry as a whole, such as those incurred by the third-party administrator to build, operate, and maintain the databases needed to provide number portability."<sup>236</sup> Almost all commenters agree that this is a workable definition that properly distinguishes costs that carriers incur individually in the first instance from costs that the third-party administrators incur. We also conclude that once the shared costs are allocated they are attributable to specific carriers, at which point we will treat them as carrier-specific costs directly related to providing number portability.

70. We also adopt the Commission's tentative subcategorization of the shared costs into nonrecurring costs, recurring costs, upload costs, and download costs.<sup>237</sup> We clarify, however, that the shared upload and download costs include only the costs that the database administrators incur to process uploads and downloads; the costs that the carriers incur individually to process uploads and downloads are carrier-specific costs directly related to providing number portability. We disagree with the Public Utilities Commission of Ohio that the Commission should subsume upload and download costs into the recurring shared costs category.<sup>238</sup> Although the Public Utilities Commission of Ohio is correct that upload and download costs recur in the sense that the database administrators incur them on an ongoing basis, we intend the recurring shared cost subcategory to refer to those periodic costs such as rent, utilities, payroll, repair, and replacement that the database administrators will incur to facilitate their provision of database services, rather than the costs of the actual uploading and downloading services themselves.<sup>239</sup> We believe that maintaining this distinction is useful in conceptualizing and discussing the various types of costs associated with the shared databases.

71. We further conclude that query costs are not shared costs initially incurred by the regional database administrators, but are carrier-specific costs directly related to providing number portability. At the time of the *Further Notice*, the Commission's understanding had been that the regional administrators might perform queries for carriers.<sup>240</sup> In that case, query costs might have constituted shared costs because the database administrators would have incurred costs for the industry as a whole, and the costs would need to be allocated among individual carriers. The industry has chosen, however, not to adopt this approach to number portability. Instead, the N-1 carrier will incur all querying costs individually in the first instance,

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<sup>236</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8459, 8461.

<sup>237</sup> See *supra* notes 211-213 and accompanying text for discussion of the tentative conclusions.

<sup>238</sup> See *supra* text accompanying note 222 for the Ohio commission's argument.

<sup>239</sup> See *Order & Further Notice*, 11 FCC Rcd. at 8463 (defining recurring costs as "recurring (monthly or annually) costs, such as maintenance, operation, security, administration, and physical property associated with the database").

<sup>240</sup> See *id.* at 8461 (noting that if the industry uses an SMS/SCP pair, the regional database administrators might process carrier queries to provide routing instructions to carriers for individual calls).

either by querying its own copy of data downloaded from the regional databases, or by arranging for the querying of such a database copy maintained by another carrier or other third party. Because the regional database administrators will not perform queries on behalf of carriers, query costs are more appropriately considered carrier-specific costs directly related to providing number portability.

72. We conclude that carrier-specific costs directly related to providing number portability are limited to costs carriers incur specifically in the provision of number portability services, such as for the querying of calls and the porting of telephone numbers from one carrier to another. Costs that carriers incur as an incidental consequence of number portability, however, are not costs directly related to providing number portability.

73. We reject the requests of some commenters that we classify the entire cost of an upgrade as a carrier-specific cost directly related to providing number portability just because some aspect of the upgrade relates to the provision of number portability. Carriers incur costs for software generics, switch hardware, and OSS, SS7 or AIN upgrades to provide a wide range of services and features. Consequently, only a portion of such joint costs are carrier-specific costs directly related to providing number portability. Thus, we will consider as subject to the competitive neutrality mandate of section 251(e)(2) all of a carrier's dedicated number portability costs, such as for number portability software and for the SCPs and STPs reserved exclusively for number portability. We will also consider as carrier-specific costs directly related to the provision of number portability that portion of a carrier's joint costs that is demonstrably an incremental cost carriers incur in the provision of long-term number portability. Apportioning costs in this way will further the goals of section 251(e)(2) by recognizing that providing number portability will cause some carriers, including small and rural LECs, to incur costs that they would not ordinarily have incurred in providing telecommunications service. At the same time, this approach recognizes that some upgrades will enhance carriers' services generally, and that at least some portion of such upgrade costs are not directly related to providing number portability.

74. Because carrier-specific costs directly related to providing number portability only include costs carriers incur specifically in the provision of number portability, carriers may not use general overhead loading factors in calculating such costs. Carriers already allocate general overhead costs to their rates for other services, and allowing general overhead loading factors for long-term number portability might lead to double recovery.<sup>241</sup> Instead, carriers may identify as carrier-specific costs directly related to providing long-term number portability only those incremental overheads that they can demonstrate they incurred specifically in the provision of long-term number portability.

75. As discussed below in Part VI, we are permitting incumbent LECs to recover their number portability costs in federally tariffed end-user charges and query services. To facilitate determination of the portion of joint costs carriers shall treat as carrier-specific costs directly related to providing number portability, and to facilitate evaluation of the cost support that carriers will file in their federal tariffs, we are requesting that carriers and interested parties file comments by August 3, 1998 proposing ways to apportion the different types of joint costs. Carriers and interested parties may file reply comments by September 16, 1998. We will delegate authority to the Chief, Common Carrier Bureau, to determine

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<sup>241</sup> See *In re 800 Database Access Tariffs*, Report and Order, 11 FCC Rcd. 15227, 15255-56 (1996).

appropriate methods for apportioning joint costs among portability and nonportability services, and to issue any orders to provide guidance to carriers before they file their tariffs, which are to take effect no earlier than February 1, 1999.

76. We disagree with USTA that we should create special cost categories for the number portability costs of small and rural carriers.<sup>242</sup> The Commission's definitions of carrier-specific costs directly and not directly related to providing number portability will enable all carriers, including small and rural carriers, as well as carriers providing Extended Area Service, to identify the costs subject to section 251(e)(2). The three cost categories the Commission has created account for all potential number portability costs and provide workable distinctions for the purposes of implementing section 251(e)(2).

77. Creating unique cost categories for wireless carriers is also unnecessary at this time. The Commission's definitions are not tied to unique technological constraints of wireline communications, and nothing in the record leads us to conclude that the three cost categories are too narrow to apply to the number portability costs of wireless carriers. Wireless carriers, like wireline carriers, will depend upon the regional databases, and the record does not suggest that the costs of the regional databases are disproportionately affected by any one industry segment.

## V. COSTS OF THE REGIONAL DATABASES

### A. Background

78. The Commission sought comment in the *Further Notice* on whether the nonrecurring and recurring shared costs should be collected through monthly charges assessed only on carriers using the databases, or on all carriers.<sup>243</sup> The Commission noted that the nonrecurring costs could be collected through a one-time payment or amortized.<sup>244</sup> The Commission also asked whether the shared costs should be collected on a national basis or by region.<sup>245</sup> If the costs are collected nationwide, the Commission asked whether one of the LNPAs or a separate entity should allocate the costs.<sup>246</sup>

79. The Commission sought comment on the appropriate method of distributing these costs, and tentatively concluded that they should be allocated in proportion to each telecommunications carrier's gross telecommunications revenues, less any charges that carrier pays to other carriers.<sup>247</sup> The Commission

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<sup>242</sup> See *supra* notes 233-234 and accompanying text for USTA's argument.

<sup>243</sup> *In re Telephone Number Portability*, First Report and Order & Further Notice of Proposed Rulemaking, 11 FCC Rcd. 8352, 8461, 8463 (1996) (Order & Further Notice).

<sup>244</sup> *Id.* at 8463.

<sup>245</sup> *Id.* at 8461.

<sup>246</sup> *Id.*

<sup>247</sup> *Id.* at 8461-62.



explained that subtracting charges carriers pay to other carriers, such as for access and wholesale services, avoids counting those charges as revenues twice: once when the charging carrier collects from the charged carrier, and again when the charged carrier recovers these costs from its end-user.<sup>248</sup> The Commission also sought comment on whether the upload, download, and query costs should be collected through usage-based charges, or allocated among carriers in the same manner as the nonrecurring and recurring costs.<sup>249</sup>

80. The Commission also asked whether it may exclude certain carriers from these mechanisms,<sup>250</sup> and whether it should create an enforcement mechanism, such as requiring tariffs or periodic reports, to ensure that carriers bear on a competitively neutral basis the shared costs of providing number portability.<sup>251</sup> The Commission also sought comment on whether incumbent LECs should be allowed to recover their portion of the shared costs from end-users or other carriers, whether the Commission should prescribe the recovery mechanism, and if so, what that mechanism should be.<sup>252</sup> If such costs are recovered from other carriers, the Commission sought comment on whether they should be recovered from all telecommunications carriers or just those that receive ported numbers.<sup>253</sup> In addition, the Commission sought comment on whether price-cap carriers should be permitted to treat their portions of the shared costs as exogenous.<sup>254</sup>

## **B. Distribution of Shared Costs: Allocation v. Usage-Based Rates**

### **1. Positions of the Parties**

81. A number of incumbent LECs, competitive LECs, state commissions, and CMRS providers favor allocating all regional database costs, including the nonrecurring, recurring, upload, and download costs.<sup>255</sup> These commenters contend that usage-based charges would impermissibly exclude those carriers that do not use the databases from having to pay some regional database costs, in violation of

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<sup>248</sup> *Id.*

<sup>249</sup> *Id.* at 8463.

<sup>250</sup> *Id.* at 8460.

<sup>251</sup> *Id.* at 8463-64.

<sup>252</sup> *Id.* at 8462.

<sup>253</sup> *Id.*

<sup>254</sup> *Id.* at 8466.

<sup>255</sup> Ameritech Comments at 1-2, 4-5; Bell Atlantic Reply at 1, 4; BellSouth Reply at 5; Calif. Pub. Utils. Comm'n Comments at 4-6; Colo. Pub. Utils. Comm'n Comments at 5; Frontier Comments at 3-4 & n.8; GST Reply at 8; Iowa Network Servs. Reply at 3; MFS Comments at 6; NARUC Reply at 1; NCTA Reply at 6; NYNEX Comments at 5-6; Ohio Pub. Utils. Comm'n Comments at 1, 3-5; Omnipoint Comments at 3; PacTel Comments at 3, 6-7; SBC Comments at 4-6; Teleport Comments at 2-4; U S WEST Reply at 12-14 & nn.33-35; USTA Reply at 4-5; Wash. Utils. Transp. Comm'n Reply at 3; WinStar Comments at 2-5.

the "all telecommunications carriers" language of section 251(e)(2),<sup>256</sup> that the database costs are not discretionary, but necessary costs of doing business,<sup>257</sup> and that the database costs are not demonstrably usage-sensitive.<sup>258</sup>

82. Other commenters advocate employing usage-based charges for some of the regional database costs and allocating the rest. Ameritech, the Association for Local Telephone Communications Services, the California Public Utilities Commission, Iowa Network Services, ITCs, the Missouri Public Service Commission, Pacific Telesis, TRA, and Time Warner, for example, favor allocating the nonrecurring and recurring costs, but prefer usage-based charges for upload, download, and query costs. They argue that upload, download, and query costs are usage sensitive because uploads, downloads, and queries will be transmitted to and from carriers' individual networks, and so should be collected through usage-based rates to encourage efficient use.<sup>259</sup>

83. AT&T, MCI, and Sprint advocate a series of rate elements similar to those the Commission adopted for the 800 number database.<sup>260</sup> Thus, they suggest a one-time, service-establishment charge for carriers that upload or download database information, a monthly database access charge that varies with the type and speed of each database connection carriers maintain to upload or download information, and a charge for discretionary services such as customized reports that carriers might request.<sup>261</sup> AT&T and Sprint argue that because these services are attributable to a specific database subscriber, they should be charged to that subscriber to encourage efficiency and to avoid unfairly shifting costs to other carriers.<sup>262</sup> AT&T and Sprint also recommend a download charge, but would allocate the

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<sup>256</sup> See, e.g., Bell Atlantic Reply at 3-4; GST Reply at 10-11; MFS Comments at 6; NYNEX Reply at 7-8; U S WEST Reply at 12-14 & nn.33-35; USTA Reply at 4-5; WinStar Reply at 4-6.

<sup>257</sup> Fla. Pub. Servs. Comm'n Comments at 3-4; GSA Comments at 4-6.

<sup>258</sup> Ohio Pub. Utils. Comm'n Comments at 7-10 (advocating allocating all regional database costs absent a credible method for determining carriers' usage-based costs and an indication that those costs vary significantly among carriers).

<sup>259</sup> Ameritech Comments at 9-11; ALTS Comments at 3-6 (preferring usage-based rates unless the transaction costs of such a mechanism are "unduly high"); Calif. Pub. Utils. Comm'n Comments at 6-9; Iowa Network Servs. Reply at 7; ITC Comments at 2-3; Mo. Pub. Servs. Comm'n Comments at 3-4; PacTel Comments at 2, 7; TRA Comments at 10-11; Time Warner Comments at 7-12.

<sup>260</sup> See *In re Provision of Access for 800 Service*, Second Report and Order, 8 FCC Rcd. 907 (1993), *aff'd*, *Memorandum Opinion and Order on Reconsideration*, 11 FCC Rcd. 2014 (1995). Cf. Scherers Communications Group Comments at 2-3 (suggesting that the Commission tariff nonrecurring, recurring, and query charges because this was found to be the most efficient means of recovering the costs of the 800 number database).

<sup>261</sup> AT&T Comments at 6-9; MCI Comments at 3-5; Sprint Comments at 5-6.

<sup>262</sup> AT&T Comments at 6-9; Sprint Comments at 5-6.

costs of uploads among all carriers that provide local service to avoid penalizing carriers for porting.<sup>263</sup> MCI favors allocating upload, download, and any remaining costs to carriers that port numbers.<sup>264</sup>

84. The California Department of Consumer Affairs argues that nonrecurring costs should be allocated because, as costs of establishing number portability, these costs must be distributed in a competitively neutral fashion.<sup>265</sup> It argues that usage-based charges should be assessed, on the other hand, for recurring, upload, download, and query costs because as "ongoing" rather than "establishing" costs, they should be distributed to the specific carrier using the database rather than allocated among carriers.<sup>266</sup> It also argues that some of the recurring costs should be distributed through a flat, minimum charge on all carriers serving the region because the database must be available to all carriers, regardless whether an individual carrier actually uses it.<sup>267</sup>

85. Another group of carriers advocates distributing all regional database costs through usage-based charges. The Colorado Public Utilities Commission prefers charging carriers the incremental costs of their downloads, but recommends collecting from carriers that upload information the costs of receiving, storing, and processing that information, as well as the administrators' common and overhead costs.<sup>268</sup> Omnipoint advocates per-query fees that would incorporate the nonrecurring, recurring, and database information costs.<sup>269</sup> Omnipoint argues that this is a more appropriate approach than allocation mechanisms, such as those based on revenues, because all calls require the same query and so all carriers should pay the same amount of shared costs per call.<sup>270</sup>

86. The Cellular Telecommunications Industry Association (CTIA) asks for additional time to analyze the implication of allocation- and usage-based mechanisms for wireless number portability. CTIA argues that wireless carriers do not yet know the amount and type of costs they will incur to deploy number portability because, pursuant to the Commission's later implementation schedule for wireless carriers, the industry is in the early stages of planning.<sup>271</sup>

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<sup>263</sup> AT&T Comments at 8 & n.11; Sprint Comments at 5-6.

<sup>264</sup> MCI Comments at 5-6.

<sup>265</sup> Calif. Dep't Consumer Affairs Comments at ii, 14-16.

<sup>266</sup> *Id.* at ii, 17-19.

<sup>267</sup> *Id.* at ii, 17.

<sup>268</sup> Colo. Pub. Utils. Comm'n Comments at 7.

<sup>269</sup> Omnipoint Communications Reply at 2.

<sup>270</sup> *Id.*

<sup>271</sup> CTIA Comments at 3-4.

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## 2. Discussion

87. We require telecommunications carriers to pay for the database administrators' nonrecurring, recurring, upload, and download costs pursuant to an allocator, which we select in Part V.D, below, rather than on a usage-sensitive basis. We have used the two-prong competitive neutrality test to ensure that the allocator we choose distributes these costs on a competitively neutral basis. Once these shared costs are distributed to telecommunications carriers, we treat each carrier's portion of the costs as a carrier-specific cost directly related to providing number portability.<sup>272</sup> Because telecommunications carriers will recover these costs as carrier-specific costs directly related to providing number portability, which we discuss below in Part VI, we need not address their recovery here.

88. Distributing the shared costs among telecommunications carriers in proportion to database use would shift these costs to telecommunications carriers that win more customers because such carriers will perform more uploads.<sup>273</sup> At the outset of number portability, these carriers are more likely to be competitive LECs. Consequently, usage-sensitive distribution of the shared costs could "give one service provider an appreciable, incremental cost advantage over another service provider when competing for a specific subscriber," as well as "disparately affect the ability of competing service providers to earn a normal return." Although the record does not show conclusively that usage-based charges would hamper materially a carrier's ability to compete for subscribers, we believe it prudent at this early stage in the deployment of number portability to minimize such risk.

89. Moreover, assessing shared costs on a usage-sensitive basis could discourage carriers from performing uploads and downloads, or at least penalize those carriers that do so more frequently. The entire industry benefits from the maintenance of reliable regional databases for providing number portability: unless carriers download data, they will be unable to terminate traffic to the appropriate end-user; unless carriers upload ported numbers to the databases, the databases will be inaccurate, making downloads useless for current and future database participants alike. Thus, all carriers that port telephone numbers and all carriers that terminate calls to portability-capable NXXs depend on the timely uploading and downloading of information to and from the regional databases to ensure an accurate database and the proper routing of telephone calls. Furthermore, all telecommunications carriers that depend on the availability of telephone numbers will benefit from number portability because it allows subscribers to retain their telephone numbers when changing local service providers, and because it facilitates the conservation of telephone numbers through number pooling.<sup>274</sup>

90. Because we conclude that allocation better ensures that carriers will bear the shared costs on a competitively neutral basis, we disagree with the California Department of Consumer Affairs that we should distribute the "ongoing" shared costs of providing number portability through usage-sensitive

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<sup>272</sup> See *supra* paragraphs 69, 87.

<sup>273</sup> See *supra* text accompanying note 54.

<sup>274</sup> For a brief discussion of number pooling, see note 472, *infra*.

rates.<sup>275</sup> We also disagree with AT&T, MCI, and Sprint that we should adopt rate elements similar to those used for the 800 number database.<sup>276</sup> Provision of the 800 number database is not subject to a statutory competitive neutrality mandate. Consequently, the competitive neutrality concerns that usage-sensitive rates raise were not at issue.

91. We will not adopt a separate distribution methodology for wireless carriers. The record indicates that wireless carriers will use the regional databases in the same manner as wireline carriers. Consequently, we see no reason to treat wireless carriers differently than wireline carriers with respect to the distribution of the shared costs.

92. Notwithstanding that other costs of the regional databases will be allocated, we determine that regional database administrators may assess individual carriers and non-carrier third parties reasonable usage-based charges for discretionary services such as audits and reports. Because these services are elective to the parties requesting them, and not necessary for the provision of number portability, usage-based charges should not have a competitive impact.

### C. The Allocator

#### 1. Positions of the Parties

93. Commenters advocate two types of allocators for the shared costs: revenue-based, and nonrevenue-based. Among the revenue-based allocators, Bell Atlantic supports the use of gross telecommunications service revenues.<sup>277</sup> TRA, the Florida Public Services Commission, small LECs, competitive LECs, and CMRS providers support share of gross telecommunications service revenues less charges carriers pay to other carriers.<sup>278</sup> A number of incumbent LECs and USTA support share of gross retail telecommunications service revenues.<sup>279</sup> BellSouth supports share of gross telecommunications

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<sup>275</sup> See *supra* text accompanying notes 265-267 for the argument of the California Department of Consumer Affairs. Furthermore, as we explained in Part III.B, above, we disagree with the California Department of Consumer Affairs that the "ongoing" costs of number portability are not subject to the competitive neutrality mandate. See *supra* paragraph 38.

<sup>276</sup> See *supra* paragraph 83 for their arguments.

<sup>277</sup> Bell Atlantic Comments at 4-5 (preferring share of gross retail telecommunications service revenues, but supporting share of gross telecommunications revenues as well).

<sup>278</sup> ALTS Comments at 4; Fla. Pub. Servs. Comm'n Comments at 3; Frontier Comments at 3-4; GST Reply at 12-13; Iowa Network Servs. Reply at 5; ITCs Comments at 2-3; MFS Comments at 7; NCTA Reply at 7; NTCA/OPASTCO Comments at 9; Nextel Comments at 2-3; TRA Comments at 7-8; Teleport Comments at 4-5; Time Warner Comments at 7-8; WinStar Comments at 5. Cf. Ohio Pub. Utils. Comm'n Comments at 6 (preferring allocation by share of access lines, but advocating gross revenues less charges carriers pay to other carriers if the Commission chooses a revenue-based allocator).

<sup>279</sup> Ameritech Comments at 4-7; Bell Atlantic Comments at 4-5 (supporting share of gross telecommunications service revenues, but preferring share of gross retail telecommunications service revenues);

service revenues less charges carriers pay to and receive from other carriers.<sup>280</sup> Among the nonrevenue-based allocators, Arch Communications, BellSouth, MCI, MobileMedia Communications, the Public Utilities Commission of Ohio, SBC, and Sprint support line-derived allocators.<sup>281</sup> AirTouch Communications, AT&T, the California Public Utilities Commission, GSA, MCI, and Sprint also support number-based allocators.<sup>282</sup> AirTouch Communications further supports share of retail minutes of use.<sup>283</sup>

i. Revenue-based allocators

94. Proponents of revenue-based allocators argue that a carrier's revenues approximate the benefit that the carrier and its subscribers derive from the increased competition that number portability

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NYNEX Comments at 8-9; U S WEST Reply at 14-15; USTA Reply at 7. *Cf.* BellSouth Reply at 7-9 (preferring share of elemental access lines over revenue-based allocators generally, but criticizing gross revenues less charges carriers pay to other carriers in favor of share of gross retail telecommunications service revenues or share of gross revenues less charges carriers pay to and receive from other carriers). For an explanation of elemental access lines, see *infra* text at notes 327-332.

<sup>280</sup> BellSouth Reply at 7-9 (preferring share of elemental access lines over revenue-based allocators generally, but criticizing gross revenues less charges carriers pay to other carriers in favor of share of gross retail telecommunications service revenues or share of gross revenues less charges carriers pay to and receive from other carriers). For an explanation of elemental access lines, see *infra* text at notes 327-332.

<sup>281</sup> MCI Reply at 15 (advocating allocation by share of presubscribed lines, active telephone numbers, or local access lines); Ohio Pub. Utils. Comm'n Comments at 6 (supporting share of local access lines, less private lines, plus a trunk equivalency); Sprint Comments at 6 (advocating allocation by share of presubscribed local service lines). *Cf.* AirTouch Communications Reply at 4-6 (preferring share of retail minutes of use, but mentioning share of total access lines, share of total presubscribed lines, and share of end-user assigned numbers as reasonable alternatives because of their simpler calculation).

Arch Communications, BellSouth, MobileMedia Communications, and SBC support share of "elemental" access lines. Arch Communications Group Reply at 7; BellSouth Reply at 7; MobileMedia Communications Reply at 5; SBC Comments at 7. For an explanation of elemental access lines, see *infra* text at notes 327-332. *See also* SBC Comments at 7-9; SBC Reply at 12-13.

<sup>282</sup> AirTouch Communications Reply at 4-6 (preferring share of retail minutes of use, but mentioning share of total access lines, share of total presubscribed lines, and share of total end-user assigned numbers as reasonable alternatives because of their simpler calculation); AT&T Comments at 8 n.11 (arguing that if the master databases only include the telephone numbers of customers who have ported, carriers should bear upload costs by share of working telephone numbers in portability-capable NXXs); Calif. Pub. Utils. Comm'n Comments at 7 & n.3 (advocating allocation by share of active end-user assigned numbers); GSA Comments at i, 7; MCI Comments at 4-5 (advocating share of portable NXXs, or share of working telephone numbers in portable NXXs); Sprint Reply at 4 (advocating allocation by lines or working telephone numbers). *See also* MCI Reply at 15 (advocating allocation by share of presubscribed lines, active telephone numbers, or local access lines).

<sup>283</sup> AirTouch Communications Reply at 4-6 (preferring share of retail minutes of use, but mentioning share of total access lines, share of total presubscribed lines, and share of total end-user assigned numbers as reasonable alternatives because of their simpler calculation).

creates,<sup>284</sup> that such allocators assess costs on all carriers,<sup>285</sup> that such allocators are relatively easy to administer,<sup>286</sup> and that revenues most accurately reflect market share.<sup>287</sup> Several commenters stress, however, that we must define precisely the telecommunications revenues that should be used to determine the allocator and create a mechanism to ensure that carriers do not shift or hide revenues through techniques such as attributing revenue to unregulated services.<sup>288</sup>

95. Some critics of revenue-based allocators contend that the costs and benefits of number portability are not directly related to revenues.<sup>289</sup> Others contend that revenue-based allocators are administratively burdensome. They argue that determining the relevant revenues is difficult,<sup>290</sup> that revenue

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<sup>284</sup> Timer Warner Comments at 7-9.

<sup>285</sup> MFS Comments at 7; Time Warner Comments at 7-9. *Cf.* Frontier Comments at 3-4 (arguing that an allocator based on gross revenues less charges carriers pay to other carriers recognizes that number portability benefits all carriers). *See also* AirTouch Communications Reply at 2-3 (criticizing revenue-based allocators but acknowledging that they reach all carriers).

<sup>286</sup> NCTA Reply at 7.

<sup>287</sup> Fla. Pub. Servs. Comm'n Comments at 3 (arguing that an allocator based on gross revenues less charges carriers pay to other carriers accounts for both customer number and value); NCTA Reply at 7 (arguing that an allocator based on gross revenues less charges carriers pay to other carriers equitably distributes portability costs in proportion to carrier size); WinStar Comments at 5 (arguing that gross revenues are an appropriate starting point to calculate recoverable costs because gross-revenue-based allocators are least distortionary in that each carrier's revenues will approximate the amount of traffic that travels over its network).

<sup>288</sup> NTCA/OPASTCO Comments at 9-10. *Cf.* Nextel Comments at 2-4 (arguing that the Commission must exclude revenues not relevant to number portability, such as funds generated by non-covered SMS service); TRA Comments at 7-8 (stressing that only revenues from local exchange service are relevant).

<sup>289</sup> AirTouch Communications Reply at 2-3 (arguing that the costs and benefits of number portability are related to number of customers, not revenues); Calif. Dep't Consumer Affairs Comments at 15 n.10 (arguing that allocating by gross revenues imposes costs on carriers that are most efficient and successful, rather than by some factor related to the costs of long-term number portability); Calif. Pub. Utils. Comm'n Comments at 7 (arguing that carriers with high revenues do not necessarily use the databases more frequently than other carriers); GSA Comments at 7 (arguing that a gross revenue-based allocator distributes number portability costs to a carrier without regard to the amount of benefit that carrier receives from number portability); MCI Comments at 7-8 (arguing that customers benefit from number portability in proportion to the number of telephone numbers they use, not in proportion to the amount of money they spend on all telephone services); Sprint Reply at 3-4 (arguing that revenues-based allocators make no effort to identify the cost causers and do not necessarily reflect market share or use of the database).

<sup>290</sup> AirTouch Communications Comments at 1-2, 6-7 (pointing to difficulties in segregating international and multi-regional carriers' revenues); AT&T Comments at 9-10 n.13 (pointing to difficulties in determining whether revenues from pure competitive access services, unswitched private-line services, and enhanced services should all count as telecommunications revenues for purposes of allocation); Cincinnati Bell Comments at 7 (arguing the Commission would have to determine what constitutes "telecommunications revenue"); GSA Comments at 6-7 &

shares would need continual updating,<sup>291</sup> that monitoring carriers' calculation and reporting methods would be necessary and expensive,<sup>292</sup> and that revenue figures are competitively sensitive, raising confidentiality concerns.<sup>293</sup> Still other critics contend that revenue-based allocators discriminate against certain types of carriers. They argue that such allocators disadvantage carriers with higher revenues per customer, such as CMRS providers,<sup>294</sup> carriers with lower profits per customer,<sup>295</sup> regulated carriers as compared to unregulated entities, such as private branch exchange (PBX) providers, whose revenues are beyond the Commission's purview,<sup>296</sup> and carriers that operate in multiple regions, particularly if some of those regions are high-cost.<sup>297</sup> Other parties contend that revenue-based allocators send the wrong market signals. They argue that such allocators give carriers less incentive to use the database efficiently, because revenues would determine portability costs, rather than database use,<sup>298</sup> that such allocators distort the market,<sup>299</sup> and that because revenue shares fluctuate, carriers would be uncertain of their share of the costs from month to month or year to year.<sup>300</sup>

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n.3 (arguing, for example, that whether the allocator would include revenues from deregulated Centrex loops is not clear); MCI Reply at 14 (arguing that the Commission would have to determine what constitutes "revenue"); SBC Reply at 11-12 (arguing that the Commission would have to address treatment of local and long-distance revenue, domestic and international revenue, as well as in-region and out-of-region revenue); Sprint Comments at 7 (arguing that regional revenue data, especially for national carriers, may be difficult to obtain).

<sup>291</sup> Cincinnati Bell Comments at 7-8; MCI Reply at 14.

<sup>292</sup> AirTouch Communications Comments at 1-2; BellSouth Reply at 8; MCI Reply at 14; Ohio Pub. Utils. Comm'n Comments at 6; Omnipoint Communications Comments at 4; SBC Reply at 9; Sprint Reply at 4-5.

<sup>293</sup> Omnipoint Communications Comments at 4.

<sup>294</sup> AirTouch Communications Comments at 2-3; Calif. Pub. Utils. Comm'n Comments at 7; GTE Reply at 4; Omnipoint Communications Comments at 2-3.

<sup>295</sup> Arch Communications Group Reply at 6-7 (arguing that revenue-based allocators would make earning a normal return difficult for low-margin, high-volume carriers such as paging providers, which operate in a highly competitive market with significant economic pressures on price); MobileMedia Communications Reply at 5; PCIA Comments at 7.

<sup>296</sup> GSA Comments at 6-7.

<sup>297</sup> SBC Reply at 11-12.

<sup>298</sup> AT&T Comments at 9-10; MCI Reply at 14.

<sup>299</sup> MCI Comments at 6-7 (arguing that the demand for telecommunications services is more elastic than the demand for telephone numbers, which are used mostly in fixed proportions with dial tone); MobileMedia Communications Reply at 5 (arguing that distortions are inherent in revenue-based allocation methods).

<sup>300</sup> Cincinnati Bell Comments at 7-8 (arguing, also, that using current revenues would require incumbent LECs to bear the majority of costs even if their share of market revenues declines); MCI Reply at 14.



96. Commenters that specifically support a gross telecommunications revenue allocator argue that the Commission adopted such an allocator to distribute the costs of telecommunications relay services, and that no one has suggested that doing so was competitively biased.<sup>301</sup> Opponents argue that such an allocator double counts revenues,<sup>302</sup> and that allocating the same portability costs to carriers with identical gross revenues disadvantages carriers with lower capital costs and higher operating costs, such as resellers, because their "normal return" on investment would be lower.<sup>303</sup>

97. Commenters that support an allocator based on share of gross revenues, less charges carriers paid to other carriers, argue that this method is necessary to avoid double counting,<sup>304</sup> and that such an allocator takes into account carriers' ability to pay.<sup>305</sup> Opponents argue that this approach discourages facilities-based investment by allocating facilities-based carriers more costs per dollar of retail sales than their nonfacilities-based competitors, which can subtract the rates they pay other carriers,<sup>306</sup> that such an allocator disadvantages LECs as compared to IXCs,<sup>307</sup> that the Commission rejected the double-counting argument in its 1993 consideration of telecommunications relay service costs,<sup>308</sup> and that such an allocator unduly penalizes carriers with high capital costs or high operating costs other than payments to other carriers.<sup>309</sup>

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<sup>301</sup> Bell Atlantic Comments at 4-5 (preferring share of gross retail telecommunications service revenues, but supporting share of gross telecommunications revenues as well).

<sup>302</sup> Sprint Reply at 4; TRA Reply at 5-8; Time Warner Reply at 4-5.

<sup>303</sup> AirTouch Communications Comments at 3-5, 7; SBC Reply at 10.

<sup>304</sup> TRA Reply at 5-8; Teleport Comments at 6; Time Warner Comments at 8-9. *Cf.* WinStar Comments at 5-6 (arguing that charges for interconnection and access will be reflected in the underlying carrier's revenues, and that subtracting intercarrier charges ensures that carriers' are responsible for costs in proportion only to the traffic they carry, not to revenues from transfers between carriers).

<sup>305</sup> Teleport Comments at 6.

<sup>306</sup> Ameritech Comments at 5-6; Bell Atlantic Comments at 6-7; Cincinnati Bell Comments at 8; SBC Reply at 10-1; Sprint Reply at 4; U S WEST Reply at 15; USTA Reply at 7.

<sup>307</sup> NYNEX Comments at 7-8 (arguing that such an allocator would place a disproportionate share of costs on incumbent LECs, and place them at a competitive disadvantage as IXCs enter the local and intraLATA toll markets); SBC Comments at 6; U S WEST Reply at 15 (arguing that such an allocator undercounts the retail customers of carriers that pay access charges, and understates their ability to spread number portability costs).

<sup>308</sup> Bell Atlantic Comments at 5-6. *See In re Telecommunications Relay Services, Third Report and Order*, 8 FCC Rcd. 5300, 5302 (1993).

<sup>309</sup> AirTouch Communications Comments at 5 (noting, however, that such an allocator would ameliorate disparate treatment of facilities-based carriers and resellers caused by an unadjusted gross revenues allocator). *See also* CTIA Comments at 3-4 (arguing that although an allocator based on gross revenues less charges carriers pay to other carriers may be appropriate for a mature, static industry, additional time is necessary to determine the applicability of such an allocator to wireless carriers because the wireless industry is characterized by new entry).

98. Commenters that support an allocator based on gross-revenue shares less charges carriers paid to and received from other carriers argue that failure to deduct revenues received from other carriers also raises the double-counting problem by counting revenue once when collected from the end-user and again when collected from the intermediary carrier.<sup>310</sup> Time Warner argues that to avoid the double counting problem, carriers should deduct charges they pay to other carriers, or deduct charges they collect from other carriers, but not both: doing both is not necessary and only distorts any assessment of market share.<sup>311</sup> Similarly, the California Public Utilities Commission argues that deducting charges carriers receive from other carriers ignores revenue from access charges and defeats the purpose of subtracting payments to other carriers in the first place.<sup>312</sup>

99. Commenters that support a gross-retail-revenues allocator argue that it reflects the fact that number portability primarily benefits users of retail services,<sup>313</sup> that it places competing retail carriers in the same relative position based solely upon their position in the retail marketplace,<sup>314</sup> that it best focuses on what carriers collect from services to end-users and so best measures carriers' abilities to bear portability costs,<sup>315</sup> and that it still avoids the double-counting problem.<sup>316</sup> Opponents argue that such an allocator inappropriately allocates regional database costs to competitive LECs and IXC's based on revenue from end users that the competitive LECs and IXC's do not keep but pass on to incumbent LECs in rates for access, wholesale services, and unbundled network elements.<sup>317</sup>

ii. Nonrevenue-based allocators

100. Advocates of line-based allocators argue that such allocators are less subject to manipulation than revenue-based allocators.<sup>318</sup> Opponents contend that line-based allocators fail to

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and rapid build-out, and new PCS providers may have allocable costs but little revenue).

<sup>310</sup> PacTel Comments at 6.

<sup>311</sup> Time Warner Reply at 5.

<sup>312</sup> Calif. Pub. Utils. Comm'n Reply at 2.

<sup>313</sup> NYNEX Comments at 8-9; U S WEST Reply at ii, 14-15.

<sup>314</sup> Ameritech Comments at 6.

<sup>315</sup> USTA Reply at 7.

<sup>316</sup> Ameritech Comments at 6-7; NYNEX Comments at 8-9.

<sup>317</sup> AT&T Reply at 10; WinStar Reply at 6-7. *Cf.* Time Warner Reply at 4-5 (arguing that failure to subtract intercarrier charges inappropriately attributes to one carrier revenue that it passes on to the other, and so does not accurately reflect either carrier's relative market share).

<sup>318</sup> Sprint Reply at 4-5.

recognize that a PBX system may serve multiple end-user numbers from one line,<sup>319</sup> that such allocators disadvantage carriers that serve low-volume customers by counting such customers the same as the usually more valuable high-volume customers,<sup>320</sup> and that it unfairly advantages new entrants, who initially will have little or no customer base.<sup>321</sup>

101. Commenters that support allocators based on share of access or presubscribed lines argue that the benefits of number portability are related to the number of active lines a carrier serves;<sup>322</sup> that when a customer changes carriers, the additional shared cost that the acquiring carrier incurs will equal the shared cost that the former carrier avoids;<sup>323</sup> and that such allocators are less subject to manipulation and should be easy to calculate.<sup>324</sup> Opponents argue that such allocators would be difficult to calculate,<sup>325</sup> and, rather than reach all carriers, would disproportionately burden LECs.<sup>326</sup>

102. SBC Communications proposes allocating regional database costs in proportion to each carrier's share of something the company calls "elemental access lines (EALs)." <sup>327</sup> SBC divides the wireline access line into three presubscribed "elements" that account for the customer-perceived uses of telecommunications service: local exchange service, intraLATA toll service, and interLATA toll service.<sup>328</sup>

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<sup>319</sup> Calif. Pub. Utils. Comm'n Comments at 7 n.3.

<sup>320</sup> AirTouch Communications Comments at 9-10. *Cf.* Fla. Pub. Servs. Comm'n Comments at 3 (arguing that unlike access-line based allocators, gross revenues less charges paid to other carriers accounts for both customer number and value).

<sup>321</sup> Calif. Dep't Consumer Affairs Comments at 15.

<sup>322</sup> AirTouch Communications Reply at 1, 4-6 & n.7 (preferring retail minutes of use, but advocating total lines a carrier serves as a reasonable alternative because of its simpler calculation); MCI Reply at 15 (arguing that share of access lines or active telephone numbers reflects the level of local exchange competition more accurately than gross revenues); Sprint Comments at 6-8 (arguing that an allocator based on presubscribed local service lines more accurately reflects the level of local exchange competition and a carrier's market share).

<sup>323</sup> AirTouch Communications Reply at 4-5 (preferring retail minutes of use, but advocating total lines a carrier serves as a reasonable alternative because of its simpler calculation); Sprint Comments at 6 (arguing that the unit charge would be the same for each new subscriber gained by any service provider).

<sup>324</sup> MCI Reply at 15; Sprint Reply at 4-5.

<sup>325</sup> Time Warner Reply at 3-4 (noting the difficulty in applying such an allocator to competitive access providers that provide transport solely to the central office or tandem, and to customers who switch carriers between line-calculations).

<sup>326</sup> GST Reply at 12-13; MFS Comments at 6; NCTA Reply at 8; NYNEX Reply at 7; SBC Reply at i; Teleport Comments at 5-6; Time Warner Reply at 3-4; USTA Reply at ii; WinStar Comments at 5.

<sup>327</sup> SBC Comments at 7.

<sup>328</sup> *Id.*

A wireless access line would have two EALs: local and interexchange.<sup>329</sup> A paging access line would have just one local EAL.<sup>330</sup> Carriers that do not have access lines would be assigned EALs based on their number of serving arrangements.<sup>331</sup> A carrier's total number of EALs equals the sum of local exchange access lines, intraLATA toll presubscribed access lines, and interLATA toll presubscribed access lines it provides to customers.<sup>332</sup> Commenters that support an EAL-based allocator argue that it is the least market distorting,<sup>333</sup> and that it equitably distributes portability costs across all carriers.<sup>334</sup> At least one of these commenters, however, concedes that the allocator is "arbitrary, as evidenced by SBC's subdivision of markets into neat 'thirds,'" and uses "fictional" nomenclature.<sup>335</sup>

103. Supporters of number-based allocators argue that the use, benefits, and costs of number portability are most closely related the number of telephone numbers a carrier serves,<sup>336</sup> and that the demand for telephone numbers is more inelastic than the demand for telecommunications services as a whole.<sup>337</sup> Commenters that specifically support allocation by proportion of active, end-user assigned numbers note that it was one of the allocators noted in the *Order* as competitively neutral for the costs of interim number portability.<sup>338</sup> Critics of number-based allocators argue that rather than reach all carriers, such allocators disproportionately burden LECs,<sup>339</sup> make it harder for low-margin, high-volume carriers to earn a normal return,<sup>340</sup> and unfairly advantage new entrants, who initially will have little or no customer base.<sup>341</sup>

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<sup>329</sup> *Id.* at 8 n.13.

<sup>330</sup> SBC Reply at 12.

<sup>331</sup> *Id.* at 12 n.34 (arguing, for example, that a competitive access provider that serves a customer with 500 telephone numbers would have 500 intraLATA EALs and 500 interLATA EALs).

<sup>332</sup> SBC Comments at 8.

<sup>333</sup> BellSouth Reply at 7-8.

<sup>334</sup> *Id.*; SBC Reply at 3.

<sup>335</sup> BellSouth Reply at 7-8.

<sup>336</sup> Calif. Pub. Utils. Comm'n Comments at 8; GSA Comments at 7; MCI Comments at 7.

<sup>337</sup> MCI Comments at 6-7.

<sup>338</sup> Calif. Pub. Utils. Comm'n Comments at 8.

<sup>339</sup> BellSouth Comments at 9; GST Reply at 12-13; MFS Reply at 4-5; NYNEX Reply at 7 & n.25; PacTel Reply at 5-6; U S WEST Reply at 15-16; USTA Reply at ii; WinStar Reply at 7-8.

<sup>340</sup> Arch Communications Group Reply at 7.

<sup>341</sup> Calif. Dep't Consumer Affairs Comments at 15.

104. In support of an allocator based upon share of retail minutes of use, AirTouch Communications argues that such an allocator is competitively neutral because a carrier that acquires a customer incurs the same number portability cost that the former carrier avoids.<sup>342</sup> AirTouch also argues that each minute of use provides a revenue opportunity, whether or not the carrier charges per-minute, and the allocator reduces each carrier's return by the same percentage regardless of how much the carrier earned per minute of use.<sup>343</sup> Critics argue that such an allocator needlessly encourages carriers to reduce minutes of use,<sup>344</sup> and would present difficulties for providers of flat-rate services that do not ordinarily charge by or track minutes of use.<sup>345</sup> Even AirTouch Communications describes the calculation of a minutes-of-use allocator as involving "somewhat greater complexity."<sup>346</sup>

## 2. Discussion

105. As part of its management duties under section 52.26 of the Commission's Rules,<sup>347</sup> the LNPA of each regional database must collect sufficient revenues to fund that database. We will require the LNPA of each regional database to do this by allocating the costs of each regional database among carriers in proportion to each carrier's intrastate, interstate, and international end-user telecommunications revenues attributable to that region. The Commission adopted end-user telecommunications revenues in the *Universal Service Order* as the assessment base for determining contributions to universal support mechanisms.<sup>348</sup> We will require carriers to include intrastate, interstate, and international<sup>349</sup> revenues in calculating end-user revenues because number portability will affect all such services. An end-user telecommunications revenue allocator is similar to a retail-revenues allocator in that both are based on telecommunications revenues that carriers collect from end-users. Unlike retail-revenues, however, end-

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<sup>342</sup> AirTouch Communications Comments at 8.

<sup>343</sup> *Id.*

<sup>344</sup> Mo. Pub. Servs. Comm'n Comments at 4.

<sup>345</sup> *Id. Cf.* U S WEST Reply at 15 (arguing that such an allocator would not reach flat-rated services); PCIA Comments at 7 (arguing that an allocator based on minutes of use may discriminate against carriers with certain network designs or customer calling patterns).

<sup>346</sup> AirTouch Communications Comments at 2, 9.

<sup>347</sup> 47 C.F.R. § 52.26.

<sup>348</sup> *See In re Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd. 8776, 9206-07 (1997) (Universal Service Order), *appeal pending sub nom.* Texas Office of Public Util. Counsel, No. 97-60421 (5th Cir. filed June 25, 1997).

<sup>349</sup> This differs from the assessment base for determining universal service contributions, which, in accord with section 254(d) of the Act, includes only those international end-user revenues earned by carriers that provide interstate telecommunications services. *See Universal Service Order*, 12 FCC Rcd. at 9173-75.

user telecommunications revenues includes revenues derived from subscriber line charges (SLCs).<sup>350</sup> End-user telecommunications revenues also include revenues collected from carriers that purchase telecommunications services for their own internal use.<sup>351</sup>

106. The end-user telecommunications revenue allocator meets the two-prong competitive neutrality test. First, the allocator will not give one service provider an appreciable, incremental cost advantage when competing for a subscriber. Because the end-user telecommunications revenue allocator will distribute the shared costs of the regional databases to each carrier in proportion to that carrier's end-user revenues, it will cost carriers approximately the same increase in shared costs to win a specific subscriber. For example, if one of two LECs wins a third LEC's subscriber, whichever of the two LECs wins the subscriber will win the end-user revenue that subscriber generates, which will increase its allocated portion of the shared costs. Because the subscriber is likely to use approximately the same amount of local service regardless which of the two competing LECs provides service to the subscriber, the incremental shared cost one of the two LECs would experience if it had won the subscriber would be about the same as the incremental shared cost the other would experience if it won the subscriber. This increase would also approximately equal the decrease in shared costs the third carrier would experience, having lost the subscriber. These amounts may not be exactly the same because each of the three carriers may have different rates and may not collect exactly the same revenue from that subscriber. The difference, however, will not be significant enough to create an appreciable, incremental cost disadvantage. Furthermore, any difference will not be caused by providing number portability, but by differences in the underlying efficiency, services, and rates of each of the carriers. Thus we believe the allocator will not itself create an appreciable, incremental cost advantage that was not already present even absent number portability.

107. Second, allocating shared costs in proportion to end-user revenues will prevent the shared costs from disparately affecting the ability of carriers to earn a normal return. Because carriers' allocations of the shared costs will vary directly with their end-user revenues, their share of the regional database costs will increase in proportion to their customer base. Thus, no carrier's portion of the shared costs will be excessive in relation to its expected revenues, and its allocated share will only increase as it increases its revenue stream. Consequently, the end-user revenues allocator will not disparately affect competing carriers' abilities to earn a normal return. An end-user revenues allocator will also be easy to administer because carriers already track their sales to end-users for billing purposes, and will be familiar with the end-user revenues allocator from its use for universal service support contributions.<sup>352</sup> Although an end-user revenues allocator will relieve pure wholesalers, which have no end-user revenue, from directly bearing shared costs, the end-user method does not exclude wholesale revenues from the revenue base that determines carriers' shared costs. As the Commission explained in the *Universal Service Order*, wholesale charges are built into retail rates, and thus the allocator still reflects wholesale revenue.<sup>353</sup> This is competitively neutral because it avoids double-counting revenues, and because wholesale carriers are not

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<sup>350</sup> *Id.* at 9206-07. The SLC is a flat monthly per-line rate that the end user pays. *See* 47 C.F.R. § 69.104.

<sup>351</sup> *See Universal Service Order*, 12 FCC Rcd. at 9206-07.

<sup>352</sup> *See id.* at 9208.

<sup>353</sup> *See id.* at 9207.

competing with retail carriers for end users in the marketplace.

108. Based on the current record, it appears that other allocators that commenters have proposed could also meet the two-prong test. We choose an end-user revenues allocator over those other proposals because each of the alternatives has distinct disadvantages. Because section 251(e)(2) requires that we select a competitively neutral allocator but specifies no other criteria that must be used in that selection, we conclude that we have discretion under the statute to choose among several competitively neutral allocation mechanisms based upon other valid regulatory goals, such as administrative efficiency.

109. We decline to adopt an allocator based on gross telecommunications revenues less charges carriers paid to other carriers, despite the Commission's tentative conclusion in the *Further Notice*.<sup>354</sup> As the Commission explained in the *Universal Service Order*, an end-user revenues allocator is more administratively efficient than an allocator based on gross revenues less charges carriers pay to other carriers.<sup>355</sup> Under an end-user revenues allocator, IXCs would be directly allocated shared costs attributable to the revenues they collect from their end users to pay incumbent LECs' access charges. Under the allocator based on gross revenues less charges carriers pay to other carriers, on the other hand, IXCs would not be directly allocated shared costs attributable to access charges: although they would collect revenue from their end users to pay the incumbent LECs for these charges, they would be entitled to subtract charges they pay to other carriers for the purpose of determining the amount of shared costs allocated to them. Incumbent LECs would be allocated the shared costs attributable to access charge revenue they collect from IXCs. As at least one IXC pointed out in the *Universal Service* proceeding, however, the incumbent LECs would likely pass these shared costs on to the IXCs through exogenous treatment in their access rates.<sup>356</sup> Thus, IXCs would incur shared costs attributable to access revenues under both an allocator based on gross revenues less charges carriers pay to other carriers and an end-user revenues allocator. Because the end-user revenue allocator reaches the same result as an allocator based on gross revenues less charges carriers pay to other carriers, but without the inefficiency and added complication of the pass-through step, we prefer the end-user revenues allocator. As the Commission also explained in the *Universal Service Order*, some wholesale carriers—particularly those with long-term contracts—might be unable to recover their shared costs from their customers under an allocator based on gross revenues less charges carriers pay to other carriers.<sup>357</sup> We also decline to adopt a gross telecommunications revenue allocator because it would double-count revenue. When a wholesale or access

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<sup>354</sup> See *supra* paragraph 79. We recognize that the Commission adopted under section 251(e)(2) an allocator based on gross revenues less charges carriers pay to other carriers to allocate the costs of numbering administration. See *In re Administration of the North American Numbering Plan*, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd. 19392, 19405, 19541 (1996). As we explain in the text, we believe that a number of allocators may be competitively neutral, but conclude that for the allocation of number-portability costs, share of end-user revenues is preferable to an allocator based on gross revenues less charges carriers pay to other carriers.

<sup>355</sup> See *Universal Service Order*, 12 FCC Rcd. at 9206.

<sup>356</sup> See *Id.* at 9602-03 & n.1901 (citing Sprint Comments at 9-10 and Bell Atlantic/NYNEX Reply at 3-4).

<sup>357</sup> *Id.* at 9208-09.

carrier is involved in providing service, for example, such an allocator assigns shared costs to each unit of revenue twice: once when the wholesale carrier collects revenue from the retail carrier, and again when the retail carrier collects revenue from its customer.<sup>358</sup>

110. We also decline to adopt an allocator based on gross telecommunications revenues less charges carriers pay to *and receive from* other carriers because such an allocator fails to count certain revenue—such as from access charges—at all. Finally, we decline to adopt non-revenues-based allocators—such as those tied to minutes of use, telephone numbers, or lines—because such allocators would be difficult to calculate for carriers that do not offer service on a per-line or per-minute basis.<sup>359</sup> Furthermore, line-based allocators count low-volume customers the same as high-volume customers, and could advantage new entrants who initially have little or no customer base. We also reject SBC's EAL allocator because it has not offered a convincing reason why local, intraLATA toll, and interLATA toll service should count equally in allocating costs.

#### **D. Carriers Required to Share the Costs of the Regional Databases**

##### **1. Positions of the Parties**

111. Incumbent LECs, state commissions, competitive LECs, and CMRS providers argue that all telecommunications carriers must share the regional database costs. They contend that the "all telecommunications carriers" language of section 251(e)(2) does not leave the Commission authority to exclude any carriers from sharing these costs.<sup>360</sup> Some of these commenters, however, support distribution mechanisms that have the effect of excluding carriers from incurring at least some regional database number portability costs.<sup>361</sup>

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<sup>358</sup> See *id.* at 9207.

<sup>359</sup> Cf. *id.* at 9210.

<sup>360</sup> Ameritech Comments at 1-2, 4-5; Bell Atlantic Reply at 1, 4; BellSouth Reply at 5; Colo. Pub. Utils. Comm'n Comments at 5; Frontier Comments at 3-4 & n.8; GST Reply at 10-11; Iowa Network Servs. Reply at 3; MFS Comments at 6; NARUC Reply at 1; NCTA Reply at 6; NYNEX Comments at 5-6; Ohio Pub. Utils. Comm'n Comments at 1, 3-5; Omnipoint Comments at 3; PacTel Comments at 3, 6-7; SBC Comments at 4-6; Teleport Comments at 2-4; U S WEST Reply at 12-14 & nn.33-35; USTA Reply at 4-5; WinStar Comments at 2-5; Wash. Utils. Transp. Comm'n Reply at 3.

<sup>361</sup> Ameritech Comments at 9-11 (arguing that only carriers that use the databases should bear upload and download costs); Colo. Pub. Utils. Comm'n Comments at 6-8 (arguing that only carriers using the databases should bear download costs, and that only carriers that upload data to the databases should bear nonrecurring, recurring, and upload costs); Iowa Network Servs. Reply at 5-7 (arguing that only carriers providing portability at any given time should bear nonrecurring and recurring costs, and that only carriers using the databases should bear database information costs); Ohio Pub. Utils. Comm'n Comments at 1, 6-10 (advocating distribution of nonrecurring and recurring costs by share of local access lines—which would exclude carriers not providing local exchange service—and upload, download, and query costs on a usage-sensitive basis—which would exclude carriers that do not use the databases—if usage variance is significant and determinable); Omnipoint Comments at 1-2 (excluding carriers that do not use the databases by advocating per-query charges consisting of ratable portions of the



112. IXCs, some small LECs, GSA, the Telecommunications Resellers Association (TRA), some CMRS providers, and some state commissions, on the other hand, contend that we should exclude some carriers from sharing any regional database portability costs.<sup>362</sup> These commenters suggest that we exclude: 1) carriers that do not participate in number portability;<sup>363</sup> 2) carriers that provide paging and one-way messaging services;<sup>364</sup> 3) carriers that do not appear on end-user bills;<sup>365</sup> 4) carriers that do not provide local exchange service;<sup>366</sup> and 5) resellers.<sup>367</sup>

## 2. Discussion

113. We will require allocation of the shared costs among all telecommunications carriers because section 251(e)(2) states that "[t]he cost of establishing ... number portability shall be borne by all telecommunications carriers on a competitively neutral basis." Our end-user revenues allocator, by its

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nonrecurring, recurring, and database information costs); PacTel Comments at 2, 7 (arguing that only carriers using the databases should bear upload, download, and query costs); Wash. Utils. Transp. Comm'n Reply at 4-6 (arguing that only carriers that upload or download data should bear regional database costs).

<sup>362</sup> MobileMedia Reply at 3; Paging Network Reply at 2-5; PCIA Comments at 4; Time Warner Comments at 4-5 & n.9; TRA Comments at 4-6. *Cf.* AirTouch Communications Reply at 5-6 (arguing that the 1996 Act requires competitively neutral cost recovery to prevent certain classes of carriers from bearing a disproportionate burden, and number portability does not benefit paging companies).

<sup>363</sup> AirTouch Communications Reply at 8-9; AT&T Comments at 7-9 & n.11; ALTS Comments at 2; Calif. Dep't Consumer Affairs Comments at 13, 15-18; Colo. Pub. Utils. Comm'n Comments at 6-7; Fla. Pub. Servs. Comm'n. Comments at 3-4; GSA Reply at 9-10; Iowa Network Servs. Reply at 5-7; ITCs Comments at 1-3; MCI Comments at 3-6; NTCA/OPASTCO Comments at 7-11; Ohio Pub. Utils. Comm'n Comments at 8-9; Omnipoint Communications Comments at 1-3; PCIA Reply at 2-3; Sprint Comments at 5-6; Wash. Utils. Transp. Comm'n Reply at 4-6.

<sup>364</sup> AirTouch Paging Reply at 5-8; Arch Communications Group Reply at 3-5; GSA Reply at 9-10; MobileMedia Communications Reply at 3-4; Paging Network Reply at 1-4; PCIA Comments at 5; Time Warner Comments at 4-5 & n.9. *Cf.* Nextel Comments at 3-4 (excluding carriers whose revenue is irrelevant to number portability, such as non-covered SMR providers, which are exempt from number portability obligations).

<sup>365</sup> Calif. Pub. Utils. Comm'n Comments at 5-6 & n. 2 (arguing that for allocation of regional database costs, "all telecommunications carriers" should include only carriers of record on an end user's bill that operate in a given region or state, because all such carriers must access the database to terminate calls; expressing no opinion whether the definition should include resellers because of uncertainty how such carriers would interface with the database).

<sup>366</sup> TRA Comments at 5-6. *Cf.* GSA Reply at 9-10 (distributing costs by share of telephone numbers, which would exclude "pure" IXCs, among other carriers); Ohio Pub. Utils. Comm'n Comments at 1, 6 (distributing costs by share of local access lines less private lines plus a trunk equivalency); Scherers Communications Group Comments at 3 (distributing costs only among carriers whose services require a telephone number and that use the databases for their numbers).

<sup>367</sup> Scherers Communications Group Comments at 3. *Cf.* ALTS Comments at 2 (excluding carriers as needed to avoid double recovery).

nature, does not reach carriers, such as pure wholesalers, that do not have end-user revenues. Because section 251(e)(2) requires all carriers to bear the costs of number portability on a competitively neutral basis, we will require carriers that do not have end-user revenues to pay \$100 per year per region as their statutory share of the shared costs. We believe that \$100 represents a fair contribution for carriers that do not have end-user revenues, but can revisit this issue should it become necessary. This fee will not give any such carriers an appreciable, incremental cost advantage when competing for a subscriber because such carriers do not compete for end-user customers. Moreover, this charge will be the same for all such carriers. Thus, it will not create any disadvantage to the extent these carriers are competing with each other. This fee is also not likely to disparately affect the ability of competing carriers to earn a normal return because such a nominal charge is unlikely to affect a carrier's return and, again, because all such carriers will face the same charge. Consequently, such a fee is competitively neutral.

114. We believe that assessing this sum will discharge our statutory duty and at the same time represents a reasonable contribution for carriers that do not have end-user revenues. In addition, it will be equitable for all telecommunications carriers, even those without end-user revenues and those not directly involved in number portability, to contribute toward the costs of the regional databases because all telecommunications carriers will benefit from number portability. Number portability will remove barriers to entry into the market for local service and increase local competition. Number portability will also ameliorate number exhaust concerns by making possible number pooling.<sup>368</sup>

#### **E. Regional v. National Allocation of Regional Database Costs**

##### **1. Positions of the Parties**

115. Some commenters argue that the costs of the regional databases should be allocated on a regional basis.<sup>369</sup> These commenters argue that each region may have unique costs and carriers should only pay for databases that serve areas where they terminate calls,<sup>370</sup> that allowing the regional administrators to collect costs applicable to their own regions is simpler than aggregating costs and selecting a national administrator,<sup>371</sup> and that national allocation would create regional cross-subsidies and reduce efficiency

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<sup>368</sup> For a brief discussion of number pooling, see note 472, *infra*.

<sup>369</sup> AirTouch Communications Comments at 6-7; Ameritech Comments at 5; Calif. Dep't Consumer Affairs Comments at 14; Calif. Pub. Utils. Comm'n Comments at 6; Ill. Commerce Comm'n Comments at 5; Iowa Network Servs. Reply at 5; ITCs Comments at 2-3; NARUC Reply at 1; NCTA Reply at 8; Sprint Comments at 7 n.9; Time Warner Comments at 8; USTA Reply at ii.

<sup>370</sup> Calif. Dep't Consumer Affairs at 14; Calif. Pub. Utils. Comm'n Comments at 6-7; Iowa Network Servs. Reply at 5; ITCs Comments at 2-3. *Cf.* Sprint Comments at 7 n.9 (arguing that to allocate costs of a regional database by national revenues or revenues from services other than local service would make little sense).

<sup>371</sup> Time Warner Comments at 8.

incentives.<sup>372</sup> Other commenters argue that costs should be allocated on a nationwide basis.<sup>373</sup> These commenters argue that a national system would avoid complications regarding the calculation of regional end-user revenues,<sup>374</sup> that a national system ensures uniformity of treatment and administrative efficiency,<sup>375</sup> that carriers often operate over multiple regions and completing calls will require carriers to use multiple databases,<sup>376</sup> and that such a system would avoid discriminating against carriers that happen to serve regions with more expensive databases.<sup>377</sup> NECA volunteers to administer the allocation process if we choose a nationwide mechanism.<sup>378</sup>

## 2. Discussion

116. We will require telecommunications carriers to bear the shared costs on a regional basis because such a plan is most consistent with the regional nature of the databases, and because a national approach would require designation of a national administrator. As part of its duties established in section 52.26 of the Commission's Rules,<sup>379</sup> each local number portability administrator<sup>380</sup> of a regional database<sup>381</sup> shall collect sufficient revenues from all telecommunications carriers providing telecommunications service in areas that regional database serves to fund the operation of that regional database. Thus, after subtracting the charges it collects from telecommunications carriers with no end-user revenues, each

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<sup>372</sup> Ill. Commerce Comm'n Comments at 5.

<sup>373</sup> Bell Atlantic Comments at 3-4; BellSouth Reply at 9 (abandoning regional allocation position in comment in favor of national allocation); CTIA Comments at 2-3; MobileMedia Communications Reply at 5; SBC Reply at 9-10; Scherers Communications Group Comments at 4; TRA Comments at 7; U S WEST Reply at i-ii. Cf. GTE Comments at 12-14 (proposing a national pool funded through end-user surcharges from which carriers would seek reimbursement of number portability costs); PCIA Comments at 6-7 (arguing that the portability fund should be collected and disbursed on a centralized basis).

<sup>374</sup> BellSouth Reply at 9; SBC Reply at 7 n.18; U S WEST Reply at 16-19. Cf. Sprint Comments at 7 (advocating regional allocation but acknowledging that calculating regional revenue may be difficult).

<sup>375</sup> BellSouth Reply at 9; PCIA Reply at 2; SBC Reply at 10; U S WEST Reply at 16-19.

<sup>376</sup> CTIA Comments at 2-3 (arguing that wireless subscribers use their telephones nationwide and that CMRS service areas may span multiple regions); SBC Reply at 7 n.18, 9.

<sup>377</sup> SBC Reply at 10.

<sup>378</sup> NECA Reply at 2-3.

<sup>379</sup> 47 C.F.R. § 52.26. As explained in the *Second Report and Order*, these duties include all management tasks required to run the regional databases. *In re Telephone Number Portability*, Second Report and Order, 12 FCC Rcd. 12281,12307-09 (Second Report and Order).

<sup>380</sup> The term "local number portability administrator" (LNPA) is defined at 47 C.F.R. § 52.21(h).

<sup>381</sup> The term "regional database" is defined at 47 C.F.R. § 52.21(l).

database administrator shall distribute the remaining shared costs based upon each remaining telecommunications carrier's proportion of the end-user revenues collected by all telecommunications carriers in that region. To apply the end-user revenues allocator, administrators may request regional end-user revenues data from telecommunications carriers once a year. We direct telecommunications carriers to comply with such requests. One of the objectives of the biennial review of our regulations required under the Communications Act is to consider ways to reduce filing burdens on carriers. The Commission may further consider in the biennial review or other proceedings how best to administer the allocation of the shared costs.

117. We are aware that some carriers have already begun paying their regional database administrators based on temporary agreements negotiated by the regional LLCs. We will permit, but not require, each regional administrator and LLC to adjust prospectively through a reasonable true-up mechanism the future bills of those carriers that participated in such agreements so that the shared costs each such carrier will have contributed approaches what those carriers would have paid had an end-user telecommunications revenue allocator been in place when carriers started paying the regional administrators. Permitting the regional administrators and LLCs to perform such true-ups ensures that costs are recovered from carriers in a manner consistent with our rules, while accounting for the period prior to the effective date of our rules and recognizing that agreements may have been reasonable mechanisms to recover regional database costs on a temporary basis pending this *Third Report and Order*.

## F. Amortization

### 1. Positions of the Parties

118. Parties that address the issue of the time period for amortization of nonrecurring regional database costs almost uniformly advocate a five-year period.<sup>382</sup> These commenters argue that amortization will equitably distribute these costs among current carriers and later entrants,<sup>383</sup> accommodate changes in market volume and market share,<sup>384</sup> and avoid the adverse impact that a large, one-time payment may

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<sup>382</sup> Ameritech Reply at 8 (advocating amortizing over no more than five years the costs of establishing long term number portability, and after five years treating the ongoing regional database costs associated with database administration as costs of doing business); Calif. Dep't Consumer Affairs Comments at 15-16 (advocating amortizing the implementation costs of number portability annually at an exponentially increasing pace over a period long enough to reflect changes in market volume and market share that portability-spurred competition is likely to create); Cincinnati Bell Comments at 10 & n.13 (advocating amortizing nonrecurring costs over five years); Colo. Pub. Utils. Comm'n Comments at 8 (advocating amortizing nonrecurring costs over the life of the database administrators' contracts); NCTA Reply at 9 (advocating amortizing nonrecurring costs through monthly charges over five years); PacTel Comments at 5 (advocating amortizing database start-up costs over a period in the range of five years); Time Warner Comments at 9 (advocating amortizing nonrecurring costs over three to five years); USTA Comments at iv (advocating amortizing nonrecurring costs over five years).

<sup>383</sup> NCTA Reply at 2; Time Warner Comments at 9.

<sup>384</sup> Calif. Dep't Consumer Affairs Comments at 15-16.

cause.<sup>385</sup> Omnipoint advocates an adjustment mechanism to account for changes in nonrecurring and administrative expenses and the costs of improvements to the database facilities.<sup>386</sup> Other commenters argue that the data used for allocation—whether revenues, lines, or some other factor—must be regularly updated to account for changes in market share.<sup>387</sup> Some commenters also advocate that we establish a settlement period or true-up mechanism by which later entrants would reimburse previous participants.<sup>388</sup>

## 2. Discussion

119. As part of its management duties under section 52.26 of our Rules, the administrator of each regional database must collect sufficient revenues to fund its regional database. In this regard, the nonrecurring shared costs attributable to that database must be amortized over a reasonable period. This approach will avoid potentially large, one-time charges on carriers, and ameliorate carriers' concerns that later participants might avoid nonrecurring database costs. We decline to implement a true-up mechanism under which later entrants reimburse previous participants.<sup>389</sup> Requiring amortization of nonrecurring costs will adequately address concerns that later entrants will avoid nonrecurring costs. Furthermore, carriers have not demonstrated that the absence of a true-up mechanism would significantly affect carriers' abilities to compete for customers.

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<sup>385</sup> Cincinnati Bell Comments at 10 & n.13; NCTA Reply at 2; Time Warner Comments at 9; USTA Comments at iv.

<sup>386</sup> Omnipoint Communications Comments at 4.

<sup>387</sup> Cincinnati Bell Reply at 4 (arguing that any allocation method would require annual adjustments); SBC Comments at 11 (arguing that the number portability administrators should periodically update the EAL-count); Sprint Comments at 7 (advocating quarterly allocator-related updates of each local service provider's number of presubscribed lines). *Cf.* Cincinnati Bell Comments at 7-8 (criticizing revenue-based allocators because they would require continual updating as companies enter the market and their revenue share grows; arguing that to fix shares based on current revenues would require incumbent LECs to bear the majority of costs even if their share of market revenues declines); MCI Reply at 14 (criticizing revenues-based allocators because they would require continuous updating as companies enter and exit the market and as revenue shares change).

<sup>388</sup> Cincinnati Bell Reply at 4 (arguing that to do otherwise would encourage entrants to delay entry until other carriers have borne the nonrecurring costs); Iowa Network Servs. Reply at 7 (arguing that as carriers implement number portability their allocated share of nonrecurring and recurring shared costs could be applied as a credit to carriers that have already contributed); ITCs Comments at 3 (arguing that beneficiaries of number portability should bear nonrecurring costs through a one-time assessment, with future beneficiaries providing credits to previous contributors); Ohio Pub. Utils. Comm'n Comments at 9 (advocating a true-up based on projected gross revenues over a seven-year period to ensure that entrants bear their fair share of nonrecurring costs and have no incentive to delay entry until all nonrecurring costs are distributed among other carriers).

<sup>389</sup> We distinguish, however, this type of true-up mechanism from the one we are allowing, but not requiring, regional database administrators to implement to ensure that carriers which began paying for regional database costs before the release of this *Third Report and Order* will eventually pay for those costs in accordance with our end-user telecommunications revenues allocator. *See supra* paragraph 117.

## G. Enforcement

### 1. Positions of the Parties

120. Commenting parties suggest various enforcement mechanisms to ensure that all telecommunications carriers are assessed on a competitively neutral basis the regional database costs of number portability, such as a cost-audit process that a neutral party such as the NANC, NANPA, or Commission would administer.<sup>390</sup>

### 2. Discussion

121. Commenters have failed to show the need for any special enforcement mechanisms to ensure that carriers bear the costs of the regional databases on a competitively neutral basis in accordance with our requirements. If carriers find that other carriers or the LNPAs are not meeting our requirements, they may file a complaint under section 208 of the Act.<sup>391</sup> In the event experience shows that the Commission needs to amend its rules to ensure that all carriers bear their fair share of the cost of the regional databases, the Commission may reconsider our finding that no special enforcement mechanism is necessary. The Commission may also audit the costs of the regional database administrators. Furthermore, both the Commission and any collections administrator the Commission appoints may audit revenue data that carriers submit as the basis for allocation and take action as warranted.

## VI. CARRIER-SPECIFIC COSTS DIRECTLY RELATED TO PROVIDING NUMBER PORTABILITY

### A. Background

122. In the *Further Notice*, the Commission identified two approaches to the distribution among carriers of carrier-specific costs directly related to providing number portability: 1) making individual carriers responsible for their own carrier-specific costs directly related to providing number portability; or 2) pooling carrier-specific costs directly related to providing number portability and distributing them among carriers based on some allocator.<sup>392</sup> The Commission sought comment on the application of section 251(e)(2) to these distribution methods, and on any alternative ways of distributing those costs.<sup>393</sup>

123. The Commission also sought comment on whether it should create a mechanism for

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<sup>390</sup> SBC Comments at 11 (advocating that the NANC or its designee oversee the activities and responsibilities of the fund administrator); Time Warner Comments at 12-13 (suggesting that the NANC or the Commission periodically may need to review the regional administrators' billing procedures).

<sup>391</sup> See 47 U.S.C. § 208.

<sup>392</sup> See *In re Telephone Number Portability*, First Report and Order & Further Notice of Proposed Rulemaking, 11 FCC Rcd. 8352, 8464 (1996) (Order & Further Notice).

<sup>393</sup> *Id.*

carriers to recover carrier-specific costs directly related to providing number portability from end-users or other carriers, and if so, under what authority the Commission could do so and what form the mechanism should take.<sup>394</sup> If carriers recover number portability costs from end users, the Commission sought comment on whether they should be allowed to do so in any manner they choose, or whether the Commission should require an end-user number portability charge.<sup>395</sup> The Commission also sought comment on whether any such charge should vary among carriers within regions, among carriers across regions, or over time.<sup>396</sup> The Commission also asked whether carriers should charge their end users a one-time charge, a monthly fee, or a percentage of the monthly bill, and whether any charge should appear as a line-item on the bill.<sup>397</sup> The Commission sought comment on the application of section 251(e)(2) to the recovery from end users of carrier-specific costs directly related to providing number portability.<sup>398</sup> If carriers recover number portability costs from other carriers, the Commission sought comment on whether regulated carriers should be allowed to do so through increases in charges for regulated services, and under what authority the Commission can permit such increases.<sup>399</sup>

124. The Commission tentatively concluded that price-cap LECs should be permitted to treat as exogenous carrier-specific costs directly related to providing number portability, but should not be allowed to treat as exogenous carrier-specific costs not directly related to providing number portability.<sup>400</sup> The Commission sought comment on this tentative conclusion, as well as whether price-cap LECs should place number portability costs into a new or existing price-cap basket.<sup>401</sup>

## B. Positions of the Parties

125. PacTel, U S WEST, AT&T, MCI, Sprint, Frontier, MFS, NCTA, Teleport, Time Warner, AirTouch Communications, AirTouch Paging, Omnipoint, and PCIA argue that we should require carriers to recover their own carrier-specific costs directly related to number portability, rather than pool such costs.<sup>402</sup> They argue that requiring each carrier to "bear its own costs," unlike pooling, encourages

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<sup>394</sup> *Id.*

<sup>395</sup> *Id.*

<sup>396</sup> *Id.* at 8465.

<sup>397</sup> *Id.*

<sup>398</sup> *Id.* at 8464.

<sup>399</sup> *Id.* at 8465.

<sup>400</sup> *Id.* at 8466.

<sup>401</sup> *Id.*

<sup>402</sup> AirTouch Communications Reply at 6-8; AirTouch Paging Reply at 2-5; AT&T Comments at 12-14; Frontier Comments at 2-3; MCI Reply at 6-10; MFS Comments at 2-4; NCTA Reply at 3-5; Omnipoint Reply at 3-8; PacTel Comments at 10-11; PCIA Reply at 6-8; Sprint Reply at 5-6; Teleport Comments at 7-8; Time Warner

efficiency because each carrier is responsible for every dollar it spends.<sup>403</sup> They also argue that making each carrier responsible for its own costs is more consistent with a competitive marketplace,<sup>404</sup> and requires carriers to pay for the benefits they receive from number portability instead of forcing some carriers to subsidize other carriers' network improvements.<sup>405</sup> In addition, they argue that making each carrier responsible for its own costs is less administratively expensive and cumbersome than pooling because it avoids the need for the Commission or the states to distribute costs, collect funds, and police abuses.<sup>406</sup>

126. Bell Atlantic, BellSouth, NYNEX, SBC, USTA, Nextel, the Florida Public Service Commission, and the GSA argue that an administrator should pool the carrier-specific costs directly related to number portability and then allocate them among carriers.<sup>407</sup> They argue that such costs are not discretionary, but incurred for the statutorily mandated, industry-wide goal of porting numbers to the

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Reply at 5-12; U S WEST Reply at 19-20. *See also* Ameritech Comments at 8, Reply at 6-8 & nn.9-10 (arguing that national pooling is inefficient and expensive but that carrier-specific costs directly related to number portability can be pooled at the regional or state level and allocated among all LECs; arguing alternatively that carriers can recover their costs from their own end users without pooling if a uniform, mandatory, regional or state surcharge based on the average or median cost of all carriers in the area can fairly compensate reasonably efficient LECs).

<sup>403</sup> AirTouch Communications Reply at 6-7; AirTouch Paging Reply at 4-5; AT&T Reply at 11-12; MCI Reply at 9; MFS Reply at 6-7; NCTA Reply at 4-5; Omnipoint Reply at 5-6; PacTel Comments at 10-11; PCIA Comments at 7-8; Sprint Reply at 5-6; Teleport Comments at 8; Time Warner Reply at 5-6, 10; U S WEST Reply at 19-20. *Cf.* Ameritech Comments at 7 (arguing that more efficient options are available than pooling, which is administratively expensive and may reward inefficiency).

<sup>404</sup> AirTouch Communication Reply at 6-7; MCI Reply at 9; MFS Reply at 6-7; Omnipoint Reply at 6; PacTel Comments at 10-11; PCIA Comments at 7-8; Sprint Reply at 5-6; Time Warner Reply at 10-12.

<sup>405</sup> AirTouch Communications Reply at 6-7; AirTouch Paging Reply at 4-5; Frontier Comments at 2-3; MCI Comments at 9-10; MFS Reply at 6; NCTA Reply at 4; Omnipoint Reply at 4-6; PacTel Comments at 10-11; Sprint Reply at 5-6; Time Warner Reply at 7-9.

<sup>406</sup> Ameritech Comments at 7; MCI Reply at 9-10; Omnipoint Reply at 5-8; PacTel Comments at 10-11; PCIA Reply at 3-4; Sprint Reply at 5-6; U S WEST Reply at 19-20. *Cf.* Ameritech Comments at 7 (arguing that more efficient options are available than pooling, which is administratively expensive and may reward inefficiency); Teleport Comments at 8 (arguing that pooling would subject the previously unregulated competitive LECs to burdensome reporting requirements). *See also* Calif. Dep't Consumer Affairs Comments at 19-21 (arguing that requiring carriers to bear their own costs directly related to number portability would likely burden incumbent LECs disproportionately, but that the Commission must assess whether such costs warrant the bureaucratic expense and regulation involved in pooling).

<sup>407</sup> Bell Atlantic Comments at 1-4; BellSouth Reply at 9-11; Fla. Pub. Servs. Comm'n Comments at 4-5; GSA Reply at 5-7; NYNEX Reply at 4-6, 8-11; Nextel Comments at 4; SBC Comments at 9-11; USTA Comments at 11-16. *See also* Cincinnati Bell Comments at 7-13 (arguing that rather than allocate costs an administrator should pool carrier cost-estimates and set a charge for carriers to collect from end users); GTE Comments at 12-14 (arguing that rather than allocate costs an administrator should reimburse carriers from a pool of charges the administrator collects from end users based on carriers' cost estimates).



benefit of all end-users.<sup>408</sup> They also argue that section 251(e)(2) requires all carriers to bear the costs of number portability,<sup>409</sup> and that Congress would not have adopted section 251(e)(2) had it intended carriers to incur and recover their own costs under competitive market forces.<sup>410</sup> In response to commenters that argue pooling is inefficient, they argue that incumbent LECs would still have efficiency incentives because they would pay a large percentage of the pooled costs.<sup>411</sup> They also argue that administrators could subject carriers to cost reporting requirements and audits,<sup>412</sup> and that the economic burdens of administering a cost pool would be small compared to LEC portability costs.<sup>413</sup> They further argue that making carriers responsible for their own costs would violate competitive neutrality by disproportionately burdening incumbent LECs, which will have higher number portability costs.<sup>414</sup> Some commenters, including Cincinnati Bell, disagree that incumbent LECs will have disproportionately higher costs, however. They note that incumbent LECs benefit from economies of scale and larger customer bases over which to spread their portability costs.<sup>415</sup>

127. To recover carrier-specific costs directly related to number portability, Ameritech, Bell Atlantic, BellSouth, Cincinnati Bell, GTE, NYNEX, SBC, USTA, the California Department of Consumer

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<sup>408</sup> BellSouth Reply at 5-6; GSA Reply at 6-7; NYNEX Reply at 5; USTA Reply at 12-13.

<sup>409</sup> Bell Atlantic Reply at 5-6; BellSouth Reply at 5; NYNEX Reply at 5-6; SBC Reply at 3-5; USTA Reply at 8-11.

<sup>410</sup> Bell Atlantic Reply at 5-6; USTA Reply at 12-13.

<sup>411</sup> BellSouth Reply at 10; Florida Pub. Servs. Comm'n Comments at 5. *Cf.* USTA Reply at 12-14 (arguing that under a pooling mechanism no carrier can impose costs on its competitors without increasing its own costs).

<sup>412</sup> GSA Reply at 7; SBC Reply at 13-14 n.38.

<sup>413</sup> Bell Atlantic Reply at 7.

<sup>414</sup> BellSouth Reply at 6-7, 12; Florida Pub. Servs. Comm'n Comments at 4-5; GSA Reply at 6; NYNEX Reply at 5-6; USTA Reply at 9-10. *Cf. Ex Parte* Letter from Link Brown, Director-Federal Regulatory Affairs, SBC Communications Inc., to William F. Caton, Acting Secretary, FCC (April 25, 1997) (claiming based on a hypothetical situation in the Houston market that a competitive LEC's portability costs per access line would be one-third to one-half of an incumbent LEC's costs); *Ex Parte* Letter from F.G. Maxson, Director-Regulatory Affairs, GTE Service Corporation, to William F. Caton, Acting Secretary, FCC (June 12, 1997) (claiming that carrier-specific portability switching costs per line will be more than three times those of competitive LECs). *See also* Calif. Dep't Consumer Affairs Comments at 19-21 (arguing that requiring carriers to bear their own costs directly related to number portability would likely burden incumbent LECs disproportionately, but that the Commission must assess whether such costs warrant the bureaucratic expense and regulation involved in pooling); Calif. Pub. Utils. Comm'n Comments at 11-13 (suggesting that the Commission make carriers responsible for a portion of their own costs directly related to number portability and pool the rest as a way to balance interests in competitive neutrality and efficiency).

<sup>415</sup> *See* AT&T Comments at 13-14; Cincinnati Bell Comments at 4 (noting that larger carriers will have greater absolute costs but are more likely to be able to negotiate discounts from manufacturers and may have less costs per line); MCI Reply at 7-9; Time Warner Reply at 9.

Affairs, Arch Communications, and MobileMedia support an explicit, uniform, mandatory charge set as a flat rate or a percentage of each end-user's bill.<sup>416</sup> Although some of these commenters apparently would impose such a charge only on incumbent LEC customers, others appear to suggest such a charge for customers of all local service, including CMRS customers,<sup>417</sup> all LEC customers,<sup>418</sup> or all end users.<sup>419</sup> Advocates argue that an explicit, uniform, mandatory surcharge would be competitively neutral because it would ensure that all carriers would charge customers in the same way<sup>420</sup> and would provide a straightforward mechanism to recover portability costs from those who benefit—consumers.<sup>421</sup> They also argue that this mechanism avoids market distortions that embedding the costs in carrier rates would create,<sup>422</sup> increases carrier accountability, and informs customers of the costs of number portability.<sup>423</sup> In addition, they argue that any other mechanism would not be competitively neutral because, unlike unregulated carriers, the ability of regulated carriers to recover their costs is limited by regulatory constraints.<sup>424</sup> GTE also argues that a uniform, mandatory end-user charge is necessary to avoid a taking in violation of the Fifth Amendment.<sup>425</sup> GTE supports a mechanism that would reimburse carriers for all

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<sup>416</sup> Ameritech Comments at 8; Arch Communications Reply at 7; Bell Atlantic Comments at 8; BellSouth Reply at 12-13; Calif. Dep't Consumer Affairs Comments at 21-24; Cincinnati Bell Comments at 8-12, Reply at 6-8; GTE Comments at 9-14; MobileMedia Communications Reply at 5; NYNEX Comments at 11-12; SBC Comments at 10-14; USTA Comments at 18-19. *See also* PacTel Reply at 2-5 (advocating an explicit, mandatory end-user surcharge but arguing that instead of uniform it should be set for each carrier based on that carrier's number portability costs).

<sup>417</sup> *See, e.g.*, Cincinnati Bell Comments at 8-12, Reply at 6-8.

<sup>418</sup> *See, e.g.*, Ameritech Comments at 8.

<sup>419</sup> *See, e.g.*, Bell Atlantic Comments at 8; NYNEX Comments at 11-12; SBC Comments at 10-14.

<sup>420</sup> Ameritech Comments at 7, 8; Arch Communications Group Reply at 7; Bell Atlantic Comments at 7-8; BellSouth Reply at 9, 12-13; Calif. Dep't Consumer Affairs Comments at 24; Cincinnati Bell Reply at 6-7; GTE Comments at 11-13; MobileMedia Reply at 5; NYNEX Comments at 11-14; SBC Comments at 12-14; USTA Comments at 18-19.

<sup>421</sup> Cincinnati Bell Comments at 6-11; GTE Comments at 10-13; NYNEX Comments at 11-14; USTA Comments at 18-19.

<sup>422</sup> NYNEX Comments at 11-14.

<sup>423</sup> Calif. Dep't Consumer Affairs Comments at 24; NYNEX Comments at 11-14; PacTel Reply at 2-5; SBC Reply at 15; USTA Reply at 18-19.

<sup>424</sup> BellSouth Reply at 9, 12-13; Cincinnati Bell Comments at 8-11; GTE Comments at 8-13; NYNEX Comments at 11-14.

<sup>425</sup> GTE Comments at 8-11. *Cf.* Cincinnati Bell Comments at 6 (arguing that the Commission must ensure that carriers recover all their number portability costs to avoid an unconstitutional taking). *See also* U S WEST Comments at 8-9, 19-22 (arguing that a federally mandated surcharge is necessary to avoid an unconstitutional taking, but arguing that carriers should be allowed flexibility in setting that surcharge).

their costs directly related to number portability.<sup>426</sup> Ameritech, on the other hand, would give carriers a fixed amount of revenue from the collected charges, regardless of their actual costs, and argues that this encourages efficiency.<sup>427</sup> GTE argues, however, that such a mechanism would discriminate against high-cost carriers and that pooling is necessary to prevent disproportionate cost recovery.<sup>428</sup> The California Department of Consumer Affairs and the General Services Administration argue that any end-user charges should be limited to areas where number portability is available, and thus to customers that receive the benefits of number portability.<sup>429</sup>

128. The California Department of Consumer Affairs advocates an end-user charge that remains constant among carriers within a given geographic region.<sup>430</sup> PacTel and Teleport, on the other hand, argue that end-user charges should vary within a given geographic region to account for carriers' different portability costs.<sup>431</sup> Cincinnati Bell, GTE, and SBC envision recalculating the end-user charge annually based on each year's portability cost estimates.<sup>432</sup> Ameritech, Bell South, Cincinnati Bell, NYNEX, SBC, and U S WEST argue that once carriers recover the implementation costs of number portability, which is likely to take between three to five years, the end-user charge should either decrease<sup>433</sup> or discontinue.<sup>434</sup>

129. Bell Atlantic, the California Department of Consumer Affairs, NYNEX, and USTA argue

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<sup>426</sup> See, e.g., GTE Comments at 12-14 (arguing that rather than allocate carrier-specific costs directly related to number portability an administrator should reimburse carriers from a pool of surcharges the administrator collects from end users based on carriers' cost estimates).

<sup>427</sup> Ameritech Comments at 8.

<sup>428</sup> GTE Reply at 5-7.

<sup>429</sup> Calif. Dep't Consumer Affairs Comments at 23; GSA Comments at 10 (advocating direct recovery from end users with a per-number charge).

<sup>430</sup> Calif. Dep't Consumer Affairs Comments at 24 (arguing that a constant charge within a geographic region would comport with competitive neutrality).

<sup>431</sup> PacTel Reply at 4; Teleport Comments at 11.

<sup>432</sup> Cincinnati Bell Comments at 9; GTE Comments at 12-13; SBC Comments at 12. Cf. Ameritech Comments at 8 (advocating an optional review midway through the recovery period if costs change substantially).

<sup>433</sup> SBC Comments at 12 n.17 (arguing that NANC should determine the recovery period); U S WEST Comments at 21 (arguing carriers should recover costs over the same period that they incur them). *But cf.* Calif. Dep't Consumer Affairs Comments at 24 (arguing carriers should prorate the portability end-user charge over several years to reflect the increased costs of implementing portability as it develops over time).

<sup>434</sup> Ameritech Reply at 8 (arguing carriers should recover costs over no more than five years); Bell South Reply at 9, 12 (arguing carriers should recover costs over three to five years); Cincinnati Bell Comments at 10, 11 (arguing carriers should recover costs over five years); NYNEX Comments at 14.

for an end-user charge calculated as a percentage of each bill,<sup>435</sup> arguing that a flat charge on each customer would not reach carriers that do not have presubscribed customers.<sup>436</sup> Ameritech, Arch Communications Group, Bell South, Cincinnati Bell, GTE, MobileMedia, PacTel, SBC, and U S WEST prefer a flat end-user charge,<sup>437</sup> arguing that such a charge provides predictability for consumers,<sup>438</sup> and that neither number portability costs nor the value consumers place on number portability depend on how much a customer spends on telephone service.<sup>439</sup> They argue also that a charge calculated as a percentage of the bill would disproportionately burden higher priced services such as cellular and PCS,<sup>440</sup> and would encourage high revenue customers to port to a carrier with a lower charge.<sup>441</sup> They also argue that it would be difficult to determine the appropriate base against which a percentage could be applied in the case of bundled service packages that include optional extended area calling plans and vertical services.<sup>442</sup>

130. U S WEST, AT&T, MCI, Sprint, GST, Teleport, ALTS, Scherers Communications Group, AirTouch Communications, WinStar, PCIA, the California Public Utilities Commission and the Public Utilities Commission of Ohio argue that carriers should be allowed flexibility in deciding whether and how to recover from end users their carrier-specific costs directly related to number portability.<sup>443</sup> They argue that allowing carriers to recover their portability costs from end users as they see fit in light of market forces is consistent with competitive markets,<sup>444</sup> and that permitting rather than requiring recovery

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<sup>435</sup> Bell Atlantic Comments at 8; Calif. Dep't Consumer Affairs Comments at 24; NYNEX Reply at 9; USTA Reply at 19. *Cf.* Teleport Comments at 11-12 (arguing that recovery from consumers should be limited to their proportionate share of carriers' net revenues to remove any incumbent LEC incentive to shift portability costs to consumers in areas with lower competition).

<sup>436</sup> USTA Reply at 19.

<sup>437</sup> Ameritech Comments at 2, 8; Arch Communications Reply at 7; Bell South Reply at 12; Cincinnati Bell Reply at 7-8; GTE Reply at 4; MobileMedia Reply at 5; PacTel Reply at 4-5; SBC Comments at 14; U S WEST Comments at 7.

<sup>438</sup> Cincinnati Bell Reply at 7.

<sup>439</sup> *Id.*

<sup>440</sup> GTE Reply at 4.

<sup>441</sup> PacTel Reply at 4.

<sup>442</sup> GTE Reply at 4.

<sup>443</sup> U S WEST Comments at 19-22, Reply at 5-10 (arguing that the Commission should allow incumbent LECs the discretion to collect a flat end-user surcharge).

<sup>444</sup> AirTouch Communications Reply at 13-14 (concluding, therefore, that for the Commission to restrict the manner in which carriers may recover their number portability costs would not be competitively neutral); AT&T Reply at 12-13; Calif. Pub. Utils. Comm'n Comments at 14 (arguing, also, that such determination concerning recovery from end users should be left to the states); Ohio Pub. Utils. Comm'n Comments at 7, 10; PCIA Comments at 8; Scherers Communications Group Comments at 4-5; Sprint Reply at 6-7; U S WEST Comments at

from end users encourages carriers to minimize number portability costs and charges.<sup>445</sup> They argue that a uniform, mandatory, end-user charge is inappropriate because not all carriers will have the same number portability costs,<sup>446</sup> that an end-user charge would be difficult to administer,<sup>447</sup> and that the Commission should not overload customer bills with line-item charges.<sup>448</sup> They also argue that an end-user charge would foster hostility toward number portability and competitors,<sup>449</sup> that such a charge would interfere with state regulators' cost recovery authority,<sup>450</sup> and that section 251(e)(2) states that carriers, not customers, shall bear the costs of number portability.<sup>451</sup>

131. Iowa Network Services, NTCA & OPASTCO, PacTel, and U S WEST argue that the Commission should allow carriers to recover their carrier-specific costs directly related to number portability through their interconnection charges to other carriers. They argue that interconnection rates should include the incumbent LECs' costs of providing number-portability-capable service because such capability benefits the carriers that interconnect.<sup>452</sup> They also argue that without intercarrier charges, facilities-based carriers will be forced to raise their rates, which would put them at a competitive disadvantage.<sup>453</sup> Finally, they argue that allowing intercarrier charges would avoid the administrative burdens of a cost pool.<sup>454</sup>

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8-9, 13-15, 19-22 (arguing that incumbent LECs should be allowed enough flexibility to compete on price).

<sup>445</sup> Calif. Pub. Utils. Comm'n Reply at 6 (arguing, also, that such determination concerning recovery from end users should be left to the states); GST Reply at 8-9; Teleport Comments at 10-11; WinStar Reply at 11-12.

<sup>446</sup> MCI Comments at 8-9.

<sup>447</sup> Calif. Pub. Utils. Comm'n Comments at 14 (arguing, also, that such determination concerning recovery from end users should be left to the states); MCI Reply at 11-12.

<sup>448</sup> Calif. Pub. Utils. Comm'n Comments at 14 (arguing, also, that such determination concerning recovery from end users should be left to the states). *Cf.* ALTS Comments at 4, 6 (arguing that a line-item charge would mislead customers); Sprint Comments at 11-12 (arguing that line-item number portability charges would likely cause customer confusion).

<sup>449</sup> ALTS Comments at 4, 6; MCI Reply at 11-12; Teleport Comments at 10-11.

<sup>450</sup> Calif. Pub. Utils. Comm'n Reply at 6; MCI Reply at 11-12.

<sup>451</sup> NTCA & OPASTCO Comments at 11-12.

<sup>452</sup> Iowa Network Servs. Reply at 7-10; NTCA & OPASTCO Comments at 3-5; PacTel Reply at 3-4 (arguing that a purchaser of unbundled switching is purchasing all the functionality of the switch, including number portability). *See also* U S WEST Reply at 20 (arguing that carriers should recover number portability costs from resellers and purchasers of unbundled switching to the extent that number portability costs are not reflected in the rates for those services).

<sup>453</sup> Iowa Network Servs. Reply at 7-10; NTCA & OPASTCO Comments at 3-5.

<sup>454</sup> Iowa Network Servs. Reply at 7-10.

132. SBC, USTA, AT&T, MCI, TRA, Time Warner, Teleport, MFS, GST, the California Public Utilities Commission, AirTouch Communications, and WinStar argue that the Commission should forbid carriers from recovering their carrier-specific costs directly related to number portability from other carriers through interconnection charges. They argue that allowing carriers to recover their number portability costs by raising rates for intercarrier services would defeat the purpose of establishing a competitively neutral distribution of costs among carriers in the first place,<sup>455</sup> and would make intercarrier services less cost-based and constitute an implicit subsidy.<sup>456</sup> They also argue that intercarrier recovery would not be competitively neutral because incumbent LECs would be able to use their market power and control over bottleneck services such as interconnection or access to shift their number portability costs onto other carriers.<sup>457</sup> In addition, they argue that intercarrier recovery would reduce carriers' incentives to implement number portability efficiently because they would be less accountable for their own costs.<sup>458</sup> Finally, they argue that intercarrier recovery could confuse and delay the negotiated agreement process,<sup>459</sup> and would be inappropriate because all carriers will have number portability costs.<sup>460</sup> Commenters generally support, however, allowing intercarrier charges for number portability services one carrier provides to another, such as performing the N-1 query, whether by arrangement or default.<sup>461</sup>

133. ALTS, BellSouth, the California Public Utilities Commission, Frontier, GTE, ITCs, PacTel, Sprint, and TRA advocate treating incumbent LECs' carrier-specific costs directly related to number portability as exogenous. They argue that such costs are beyond the carriers' control because number portability was mandated by Congress.<sup>462</sup> PacTel argues that the Commission should include a new number portability rate element in the current Common Line basket, updating the rates annually to ensure that LECs would be able to recover portability costs as subscribers change providers.<sup>463</sup> MCI

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<sup>455</sup> Calif. Pub. Utils. Comm'n Comments at 13-14; GST Reply at 8-9; Teleport Comments at 12; WinStar Comments at 8.

<sup>456</sup> MFS Comments at 4; USTA Reply at 17-18; WinStar Comments at 8.

<sup>457</sup> AirTouch Communications Reply at 12-13; AT&T Comments at 10-11, 15-16; MCI Comments at 8-10; TRA Comments at 9-10, 11-12; Time Warner Reply at 15-16.

<sup>458</sup> AT&T Comments at 12-13; MFS Reply at 8.

<sup>459</sup> USTA Reply at 17-18.

<sup>460</sup> SBC Comments at 16; TRA Comments at 9-10.

<sup>461</sup> Ameritech Reply at 8; Calif. Dep't Consumer Affairs Comments at 24-25; NYNEX Comments at 13; Teleport Comments at 12. *See also* U S WEST Reply at 20 (arguing that carriers should recover portability costs from carriers that use unbundled network switching to provide number portability).

<sup>462</sup> ALTS Comments at 4, 6; Bell South Comments at 8; Calif. Pub. Utils. Comm'n Reply at 8; Frontier Comments at 4-5; GTE Reply at 10 n.28; ITCs Comments at 4; PacTel Comments at 12; Sprint Comments at 11-12; TRA Comments at 13-14.

<sup>463</sup> PacTel Comments at 12.

argues, on the other hand, that placing number portability in a basket with other services would allow LECs to institute a price squeeze on potential competitors by raising the number portability charges and lowering other charges to their end-user customers.<sup>464</sup> If the Commission treats number portability as a price cap service, MCI advocates treating number portability as a new service, and creating new rate elements.<sup>465</sup> Carriers would base the number portability rates on the cost of the service, and the rates would be included in the price cap index the following year.<sup>466</sup>

134. AT&T, MCI, MFS, NCTA, Time Warner, and WinStar object to allowing price-cap carriers to recover their number portability costs through exogenous adjustments to their access charges.<sup>467</sup> The Ad Hoc Telecommunications Users Committee argues that exogenous treatment is inappropriate because incumbent LECs have control over their own number portability costs,<sup>468</sup> because exogenous treatment would lower the "X" factor and thus raise access rates,<sup>469</sup> and because exogenous treatment could lead to double recovery.<sup>470</sup>

### C. Discussion

135. We will allow but not require incumbent LECs subject to rate-of-return or price-cap regulation to recover their carrier-specific costs directly related to providing number portability through a federal charge assessed on end-users. As noted, we recognize consumers' sensitivity to end-user charges. Under the circumstances before us, however, we conclude that allowing carriers to recover number portability costs in this manner will best serve the goals of the statute. The Commission has only two sources from which it may allow carriers to recover costs in the federal jurisdiction: charges IXCs pay LECs for exchange access, and end-user charges. Because number portability is not an access-related

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<sup>464</sup> MCI Comments at 13.

<sup>465</sup> *Id.*

<sup>466</sup> *Id.*

<sup>467</sup> AT&T Reply at 7 n.18, 12-13; MCI Comments at 12-13; MFS Reply at 9; NCTA Reply at 9-10; Time Warner Reply at 15-16 & n.41; WinStar Reply at 10. *See also* Bell Atlantic Comments at 7 (arguing that simply allowing incumbent LECs to treat their number portability costs as exogenous is an inadequate recovery mechanism if IXCs can buy unbundled network elements instead of access, and that treating number portability costs as exogenous is inconsistent with the goal of removing implicit subsidies); U S WEST Reply at 5-6 (arguing that exogenous cost treatment is an inadequate means for incumbent LEC recovery if IXCs can buy unbundled network elements instead of access); USTA Reply at 17-18 (arguing that exogenous adjustments are ineffective when carriers can bypass rates through the purchase of unbundled elements).

<sup>468</sup> Ad Hoc Comments at 1-2.

<sup>469</sup> *Id.* at 2-3.

<sup>470</sup> *Id.*

service and IXCs will incur their own costs for the querying of long-distance calls,<sup>471</sup> we will not allow LECs to recover long-term number portability costs in interstate access charges. Nor would it likely be competitively neutral to do so. We note further that, like long-term number portability, the advent of equal access and 800 number portability required carriers to incur significant costs to modify their networks, although these costs were not recovered in federal end-user charges. These improvements led to increased competition and substantial long-term benefits to consumers. We anticipate a similarly positive effect for consumers with respect to the impact of number portability, namely the increased choice and lower prices that result from the competition that number portability helps make possible. We also note that number portability will facilitate number pooling, which will help forestall telephone-number exhaust.<sup>472</sup>

136. Carriers not subject to rate regulation—such as competitive LECs, CMRS providers, and non-dominant IXCs—may recover their carrier-specific costs directly related to providing number portability in any lawful manner consistent with their obligations under the Communications Act.<sup>473</sup> Requiring incumbent LECs to bear their own carrier-specific costs of providing number portability and allowing them to recover those costs from their own customers, while leaving other carriers unregulated, meets our competitive neutrality standard that number portability cost distribution and recovery mechanisms: (1) not give one service provider an appreciable, incremental cost advantage over another service provider when competing for a specific subscriber, and (2) not disparately affect the ability of competing service providers to earn a normal return.<sup>474</sup>

137. Requiring incumbent LECs to bear their own carrier-specific costs directly related to providing number portability will not disadvantage any telecommunications carrier because under an LRN implementation of long-term number portability a carrier's costs should vary directly with the number of customers that carrier serves. Our examination of the present record and cost data that some carriers have provided indicates that incumbent LECs, competitive LECs, and CMRS providers competing in the local service market are likely to have approximately the same long-run incremental number portability cost of winning a subscriber.<sup>475</sup> Incumbent LECs will likely have large absolute costs because of their large

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<sup>471</sup> See *supra* paragraph 15.

<sup>472</sup> Until now, local service providers had to be assigned entire NXXs, even if they did not need all 10,000 of the NXX's telephone numbers. With the advent of number portability, carriers can share NXXs and pool unused telephone numbers, which results in more efficient allocation of telephone numbers and reduces the need for measures such as area-code overlays to combat telephone number exhaust. See *generally* INDUSTRY NUMBERING COMMITTEE, ALLIANCE FOR TELECOMMUNICATIONS INDUSTRY SOLUTIONS, INITIAL REPORT TO THE NORTH AMERICAN NUMBERING COUNCIL ON NUMBER POOLING, VERSION 3 (INC97-1017-019 Jan. 16, 1998).

<sup>473</sup> Although generally not rate regulated, competitive LECs, CMRS providers, and IXCs—as telecommunications carriers—remain subject to the Communications Act and Commission rules.

<sup>474</sup> For an explanation of the competitive neutrality standard, see Part III.C.

<sup>475</sup> Cf. Mo. Pub. Servs. Comm'n Comments at 4-5 (stating that "[a]bsent evidence to the contrary, it is reasonable to expect the individual carriers to bear their direct specific costs of providing number portability. Given that new competitors will also be required to bear similar costs for their own networks, no particular competitive disadvantage to either incumbent or new entrant is apparent.").



networks, but they also will have a large customer base over which to spread those costs; competitive LECs and CMRS providers will likely incur fewer absolute costs because of their smaller networks, but they will also likely have smaller customer bases over which to spread those costs. We are not persuaded by arguments by SBC and GTE that incumbent LECs will incur disproportionately higher costs than competitive LECs.<sup>476</sup> SBC considered only switch-specific software costs and ignored other significant portability costs that an entrant would incur, such as for signalling and operational support systems. SBC further assumes that the entrant will quickly "fill" its switch with customers to enjoy the lower per-line costs SBC projects. Similarly, GTE assumes that competitive LECs will serve forty-five thousand lines per switch. Furthermore, GTE treats all its switch upgrade costs as direct portability costs, and does not distinguish its costs directly related to providing number portability from those not directly related to providing number portability, such as its general network upgrades.

138. Some small LECs and CMRS providers may find that their smaller customer bases make adding number portability capability in their own networks uneconomical. Such carriers can benefit from economies of scale similar to those of incumbent LECs, however, by arranging for another carrier or third-party provider to provide number portability functionality for them, as it appears that a market for number portability services may develop. Similarly, they may enter into cooperative agreements with other small carriers. Conversely, such carriers might install number portability in their networks and sell any excess number portability capacity to other carriers. Because resellers will simply be reselling the number portability capability of a facilities-based carrier, we would expect that resellers will also have comparable incremental number portability costs. Similarly, we would expect that carriers competing for interexchange customers will bear the costs of providing number portability associated with N-1 queries in rough proportion to the number of interexchange customers they serve; the more customers they win, the more queries they must perform to terminate those customers' calls. IXC and CMRS providers can either query interexchange calls themselves or arrange for other carriers or third-party providers to provide querying service for them.

139. Regulating the recovery of number portability costs by incumbent LECs, but not by competitive LECs, CMRS providers, and IXCs, also will not place any carrier at a competitive disadvantage. Creating an optional end-user charge for incumbent LECs ensures that such carriers have a reasonable opportunity to recover their costs and at the same time allows carriers to forego some or all of such charges if they deem it necessary to compete in the local service market. Similarly, unregulated carriers may recover their costs in end-user charges if they choose to do so. Regulating incumbent LEC recovery should not disadvantage incumbent LECs as compared to competitive LECs because competitive LECs also have number portability costs under LRN. If a customer does switch to a competitive LEC, that customer may have to pay end-user charges or service rates that recover the competitive LEC's portability costs. Thus, the customer's incentive to leave the incumbent LEC is offset by the fact that the customer would then have to pay charges that recover the competitive LEC's number portability costs. Therefore, incumbent LECs are unlikely to have a material disadvantage in competing for subscribers under our recovery mechanism.

140. We reject requests that we pool number portability costs. Because we expect that carriers'

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<sup>476</sup> See *supra* note 414 and accompanying text for their arguments.

costs directly related to providing long-term number portability under LRN will vary directly with the number of customers the carriers serve, pooling carrier-specific number portability costs is not necessary to achieve competitive neutrality. In addition, pooling has significant disadvantages. Carriers participating in a pool would have less incentive to minimize costs because they would not realize all the savings achieved by providing number portability more efficiently, and would not be fully responsible for any cost-increasing inefficiencies. Instituting a cost pool would also require the Commission to impose significant cost accounting and distribution mechanisms on both regulated and previously unregulated carriers.

141. We also observe that under LRN-based long-term number portability the LEC serving the customer who places a local call will generally be responsible for the query. Thus, winning a customer shifts responsibility for the queries needed to complete that customer's local calls from the original carrier to the acquiring carrier. Similarly, the IXC serving the customer who places an interexchange call will be responsible for any query needed. Consequently, under the LRN approach to number portability, query costs follow customers, and requiring each carrier to bear its own carrier-specific costs directly related to providing number portability is competitively neutral.

142. Under the requirements we adopt today, an incumbent LEC may recover its carrier-specific costs directly related to providing long-term number portability to end users by establishing a monthly, number portability charge in tariffs filed with the Commission. We determine, however, that recovery from end users should be designed so that end users generally receive the charges only when and where they are reasonably able to begin receiving the direct benefits of long-term number portability. To achieve this, we will allow the monthly number-portability charge to begin no earlier than February 1, 1999, on a date the incumbent LEC carrier selects, and to last no longer than five years. We choose this start date for the federal end-user charge because by the end of 1998, under the implementation schedule the Commission has mandated for number portability, a large proportion of customers will reside in areas where number portability is available: the largest 100 MSAs.<sup>477</sup> In contrast, if the end-user charge were permitted to start immediately, substantially fewer customers would be in areas where number portability is available. Thus, the February 1, 1999, start date will better tailor recovery to areas where customers can receive number portability than would an earlier start date for recovery. We choose February 1, 1999, rather than January 1, 1999, to provide a brief additional time-period to ensure that number portability has been implemented before customers incur charges, and because carriers will also be filing tariff revisions to take effect January 1, 1999, to implement PICC and SLC adjustments.

143. In addition, we will allow an incumbent LEC to assess the monthly charge only on end users it serves in the 100 largest MSAs, and end users it serves outside the 100 largest metropolitan statistical areas from a number-portability-capable switch. Because carriers may make any switch number-portability capable, this approach will encourage carriers to install number portability and help ensure that end-users are assessed number portability charges only where they are reasonably likely to be

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<sup>477</sup> The top 100 MSAs comprise approximately 61.1% of all subscriber lines, a conservative estimate, based on our calculation that approximately 61.1% of the United States population resides in the 100 largest MSAs. We calculated this percentage from population estimates of the United States Census Bureau. *See* MA-96-5 Estimates of the Population of Metropolitan Areas: Annual Time Series, July 1, 1991 to July 1, 1996 (Internet release date: December 1997) (available at <http://www.census.gov/population/estimates/metro-city/ma96-05.txt>).

benefitting from number portability. If a carrier receives an extension past February 1, 1999, for one of the 100 largest MSAs, the carrier may not assess the monthly charge in that MSA until it begins providing long-term number portability in the MSA. The incumbent local exchange carrier shall levelize<sup>478</sup> the monthly number-portability charge over five years by setting a rate for each charge at which the present value of the revenue recovered by the charge equals the present value of the cost being recovered. The carriers shall use a discount rate equal to the rate of return on investment which the Commission has authorized for regulated interstate access services pursuant to Part 65 of the Commission's Rules. Currently, this rate is 11.25 percent.<sup>479</sup> We require levelization of the monthly charge to protect consumers from varying rates. Incumbent LECs may collect less than the maximum allowable charge, or decline to collect the charge, from some or all of their customers so long as they do so in a reasonable and nondiscriminatory manner. Thus we will not, for example, allow incumbent LECs to offset such lower charges by collecting higher charges in areas where no competitive carriers are present.<sup>480</sup>

144. We choose the five-year period for the end-user charge because it will enable incumbent LECs to recover their portability costs in a timely fashion, but will also help produce reasonable charges for customers and avoid imposing those charges for an unduly long period. A longer period would increase the total charges consumers pay because, as discussed, carriers' unrecovered capital investment will be subject to an 11.25 percent return, while a shorter period would increase the monthly charge to consumers. We find that a five-year period effectively balances these concerns. After a carrier establishes its leveled end-user charge in the tariff review process we do not anticipate that it may raise the charge during the five-year period unless it can show that the end-user charge was not reasonable based on the information available at the time it was initially set. Furthermore, once incumbent LECs have recovered their initial implementation costs, number portability will be a normal network feature, and a special end-user charge will no longer be necessary to ensure that incumbent LECs recover their number portability costs on a competitively neutral basis. Carriers can recover any remaining costs through existing mechanisms available for recovery of general costs of providing service.

145. We will allow incumbent LECs to assess one monthly number-portability charge per line, except that one PBX trunk shall receive nine monthly number-portability charges and one primary rate interface integrated services digital network line (PRI ISDN line) shall receive five monthly number-portability charges. As the Commission observed in the access charge reform proceeding, a PBX trunk provides on average the equivalent service capacity of nine Centrex lines.<sup>481</sup> We set the PBX charge at nine

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<sup>478</sup> A levelized rate is one that is calculated to remain constant over a recovery period and is set at the level at which the discounted present value of the stream of payments is equal to the discounted present value of the stream of costs over the period.

<sup>479</sup> See generally *In re Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, Order, 5 FCC Rcd. 7507 (1990).

<sup>480</sup> Cf. Teleport Comments at 12 (expressing concern that incumbent LECs might shift number portability costs to customers in areas with less competition).

<sup>481</sup> *In re Access Charge Reform*, Second Order on Reconsideration and Memorandum Opinion and Order, 12 FCC Rcd. 16606, 16615-18 (1997) (Second Access Reform Reconsideration Order).

times the level of the ordinary charge because Centrex and PBX arrangements are functionally equivalent. To do otherwise could encourage a large customer to choose one of these arrangements over the other because of the number portability charge, and thus would not be competitively neutral.<sup>482</sup> Similarly, the access charge reform proceeding set a five to one equivalency ratio for PRI ISDN lines,<sup>483</sup> and we apply that equivalency ratio here. To further our goals for the Lifeline Assistance Program, carriers may not impose the monthly number-portability charge on customers in that program.

146. The incumbent LEC may assess the monthly charge on resellers of the incumbent LEC's local service, as well as on purchasers of switching ports as unbundled network elements under section 251 of the Communications Act, because the incumbent LEC will be providing the underlying number portability functionality even though the incumbent LEC will no longer have a direct relationship with the end user. Thus, it appears that the reseller and the purchaser of the unbundled switch port will receive all their number portability functionality through these arrangements. Consequently, allowing the incumbent LEC to assess the charge will be competitively neutral because the reseller and the purchaser of the switch port will incur the charge in lieu of costs they would otherwise incur in obtaining long-term number portability functionality elsewhere. The unregulated reseller and purchaser of the switch port may recover in any lawful manner the charges the incumbent LEC assesses on them. The incumbent local exchange carrier may not assess the monthly number-portability charge on carriers that purchase the incumbent local exchange carrier's local loops as unbundled network elements under section 251. We do not allow the incumbent LEC to assess such a charge because the unbundled loop does not contain the number portability functionality. The purchaser of the unbundled loop will still be responsible for providing such functionality, and thus incurring elsewhere the corresponding cost. Congress has directed the Commission to provide for the recovery of number portability costs.<sup>484</sup> Because we have so provided in this proceeding, we presume that state commissions will not include the costs of number portability when pricing unbundled network elements.

147. As noted above, local service providers may query calls for other carriers by arrangement,<sup>485</sup> or may receive unqueried, default-routed traffic when the N-1 carrier has not performed the query.<sup>486</sup> Thus we also will allow incumbent LECs to recover from N-1 carriers in a federally tariffed query-service charge their carrier-specific costs directly related to providing prearranged and default query services. Other carriers required or permitted to file federal tariffs may also tariff query services. Carriers shall indicate in the cost support section of their tariffs the portion of their carrier-specific costs directly

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<sup>482</sup> Cf. *id.* at 16616 (setting equivalency factors to prevent the PICC from affecting consumer choice between Centrex and PBX).

<sup>483</sup> See *id.* at 16618.

<sup>484</sup> See 47 U.S.C. § 251(e)(2) (stating that all telecommunications carriers shall bear the costs of number portability "as determined by the Commission"). For further discussion of the Commission's jurisdiction over number portability and the scope of its mandate, see parts III.A and III.B, *supra*.

<sup>485</sup> See *supra* paragraph 15.

<sup>486</sup> See *supra* paragraph 21.

related to providing number portability attributable to the number portability services they provide end users, and that portion attributable to the number portability query services they provide on behalf of other carriers.

148. All the RBOCs and GTE have submitted, and periodically revised, estimates of the costs they will incur in implementing LRN number portability. In reviewing the record, we observe a wide variation among companies' estimated costs and their categorization of those costs as directly related or not directly related to providing number portability. We remind the incumbent LECs that only costs directly related to providing number portability are recoverable through the long-term number portability cost recovery mechanism we establish in this *Third Report and Order*. As discussed above in Part IV, the Chief, Common Carrier Bureau, will further consider methods of identifying the portion of joint costs that incumbent LECs should treat as carrier-specific costs directly related to providing number portability.

149. We disagree with GTE's argument that we must create a uniform, mandatory end-user charge for recovery of number portability costs to avoid a violation of the Fifth Amendment.<sup>487</sup> A violation of the takings clause of the Fifth Amendment requires a taking of private property without just compensation. The rules we adopt here do not create a *per se* taking because they do not involve governmental action that physically invades or permanently appropriates any carrier's property; rather, they require members of a regulated industry to incur costs in furtherance of valid regulatory and statutory goals mandated by Congress.<sup>488</sup> Even if costs are incurred as a result of these rules, the rules do not constitute a regulatory taking because their net effect or end result is not confiscatory.<sup>489</sup> Furthermore, even if deemed a regulatory taking, our rules do not violate the Fifth Amendment because just compensation is available. Under prevailing standards, a rate regulation of the type adopted here will violate the Fifth Amendment

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<sup>487</sup> See *supra* text accompanying note 425.

<sup>488</sup> See, e.g., *Connolly v. Pension Benefit Guar. Corp.*, 475 U.S. 211, 222, 225-27 (1986) (concluding that provisions of 1980 federal pension act amendments that required employer withdrawing from multiemployer pension plan to fund its share of the plan obligations incurred during its association with the plan did not constitute a taking: governmental action did not physically invade or permanently appropriate any of the employer's assets, but instead adjusted benefits and burdens of economic life to promote common good; legislature may require one party to use own assets to the benefit of another without violating the takings clause; fact that employer must pay money to comply with act was but necessary consequence of Act's regulatory mechanism); *Branch v. United States*, 69 F.3d 1571, 1576 (Fed. Cir. 1995) (stating that even though taxes or special municipal assessments indisputably "take" money from individuals or businesses, they are not treated as *per se* takings under the Fifth Amendment because of government's high degree of control over commercial dealings); *Atlas Corp. v. United States*, 895 F.2d 745, 756 (Fed. Cir. 1990) (concluding that requiring uranium producer to spend large sums of money for reclamation and decommissioning of uranium tailings and mill upon termination of license was not a taking because requiring expenditures of funds is not a taking).

<sup>489</sup> See *Covington & Lexington Turnpike Road Co. v. Sanford*, 164 U.S. 578, 597 (1896) (stating that government rate regulation may effect a taking of property without due process of law when the permitted rate is so unjust as to destroy the value of the property for all purpose for which it was acquired); *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 310 (1989) (stating that whether a particular rate is so low as to be confiscatory will depend to some extent on what is a fair rate of return given the risks under a rate-setting system, and on the amount of capital upon which the investors are entitled to earn that return).

only if it "threatens the financial integrity of the regulated carrier or otherwise impedes its ability to attract capital."<sup>490</sup> Our recovery mechanism allows incumbent LECs a reasonable opportunity to receive just compensation for their carrier-specific costs directly related to long-term number portability through monthly number-portability charges and intercarrier charges for query services. Other carriers not subject to economic rate regulation may recover their costs in any lawful manner. Because providing this opportunity for recovery of costs is sufficient to avoid a taking, we need not mandate a uniform end-user charge for all carriers. We also note that when the government provides an adequate procedure for obtaining compensation, a takings claim is not ripe for review until the litigant has used the procedure and been denied just compensation.<sup>491</sup>

## VII. REGULATORY FLEXIBILITY ACT ANALYSIS

150. As required by Section 603 of the Regulatory Flexibility Act (RFA),<sup>492</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Further Notice*. The Commission sought written public comments on the proposals in the *Further Notice*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA)<sup>493</sup> in this *Third Report and Order* is as follows:

151. Need for and Objectives of Rules: The Commission, in compliance with sections 251(b)(2), 251(d)(1), and 251(e)(2) of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, adopts rules and procedures intended to ensure the implementation of telephone number portability with the minimum regulatory and administrative burden on telecommunications carriers. In implementing the statute, the Commission has the responsibility to adopt rules that will implement most quickly and effectively the national telecommunications policy embodied in the Act and to promote the pro-competitive, deregulatory markets envisioned by Congress. Congress has recognized that number portability will lower barriers to entry and promote competition in the local exchange marketplace. To prevent the cost of number portability from itself becoming a barrier to local competition, however, section 251(e)(2) requires that "[t]he cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."

152. Summary of Significant Issues Raised by the Public in Response to the IRFA: There were no comments submitted specifically in response to the IRFA. However, in their general comments, some

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<sup>490</sup> Illinois Bell Telephone Co., 988 F.2d 1254, 1263 (D.C. Cir. 1993).

<sup>491</sup> Williamson County Reg'l Planning Comm'n v. Hamilton Bank, 473 U.S. 172, 195 (1985); Iowa Utils. Bd. v. FCC, 120 F.3d 753, 818 (8th Cir. July 18, 1997), cert. granted on other grounds sub nom. AT&T Corp. v. Iowa Utils. Bd., 118 S. Ct. 879 (1998).

<sup>492</sup> See 5 U.S.C. § 603.

<sup>493</sup> Our analysis conforms to the RFA, as amended by the Contract With America Advancement Act of 1996, P.L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Subtitle II of CWAAA is the "Small Business Regulatory Fairness Act of 1996" (SBREFA).

commenters assert that if competition is to emerge in the local exchange market the regulatory standards adopted by the Commission to recover the cost of implementing long-term number portability should not disproportionately burden small entities, especially new entrants. In the *Third Report and Order*, we adopt rules and regulations to ensure that the way all telecommunications carriers, including small entities, bear the costs of number portability does not significantly affect any carrier's ability to compete with other carriers for customers in the marketplace.

153. Description and Estimate of Number of Small Businesses to Which Rules Will Apply: The Regulatory Flexibility Act generally defines the term "small business" as having the same meaning as the term "small business concern" under the Small Business Act.<sup>494</sup> A small business concern is one which (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).<sup>495</sup> According to the SBA's regulations, entities engaged in the provision of telephone service may have a maximum of 1,500 employees in order to qualify as a small business concern.<sup>496</sup> This standard also applies in determining whether an entity is a small business for purposes of the RFA.

154. Our rules governing long-term number portability cost recovery apply to all telecommunications carriers, including incumbent LECs, new LEC entrants, and IXC's, as well as cellular, broadband PCS, and covered SMR providers. Small incumbent LECs subject to these rules are either dominant in their field of operations or are independently owned and operated, and, consistent with the Commission's prior practice, are excluded from the definition of "small entities" and "small business concerns."<sup>497</sup> Accordingly, our use of the terms "small entities" and "small businesses" does not encompass small incumbent LECs.<sup>498</sup> Out of an abundance of caution, however, for regulatory flexibility analysis purposes,<sup>499</sup> we will consider small incumbent LECs within this analysis and use the term "small incumbent LECs" to refer to any incumbent LECs that arguably might be defined by the SBA as "small business concerns."

155. Insofar as our rules apply to all telecommunications carriers, they may have an economic impact on a substantial number of small businesses, as well as on small incumbent LECs. The rules may have an impact upon new entrant LECs and small incumbent LECs, as well as cellular, broadband PCS,

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<sup>494</sup> See 15 U.S.C. § 632.

<sup>495</sup> *Id.*

<sup>496</sup> See 13 C.F.R. § 121.201.

<sup>497</sup> See *In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd. 15499, 16144-45, 16149-50 (1996) (Local Competition Order), *vacated in part, aff'd in part*, Iowa Utils. Bd. v. FCC, 120 F.3d 753, 792-800 & n. 21 (8th Cir. 1997), *cert. granted on other grounds sub nom.* AT&T Corp. v. Iowa Utils. Bd., 118 S. Ct. 879 (1998).

<sup>498</sup> *Local Competition Order*, 11 FCC Rcd. at 16150.

<sup>499</sup> See 13 C.F.R. § 121.902(b)(4).

and covered SMR providers. Based upon data contained in the most recent census and a report by the Commission's Common Carrier Bureau, we estimate that 2,100 small entities could be affected. We have derived this estimate based on the following analysis:

156. According to the 1992 Census of Transportation, Communications, and Utilities, there were approximately 3,469 firms with under 1,000 employees operating under the Standard Industrial Classification (SIC) category 481 -- Telephone. See U.S. Dept. of Commerce, Bureau of the Census, 1992 Census of Transportation, Communications, and Utilities (issued May 1995). Many of these firms are the incumbent LECs and, as noted above, would not satisfy the SBA definition of a small business because of their market dominance. There were approximately 1,350 LECs in 1995. Industry Analysis Division, FCC, Carrier Locator: Interstate Service Providers at Table 1 (Number of Carriers Reporting by Type of Carrier and Type of Revenue) (December 1995). Subtracting this number from the total number of firms leaves approximately 2,119 entities which potentially are small businesses which may be affected. This number contains various categories of carriers, including small incumbent LECs, competitive access providers, cellular carriers, interexchange carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. Some of these carriers—although not dominant—may not meet the other requirement of the definition of a small business because they are not "independently owned and operated." See 15 U.S.C. Section 632(a)(1). For example, a PCS provider which is affiliated with a long distance company with more than 1,500 employees would not meet the definition of a small business. Another example would be if a cellular provider is affiliated with a dominant LEC. Thus, a reasonable estimate of the number of "small businesses" affected by this Order would be approximately 2,100.

157. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements of the Rules: The *Third Report and Order* concludes that the costs raised in this proceeding should be divided into three categories: shared costs, carrier-specific costs directly related to number portability, and carrier-specific costs not directly related to number portability. Shared costs are those costs incurred on behalf of the industry as a whole, such as the costs of the regional database administrator to build, operate, and maintain the databases needed to provide number portability. The *Third Report and Order* concludes that all telecommunications carriers with end-user revenues are required to pay an allocated portion of the shared costs incurred by the regional database administrator in proportion to that carrier's international, interstate, and intrastate end-user telecommunications revenues for that region. While carriers already track their sales to end-users for billing purposes, they will need to identify their regional end-user revenues. That information, along with periodic updates, must be provided to the regional database administrator for the appropriate allocation of shared costs.

158. The *Third Report and Order* requires incumbent LECs to maintain records that detail both the nature and specific amount of those carrier-specific costs that are directly related to number portability, and those carrier-specific costs that are not directly related to number portability. The *Third Report and Order* directs carriers and interested parties to file comments by August 3, 1998, and reply comments by September 16, 1998, proposing ways to apportion the different types of joint costs between portability and nonportability services. The *Third Report and Order* requires incumbent LECs that choose to recover their carrier-specific costs directly related to providing number portability to use federally-tariffed end-user charges.



159. Steps Taken to Minimize Impact on Small Entities Consistent with Stated Objectives: The record in this proceeding indicates that the need for customers to change their telephone numbers when changing local service providers is a barrier to local competition. Requiring number portability, and ensuring that all telecommunications carriers bear the costs of number portability on a competitively neutral basis, will make it easier for competitive providers, many of which may be small entities, to enter the market. We have attempted to keep regulatory burdens on all local exchange carriers to a minimum to ensure that the public receives the benefits of the expeditious provision of service provider number portability in accordance with the statutory requirements. For example, the *Third Report and Order* concludes that all telecommunications carriers with end-user revenues are required to pay an allocated portion of the shared costs incurred by the regional database administrator in proportion to that carrier's international, interstate, and intrastate end-user telecommunications revenues for the region. Apportioning shared costs in this way will further the statutory purpose of ensuring that carriers bear the costs of number portability on a competitively neutral basis. Furthermore, the *Third Report and Order* concludes that regulated carriers may identify that portion of their joint costs that is demonstrably an incremental cost that they incurred in the provision of long-term number portability. Allowing such identification recognizes that number portability will cause some carriers, including small entities, to incur costs that they would not ordinarily have incurred in providing telecommunications services. The *Third Report and Order* also concludes that non-dominant carriers, such as competitive LECs, CMRS providers, and IXC—some of which will be small entities—are not subject to extensive regulation and may recover their number portability costs in any manner otherwise consistent with Commission rules and the Communications Act.

160. Report to Congress: The Commission shall send a copy of this FRFA, along with this *Third Report and Order*, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996.<sup>500</sup> A copy of the *Third Report and Order* and this FRFA (or summaries thereof) will also be published in the Federal Register and will be sent to the Chief Counsel for Advocacy of the Small Business Administration.<sup>501</sup>

## VIII. PAPERWORK REDUCTION ACT

161. This *Third Report and Order* concludes that the costs raised in this proceeding should be divided into three categories: shared costs, carrier-specific costs directly related to number portability, and carrier-specific costs not directly related to number portability. Shared costs are those costs incurred on behalf of the industry as a whole, such as the costs of the regional database administrator to build, operate, and maintain the databases needed to provide number portability. The *Third Report and Order* concludes that all telecommunications carriers with end-user revenues are required to pay an allocated portion of the shared costs incurred by the regional database administrator in proportion to that carrier's international, interstate, and intrastate end-user telecommunications revenues for the region. While carriers already track their sales to end-users for billing purposes, they will need to identify their regional end-user revenues. That information, along with periodic updates, must be provided to the regional database administrator for the appropriate allocation of shared costs. The *Third Report and Order* also requires incumbent LECs to

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<sup>500</sup> See 5 U.S.C. § 801(a)(1)(A).

<sup>501</sup> See 5 U.S.C. § 604(b).

maintain records that detail both the nature and specific amount of those carrier-specific costs that are directly related to number portability, and those carrier-specific costs that are not directly related to number portability. The *Third Report and Order* requires incumbent LECs that choose to recover their carrier-specific costs directly related to providing number portability to use federally-tariffed end-user charges. These information collection requirements are contingent upon approval of the Office of Management and Budget (OMB).

## IX. ORDERING CLAUSES

162. Accordingly, IT IS ORDERED that pursuant to authority contained in sections 1, 2, 4(i), 201-205, 215, 251(b)(2), 251(e)(2), and 332 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 201-205, 215, 251(b)(2), 251(e)(2), and 332, Part 52 of the Commission's rules IS AMENDED as set forth in Appendix B hereto.

163. IT IS FURTHER ORDERED that the policies, rules and requirements set forth herein ARE ADOPTED.

164. IT IS FURTHER ORDERED that the policies, rules and requirements adopted herein SHALL BE EFFECTIVE 30 days after publication in the Federal Register, except for the collections of information that are contingent upon approval of the Office of Management and Budget (OMB).

165. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, References Operations Division, SHALL SEND a copy of this Third Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

166. IT IS FURTHER ORDERED that incumbent local exchange carriers MAY FILE tariffs to take effect no earlier than February 1, 1999, setting out the monthly number portability charge they intend to collect from their end users, in accordance with this Order.

167. IT IS FURTHER ORDERED that pursuant to authority contained in section 5(c)(1) of the Communications Act of 1934, as amended, 47 U.S.C. § 155(c)(1), the Chief, Common Carrier Bureau, IS DELEGATED authority to determine appropriate methods for apportioning joint costs among portability and nonportability services, and to issue any orders to provide guidance to incumbent LECs before they file their tariffs, which are to take effect no earlier than February 1, 1999. To facilitate determination of the portion of joint costs carriers shall treat as carrier-specific costs directly related to providing number portability, and to facilitate evaluation of the cost support that carriers will file in their federal tariffs, carriers and interested parties may file comments by August 3, 1998 proposing ways to apportion the

different types of joint costs. Carriers and interested parties may file reply comments by September 16, 1998.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas  
Secretary

## Appendix A—List of Commenters

## Comments

1. Ad Hoc Telecommunications Users Committee
2. AirTouch Communications Inc.
3. AirTouch Paging, Cal-Autofone and Radio Electronic Products Corp. (Airtouch Paging)
4. Ameritech
5. Association for Local Telecommunications Services (ALTS)
6. AT&T
7. Bell Atlantic
8. BellSouth Corp.
9. California Department of Consumer Affairs (Calif. Dep't Consumer Affairs)
10. California Public Utilities Commission (Calif. Pub. Utils. Comm'n)
11. Cellular Telecommunications Industry Association (CTIA)
12. Cincinnati Bell Telephone Co.
13. Colorado Public Utilities Commission Staff and Office of Consumer Counsel (Colo. Pub. Utils. Comm'n)
14. Florida Public Service Commission (Fla. Pub. Servs. Comm'n)
15. Frontier Corp.
16. General Services Administration (GSA)
17. GTE
18. Illinois Commerce Commission (Ill. Commerce Comm'n) (late-filed Aug. 19, 1996)
19. ITCs Inc.
20. MCI
21. MFS Communications Co.
22. Missouri Public Service Commission (Mo. Pub. Servs. Comm'n)
23. National Telephone Cooperative Association and the Organization for the Promotion and Advancement of Small Telecommunications Cos. (NTCA & OPASTCO)
24. New York Department of Public Service (N.Y. Dep't Pub. Serv.)
25. Nextel Communications Inc.
26. NYNEX
27. Omnipoint Communications
28. Pacific Telesis Group (PacTel)
29. Personal Communications Industry Association (PCIA)
30. Public Utilities Commission of Ohio (Ohio Pub. Utils. Comm'n)
31. SBC Communications
32. Scherers Communications Group
33. Sprint
34. Telecommunications Resellers Association (TRA) (late-filed Aug. 19, 1996)
35. Teleport Communications Group
36. Time Warner Communications Holdings Inc.
37. U S WEST Inc.
38. United States Telephone Association (USTA)
39. WinStar Communications Inc.

**Replies**

1. AirTouch Communications Inc.
2. AirTouch Paging, Cal-Autofone and Radio Electronic Products Corp. (Airtouch Paging)
3. Ameritech
4. Arch Communications Group
5. AT&T
6. Bell Atlantic
7. BellSouth Corp.
8. California Public Utilities Commission (Calif. Pub. Utils. Comm'n)
9. Cincinnati Bell Telephone Co.
10. CommNet Cellular Inc.
11. General Services Administration (GSA)
12. GST Telecom Inc. (late-filed Sept. 18, 1996)
13. GTE
14. Iowa Network Services Inc. (Iowa Net. Servs.)
15. MCI
16. MFS Communications Co.
17. MobileMedia Communications
18. National Association of Regulatory Utilities Commissioners (NARUC)
19. National Cable Television Association (NCTA)
20. National Exchange Carriers Association Inc. (NECA)
21. NYNEX
22. Omnipoint Communications
23. Pacific Telesis Group (PacTel)
24. Paging Network Inc.
25. Personal Communications Industry Association (PCIA)
26. SBC Communications
27. Sprint
28. Telecommunications Resellers Association (TRA)
29. Time Warner Communications Holdings Inc.
30. U S WEST Inc.
31. United States Telephone Association (USTA)
32. Washington Utilities and Transportation Commission (Wash. Utils. Transp. Comm'n)
33. WinStar Communications Inc. (late-filed Sept. 17, 1996)

**Appendix B—Final Rules**

Part 52, subpart C, of Title 47 of the Code of Federal Regulations is amended to read as follows:

1. The authority for Part 52 continues to read as follows:

**AUTHORITY:** Sec. 1, 2, 4, 5, 48 Stat. 1066, as amended; 47 U.S.C. § 151, 152, 154, 155, 251 unless otherwise noted. Interpret or apply secs. 3, 4, 201-05, 207-09, 218, 225-27, 251-52, 271 and 332, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 153, 154, 201-05, 207-09, 218, 225-27, 251-52, 271 and 332 unless otherwise noted.

**§ 52.32 Allocation of the shared costs of long-term number portability**

(a) The local number portability administrator, as defined in section 52.21(h), of each regional database, as defined in section 52.21(1), shall recover the shared costs of long-term number portability attributable to that regional database from all telecommunications carriers providing telecommunications service in areas that regional database serves. Pursuant to its duties under section 52.26, the local number portability administrator shall collect sufficient revenues to fund the operation of the regional database by:

- (1) assessing a \$100 yearly contribution on each telecommunications carrier identified in paragraph (a) that has no intrastate, interstate, or international end-user telecommunications revenue derived from providing telecommunications service in the areas that regional database serves, and
- (2) assessing on each of the other telecommunications carriers providing telecommunications service in areas that regional database serves, a charge that recovers the remaining shared costs of long-term number portability attributable to that regional database in proportion to the ratio of:
  - (A) the sum of the intrastate, interstate, and international end-user telecommunications revenues that such telecommunications carrier derives from providing telecommunications service in the areas that regional database serves,
  - (B) to the sum of the intrastate, interstate, and international end-user telecommunications revenues that all telecommunications carriers derive from providing telecommunications service in the areas that regional database serves.

(b) The local number portability administrator for a particular regional database may require the telecommunications carriers providing telecommunications service in the areas served by the regional database to provide once a year that data necessary to calculate, pursuant to subparagraph (a)(1) or (a)(2) of this section, those carriers' portions of the shared costs of long-term number portability attributable to that regional database. All such telecommunications carriers shall comply with any such requests.

(c) Once a telecommunications carrier has been allocated, pursuant to subparagraph (a)(1) or (a)(2) of this section, its portion of the shared costs of long-term number portability attributable to a regional database, the carrier shall treat that portion as a carrier-specific cost directly related to providing number portability.

**§ 52.33 Recovery of carrier-specific costs directly related to providing long-term number portability**

(a) Incumbent local exchange carriers may recover their carrier-specific costs directly related to providing long-term number portability by establishing in tariffs filed with the Federal Communications

Commission a monthly number-portability charge, as specified in subparagraph (a)(1), and a number portability query-service charge, as specified in subparagraph (a)(2).

(1) The monthly number-portability charge may take effect no earlier than February 1, 1999, on a date the incumbent local exchange carrier selects, and may end no later than five years after that date.

(A) An incumbent local exchange carrier may assess each end user it serves in the 100 largest metropolitan statistical areas, and each end user it serves from a number-portability-capable switch outside the 100 largest metropolitan statistical areas, one monthly number-portability charge per line except that:

(i) One PBX trunk shall receive nine monthly number-portability charges.  
(ii) One PRI ISDN line shall receive five monthly number-portability charges.  
(iii) Lifeline Assistance Program customers shall not receive the monthly number-portability charge.

(B) An incumbent local exchange carrier may assess on carriers that purchase the incumbent local exchange carrier's switching ports as unbundled network elements under section 251 of the Communications Act, and resellers of the incumbent local exchange carrier's local service, the same charges as described in subparagraph (a)(1)(A), as if the incumbent local exchange carrier were serving those carriers' end users.

(C) An incumbent local exchange carrier may not assess a monthly number-portability charge for local loops carriers purchase as unbundled network elements under section 251.

(D) The incumbent local exchange carrier shall levelize the monthly number-portability charge over five years by setting a rate for the charge at which the present value of the revenue recovered by the charge does not exceed the present value of the cost being recovered, using a discount rate equal to the rate of return on investment which the Commission has prescribed for interstate access services pursuant to Part 65 of the Commission's Rules.

(2) The number portability query-service charge may recover only carrier-specific costs directly related to providing long-term number portability that the incumbent local exchange carrier incurs to provide long-term number portability query service to carriers on a prearranged and default basis.

(b) All telecommunications carriers other than incumbent local exchange carriers may recover their number portability costs in any manner consistent with applicable state and federal laws and regulations.

**Separate Statement  
of Chairman William E. Kennard**

*Re: Telephone Number Portability, Third Report and Order, CC Docket No. 95-116.*

Local number portability is crucial to the development of competition in local telephone markets because it means that consumers need not give up their phone numbers when changing carriers. As today's order recognizes, the cost of implementing local number portability throughout the nation is not insignificant. That's because the provisions governing local number portability, like other requirements of the Telecommunications Act of 1996, call for converting a network that was designed for use by a single carrier into a network capable of accommodating multiple competitors. Congress had the wisdom to mandate this conversion, however, because it perceived the attendant costs to be an investment in competition that ultimately will bring more choice and lower prices to consumers. Time and again we have seen these investments pay off for consumers, and I am confident that the investment in local number portability that the Act mandates will reap rewards for the American consumer.

Congress specifically directed that the costs of number portability "be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."<sup>1</sup> I believe today's order implements a cost recovery mechanism that meets this standard.

While I support our decision today, I believe we must carefully monitor the rollout of local number portability and the pace of local telephone competition, particularly for residential customers. Unless a consumer has competitive choice for local phone service, the availability of local number portability is meaningless. We should not ask consumers to pay for number portability before they are able to enjoy the benefits of the competitive options that number portability is designed to facilitate.

The Commission should revisit today's decision if it appears that consumers will end up paying for number portability before they have a competitive choice in local phone service. For now, I am satisfied that the rules we adopt today fulfill Congress's directive that the costs of number portability be borne by all telecommunications carriers in a competitively neutral manner, and therefore I support today's order.

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<sup>1</sup>47 U.S.C. § 251(e)(2).



**Separate Statement  
of Commissioner Gloria Tristani**

*Re: Telephone Number Portability*

Telecommunications carriers, including many incumbent local exchange carriers, have expended significant sums of money to comply with the requirement that they deploy local number portability technology. They are entitled to a fair opportunity to recover that money. At the same time, I support allowing incumbent LECs to seek recovery of those costs only from customers who are most likely to see the real and direct benefits of local number portability. Today's Order appropriately balances these concerns.

As the Order candidly acknowledges, giving incumbent local carriers the option of recovering number portability costs from consumers through a monthly charge is a sensitive matter and is not undertaken lightly. However, this is neither the first nor the last time we will need to make a difficult decision to achieve sound public policy. Congress made the right decision when it required carriers to deploy number portability, and I believe we have made the right decision on how carriers will recover the costs associated with that deployment.

I have little doubt that those consumers who have number portability capability deployed on their lines will see significant benefits. For example, they will not have to change phone numbers to take advantage of a better offer from a competitor. Even if those consumers do not change carriers, the mere presence of number portability will make competition more effective in that serving area, thereby bringing those same customers the fruits of competition -- better service and lower prices. Thus, while I recognize the potential for consumer dissatisfaction associated with any line item charge, I am convinced that the short-term cost of number portability will be outweighed by the tangible long term benefits for those consumers served by number portability technology.

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**Concurring Statement  
of Commissioner Susan Ness**

*Re: Local number portability cost recovery*

I respectfully concur, in part, because of reservations about that portion of the order that concerns the ability of incumbent local exchange carriers (ILECs) to recover their costs from residential consumers.

The Telecommunications Act of 1996 requires local number portability. There will be real costs of deploying number portability, but Congress concluded -- wisely, I believe -- that the benefits to competition exceed the costs. It's just common sense that consumers will be reluctant to change carriers if to do so they must also change their telephone number.

The costs of deploying number portability will be borne by all carriers -- ILECs, competitive local exchange carriers (CLECs), wireless carriers, and interexchange carriers (IXC). There are shared costs, which will be pooled, and the costs each carrier must incur to perform its own "look-up" responsibilities. In an interstate long distance call, for example, the look-up requirement falls on the IXC (which is the "n minus one" carrier), and it must either perform the requisite look-up itself or pay someone else to do so. In a local call from one subscriber to her neighbor, the caller's LEC (whether ILEC or CLEC) will bear the look-up responsibility.

All of these carriers are entitled to an opportunity to recover their costs. All of these carriers, except ILECs, will have an opportunity to recover these costs *only from customers who have a choice of service provider*; generally speaking, any customer of a CLEC, IXC, or wireless carrier can obtain local exchange service, long distance service, or wireless service, respectively, from at least one additional supplier. In contrast, the ILEC will, in most instances, be able to seek to recover its costs from subscribers who do *not* have a choice of local exchange service provider. This is of special concern in the case of residential consumers, who -- notwithstanding long distance rate reductions and substantial decreases in the prices for wireless services -- thus far have seen few direct benefits from the Telecommunications Act of 1996.

The deployment of number portability will be of significant help in establishing conditions conducive to local competition, thereby speeding the day when more residential consumers will be able to choose their local carrier. Nonetheless, I am troubled by the decision to permit a single class of carriers -- the ILECs -- to recover their costs from consumers who do not yet have a choice. I would have preferred that residential consumers be shielded from these charges until they actually experience the benefits of competition. There are a variety of ways in which this could have been done, consistent with the objective -- reflected in a variety of other Commission decisions -- of attempting to ensure that consumers reap the benefits of the changing telecommunications environment at the same time they experience the costs of the transition. But I am pleased that the Commission has decided that these costs should be borne only by consumers

who reside in areas where local number portability is available, since these consumers at least have a greater prospect -- if not the current reality -- of experiencing the benefits of local competition.

I also want to note that I would have been willing to support a division of number portability costs between the states and federal jurisdictions, as recommended by the National Association of Regulatory Utility Commissioners. This approach would have enabled state commissions to make judgments about the appropriate manner and timing of cost recovery on the part of ILECs.

There is no one "right" answer to the questions with which the Commission has been wrestling in this proceeding. But this order represents a workable approach to the matter, and, as we all recognize, a final order is long overdue. I particularly want to salute the carriers for not permitting the Commission's delay in the cost recovery rulemaking from distracting them from their responsibility to proceed apace in deploying LNP capabilities in the telephone network.

**Separate Statement  
of Commissioner Harold Furchtgott-Roth**

*Re: Telephone Number Portability, Third Report and Order, CC Docket No. 95-116.*

Despite my concurrence with today's order, I remain deeply troubled by the steps that this Commission has taken on local number portability over the past two years.

For decades, compensation for telecommunications services has been dominated by a rate-of-return framework. Carriers without competitive pressures would "incur costs," and regulators were left to find funding mechanisms to "recover" those costs with an appropriate return on investment. It all seemed a very convenient process, at least for the regulators and the regulated.

In practice, however, this system of cost reimbursement was fatally flawed. It harmed carriers because they were spared the efficiency-inducing incentives to keep costs as low as possible. It harmed regulators because they were forced to review and to monitor countless and tedious records of costs. It harmed consumers because they ended up paying for this inefficient system of regulation.

"Cost recovery for local number portability" has turned into a replay of the same old cost-based, rate-of-return regulation. Rates are not based on a price cap but on reimbursement of actual costs. Consumers will again be faced with bills for services based not on market conditions but on regulatory fiat. Paradoxically, consumers will be paying a federally determined fee for a service that is by definition local.

A better approach would have been, from the outset and before any costs were incurred, to have established a maximum amount that could have been recovered from a federal fee. If through prudent management, company costs were less than the federal cap, the company would be rewarded for its efficiency. If costs were greater than the federal cap, the company could still seek recovery from appropriate state authorities. In either case, companies would have had a strong incentive to keep costs as low as possible to the benefit of consumers.

As Commissioner Ness noted, I also would have supported a division of number portability costs between the states and federal jurisdictions, as recommended by the National Association of Regulatory Utility Commissioners. Such an approach would have ensured that state commissions were involved in the method and timing of cost recovery.

Hindsight is, of course, 20-20. Yesterday's Commission decisions, and the subsequent reaction of businesses, cannot be changed. Today's decision is perhaps the best that can be made of a compromised situation.