

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

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

FIRST MEMORANDUM OPINION AND
ORDER ON RECONSIDERATION

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By the Commission:

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**I. INTRODUCTION**

1. On June 27, 1996, the Commission adopted the First Report and Order and Further Notice of Proposed Rulemaking (First Report & Order)<sup>1</sup> in this docket implementing the requirement under Section 251(b) of the Communications Act of 1934, as amended (the Act), that all local exchange carriers (LECs) offer, "to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission."<sup>2</sup> By this action, we resolve certain petitions for reconsideration or clarification of our number portability rules adopted in the First Report & Order. Twenty-two parties filed petitions for reconsideration or clarification, nineteen parties filed oppositions or comments on the petitions, and sixteen parties filed reply comments.<sup>3</sup> While the petitions raise a broad range of issues, we address three primary issues in

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<sup>1</sup> Telephone Number Portability, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352 (1996).

<sup>2</sup> 47 U.S.C. § 251(b)(2). This requirement was added by the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

<sup>3</sup> A list of petitioners and commenting parties appears at Appendix A.

this First Memorandum Opinion and Order on Reconsideration (First Reconsideration Order). We will address the remaining issues in one or more subsequent reconsideration orders in this docket. First, we conclude that Query on Release (QOR) is not an acceptable long-term number portability method. Second, we extend the completion deadlines in the implementation schedule for wireline carriers by three months for Phase I and by 45 days for Phase II, clarify the requirements imposed thereunder, and address issues raised by rural LECs and certain other parties. Finally, we affirm and clarify our implementation schedule for wireless carriers.

## II. BACKGROUND

### A. First Report & Order

2. Pursuant to the statutory requirement of Section 251(b), the First Report & Order requires all LECs to implement a long-term number portability method in the 100 largest Metropolitan Statistical Areas (MSAs) according to a phased deployment schedule that commences October 1, 1997, and concludes December 31, 1998.<sup>4</sup> Thereafter, in areas outside the 100 largest MSAs, each LEC must make long-term number portability available within six months after a specific request by another telecommunications carrier. The First Report & Order also requires all cellular, broadband personal communications services (PCS), and covered Specialized Mobile Radio (SMR) providers to be able to deliver calls from their networks to ported numbers by December 31, 1998, and requires cellular, broadband PCS, and covered SMR providers to offer number portability throughout their networks and have the capability to support roaming nationwide by June 30, 1999.

3. Rather than choosing a particular technology for the provision of number portability, the Commission established performance criteria that any long-term number portability method selected by a LEC must meet. The Commission noted, however, that one of the criteria it adopted effectively precludes carriers from implementing QOR. The First Report & Order further concludes that long-term number portability should be provided through a system of regional databases that will be managed by one or more independent administrators selected by the North American Numbering Council (NANC).

4. The First Report & Order also requires wireline LECs, pending their deployment of a long-term number portability method, to provide currently available number portability measures upon request by another telecommunications carrier. Consistent with Section 251(e)(2)

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<sup>4</sup> In the First Report & Order, we identified two methods of providing service provider portability: those methods that use databases (such as the Location Routing Number (LRN) method) and those that do not (such as Remote Call Forwarding (RCF) and Flexible Direct Inward Dialing (DID)). First Report & Order, 11 FCC Rcd at 8359, 8361. We refer to the database methods as those appropriate for "long-term" service provider portability because they do not suffer from the same limitations as non-database methods such as RCF and DID, which are commonly referred to as "interim" or "currently available" measures. See First Report & Order, 11 FCC Rcd at 8361-62.

of the Communications Act, the First Report & Order sets forth principles that ensure that the costs of currently available measures are borne by all telecommunications carriers on a competitively neutral basis, and permits states to utilize various cost recovery mechanisms, so long as they are consistent with these statutory requirements and our principles. The Commission also concurrently adopted a Further Notice of Proposed Rulemaking (Further Notice) seeking comment on cost recovery for long-term number portability.

## **B. Number Portability Methods**

5. Because most telephone numbers within the North American Numbering Plan (NANP) are associated with a particular switch operated by a particular service provider, they currently cannot be transferred outside the service area of a particular switch or between switches operated by different service providers without technical changes to the switch or network.<sup>5</sup> Industry participants have developed several methods for providing service provider portability that would be suitable for long-term use by carriers. These methods for providing long-term number portability employ databases containing the customer routing information necessary to route telephone calls to the proper terminating locations. All of these methods depend on Intelligent Network (IN) or Advanced Intelligent Network (AIN) capabilities.<sup>6</sup>

6. While various methods for providing long-term number portability have been developed, two methods have emerged as the primary ones advocated by parties in this proceeding: Location Routing Number (LRN) and Query on Release (QOR).<sup>7</sup> Under LRN, a unique 10-digit number, or location routing number, is assigned to each central office switch. Carriers routing telephone calls to customers that have transferred their telephone numbers from one carrier to another perform a database query to obtain the location routing number that

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<sup>5</sup> Under the North American Numbering Plan (NANP), telephone numbers consist of ten digits in the form NPA-NXX-XXXX, where N may be any number from 2 to 9 and X may be any number from 0 to 9. Numbering plan areas (or NPAs) are known commonly as area codes. The second three digits of a telephone number are known as the NXX code. Typically, the NXX code identifies the central office switch to which the telephone number had been assigned or central office code (CO). Administration of the North American Numbering Plan, Report and Order, 11 FCC Rcd 2588, 2593-94 (1995) (Numbering Plan Order).

<sup>6</sup> See generally Intelligent Networks, Notice of Proposed Rulemaking, 8 FCC Rcd 6813 (1993). IN refers to a general call processing architecture in which a centralized database performs some aspect of call set-up. Databases supporting IN services are built to support a specific call processing application. AIN describes a specific model of IN developed by Bellcore in which the database is a general purpose platform capable of supporting multiple call processing services. All of the long-term number portability methods utilize a signalling network (such as signalling system 7 or SS7) capable of routing database queries and responses and forwarding routing instructions. Proposed Final Draft on Number Portability, Industry Numbering Committee (INC Report) at 7.

<sup>7</sup> For a more detailed description of LRN and QOR, see Appendix C.

corresponds to the dialed telephone number.<sup>8</sup> The database query is performed for all calls to switches from which at least one number has been ported.<sup>9</sup> The carrier then routes the call to the new carrier based on the location routing number.

7. QOR, also known as Look Ahead, is a triggering mechanism that operates in conjunction with the LRN addressing scheme. Under QOR, the signalling used to set up a telephone call is routed to the end office switch to which the dialed telephone number was originally assigned (known as the donor switch or the release switch) according to the NPA-NXX of the dialed number. If the dialed number has been transferred to another carrier's switch, the release switch sends a release message back, and the previous switch in the call path queries the database to obtain the routing information.<sup>10</sup> The call is then completed to the new carrier's switch.

### C. Current State Efforts

8. Prior to the adoption of our First Report & Order, a number of state commissions had selected LRN as the method for implementing number portability in areas within their states' boundaries. These states include Colorado, Georgia, Illinois, Maryland, New York, and Ohio.<sup>11</sup> On August 2, 1996, the California Public Utilities Commission (CA PUC) issued an order mandating the use of LRN as the long-term number portability method to be implemented in California.<sup>12</sup> No states have selected QOR as the preferred method for long-term number portability.

9. Since adoption of the First Report & Order, planning and implementation of long-term number portability has progressed significantly. A number of state commissions have spent the past eight months developing state-specific plans for implementing LRN and resolving technical issues associated with the deployment of LRN. For example, the Illinois Commerce Commission Number Portability Workshop (ICC Workshop) remains in the forefront with respect

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<sup>8</sup> For intraLATA calls, the originating carrier normally would perform the database query. For interLATA calls, the interexchange carrier normally would perform the query.

<sup>9</sup> We use the term "ported" in this context to mean the transfer of a telephone number from one carrier's switch to another carrier's switch, which enables a customer to retain his or her number when transferring from one carrier to another.

<sup>10</sup> For intraLATA calls, the previous switch in the call path would be the originating switch. For interLATA calls, the previous switch in the call path would be an interexchange carrier's.

<sup>11</sup> First Report & Order, 11 FCC Rcd at 8362-63. The task force in Florida had also selected LRN for implementing number portability prior to adoption of the First Report & Order. Id. at 8362.

<sup>12</sup> California Public Utilities Commission, Re Local Exchange Service, Rulemaking Proceeding 95-04-043, Interim Order 95-04-044, Decision 96-08-028, slip op. at 14-15 (Aug. 2, 1996) (CA PUC Local Exchange Service Decision).

to implementation of number portability. It has developed a detailed LRN test plan and has resolved numerous operational issues relating to switching, signalling, and SCP requirements.<sup>13</sup> In addition, the Maryland Public Service Commission has determined a ranking and timeline for deployment of LRN in every switch in Maryland; established a comprehensive operations plan for LRN implementation; resolved issues relating to interfaces, ordering, provisioning, repair and maintenance processes as well as operator services; and studied switch and SCP requirements.<sup>14</sup> Number portability task forces in Indiana, Michigan, and Ohio have also developed switch-specific implementation plans for those states.<sup>15</sup>

10. The industry, under the auspices of the NANC, has been working on the design of the number portability regional database system. The NANC, a Federal Advisory Committee established under the provisions of the Federal Advisory Committee Act<sup>16</sup> to advise the Commission on numbering issues, held its first meeting on October 1, 1996.<sup>17</sup> The NANC's Local Number Portability Administration (LNPA) Selection Working Group and its task forces have been meeting regularly to assist the NANC in recommending to the Commission resolution of issues related to the selection and duties of an entity or entities to serve as the local number portability administrator(s), the database architecture plan, and the technical and operational requirements for the number portability database system.<sup>18</sup> The NANC has committed to making

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<sup>13</sup> See Illinois Local Number Portability Steering Committee, Minutes of Dec. 16, 1996, Meeting, CC Docket No. 95-116, filed Jan. 10, 1997 (IL LNP Steering Committee December 16, 1996 Minutes).

<sup>14</sup> Staff of the Public Service Commission of Maryland, Commission's Investigation into Long Term Solutions to Number Portability in Maryland: Third Quarterly Report of the Maryland Local Number Portability Consortium, Case No. 8704, at 14-18, CC Docket No. 95-116, filed Nov. 22, 1996 (rel. Oct. 1996) (MD LNP Consortium October 1996 Report).

<sup>15</sup> See, e.g., Indiana Number Portability Task Force, Cause No. 39983, Oct. 7, 1996, CC Docket No. 95-116, filed Jan. 10, 1997 (IN LNP Task Force October 7, 1996 Minutes); Michigan Local Number Portability Workshop, November 21, 1996 Meeting Minutes and December 17, 1996 Agenda, CC Docket No. 95-116, filed Jan. 10, 1997 (Michigan LNP Workshop November 21, 1996 Minutes); Sprint Ex Parte Letter at 4-5, from Warren D. Hannah, to William F. Caton, FCC, CC Docket 95-116, filed Dec. 19, 1996 (Sprint December 19, 1996 Ex Parte Filing) (minutes of Nov. 13, 1996 meeting of Ohio Local Number Portability Workshop).

<sup>16</sup> 5 U.S.C., App. 2 (1988).

<sup>17</sup> FCC Establishes North American Numbering Council Advisory Committee, Announces Members, and Sets Initial Meeting Date, Public Notice, CC Docket No. 92-237, DA 96-1495 (rel. Sept. 5, 1996) (Establishment of NANC Public Notice).

<sup>18</sup> The North American Numbering Council Chairman Announces Organizational Structure and Seeks Working Group and Task Force Participants, Public Notice, CC Docket No. 92-237, DA 96-1664 (rel. Oct. 4, 1996) (NANC Announces Organizational Structure Public Notice); Local Number Portability Administration Selection Working Group Status Report: North American Numbering Council Meeting of February 26, 1997, at 1, CC Docket No. 95-116, filed Mar. 4, 1997 (LNPA Selection Working Group February 26, 1997 Status Report); see also Local Number Portability Administration Selection Working Group Status Report: North American Numbering Council Meeting of December 2, 1996, at 7, CC Docket No. 95-116, filed Dec. 4, 1997 (LNPA

its recommendation to the Commission on LNPA issues by May 1, 1997.<sup>19</sup> Under NANC oversight, carriers in Illinois, Georgia, California, Maryland, Colorado, New York, and Texas have formed a Limited Liability Corporation (LLC) and issued a Request for Proposal (RFP) for each state to construct and maintain a number portability database.<sup>20</sup> Each LLC has contacted neighboring states seeking to expand these state databases into regional databases covering the RBOC service areas.<sup>21</sup> The LNPA Selection Working Group projects that all seven regional databases will be ready for testing on dates ranging from April 18, 1997, to July 1, 1997, and will be ready to support number portability deployment on or before October 1, 1997, in accordance with the deployment schedule set forth in the First Report & Order.<sup>22</sup>

### III. DISCUSSION

#### A. Issues Relating to Long-Term Number Portability Methods

##### 1. Performance Criteria

###### a. Background

11. The Act requires all LECs "to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission."<sup>23</sup> The Act states that "[t]he term 'number portability' means 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>24</sup> We interpreted these statutory provisions to mean that the Commission should develop a national number portability policy and prescribe the requirements that all local exchange carriers, both incumbents and others, must meet to satisfy their statutory obligations.<sup>25</sup>

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Selection Working Group December 2, 1996 Status Report).

<sup>19</sup> NANC Timeline at 1, CC Docket No. 95-116, filed Dec. 9, 1996 (NANC Timeline).

<sup>20</sup> North American Numbering Council, State NPAC/SMS Status at 1-5, CC Docket No. 95-116, filed Jan. 8, 1997 (NANC January 8, 1997 State NPAC/SMS Status).

<sup>21</sup> NANC January 8, 1997 State NPAC/SMS Status at 1-5.

<sup>22</sup> LNPA Selection Working Group February 26, 1997 Status Report at 1. See also NANC January 8, 1997 State NPAC/SMS Status at 1-5; LNPA Selection Working Group December 2, 1996 Status Report at 7.

<sup>23</sup> 47 U.S.C. § 251(b)(2).

<sup>24</sup> 47 U.S.C. at § 153(30).

<sup>25</sup> First Report & Order, 11 FCC Rcd at 8370.

12. In the First Report & Order, we concluded that establishing performance criteria that a LEC's number portability architecture must meet would better serve the public interest than choosing a particular technology or specific architecture.<sup>26</sup> We thus adopted the following nine minimum criteria, which require that any long-term number portability method must: (1) support existing network services, features, and capabilities; (2) efficiently use numbering resources; (3) not require end users to change their telecommunications numbers; (4) not require telecommunications carriers to rely on databases, other network facilities, or services provided by other telecommunications carriers in order to route calls to the proper termination point; (5) not result in unreasonable degradation in service quality or network reliability when implemented; (6) not result in any degradation of service quality or network reliability when customers switch carriers; (7) not result in a carrier having a proprietary interest in any long-term method; (8) be able to accommodate location and service portability in the future; and (9) have no significant adverse impact outside the areas where number portability is deployed.<sup>27</sup> We concluded that a number of these criteria implement the statutory requirement that customers switching their carrier be able to retain their numbers "without impairment of quality, reliability, or convenience."<sup>28</sup>

13. In addition, we concluded that criterion four precludes carriers from using such number portability methods as QOR.<sup>29</sup> When discussing criterion four, we stated that carriers may experience several undesirable effects if they are forced to rely on the networks of their competitors in order to route calls. For example, the use of number portability methods that first route the call through the original service provider's network in order to determine whether the call is to a ported number, and then perform a query only if the call is to be ported, would treat ported numbers differently than non-ported numbers, resulting in ported calls taking longer to complete than unported calls.<sup>30</sup> This differential in efficiency would disadvantage the carrier to whom the call was ported and impair that carrier's ability to compete effectively against the original service provider.<sup>31</sup>

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<sup>26</sup> Id. at 8377.

<sup>27</sup> Id. at 8378.

<sup>28</sup> Id. at 8378-83.

<sup>29</sup> Id. at 8381.

<sup>30</sup> Id. at 8380.

<sup>31</sup> Id.



**b. Pleadings**

14. Most petitioners focus primarily on our conclusion in the First Report & Order that incumbent LECs are prohibited from using QOR as a long-term number portability method.<sup>32</sup> They argue that QOR does not violate the performance criteria the Commission established, and that QOR has many public interest benefits that will make it more efficient, easier, and less costly to deploy than other number portability methods.<sup>33</sup> They assert that, at a minimum, we should allow a carrier to use QOR within its own network in order to route calls made by its own customers to NXXs assigned to that carrier.<sup>34</sup> Furthermore, they claim that a LEC's "intranetwork" use of QOR would not impact other carriers, nor would it present network interoperability issues.<sup>35</sup> Some petitioners also argue that we should allow the use of QOR between networks if the carriers mutually agree to do so.<sup>36</sup>

15. With respect to the performance criteria, petitioners assert that QOR does not violate performance criterion four (*i.e.*, it does not "require dependency on another carrier's network") any more than other number portability methods, such as LRN.<sup>37</sup> For example, Pacific and USTA argue that there is no rational basis for the Commission to conclude that a number portability method that requires an SS7 message to be sent to a switch to which the NXX code of the called number has been assigned (the "essence" of QOR) causes "undue reliance" on the networks of other carriers, while a number portability method that requires an SS7 message to be sent to the incumbent's Service Control Point (SCP) (the "essence" of LRN) does not involve such undue reliance.<sup>38</sup> Because every number portability method requires some dependence on

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<sup>32</sup> Bell Atlantic Petition at 7-8; BellSouth Petition at 21; Pacific Petition at 10-11; USTA Petition at 4.

<sup>33</sup> See, e.g., Bell Atlantic Petition at 1-2; BellSouth Petition at 21 n.21; Pacific Petition at 1; SBC Petition at 1-2; USTA Petition at 3; U S West Petition at 12-13; see also Bell Atlantic et al. Ex Parte Letter, from Raymond Smith, Bell Atlantic, et. al. to William Caton, FCC, CC Docket No. 95-116, filed Nov. 26, 1996 (Bell Atlantic et al. November 26, 1996 Ex Parte Filing).

<sup>34</sup> Bell Atlantic Petition at 7-8; BellSouth Petition at 21-22; NYNEX Petition at 3-6; Pacific Petition at 3-4; SBC Petition at 1-3; USTA Petition at 6; U S West Petition at 12 n.16. See also Cincinnati Bell Comments at 1; GTE Opposition at 3.

<sup>35</sup> Bell Atlantic Petition at 3, 8, 10; BellSouth Petition at 22 n.23; NYNEX Reply at 5; Pacific Petition at 3; USTA Petition at 2, 5-6. See also GTE Reply at 3. Some petitioners suggest that opponents of QOR fail to understand how QOR works, pointing out that QOR does not require competing LECs to rely on the incumbent LEC to process calls originated by the customers of the competing LEC. USTA Petition at 4-5; see also GTE Opposition at 5.

<sup>36</sup> BellSouth Petition at 21-22; Pacific Petition at 3; USTA Petition at 6. See also TCG Reply at 3.

<sup>37</sup> Bell Atlantic Petition at 9-10; BellSouth Petition at 21; Pacific Petition at 4 n.2, 11; USTA Petition at 4.

<sup>38</sup> Pacific Reply at 6; USTA Reply at 2. An SCP is a database in the public switched network that contains information and call processing instructions needed to process and complete a telephone call. An originating

another carrier's network facilities, several petitioners suggest that we eliminate criterion four as one of the performance criteria that a long-term number portability method must meet.<sup>39</sup>

16. Petitioners also argue that QOR does not result in any degradation of service quality or network reliability when customers switch carriers (performance criterion six). These parties contend that claims that use of QOR will cause significant additional delays in the routing of calls to ported numbers are unfounded. They allege that any additional delay attributable to the use of QOR is insignificant and imperceptible, as compared to the delay associated with LRN.<sup>40</sup> U S West urges the Commission to conduct a survey to determine whether callers would perceive differences in call set-up time between LRN and QOR.<sup>41</sup> In addition, NYNEX asserts that QOR would impose post-dial delay on a much smaller set of calls than LRN, because LRN without QOR increases post-dial delay for all interswitch calls, whether ported or not.<sup>42</sup> USTA, on the other hand, argues that the standard should not be whether network routing for ported and non-ported numbers is identical, but whether service quality is discriminatory.<sup>43</sup>

17. With respect to network reliability, proponents of QOR assert that QOR is less likely to threaten the reliability of the network than LRN, because QOR requires far fewer

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switch accesses an SCP to obtain such information. Typically, the information contained in an SCP is obtained from a Service Management System (SMS). An SMS is a database or computer system not part of the public switched network that, among other things: (1) interconnects to an SCP and sends to that SCP the information and call processing instructions needed for a network switch to process and complete a telephone call; and (2) provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call.

<sup>39</sup> BellSouth Petition at 19-21; SBC Petition at 2; USTA Petition at 4.

<sup>40</sup> Record estimates of the additional post-dial delay stemming from the use of QOR to route calls to ported numbers, as compared to the use of LRN to route calls to ported numbers, range from 0.4 to 0.5 seconds. Pacific Petition at 5, 6 (0.4 seconds); USTA Petition at 7 (0.5 seconds); US West Petition at 14 n.19 (less than 0.5 seconds). See also ALTS Response at 4 (actual delay will depend on number of offices involved in completing QOR inquiry). The additional delay associated with QOR is comprised of the set-up time for the originating switch to determine and signal the terminating switch; for the terminating switch to determine that the number called no longer resides in that switch, create the return message, and signal the originating switch; and for the originating switch to take down the reserved call path. AT&T Ex Parte Presentation at 8, CC Docket No. 95-116, filed October 29, 1996 (AT&T October 29, 1996 Ex Parte Filing). The LRN query must still be performed either by the original terminating switch, the originating switch, or the intermediate (N-1) carrier. The call must go through additional steps, reserve additional trunks, and possibly encounter even more delay if it must go through tandems linking the originating and terminating switches. Id. at 4.

<sup>41</sup> U S West Petition at 12-15.

<sup>42</sup> NYNEX Reply at 4.

<sup>43</sup> USTA Petition at 8; see also GTE Opposition at 4.

database queries than LRN.<sup>44</sup> These parties contend that QOR imposes less of a burden on the SS7 network and, therefore, poses a lower risk of a network outage.<sup>45</sup> In a late-filed ex parte presentation, SBC submitted a network reliability study conducted by Bellcore that purportedly demonstrates that there is a 0.036 percent (0.00036) probability of a "catastrophic outage" if LRN is implemented under what they characterize as a "normal" schedule, and no probability of such a catastrophic network outage if QOR is implemented under a "normal" schedule and less than one percent of the numbers are ported.<sup>46</sup> MCI and AT&T vigorously dispute the purported findings of the Bellcore study, arguing, among other things, that the figures for "catastrophic outage" assume that all number portability databases in Houston fail simultaneously, which they argue is a highly improbable scenario, given that SBC has never experienced a single dual SCP failure, much less a dual failure of all SCPs.<sup>47</sup> MCI also notes that, according to the Bellcore study, probabilities for FCC reportable outages with LRN and QOR are virtually identical under the same scheduling scenarios.<sup>48</sup> In response, Bellcore argues that the types of failures contemplated by the Bellcore study are not "too improbable to be of concern" as AT&T claims, because a combination of events and errors has resulted in various switch failures and outages in the past.<sup>49</sup> Thus, Bellcore asserts that, even though a complete failure has not occurred, there is certainly a

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<sup>44</sup> BellSouth Petition at 23-24; GTE Petition at 10; NYNEX Petition at 5-6; Pacific Petition at 9; USTA Petition at 10-11.

<sup>45</sup> See, e.g., BellSouth Petition at 24; Bell Atlantic Petition at 3, 5; Pacific Petition at 7-8, 9; Pacific Ex Parte Presentation at 3, CC Docket No. 95-116, filed October 24, 1996 (Pacific Oct. 24, 1996, Ex Parte Filing); see also Bell Atlantic/Pacific joint Ex Parte Presentation at 4, CC Docket No. 95-116, filed Jan. 10, 1997 (Bell Atlantic/Pacific January 10, 1997, Ex Parte Filing).

<sup>46</sup> SBC Ex Parte Letter at att. at 5, from Link Brown, to William F. Caton, FCC, CC Docket No. 95-116, filed Feb. 19, 1997 (SBC February 19, 1997 Ex Parte Filing). The Bellcore study defines "catastrophic outage" as losing all intraLATA, interoffice service for most or all of Houston. The Bellcore study further states that the "normal" introduction of a network capability involves "the definition of the capability, identification of all affected network components, preparation and testing of new software and hardware as needed, development of operations plans, installation and testing of new hardware and software, integration testing and soak of new hardware, software, and procedures within a carrier's network, and intercompany testing and soak." Id. at n.3. Pacific Bell and Bell Atlantic also reiterated their concerns about network reliability if QOR is not permitted. See Pacific Bell, Bell Atlantic, and SBC Ex Parte Letter at 1, from Ross Ireland, to William Caton, FCC, CC Docket No. 95-116, filed Feb. 24, 1997 (Pacific, et al., February 24, 1997 Ex Parte Filing).

<sup>47</sup> MCI Ex Parte Letter at 2, from Donna Roberts, to William F. Caton, FCC, CC Docket No. 95-116, filed Feb. 26, 1997 (MCI February 26, 1997 Ex Parte Filing); see also AT&T Ex Parte Letter at 1, from R. Gerard Salemme, to William F. Caton, FCC, CC Docket No. 95-116, filed Feb. 26, 1997 (AT&T February 26, 1997 Ex Parte Filing). For further discussion of the Bellcore study, see infra note 248.

<sup>48</sup> MCI February 26, 1997 Ex Parte Filing at 2; see infra note 235 (defining "FCC reportable outage").

<sup>49</sup> Bellcore Ex Parte Letter at 1-2, from Michael Knapp, to William Caton, FCC, CC Docket No. 95-116, filed Mar. 5, 1997 (Bellcore March 5, 1997 Ex Parte Filing) (citing outages in the networks of AT&T, Bell Atlantic, and Pacific Bell as examples of prior network failures).

reasonable probability that such an event could occur in the future.<sup>50</sup> In fact, Bellcore claims that such partial and complete failures have been relatively rare in the United States, because the industry has been diligent in anticipating failures, guarding against them, and adopting designs and procedures that minimize their effects when they occur.<sup>51</sup>

18. Parties opposing these petitions argue that QOR violates both criterion four and criterion six.<sup>52</sup> They argue that QOR requires greater dependence on an incumbent LEC's network than other number portability methods, such as LRN.<sup>53</sup> For example, opponents of QOR claim that QOR requires more signalling and routing steps than LRN before the call is delivered to a customer that has ported a number. They also assert that QOR relies to a greater extent on an incumbent LEC's facilities, because QOR uses both the signalling and trunking networks to reserve a call path to the incumbent LEC's terminating switch to which the NXX code of the called party was originally assigned.<sup>54</sup> Opponents of QOR further assert that the use of QOR affects service quality and network reliability. They contend that: (1) QOR results in service degradation by causing an incremental increase in the post-dial delay for calls ported to a new carrier;<sup>55</sup> (2) QOR impairs network reliability because additional network routing increases the potential for dropped calls and call blocking for ported calls,<sup>56</sup> and that (3) QOR is therefore not "competitively neutral," even when it is used only "within a carrier's network" or between consenting carriers.<sup>57</sup>

### c. Discussion

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<sup>50</sup> Id.

<sup>51</sup> Id.

<sup>52</sup> See, e.g., AT&T Opposition at 14-15; MCI Opposition at 8; Time Warner Comments at 4-5; TRA Comments at 11-12.

<sup>53</sup> AT&T Opposition at 14-15; MCI Opposition at 7-8; Time Warner Comments at 4-5.

<sup>54</sup> See AT&T October 29, 1996 Ex Parte Filing at 10; MCI October 28, 1996 Ex Parte Filing at 3.

<sup>55</sup> Opponents of QOR assert that the proper comparison for post-dial delay is not the post-dial delay of QOR versus LRN as the proponents of QOR claim, but rather the post-dial delay using QOR for calls to ported numbers versus calls to non-ported numbers. See, e.g., MCI Opposition at 9. MCI further asserts that post-dial delay associated with QOR could be 1.7 seconds or more. MCI Opposition at 9-10; see also ALTS Response at 4; AT&T Opposition at 10; Sprint Opposition at 2-3.

<sup>56</sup> MCI Ex Parte Presentation at 2, CC Docket No. 95-116, filed Oct. 28, 1996 (MCI October 28, 1996 Ex Parte Filing).

<sup>57</sup> AT&T Opposition at 11; MCI Ex Parte Presentation at 2, CC Docket No. 95-116, filed Oct. 16, 1996 (MCI October 16, 1996 Ex Parte Filing); MCI October 28, 1996 Ex Parte Filing at 2; Sprint Opposition at 2.

19. Criterion Four. Based on our analysis of the record in this proceeding, we now conclude that criterion four should be removed from our list of minimum performance criteria required for number portability, because all interconnected carriers are likely to rely upon each other's networks to some extent to process and route calls in a market in which a long-term number portability method has been deployed.<sup>58</sup> For example, under both LRN and QOR, the competitive LEC may be dependent upon facilities provided by the original service provider for the proper routing of all ported calls, because the original service provider is the entity that launches a query to the number portability database to obtain the location routing number for the dialed number. Furthermore, we find no basis in the record for drawing a principled distinction between permissible and impermissible levels of reliance on the original service provider's network. For these reasons, we find that criterion four -- which requires that any number portability method may not "require telecommunications carriers to rely on databases, other network facilities, or services provided by other telecommunications carriers in order to route calls to the proper termination point" -- is, from a practical perspective, unworkable. Moreover, many of our concerns about reliance on a competitor's network (e.g., the possibility of service degradation and call blocking) are addressed by criterion six. Thus, criterion four does not appear to be necessary in order to implement the statutory definition of number portability. In light of our decision to eliminate criterion four, we conclude that AirTouch's requested clarification of criterion four is moot.<sup>59</sup>

20. Criterion Six. With respect to criterion six, we affirm our conclusion in the First Report & Order that any long-term number portability method must not result in any degradation of service quality or network reliability when customers switch carriers. We further conclude, based on the record in this proceeding, that criterion six prohibits the use of QOR as a long-term number portability method. We agree with the commenters, primarily potential new providers of local exchange services (also referred to as "competitive LECs"), that: (1) QOR results in degradation of service by imposing post-dial delay only on calls ported to new carriers; (2) if network reliability problems were to arise as a result of QOR, those problems would disproportionately affect customers who port their numbers; and (3) QOR should not be permitted on an intranetwork basis, because it is not "competitively neutral."<sup>60</sup> We discuss each of these conclusions in more detail below.

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<sup>58</sup> See, e.g., BellSouth Petition at 19-21; SBC Petition at 2; USTA Petition at 4.

<sup>59</sup> See AirTouch Petition at 9-10 (seeking clarification that criterion four does not prohibit a carrier from unilaterally relying upon another carrier for the routing and transport of its traffic).

<sup>60</sup> AT&T Opposition at 11; MCI October 16, 1996 Ex Parte Filing at 2; MCI October 28, 1996 Ex Parte Filing at 2; Sprint Opposition at 2.

### (1) Service Degradation

21. After considering petitioners' arguments and concerns, we affirm our conclusion in the First Report & Order that, in accordance with criterion six, a long-term number portability method may not cause customers to experience "a greater dialing delay or call set up time" as compared to when the customer was with the original carrier.<sup>61</sup> Criterion six implements the statutory requirement that consumers be able to retain their numbers "without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."<sup>62</sup>

22. At the outset, we agree with AT&T and Time Warner that the time it takes to receive a call is an important factor for many subscribers, particularly businesses that receive and respond to a large number of calls on a daily basis.<sup>63</sup> If the party making a call to a business experiences additional delay because that business has switched carriers, that delay may negatively impact how the business is perceived, which, in turn, could dissuade the business from switching carriers in the first place. Therefore, we clarify that performance criterion six requires that calls to customers who change carriers (not just calls from customers who change carriers) must not take longer to complete merely because the customer has switched local service providers.<sup>64</sup> In order to implement the statutory requirement that consumers should be able to change carriers and retain their original phone number without impairment of quality, reliability, or convenience, we conclude that any post-dial delay imposed by a number portability method should be roughly equivalent for all consumers, whether they are calling to or from a ported or a non-ported number.<sup>65</sup>

23. We further conclude that consumers that switch telecommunications carriers and retain their numbers would experience "impairment of quality" if QOR were used, because the post-dial delay imposed by QOR is not equivalent for all consumers. Under QOR, calls that are placed to ported numbers must undergo a series of signalling and routing steps that result in

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<sup>61</sup> First Report & Order, 11 FCC Rcd at 8382.

<sup>62</sup> Id. (citing 47 U.S.C. § 153(30)).

<sup>63</sup> AT&T Opposition at 11; Time Warner Comments at 5. According to AT&T, these customers would be dissuaded from choosing competitive LEC services if that would entail increased call set-up time. AT&T Opposition at 11.

<sup>64</sup> Parties arguing in favor of QOR contend that post-dial delay associated with QOR would affect only the party originating the call, and not the terminating party that has ported its number. Bell Atlantic Petition at 5-8, 9 n.13; BellSouth Petition at 22 and n.25; GTE Reply at 2-3; NYNEX Petition at 6; Pacific Petition at 5-6; USTA Petition at 7; U S West Petition at 13-15.

<sup>65</sup> As petitioners point out, various technical factors not related to number portability can contribute to post-dial delay, such as whether the call is an interswitch or an intraswitch call. See, e.g., Bell Atlantic Petition at 5; Pacific Petition at 5.

longer post-dial delay than occurs for calls that are placed to non-ported numbers.<sup>66</sup> (The additional steps in the call flow required by QOR are illustrated in Appendix C.) No party disputes that QOR causes additional post-dial delay. There is disagreement, however, over the appropriate baseline for comparison. Proponents of QOR erroneously focus on the post-dial delay of alternative number portability technologies, comparing the incremental post-dial delay associated with a call to a ported number using LRN with that of a call to a ported number using QOR.<sup>67</sup> That is not the statutory standard. We agree with AT&T and MCI that the proper comparison for incremental post-dial delay is the difference in delay between calls placed to ported numbers and calls placed to non-ported numbers, because that is the delay that occurs "when switching from one telecommunications carrier to another."<sup>68</sup> According to the most conservative estimates, calls to ported numbers from a network that uses QOR would experience an additional post-dial delay of approximately 1.3 seconds as compared to calls placed to non-ported numbers.<sup>69</sup> Because we find that post-dial delay of 1.3 seconds is significant, we conclude that QOR violates the statutory definition of number portability and criterion six. By contrast, under LRN, there is no differential between ported and non-ported calls; for all calls, it takes the same amount of time to query the database for appropriate routing instructions. LRN therefore does not impair service quality when a customer changes carriers. Accordingly, we conclude that LRN is consistent with the statutory definition of number portability and performance criterion six.

24. We also reject petitioners' argument that some degree of added post-dial delay should be acceptable, provided that it is not "perceptible" to the public.<sup>70</sup> First, we agree with AT&T that the studies submitted by petitioners fail to demonstrate that 1.3 seconds of post-dial delay is imperceptible to the public.<sup>71</sup> Second, we agree with those parties that contend that, even

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<sup>66</sup> Time Warner Ex Parte Presentation at 2, CC Docket No. 95-116, filed Dec. 10, 1996 (Time Warner December 10, 1996 Ex Parte Filing).

<sup>67</sup> See supra note 40.

<sup>68</sup> AT&T October 29, 1996 Ex Parte Filing at 8; MCI Opposition at 9.

<sup>69</sup> See, e.g., Pacific Reply at 6 (a ported call utilizing QOR will have post-dial delay of approximately 1.3 seconds); but see MCI Opposition at 9-10 (post-dial delay associated with QOR is 1.7 seconds or more).

<sup>70</sup> AT&T and Sprint dispute the claim that the post-dial delay is imperceptible to customers, arguing there is no record evidence to support this claim. AT&T Opposition at 12; Sprint Opposition at 4.

<sup>71</sup> See, e.g., AT&T Ex Parte Letter at 2, from Frank Simone to Melinda Littell, FCC, CC Docket No. 95-116, filed Nov. 21, 1996, (AT&T November 21, 1996 Ex Parte Filing) (noting that the experiment described in the MacDonald & Archambault Study did not establish a level of post-dial delay below which the delay was imperceptible; rather, the experiment tested impatience levels among the participants when exposed to differences in post-dial delay.) The MacDonald & Archambault Study's authors specifically note that a customer's threshold for post-dial delay may change over time, and customers may demand shorter average post-dial delay than was found tolerable when the study was conducted. See MacDonald & Archambault Study at ¶ 4.1; see also AT&T November 21, 1996 Ex Parte Filing at 2. The Cotton & Kuong-lau Study is inconclusive, because the authors

if the additional post-dial delay were imperceptible to the caller, QOR could adversely affect competitors, because the incumbent LEC could truthfully advertise the fact that calls to customers that remain on the incumbent LEC's network are completed more quickly than calls to customers that switch to a competitor's network.<sup>72</sup> MCI points out that this could create a marketplace perception that competitive LECs are operating inferior networks, which could harm competition.<sup>73</sup> In response, six incumbent LECs have voluntarily committed not to mention the call set-up time differences between LRN and QOR in their advertising materials.<sup>74</sup> As AT&T and MCI point out, however, the incumbent LECs' voluntary commitment is limited to "advertising materials," and therefore does not preclude them from mentioning call set up in all other aspects of their marketing, such as direct sales and telemarketing, news releases, studies commenced to compare competitors' service performance, and editorials.<sup>75</sup> Furthermore, because only six incumbent LECs signed the letter, we have no basis on which to conclude that all incumbent LECs will refrain from using the differences in call set-up time to influence marketplace perceptions and inhibit competition. Thus, we decline to designate a threshold below which added post-dial delay is permissible. Moreover, given our concerns about these marketplace perceptions, we find U S West's suggestion that the Commission survey consumers to ascertain whether they can perceive the post-dial delay associated with QOR to be unnecessary.<sup>76</sup>

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recommend additional studies to resolve differences between the three call models used in the experiment. See Bell Atlantic Petition at 6 & n.6 (citing MacDonald & Archambault, Using Customer Expectations in Planning the Intelligent Network, Proceedings of the 14th International Teletraffic Congress (ITC) 95-104 (1994) (MacDonald & Archambault Study) and Cotton & Kuong-lau, Effects of Initial and Subsequent AIN Call Setup Delays on Grade of Service Expectations, Technical Memorandum TM-NWT-016605, July 1990) (Cotton & Kuong-lau Study); Pacific Petition at 5 & n.5 (citing MacDonald & Archambault Study).

<sup>72</sup> MCI Opposition at 10; Sprint Opposition at 5; Time Warner Comments at 5; ALTS Response at 4; but see Bell Atlantic Reply at 2-3, n.4 (asserting that carriers using QOR probably would not advertise the fact that they have intentionally introduced delay into their own service); USTA Reply at 6. Accord Pacific Reply at 7-8 (customer would more readily understand an advertisement that competitive LECs' customers' calls will complete faster than the incumbent's customers).

<sup>73</sup> MCI Opposition at 10 (asserting that incumbent LECs are likely to seize upon post-dial delay as a factor to differentiate their services from those of a competitor, and citing as evidence the advertising claims of AT&T prior to the deployment of the 800 number database that its 800 service was operationally superior based on, among other things, its faster call completion).

<sup>74</sup> See Ex Parte Letter from Bell Atlantic, BellSouth, GTE, NYNEX, Pacific, and SBC, to William Caton, FCC, CC Docket No. 95-116, filed Feb. 10, 1997 (Bell Atlantic et al. February 10, 1997 Ex Parte Filing).

<sup>75</sup> See Ex Parte Letter from MCI to William Caton, FCC, CC Docket No. 95-116, filed February 19, 1997 (MCI February 19, 1997 Ex Parte Filing); AT&T Ex Parte Letter, to William Caton, FCC, CC Docket No. 95-116, filed Feb. 18, 1997 (AT&T February 18, 1997 Ex Parte Filing).

<sup>76</sup> U S West Petition at 12-15; see also NEXLINK Opposition at 5 (urging the Commission to reject U S West's request to delay implementation in order to survey consumers about post-dial delay caused by QOR).



## (2) Network Reliability

25. QOR. As discussed above, criterion six requires that no long-term number portability method may result in "any degradation of service quality or network reliability when customers switch carriers."<sup>77</sup> We agree with the opponents of QOR that technical concerns raised by QOR are more likely to impact ported numbers adversely than non-ported numbers.<sup>78</sup> For example, QOR requires fewer SS7 links to the number portability database than LRN because of the lower number of queries to support. There is a risk, therefore, that an SS7 network engineered to accommodate a lower traffic level would not be able to handle an unexpected sharp increase in the number of calls to ported numbers. Such increases could occur in response to advertising or promotions by competitive LECs with ported numbers. Difficulties in querying the database may result in call blockage (*i.e.*, lost or incomplete calls) and increased post-dial delay, but only on calls to ported numbers. We also note that the apparent advantage of QOR in requiring fewer queries to the database is offset by the fact that it will require at least two additional signalling messages for each call to a ported number before routing instructions are obtained.<sup>79</sup> This additional load on the signalling network creates the potential for reliability problems for ported calls.<sup>80</sup> We conclude that network reliability concerns posed by QOR violate criterion six and the statutory definition of number portability because, if any network problems arise as a result of QOR, they would disproportionately affect consumers who port their numbers.

26. LRN. As a related matter, proponents of QOR assert that deployment of LRN is more likely to result in network failure than if carriers are permitted to use the QOR enhancement to LRN.<sup>81</sup> Although the proponents of QOR do not frame their arguments in terms of the performance criteria we adopted in the First Report & Order, the thrust of their argument appears to fall within the scope of criterion five, which requires that no number portability method should result in "unreasonable degradation in service quality or network reliability when implemented."<sup>82</sup>

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<sup>77</sup> First Report & Order, 11 FCC Rcd at 8378.

<sup>78</sup> MCI October 28, 1996 Ex Parte Filing at 3.

<sup>79</sup> See MCI Opposition at 12, 14; Time Warner Comments at 3; see also National Communications System, Local Number Portability: AIN and NS/EP Implications at ¶ 9.2 (July 1996).

<sup>80</sup> MCI November 6, 1996 Ex Parte Filing at 2.

<sup>81</sup> See, e.g., Bell Atlantic/Pacific January 10, 1997 Ex Parte Filing at 4; BellSouth Petition at 23-24; GTE Petition at 10; NYNEX Petition at 5-6; Pacific Petition at 9; USTA Petition at 10-11; SBC February 19, 1997 Ex Parte Filing.

<sup>82</sup> First Report & Order, 11 FCC Rcd at 8378.

27. Based on the record before us, we conclude that petitioners have not demonstrated that LRN fails to meet criterion five.<sup>83</sup> Although the initial deployment of any new technology may pose some risk to the network, we are not persuaded that deployment of LRN will result in unreasonable degradation of network reliability when deployed under the revised schedule adopted in this First Reconsideration Order. Indeed, petitioners' concerns about LRN's impact on network reliability are mitigated by a number of factors. First, as we noted previously, LRN has been examined extensively by a number of state commissions and industry workshops, and had been selected for deployment by at least six states prior to the adoption of the First Report & Order.<sup>84</sup> Second, we provided in the First Report & Order for a field test of LRN in the Chicago MSA (Chicago trial), which should help to protect against network reliability problems.<sup>85</sup> If technical problems with LRN arise with respect to the Chicago trial, we can take appropriate action at that time.<sup>86</sup> Third, as discussed in more detail in Section III.B.3 below, we are extending the implementation schedule for Phase I to allow carriers additional time to test number portability in a live environment, and to take appropriate steps to safeguard network reliability. Indeed, the Bellcore study submitted by SBC supports our conclusion that additional time for testing, integration, and soaking (limited use of the software in a live environment for a length of time sufficient to find initial defects) will help to reduce the probability of network failure.<sup>87</sup> Fourth, as we clarify below, the Commission's implementation schedule does not require a flashcut implementation on October 1, 1997, for those MSAs in the first phase of the deployment schedule. Rather, number portability may be implemented gradually throughout the initial phase, provided that implementation in the designated markets is completed by the end of that phase.

28. Moreover, petitioners' fears about LRN's impact on the SS7 network are not grounds for abandoning LRN. Because of the pre-deployment procedures we adopt in this order, carriers will know in advance the specific switches in each MSA that require local number portability capabilities.<sup>88</sup> Furthermore, the task of forecasting signalling load requirements should be easier with LRN than QOR, because queries are required for all interoffice intraLATA calls. As a result, carriers should be able to use historic traffic flows to help predict how many of these calls are typically destined to switches where local number portability has been deployed. In

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<sup>83</sup> See generally MCI February 26, 1997 Ex Parte Filing; AT&T February 26, 1997 Ex Parte Filing.

<sup>84</sup> First Report & Order, 11 FCC Rcd at 8362-63; see also Section II.C.

<sup>85</sup> First Report & Order, 11 FCC Rcd at 8393-94.

<sup>86</sup> In addition, one of the Commission's advisory committees, the Network Reliability and Interoperability Council, has identified number portability as an issue on which it will be developing recommendations for consideration by the Commission and the industry. We expect to receive those recommendations in July 1997. For further information on the Council, see <http://www.fcc.gov/oet/nric>.

<sup>87</sup> SBC February 19, 1997 Ex Parte Filing at att. at 1.

<sup>88</sup> See Section III.B.2.

contrast, for QOR, signalling loads are dependent upon the percentage of numbers actually ported, which is a figure more difficult to predict in advance.

29. In sum, we conclude that claims that LRN will threaten network reliability are speculative and are mitigated by the added time we have provided for carriers to implement number portability during Phase I and Phase II. We expect the industry to continue to anticipate failures, guard against them, and minimize their effects when they occur, which, as Bellcore points out, has helped to make such failures rare events in the United States in the past.<sup>89</sup> Thus, given all of the safeguards and mitigating factors discussed above, we are persuaded that deployment of LRN will not result in "unreasonable degradation of network reliability."

### (3) Intranetwork Use of QOR

30. Incumbent LECs ask us to permit them to use QOR on all calls that originate on their network and are placed to numbers that originally were assigned to one of their end offices (*i.e.*, calls "within their own network" or "intranetwork calls").<sup>90</sup> We conclude that their request is misleading insofar as it implies that only calls to and from their own customers would be affected. In fact, calls that are placed to numbers that have been ported would require a query to the number portability database after the originating switch is notified by the terminating switch in the incumbent LEC's service area that the called number has been ported. We agree with MCI that, as customers subscribe to alternative carriers, the only calls that will remain "within" the incumbent LEC's network will be calls from one of the incumbent LEC's customers to another.<sup>91</sup> As discussed above, however, the call to the ported number would experience increased post-dial delay because of the additional signalling and routing preparations required by QOR. Such disparity in treatment between ported and non-porting numbers violates criterion six and the statutory definition of number portability.

## 2. Public Interest Considerations

### a. Overview

31. Petitioners further assert that, regardless of our performance criteria, incumbent LECs should not be prohibited from using QOR as a number portability method, because deployment of QOR serves the public interest. First, they claim that QOR will result in significant

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<sup>89</sup> Bellcore March 5, 1997 Ex Parte Filing at 2.

<sup>90</sup> Pacific Petition at 3-4.

<sup>91</sup> MCI Opposition at 7; see also Time Warner Comments at 2-3.

cost savings.<sup>92</sup> Second, they claim that permitting incumbent LECs to use QOR will make it easier for them to meet the Commission's implementation schedule.<sup>93</sup>

32. As an initial matter, we disagree with the petitioners' premise that LECs should be permitted to implement QOR regardless of the performance criteria, if the Commission determines that QOR serves the public interest. As stated above, we conclude that QOR violates criterion six, which is required by the statute. Thus, we are not at liberty to apply a public interest analysis that could result in an abrogation of the statutory mandate. Nevertheless, because the parties raised public interest concerns, we address them here in order to establish that our decision to prohibit QOR is not contrary to the public interest.

### **b. Purported Cost Savings Associated with QOR**

33. Background. In the First Report & Order, we concluded that there was little evidence on the record to support the claim that deployment of QOR would result in significant cost savings.<sup>94</sup> We found, based on the record, that the competitive benefits of ensuring that calls are not routed through the original carrier's network outweighed any cost savings that QOR might bring in the immediate future.<sup>95</sup> Although Pacific submitted summary figures purporting to indicate that it would save approximately \$14.2 million per year if it implemented QOR (assuming that 20 percent of subscribers ported their numbers), we concluded that these purported savings, which represent less than two-tenths of a percent of Pacific's total annual operating revenues, appeared insignificant in relation to the potential economic and non-economic costs to competitors if QOR is used.<sup>96</sup> There was also record evidence that using QOR would only be cost-effective at low levels of ported numbers, depending on the switch type.<sup>97</sup> In addition, we expressed concern that, because carriers using QOR may be required to send QOR signalling to another carrier's switch to determine whether a customer has ported his number, this would

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<sup>92</sup> Bell Atlantic Petition at 5; BellSouth Petition at 23; GTE Petition at 10; NYNEX Petition at 4-5; Pacific Petition at 7-9; SBC Petition at 1-2; USTA Petition at 9-10; U S West Petition at 13 n.18.

<sup>93</sup> Bell Atlantic Petition at 10 n.14; NYNEX Petition at 6; Pacific Petition at 9-10.

<sup>94</sup> First Report & Order, 11 FCC Rcd at 8381.

<sup>95</sup> Id. at 8382. We noted that parties had argued that QOR could treat ported and non-ported numbers differently, increase post-dial delay and the potential for call blocking, result in inefficient routing, create significant network interoperability issues, and delay deployment of a long-term number portability method. Id. at 8381.

<sup>96</sup> Id. at 8381. We note that the cost estimates submitted by Pacific have varied significantly over the course of this proceeding. See infra note 122.

<sup>97</sup> First Report & Order, 11 FCC Rcd at 8381. AT&T asserted that, using Lucent switches, QOR is cost effective only if less than 12 percent of subscribers port their numbers, and, using Siemens switches, is cost effective only if less than 23 percent of subscribers port their numbers. Id.

require the second carrier to have the ability to recognize and respond to the QOR message, thereby increasing its costs.<sup>98</sup>

34. Pleadings. Petitioners again contend they should be allowed to use QOR because they would achieve significant cost savings.<sup>99</sup> These parties claim that QOR would result in a reduction in the number of database queries, which, in turn, would reduce the costs that must be incurred to complete the infrastructure upgrades necessary to implement QOR compared to those necessary to utilize LRN.<sup>100</sup> Specifically, petitioners allege that QOR would require a carrier to install fewer additional SCP pairs and SS7 signalling links, and to upgrade fewer STPs, than would be the case for LRN.<sup>101</sup> Petitioners also allege that QOR would place less additional load on switch processors, and would thereby delay the need to upgrade those switch processors.<sup>102</sup>

35. Petitioners further argue that QOR would allow carriers to expand the capacity of their SS7 signalling networks more gradually to handle an increased number of queries, as numbers are ported to other carriers. They allege that LRN, in contrast, will require carriers to engineer their networks to accommodate queries on every call from a given NXX once one telephone number has been ported from that NXX.<sup>103</sup> According to these parties, this will require their networks to be grossly "over-engineered" when number portability is initially deployed. Several petitioners note that carriers using QOR would be able to decide on a switch-by-switch basis when it is more cost effective to disable the QOR triggering mechanism and use LRN alone.

36. In response, both AT&T and MCI claim that the LECs have overestimated the costs of LRN and underestimated the costs of QOR, thereby grossly exaggerating the relative cost savings associated with QOR.<sup>104</sup> Their principal objections to the carriers' cost studies are that

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<sup>98</sup> First Report & Order, 11 FCC Rcd at 8381-82; see also 47 C.F.R. § 52.3(a)(4).

<sup>99</sup> Bell Atlantic Petition at 5; BellSouth Petition at 23; GTE Petition at 10; NYNEX Petition at 4-5; Pacific Petition at 7-9; SBC Petition at 1-2; U S West Petition at 13 n.18; USTA Petition at 9-10. The data in the petitions for reconsideration contained only summary figures, although various carriers provided more detail in their reply comments and through the ex parte process. Some data was submitted on a confidential basis. For specific figures, see infra ¶ 40.

<sup>100</sup> Bell Atlantic Reply at 8; GTE Opposition at 6-7; TCG Reply at 2.

<sup>101</sup> See, e.g., BellSouth Ex Parte Letter at 2, from Cynthia Cox, to William Caton, FCC, CC Docket No. 95-116, filed Oct. 21, 1996 (BellSouth October 21, 1996 Ex Parte Filing).

<sup>102</sup> See, e.g., NYNEX Ex Parte Letter at 3-4, from Alan Cort, to William Caton, FCC, CC Docket No. 95-116, filed Oct. 21, 1996 (NYNEX October 21, 1996 Ex Parte Filing)

<sup>103</sup> See, e.g., BellSouth October 21, 1996 Ex Parte Filing at 2.

<sup>104</sup> For specific figures, see infra ¶ 40.

they: (1) overstate the number of SCP pairs needed to deploy LRN;<sup>105</sup> (2) exaggerate the impact of LRN on switch processor capacity and fail to account for the impact of QOR on switch processor capacity;<sup>106</sup> (3) overstate the number of queries from non-participating carriers, which results in overstated cost estimates, and fail to account for offsetting revenues;<sup>107</sup> (4) fail to estimate the cost of unnecessary call set-up under QOR;<sup>108</sup> (5) fail to account for the additional cost of provisioning QOR in all intermediate and terminating switches, including modifications to Operator Support Systems (OSS);<sup>109</sup> and (6) exaggerate the speed of number portability deployment outside of the top 100 MSAs.<sup>110</sup> In addition, MCI points out that GTE, SBC, NYNEX, and Bell Atlantic failed to specify the assumptions underlying their cost studies, and Pacific submitted its cost study on a confidential basis, making it difficult to undertake a detailed analysis of those cost studies.<sup>111</sup>

37. Furthermore, there is a dispute in the record over the point at which it becomes more cost effective to use LRN rather than QOR. As we noted in the First Report & Order, AT&T contends that it is more cost effective to deploy LRN in Lucent switches when 12 percent of the customers served by such a switch have ported their numbers, and to deploy LRN in Siemens switches when 23 percent of the customers served by such a switch have ported their numbers.<sup>112</sup> In this phase of the proceeding, BellSouth asserts that the crossover point occurs when 68 percent of its customers have ported their numbers.<sup>113</sup> NYNEX contends that the appropriate transition is a function of its SCP costs, its signalling costs, and its switch costs, and suggests that "this point may occur when 50 percent of numbers have ported."<sup>114</sup> In contrast,

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<sup>105</sup> MCI October 28, 1996 Ex Parte Filing at 2; MCI Ex Parte Presentation at 2, 4-5, CC Docket No. 95-116, filed Nov. 6, 1996 (MCI November 6, 1996 Ex Parte Filing).

<sup>106</sup> Id.

<sup>107</sup> AT&T October 29, 1996 Ex Parte Filing at 5; MCI October 28, 1996 Ex Parte Filing at 2; MCI November 6, 1996 Ex Parte Filing at 3, 5.

<sup>108</sup> AT&T Ex Parte Presentation at 2, CC Docket No. 95-116, filed Nov. 19, 1996 (AT&T November 19, 1996 Ex Parte Filing); AT&T October 29, 1996 Ex Parte Filing at 5; MCI November 7, 1996 Ex Parte Filing at 2-5.

<sup>109</sup> AT&T October 29, 1996 Ex Parte Filing at 6.

<sup>110</sup> MCI October 28, 1996 Ex Parte Filing at 2.

<sup>111</sup> MCI November 7, 1996 Ex Parte Filing at 1.

<sup>112</sup> First Report & Order, 11 FCC Rcd at 8381.

<sup>113</sup> BellSouth Reply at 6.

<sup>114</sup> NYNEX October 21, 1996 Ex Parte Filing at 11.

several interexchange carriers have argued that the crossover point for Pacific occurs when 20 percent of numbers have ported.<sup>115</sup>

38. Discussion. At the outset, it is important to clarify the nature of the asserted "cost savings" associated with QOR. As most carriers recognize, LRN is the more economical way to provide long term number portability once ported numbers for a given switch reach a certain level, although the point at which it becomes more cost-effective to use LRN rather than QOR remains in dispute.<sup>116</sup> From an economic perspective, the question is whether the present discounted value of the cost of initially deploying LRN is less than the present discounted value of the cost of deploying QOR initially and LRN at some later date.<sup>117</sup> Proponents of QOR contend that the use of the QOR enhancement to LRN would result in real cost savings, not just a short-term deferral of expenses, because the number of ported calls in some areas will never reach the level where it is more cost effective to disable QOR and complete the build-out necessary to support LRN.<sup>118</sup> We conclude, however, that the statutory scheme that Congress has put in place should, over time, result in vigorous facilities-based competition in most areas, and therefore LRN will be the most economical long-term solution.<sup>119</sup> Thus, deploying QOR would most likely result in short-term cost savings, not overall cost savings. In fact, at least one incumbent LEC, Ameritech, has already decided that it is beneficial to deploy LRN from the outset, rather than

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<sup>115</sup> AT&T October 29, 1996 Ex Parte Filing at 7; MCI Ex Parte Letter at exhibit 2 at 12, from Donna Roberts, to William Caton, FCC, CC Docket No. 95-116, filed Oct. 25, 1996 (MCI October 25, 1996 Ex Parte Filing) (arguing jointly with AT&T before the California PUC that, after adjustments, Pacific's savings at 20 percent porting would be \$1 million, rather than the \$71 million claimed).

<sup>116</sup> See supra ¶ 37 .

<sup>117</sup> The present discounted value is a calculation that converts a dollar amount expended (or received) in the future into its equivalent dollar amount today. A dollar today is worth more than a dollar tomorrow, because a dollar today can be invested today to earn interest, which yields more than a dollar tomorrow. The present discounted value of a dollar amount expended (or received) by a firm  $n$  years in the future is computed as  $P/(1 + r)^n$  where  $P$  is the dollar amount, and  $r$  is the firm's opportunity cost of capital. See, e.g., Thomas E. Copeland & J. Fred Weston, Financial Theory and Corporate Policy 26 (1980); Kenneth E. Train, Optimal Regulation: The Economic Theory of Natural Monopoly 171 (1991). In the past, the Commission has used the "present discounted value" as an analytical tool for ascertaining economic viability in reviewing Section 214 applications. See, e.g., Applications of New England Telephone and Telegraph for Authority Pursuant to Section 214 of the Communications Act of 1934, as amended, and Section 63.01 of the Commission's Rules, to Construct, Operate, and Maintain Facilities to Provide Video DialTone Service to Communities in Rhode Island and Massachusetts, Order and Authorization, File Nos. W-P-C-6982, 6983, 10 FCC Rcd 5346, 5377 n.165 (1995).

<sup>118</sup> See, e.g., NYNEX October 21, 1996 Ex Parte Filing at 8.

<sup>119</sup> We have already accounted for the possibility that vigorous facilities-based competition might not occur in every end office, by not requiring incumbent LECs to deploy long-term number portability in those switches unless requested to do so by a competitor. See Section III.B.2.

converting from QOR to LRN at some later date.<sup>120</sup> Even if facilities-based competition does not develop in the immediate future, however, we conclude that the harm that QOR imposes on competitors (as discussed in Section III.A.1 above) outweighs the benefit of allowing incumbent LECs to defer the cost of implementing a superior long-term number portability solution.

39. Moreover, we are not convinced that the incumbent LEC's estimates of the short-term savings associated with QOR are reliable.<sup>121</sup> We are particularly concerned by the fact that the cost savings estimates submitted by incumbent LECs have varied significantly over the course of this proceeding. In some cases, estimates from the same carrier have changed by 100 percent or more. Further, the changed estimates have not moved in the same direction; some carriers' estimates of the cost savings increased drastically and other carriers' estimates decreased equally drastically.<sup>122</sup> While we recognize that carriers have worked over time to refine their projections, the wide variation in the estimates submitted by individual carriers at different points in this proceeding raises questions about the reliability of these estimates.<sup>123</sup> Furthermore, the fact that

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<sup>120</sup> See, e.g., Further Comments of Ameritech (filed March 29, 1996) at 10 (arguing that the Commission should prescribe the LRN architecture as the template for long term number portability); see also Ex Parte Letter from Ameritech, AT&T, Central Telephone Co. of Illinois, MCI, MFS, Teleport, Time Warner, and Sprint ("the ICC workshop"), to Regina Keeney, FCC, CC Docket 95-116, filed May 8, 1996 (stating that support for LRN has by no means been confined to Illinois, or to Ameritech among the RBOCs, and that similar industry groups across the country have conducted extensive reviews of available alternatives and likewise voted LRN as the best solution).

<sup>121</sup> In reaching this conclusion, we have considered carefully all of the cost information that the carriers submitted, even though a number of the petitioners did not submit such data in a timely fashion. Section 1.429(b) of our rules requires parties to set forth facts on which they rely in their petitions for reconsideration. 47 C.F.R. § 1.429(b). Pacific provided only summary figures in its petition regarding the purported cost savings associated with QOR, with underlying data filed on a proprietary basis, while Bell Atlantic provided cost data supporting its claim of savings in its reply comments. Pacific Petition at 8-9; Bell Atlantic Reply Comments at att. A. A number of other LECs submitted cost data in ex parte filings after the pleading cycle closed on the petitions for reconsideration. See SBC Ex Parte Letter at 2-3, from Michael W. Bennett, to William Caton, FCC, CC Docket No. 95-116, filed Oct. 21, 1996 (SBC October 21, 1996 Ex Parte Filing); NYNEX October 21, 1996 Ex Parte Filing at 3; GTE Ex Parte Letter at 2, from F.G. Maxson, to William Caton, FCC, CC Docket No. 95-116, filed Oct. 21, 1996 (GTE October 21, 1996 Ex Parte Filing). Nevertheless, we have considered the late-filed information, because we believe it serves the public interest. See 47 C.F.R. § 1.429(b)(3).

<sup>122</sup> Compare Pacific Bell Ex Parte Letter at 7, from Alan F. Ciamporcero, to William F. Caton, FCC, CC Docket No. 95-116, filed June 6, 1996 (Pacific June 6, 1996 Ex Parte Filing) (estimating \$71 million in cost savings associated with QOR over five-year period) with Pacific Petition at 8-9 (estimating \$130 million in cost savings over five-year period); also compare Bell Atlantic Ex Parte Letter at 3, from Edward D. Young, III, to Hon. Reed E. Hundt, FCC, CC Docket 95-116, filed May 10, 1996 (Bell Atlantic May 10, 1996 Ex Parte Filing) (estimating \$180 million in cost savings for QOR) with Bell Atlantic Reply at 8 & Att. A (estimating \$67.8 million in cost savings for QOR); also compare BellSouth Petition at 23 (estimating \$50 million in cost savings for QOR) with BellSouth Reply at 5 (estimating \$101.5 million in cost savings for QOR).

<sup>123</sup> Contrary to the claims of AT&T, we do not believe that the variability of cost estimates across carriers in and of itself undermines the credibility of those estimates, because the technical requirements of different networks



some carriers have not explained the basis for the assumptions underlying their estimates precludes us from conducting an independent evaluation of the reasonableness and reliability of their projected cost savings and, consequently, limits the weight we can reasonably assign to those estimates.

40. In addition, MCI alleges that the cost savings that would be realized by permitting the deployment of QOR are far less than the estimated \$54 million to \$136.3 million in annual savings alleged by individual incumbent LECs.<sup>124</sup> The following chart shows the difference between estimated savings submitted by the petitioners and estimated savings calculated by MCI:

Carrier	Estimated Savings as Reported by the Carrier (Millions)	Estimated Savings as Reported by MCI (Millions) <sup>125</sup>
Bell Atlantic	\$68 <sup>126</sup>	\$15
BellSouth	\$102 <sup>127</sup>	N/A
GTE	\$136 <sup>128</sup>	\$28
NYNEX	\$54 <sup>129</sup>	N/A

could vary significantly. See AT&T October 29, 1996 Ex Parte Filing at 2.

<sup>124</sup> The LECs collectively estimate they would save between \$624 and \$649 million if permitted to use QOR. MCI has provided figures indicating that the LECs collectively would save only \$50 million, but that figure only includes estimated savings for four out of the seven carriers. As noted infra in note 125, MCI was unable to estimate cost savings for three carriers due to insufficient information in the record. For three of the carriers for which MCI was able to provide estimates, however, these estimates ranged from 20% to 23% of the corresponding LEC figure. For the fourth carrier, MCI argued that QOR actually would cost more than LRN.

<sup>125</sup> MCI November 7, 1996 Ex Parte Filing at 2-6; MCI Letter at exhibit 2 at 12, from Donna Roberts, to William Caton, FCC, CC Docket No. 95-116, filed Oct. 25, 1996 (MCI October 25, 1996 Ex Parte Filing). MCI stated that it was unable to determine true cost-savings based on the information presented by BellSouth, NYNEX, and U S West, because these carriers failed to specify adequately the assumptions underlying their calculations.

<sup>126</sup> Bell Atlantic Reply at 8 & Att. A. This figure assumes that 10 percent of Bell Atlantic customers port their numbers. Bell Atlantic asserts that it would realize approximately \$56 million in savings if 25 percent of numbers were ported.

<sup>127</sup> BellSouth Reply at 5. This figure assumes that 10 percent of BellSouth's customers port their numbers.

<sup>128</sup> GTE October 21, 1996 Ex Parte Filing, at 2.

<sup>129</sup> NYNEX October 21, 1996 Ex Parte Filing at 3. NYNEX figures represent alleged cost savings over a four-year (not five-year) period.

Pacific	\$130 <sup>130</sup>	-\$12
SBC	\$84 <sup>131</sup>	\$19
U S West	\$50-\$75 <sup>132</sup>	N/A

41. MCI's calculation of the asserted cost savings associated with QOR challenges a key assumption underlying the incumbent LECs' estimates. Specifically, MCI claims that the LECs substantially underestimate the number of transactions (*i.e.*, queries) per second (tps) that an SCP pair can perform and, consequently, their estimate of the number of SCP pairs that must be deployed to provide LRN is overstated.<sup>133</sup> AT&T also alleges that the incumbent LECs' savings estimates do not take into account offsetting increases in additional switching facilities costs that would be required for QOR.<sup>134</sup> MCI and AT&T further contend that the incumbent LECs' estimates of the relative costs of deploying LRN and QOR must be adjusted downward to account for revenues that they will receive to perform database queries at the request of rural and

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<sup>130</sup> Pacific Petition at 8-9; Pacific Ex Parte Letter, from Alan Ciamporcero, to William Caton, FCC, CC Docket No. 95-116, filed October 29, 1996 (Pacific October 29, 1996 Ex Parte Filing). The figures assume that 30 percent of Pacific's customers port their numbers.

<sup>131</sup> SBC October 21, 1996 Ex Parte Filing at 2-3. This figure represents estimated savings over a three-year (not five-year) period, assuming that 10 percent of SBC's customers port their numbers. SBC asserts it would save \$62.4 million at 20% porting, and \$57.4 million at 30 percent porting.

<sup>132</sup> U S West Petition at 13 n.18 (suggests in conclusory terms that costs savings of QOR appear to be in the 10-15 percent range, and U S West could save \$50 to \$75 million, or more if permitted to use QOR). See also U S West Ex Parte Presentation at 3, CC Docket No. 95-116, filed Aug. 5, 1996 (U S West August 5, 1996 Ex Parte Filing) (asserts \$40-\$45 million in capital costs and \$13-\$15 million in annual expenses if allowed to utilize QOR in its first 10 MSAs on the Commission's deployment schedule; no assumptions regarding the level of porting were provided).

<sup>133</sup> Incumbent LECs assert that, when number portability is initially deployed, SCP pairs will perform approximately 400 tps, and in the future will have a capacity of approximately 1000 tps. On the other hand, MCI claims that technology is available for SCPs to operate immediately at 800 tps, and eventually reach approximately 2000 tps. Compare Bell Atlantic Reply at att. A.4 and SBC October 21, 1996 Ex Parte Filing at 4 with MCI November 7, 1996 Ex Parte Filing at 2. According to MCI, the LEC cost studies may have exaggerated by 40 percent to 50 percent the number of SCPs needed for LRN. MCI November 7, 1996 Ex Parte Filing at 2, 5. We also note that U S West lowered its estimate of how much LRN will cost, in part because it is ordering the next generation SCPs that operate at a higher rate. See U S West Ex Parte Letter, from Robert Jackson, to William Caton, FCC, CC Docket 95-116, filed Jan. 17, 1997 (U S West January 17, 1997 Ex Parte Filing).

<sup>134</sup> AT&T estimates that, if 20% of customers port their numbers to a new service provider, the economic cost of unnecessary call set ups under QOR would be close to \$1 billion. AT&T October 29, 1996 Ex Parte Filing. Bell Atlantic and Pacific both dispute AT&T's analysis. Bell Atlantic Ex Parte Presentation at 3, CC Docket No. 95-116, filed Nov. 6, 1996 (Bell Atlantic November 6, 1996 Ex Parte Filing); Pacific November 8, 1996 Ex Parte Filing at 2.

other LECs that do not have the capability to perform such queries themselves.<sup>135</sup> Although incumbent LECs would obtain such revenues with both the LRN and QOR methodologies,<sup>136</sup> the revenue stream is likely to be significantly greater with LRN because the number of database queries is likely to be much greater. Indeed, Pacific, a proponent of QOR, acknowledges that its estimate of the cost savings associated with QOR would be reduced by as much as \$18 million if such revenues were included in the estimate.<sup>137</sup> In view of the significant changes in the estimates of the cost savings associated with QOR submitted by individual incumbent LECs over the past months, a lack of data explaining many of the assumptions underlying their estimates, and the questions raised by MCI and AT&T with respect to specific aspects of the estimates, we find, on balance, that the incumbent LECs have not substantiated their claim that deployment of QOR will produce significant cost savings.

42. Moreover, a recent submission by Illuminet, a provider of SS7, database, and other services to independent LECs and other entities, casts doubt on the reasonableness of one of the most basic assumptions underlying the incumbent LECs' estimates of the relative costs of QOR and LRN.<sup>138</sup> Incumbent LEC estimates assume that the LEC number portability architecture will be deployed through a network of SCPs,<sup>139</sup> and that a major cost driver of LRN is the number of SCPs needed to handle increased traffic volumes.<sup>140</sup> On the other hand, Illuminet advocates using an STP-based architecture, in which call routing information from the regional database is transferred to a carrier's STP instead of an SCP, and the SCP is not involved in processing the number portability query.<sup>141</sup> Illuminet asserts that STPs are designed specifically to do ten-digit translations such as LRN query processing and can process number portability queries at a much

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<sup>135</sup> Both AT&T and MCI note that, although not required to do so, they plan on performing their own queries. Furthermore, in the event that they do not perform their own queries, they expect to pay a reasonable amount to the carrier providing this service. See AT&T Ex Parte Presentation at 1, CC Docket 95-116, filed Nov. 12, 1996 (AT&T November 12, 1996 Ex Parte Filing); MCI November 6, 1996 Ex Parte Filing at 1.

<sup>136</sup> See, e.g., Pacific November 8, 1996 Ex Parte Filing at 6.

<sup>137</sup> See Bell Atlantic/Pacific January 10, 1997 Ex Parte Filing at 6.

<sup>138</sup> Illuminet Ex Parte Presentation at 4, 9-11, CC Docket No. 95-116, filed Feb. 6, 1997 (Illuminet February 6, 1997 Ex Parte Filing).

<sup>139</sup> Using an SCP-based architecture, call routing information from the regional number portability database is transferred to a carrier's SCP. A number portability query is launched from a switch and is routed through an STP to the SCP. The SCP processes the number portability query (i.e., associates the dialed number with the location routing number) and sends the location routing number back, through the STP, to the switch.

<sup>140</sup> See, e.g., Pacific Telesis Ex Parte Filing at 2, from Nancy C. Woolf to William Caton, FCC, CC Docket 95-116, filed Feb. 3, 1997 (Pacific February 3, 1997 Ex Parte Filing) (stating that one of the big drivers of LRN costs is the number of ISCPs needed to handle the volumes).

<sup>141</sup> The query is launched from a switch to the STP, and the STP processes the query and sends the location routing number back to the switch. Illuminet February 6, 1997 Ex Parte Filing at 4, 9-11.

faster rate than SCPs. In contrast, SCPs are designed to support multiple call processing applications and process significantly fewer queries per second.<sup>142</sup> Carriers using an STP-based architecture, therefore, would need to purchase and install a relatively smaller number of STPs instead of the larger number of SCPs alleged by the LECs, and would not need to purchase and install additional SS7 links between the SCPs and STPs.<sup>143</sup> Thus, according to Illuminet, use of an STP-based architecture would reduce dramatically the cost of LRN.<sup>144</sup> In response, Pacific acknowledges that a combined STP-SCP approach may reduce some costs, but that expenses related to upgrading switch processors, links, and existing STPs will still be substantial.<sup>145</sup> Although we acknowledge that carriers deploying LRN will incur costs other than those associated with SCPs, we agree with Illuminet that an STP-based approach should reduce the relative cost differential between LRN and QOR.

43. In addition, as we discuss more fully in Section III.B.2 below, we are modifying our implementation schedule to require LECs to deploy number portability only in those switches requested by a competitive LEC within a given MSA on the implementation schedule, rather than in every switch in that MSA. As a result, fewer switches should require upgrading in each phase of the deployment schedule, with a corresponding reduction in the cost of implementation for all carriers. Moreover, if number portability capabilities are not deployed in all switches, then there will be fewer switches generating database queries, and thus fewer SCPs and signalling links will be needed than the LECs have estimated. Sprint, for instance, has estimated that it would save approximately 25 percent of its number portability budget of \$60 million for 1997 if it were not required to deploy number portability in the smaller exchanges within the MSAs on its deployment schedule.<sup>146</sup> While it is impossible at this time to quantify the precise magnitude of this effect nationwide because we do not know in how many switches competitive LECs will

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<sup>142</sup> Illuminet claims that STPs can process 1000 to 10,000 number portability queries per second, while currently most SCPs typically process only 400 to 1000 queries per second. Id. at 9-10.

<sup>143</sup> Id. at 9-10. Illuminet claims, for instance, that servicing 20,000 tps would require eleven high-capacity SCPs that are capable of operating at 2000 tps, but only one STP pair. Id. at 10. Illuminet further claims that, even when using an SCP that can service 1000 tps, the SCP functionality would cost 54% more with the LECs' SCP-based approach than with Illuminet's STP-based approach. Id. at 9.

<sup>144</sup> Id.

<sup>145</sup> Pacific Telesis Ex Parte Letter at 1, from Nancy Woolf, to Regina Keeney, FCC, CC Docket 95-116, filed Feb. 13, 1997 (Pacific February 13, 1997 Ex Parte Filing).

<sup>146</sup> Sprint Ex Parte Presentation at 8, CC Docket No. 95-116, filed Dec. 4, 1996 (Sprint December 4, 1996, Ex Parte Filing); see also U S West Ex Parte Letter at att. at 5, from Robert Jackson, to William Caton, FCC, CC Docket No. 95-116, filed Dec. 4, 1996 (U S West December 4, 1996 Ex Parte Filing) (suggests costs of implementing number portability would be lower if rural offices were not included in the deployment schedule).

request number portability, this modification to our number portability requirements should lessen somewhat whatever actual cost differences may exist between LRN and QOR.

**c. Impact of QOR on the Implementation Schedule**

44. Pleadings. Bell Atlantic and Pacific claim that allowing the use of QOR would make it easier for carriers to meet the Commission's implementation schedule, because they would not need to deploy as many databases and as extensive a signalling infrastructure as would be needed under LRN.<sup>147</sup> MCI disputes the claim that QOR would help carriers meet the implementation schedule. MCI argues that QOR has never been fully examined and specified by the industry in any state task force.<sup>148</sup> MCI further argues that the proponents of QOR have not established that it would be technically infeasible to deploy LRN fully under the existing implementation schedule.<sup>149</sup> AT&T claims that, even after QOR software becomes available,<sup>150</sup> additional time would be necessary to complete the installation, testing, and training necessary actually to implement QOR.<sup>151</sup>

45. Discussion. We are not persuaded by Bell Atlantic and Pacific that number portability would be deployed more rapidly if incumbent LECs are permitted to use QOR.<sup>152</sup> We find speculative petitioners' arguments that problems will arise in LRN implementation, and that the Commission therefore should allow the use of QOR. We agree with AT&T that no party has demonstrated that schedules for completing installation, testing, training, and other tasks necessary to implement QOR could be developed and coordinated with the schedules for

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<sup>147</sup> Bell Atlantic Petition at 10 n.14; NYNEX Petition at 6; Pacific Petition at 9-10. See also Cincinnati Bell Comments at 2.

<sup>148</sup> MCI Opposition at 15-16.

<sup>149</sup> Id. at 14.

<sup>150</sup> Siemens and Nortel have committed to making QOR software available in early to mid-1997, whereas Lucent -- which is the manufacturer of over half of the switches nationwide -- has committed to making QOR software available for its 5ESS and 1A ESS switches by December 1997, and its 4ESS switches by April 1998. See Nortel Ex Parte Letter, from Raymond Strassburger, to William Caton, FCC, CC Docket No. 95-116, filed Jan. 27, 1997 (Nortel January 27, 1997 Ex Parte Filing); Siemens Stromberg-Carlson Ex Parte Letter at 1, from Terry Jennings, to William F. Caton, FCC, CC Docket No. 95-116, filed May 20, 1996 (Siemens May 20, 1996 Ex Parte Filing); Lucent Technologies Ex Parte Letter at 1, from Mary McManus, to Carol Matthey, FCC, CC Docket No. 95-116, filed Dec. 19, 1996 (Lucent December 19, 1996 Ex Parte Filing).

<sup>151</sup> AT&T Ex Parte Letter at 2-3, from R. Gerard Salemme, to Regina Keeney, FCC, CC Docket No. 95-116, filed Dec. 23, 1996 (AT&T December 23, 1996 Ex Parte Filing).

<sup>152</sup> Bell Atlantic Petition at 10 n.14; NYNEX Petition at 6; Pacific Petition at 9-10. See also Cincinnati Bell Comments at 2.

completing tasks necessary to implement LRN.<sup>153</sup> Furthermore, no party has alleged that a field trial of QOR could be performed earlier than or even contemporaneously with the Chicago trial for LRN. To the contrary, as discussed in the next subsection, we have reason to believe that allowing the use of QOR would delay the Chicago trial and the implementation schedule.

**d. Impact on the States**

46. As discussed in Section II.C above, seven state commissions have specifically ordered implementation of LRN. These and a number of other states have invested considerable time, effort, and resources in developing LRN implementation plans and technical standards.<sup>154</sup> Illinois is proceeding with the field trial of LRN in the Chicago MSA.<sup>155</sup> Illinois, Georgia, California, Maryland, Colorado, New York, and Texas have undertaken significant efforts to form LLCs to develop and issue RFPs to construct and maintain a number portability database, to plan for expanding these state databases into regional databases, and to prepare in each state for database testing, in order to be ready to support number portability deployment in accordance with the schedule set forth in the First Report & Order.<sup>156</sup> These states have been in the forefront of opening markets to local competition, and we applaud and support their ongoing commitment to take actions necessary to make local number portability a reality in their jurisdictions. If we were to reverse our earlier finding that QOR is not acceptable as a long-term number portability method, these state activities could be greatly disrupted. Much of the testing and development of technical standards already done for implementation of LRN would have to be redone in order to accommodate a scenario in which both QOR and LRN may be in use in a given state. Moreover, the states that have been leaders in number portability implementation would likely be forced to reopen their state number portability proceedings to reconsider QOR, which could delay implementation for months while those proceedings are pending.<sup>157</sup>

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<sup>153</sup> AT&T December 23, 1996 Ex Parte Filing at 2-3.

<sup>154</sup> See, e.g., First Report & Order, 11 FCC Rcd at 8362-63; CA PUC Local Exchange Service Decision at 14; IL LNP Steering Committee December 16, 1996 Minutes; MD LNP Consortium October 1996 Report at 14-18; IN LNP Task Force October 7, 1996 Minutes; Michigan LNP Workshop November 21, 1996 Minutes; Sprint December 19, 1996 Ex Parte Filing at 2-5.

<sup>155</sup> See IL LNP Steering Committee December 16, 1996 Minutes.

<sup>156</sup> See LNPA Selection Working Group February 26, 1997 Status Report at 1; NANC January 8, 1997 State NPAC/SMS Status at 1-5.

<sup>157</sup> For example, the California Public Utilities Commission's order mandating LRN specifically provides that, if the Commission modifies its findings on QOR, then the California PUC must reconsider its decision. See CA PUC Local Exchange Service Decision at n.14.

**e. Conclusion**

47. Congress recognized that there are costs associated with the implementation of local number portability.<sup>158</sup> Although carriers may realize some short-term cost savings if permitted to use QOR instead of LRN, the exact amount of savings from utilizing QOR is unclear. Even if the cost savings figures submitted by the LECs were correct, we believe that the benefits to consumers of such savings do not outweigh the harm that QOR would impose on competitive LECs, the cost of disrupting state efforts to implement LRN, or any delay in implementation that might result from such disruption. Thus, we conclude that permitting carriers to deploy QOR as a long-term number portability method does not serve the public interest.

**B. Implementation Schedule for Wireline Carriers**

**1. Background**

48. In the First Report & Order, the Commission required local exchange carriers operating in the 100 largest MSAs to offer long-term service provider portability, according to a phased deployment schedule commencing on October 1, 1997, and concluding on December 31, 1998.<sup>159</sup> The Commission noted that, in establishing the deployment schedule, it relied upon representations of switch vendors regarding the dates by which the necessary switching software will be generally available for deployment.<sup>160</sup> In particular, vendors estimated that they could begin to make software for at least one long-term number portability method generally available for deployment by carriers around mid-1997.<sup>161</sup> In addition, a carrier may file a specific request for number portability beginning January 1, 1999, for areas outside the 100 largest MSAs, and each LEC must make long-term number portability available in that MSA within six months after the specific request.<sup>162</sup> The Commission also directed the carriers that are members of the Illinois Commerce Commission Local Number Portability Workshop (ICC Workshop) to conduct in the Chicago MSA, concluding no later than August 31, 1997, a field test of LRN or another

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<sup>158</sup> Indeed, Congress created a specific provision in the 1996 Act addressing the costs of establishing number administration and number portability. See 47 U.S.C. § 251(e)(2).

<sup>159</sup> The Commission required deployment in one specified MSA in each of the seven BOC regions by the end of fourth quarter 1997 ("Phase I"), 16 additional specified MSAs by the end of first quarter 1998 ("Phase II"), 22 additional specified MSAs by the end of second quarter 1998 ("Phase III"), 25 additional specified MSAs by the end of third quarter 1998 ("Phase IV"), and 30 additional specified MSAs by the end of fourth quarter 1998 ("Phase V"). First Report & Order, 11 FCC Rcd at 8393, app. F.

<sup>160</sup> Id. at 8393.

<sup>161</sup> Id.

<sup>162</sup> Id. at 8394.

technically feasible long-term number portability method that comports with our performance criteria.<sup>163</sup> The Commission noted that Section 251(f)(2) of the Act permits a LEC with fewer than two percent of the country's total installed subscriber lines to petition a state commission for suspension or modification of the interconnection requirements of Sections 251(b) and (c).<sup>164</sup>

49. The Commission delegated to the Chief, Common Carrier Bureau, the authority to monitor the progress of LECs implementing number portability, and to direct carriers to take any actions necessary to ensure compliance with its deployment schedule.<sup>165</sup> The Commission also delegated to the Chief, Common Carrier Bureau, the authority to waive or stay any of the dates in the implementation schedule, for a period not to exceed nine months (i.e., no later than September 30, 1999, for the MSAs in Phase V of the deployment schedule), as is necessary to ensure the efficient development of number portability.<sup>166</sup> In the event a carrier is unable to meet our deadlines for implementing a long-term number portability method, it may file with the Commission, at least 60 days in advance of the implementation deadline, a petition to extend the time by which implementation of long-term number portability in its network will be completed.<sup>167</sup> The Commission emphasized, however, that carriers are expected to meet the prescribed deadlines, and a carrier seeking relief must present extraordinary circumstances beyond its control in order to obtain an extension of time.<sup>168</sup> The Commission required a carrier seeking such relief to demonstrate through substantial, credible evidence the basis for its contention that it is unable to comply with our deployment schedule.<sup>169</sup>

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<sup>163</sup> Id. at 8393-94.

<sup>164</sup> Id. at 8396.

<sup>165</sup> Id. at 8393.

<sup>166</sup> Id. at 8397.

<sup>167</sup> Id.

<sup>168</sup> Id.

<sup>169</sup> Id. Requests for extensions of time must set forth: (1) the facts that demonstrate why the carrier is unable to meet our deployment schedule; (2) a detailed explanation of the activities that the carrier has undertaken to meet the implementation schedule prior to requesting an extension of time; (3) an identification of the particular switches for which the extension is requested; (4) the time within which the carrier will complete deployment (e.g., software and hardware upgrades) in the affected switches; and (5) a proposed schedule with milestones for meeting the deployment date. Id.



## 2. Deployment Only in Requested Switches

50. Pleadings. Ameritech urges the Commission to limit initial deployment of number portability in an MSA to exchanges where bona fide demand exists.<sup>170</sup> Ameritech argues that excluding exchanges in rural and less densely populated suburban areas of an MSA, where competition is not likely to develop immediately, will significantly reduce costs and the demand on carriers' limited technical personnel and resources, and simplify deployment and testing.<sup>171</sup>

51. Ameritech suggests delegating to state commissions the task of supervising the selection of exchanges where demand exists, and cites as a model the procedure used by the ICC Workshop in the Chicago MSA, prior to the release of the First Report & Order, under which each competing LEC submitted to the ICC staff a list of the exchanges in which the LEC sought number portability as a part of the initial deployment.<sup>172</sup> The sole criterion for designation of an exchange was that the carrier anticipated needing immediately the capability to port numbers from that exchange.<sup>173</sup> The ICC staff then aggregated the lists and released one consolidated list to serve as the master deployment plan for the Chicago MSA.<sup>174</sup> According to Ameritech, this procedure excluded from deployment 103 out of 206 exchanges in the Chicago MSA, which serve primarily rural and less densely populated suburban areas and include many areas served by small independent telephone companies and by switches with older technology.<sup>175</sup>

52. According to Ameritech, the incumbent LECs then categorized the unrequested exchanges according to the type of switch serving that exchange, and planned to convert each exchange upon a bona fide request according to the following time frames: (1) remote switches supported by a host switch equipped for portability ("Equipped Remote Switches") within 30 days; (2) switches that require software but not hardware changes to provide portability ("Hardware Capable Switches") within 60 days; (3) switches that require hardware changes to provide portability ("Capable Switches Requiring Hardware") within 180 days; and (4) switches not capable of portability that must be replaced ("Non-Capable Switches") (no agreement was reached on a time frame).<sup>176</sup> Ameritech explains that, because unconverted offices would be

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<sup>170</sup> Ameritech Reply at 1; see also Bell Atlantic Reply at 9 n.26.

<sup>171</sup> Ameritech Reply at 2.

<sup>172</sup> Id. at 3, 5. Ameritech states that the ICC's plan has been presented to the state number portability workshops in Michigan, Indiana, and Ohio, which have generally based their deployment plans on that of the ICC. Id.

<sup>173</sup> Id. at 3.

<sup>174</sup> Id.

<sup>175</sup> Id. at 2-3.

<sup>176</sup> Id. at 3-4.

identified prior to the initial deployment in the MSA, new LECs could request additional offices at any time, and thus notify the incumbent LECs to begin planning for conversion of those offices as soon as possible after the initial deployment in the MSA.<sup>177</sup> Therefore, claims Ameritech, additional conversion could, in most cases, occur within 30-60 days after the initial deployment in the MSA.<sup>178</sup>

53. BellSouth also seeks clarification that portability need not be deployed in every switch within an MSA.<sup>179</sup> BellSouth reports that industry participants in the Georgia number portability workshop conducted an exercise similar to that of the ICC Workshop prior to release of the First Report & Order, in which the competing carriers selected 21 offices in the Atlanta MSA for initial implementation in late 1997.<sup>180</sup> Number portability task forces in Indiana, Michigan, and Ohio, following the work of the ICC Workshop, have also established procedures under which each competing LEC must submit a list of the exchanges in which it desires number portability as a part of the initial deployment.<sup>181</sup> In Maryland, each carrier submitted to the Maryland commission staff a ranking of the fifty end offices in the Baltimore and Washington, DC LATAs for which it most desired portability, and the five end offices in the Salisbury and Hagerstown LATAs for which it most desired portability.<sup>182</sup> The Maryland commission staff then prepared a consolidated ranking that became the implementation roll-out schedule for Maryland.<sup>183</sup> There were 25 end offices in the Baltimore and Washington, DC LATAs (out of 92 total end offices), and seven end offices in the Salisbury and Hagerstown LATAs (out of 13 total end offices), that no carrier included in its list of end offices for which it requested number portability.<sup>184</sup>

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<sup>177</sup> Id. at 4-5.

<sup>178</sup> Id. at 5.

<sup>179</sup> BellSouth Petition at 11, 14.

<sup>180</sup> Id. at 14; BellSouth Ex Parte Presentation at 4, CC Docket No. 95-116, filed Nov. 1, 1996 (BellSouth November 1, 1996 Ex Parte Filing).

<sup>181</sup> See, e.g., IN LNP Task Force October 7, 1996 Minutes; Michigan LNP Workshop November 21, 1996 Minutes; Sprint December 19, 1996 Ex Parte Filing at 4-5 (minutes of Nov. 13, 1996 meeting of Ohio Local Number Portability Workshop).

<sup>182</sup> MD LNP Consortium October 1996 Report at 15, app. 6.

<sup>183</sup> Id.

<sup>184</sup> Id. at app. 6.

54. USTA proposes that competing carriers be required to specify, in a request to a LEC, those switches for which they wish the ability to port numbers.<sup>185</sup> USTA argues further that, if a carrier does not receive a request for portability in an end office by April 1, 1997, then the carrier should be able to obtain from the Commission a waiver of the deployment schedule until the LEC receives a request.<sup>186</sup> Upon receiving such a request, the LEC would have nine months, or a period of time specified by the Chief of the Common Carrier Bureau, to deploy portability.<sup>187</sup> USTA also proposes that state commissions and/or state number portability workshops be empowered generally to alter the timing of deployment for particular switches within their state boundaries.<sup>188</sup> USTA and several other rural LEC representatives argue that, without a procedure to limit deployment to switches for which a competitor has expressed interest, many rural and small LECs will have to upgrade their networks at significant expense even though no competitors plan to enter their markets and use number portability.<sup>189</sup>

55. GTE urges us to establish a "limited waiver" process for exempting smaller offices in the 100 largest MSAs from the deployment deadlines where competitive entry in that area will not be immediate, and implementation would require significant network upgrades.<sup>190</sup> A LEC wishing to take advantage of GTE's proposed procedure would first determine whether any prospective entrant "expresses an immediate interest in entry" in the relevant area, and whether those prospective entrants, or the state commission, have any objection to waiving the schedule for that area. If the prospective entrants and state commission do not object, then the LEC would present the Commission with a petition for waiver "with the expectation that it will be granted."<sup>191</sup> Afterward, the LEC would not have to implement portability until six months after a request from

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<sup>185</sup> USTA Petition at 15-16.

<sup>186</sup> Id. at 16. See also Pacific Comments at 4. USTA asserts that its proposed waiver procedure would allow deployment in response to market forces and varying levels of competition; foster efficient network planning, resource allocation, and increased cooperation among LECs; reduce costs and demands on vendors; and reduce implementation burdens, especially for small and rural LECs. USTA Petition at 14-18. USTA argues that such a waiver will not undermine the pro-competitive nature of the Act, as competition has already begun in the larger markets. Id. at 15. In addition, USTA warns that failure to modify the deployment schedule will create an undue administrative burden because every rural provider will likely file for an individual waiver. USTA Comments at 2.

<sup>187</sup> USTA Petition at 16.

<sup>188</sup> USTA Comments 5-6.

<sup>189</sup> USTA Petition at 17-18; JSI Petition at 9; NECA Petition at 3; NTCA/OPASTCO Petition at 3-4; NTCA/OPASTCO Reply at 1-4.

<sup>190</sup> GTE Petition at 9; GTE Opposition at 14-15. See also GTE Ex Parte Presentation at 3-6, CC Docket No. 95-116, filed Feb. 19, 1997 (GTE February 19, 1997 Ex Parte Filing).

<sup>191</sup> GTE Petition at 9; GTE Opposition at 15; GTE Reply at 6. GTE claims that competition would not be impeded because LECs would commit to coordinating with prospective entrants before filing for waiver for a particular office. GTE Opposition at 15.

a competing carrier, assuming the switch already has SS7 and AIN capabilities.<sup>192</sup> According to GTE, its proposal would enable LECs to devote their resources to upgrading offices in the more densely populated and competitive areas, and would recognize that portability requires expensive upgrades in many smaller offices.<sup>193</sup>

56. NEXTLINK presents a "swapping" proposal, under which an incumbent LEC seeking a waiver for a switch within the 100 largest MSAs instead would deploy switches outside the 100 largest MSAs which a competitor requests.<sup>194</sup> NEXTLINK cautions, however, that we should rely on state commissions to determine the extent of competition in markets in their states, but not, as suggested by USTA, to determine whether waivers should be granted.<sup>195</sup>

57. AT&T does not oppose proposals to limit deployment of number portability to those switches for which a carrier requests deployment.<sup>196</sup> Sprint supports Ameritech's proposal, which does not entail LECs requesting waivers for unrequested offices.<sup>197</sup> Sprint predicts that as many as 127 out of a total of 360 of its central offices will not face immediate facilities-based competition and will be relieved from initial deployment under a procedure whereby carriers identify the switches for which they desire portability, at an estimated savings of over \$15 million in 1997 alone (approximately 25 percent of Sprint's total number portability budget).<sup>198</sup> Sprint emphasizes that we should determine a specific time frame within which the carrier must deploy portability once a bona fide request for portability is received, absent some other extenuating (and fully documented) circumstances.<sup>199</sup> Sprint asserts that the state public utilities commissions in Florida, Ohio, Indiana, and Illinois, have established procedures by which carriers request

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<sup>192</sup> GTE Petition at 9; GTE Opposition at 15. But see MCI Reply at 5-6 & n.12 (arguing that carriers will have already incurred most costs of upgrades, and thus do not need six months to deploy portability software).

<sup>193</sup> GTE Opposition at 15; GTE Reply at 6.

<sup>194</sup> NEXTLINK Petition at 7-8 n.4; NEXTLINK Reply at 2-3.

<sup>195</sup> NEXTLINK Reply at 3. NEXTLINK maintains that uniform nationwide standards are necessary to prevent incumbents from persuading states to adopt inconsistent standards for market entry. Id.

<sup>196</sup> In fact, AT&T suggested earlier in this proceeding that initial deployment in an MSA need only consist of 20 to 25 switches (20 for the incumbent LEC and at least one for each alternative carrier) in each MSA. AT&T Further Comments at 8 & n.14, CC Docket No. 95-116, filed Mar. 29, 1996.

<sup>197</sup> Sprint Ex Parte Presentation, CC Docket No. 95-116, filed Dec. 4, 1996 (Sprint December 4, 1996 Ex Parte Filing).

<sup>198</sup> Id. at 7, 9.

<sup>199</sup> Sprint Opposition at 13. Time Warner argues similarly that any waivers should consist only of setting a specific extension or subjecting the particular office to the bona fide request requirements. Time Warner Comments at 8 n.14.

deployment in specific exchanges.<sup>200</sup> Time Warner supports allowing carriers to apply for waivers of the deployment schedule for the 100 largest MSAs for end offices serving areas that competitors do not plan to enter initially.<sup>201</sup>

58. MCI, in contrast, opposes relaxing the mandate of MSA-wide deployment. According to MCI, forcing competitive LECs to defend the need for MSA-wide portability and to justify deployment in each end office would create an environment of uncertainty for competitive LECs.<sup>202</sup> MCI claims that, if competitive LECs must request deployment each time a new customer requesting service is located in an end office that was not deployed according to the original deployment schedule, any incentive and ability to market their services widely will be impaired.<sup>203</sup> According to MCI, once portability is introduced in an area, the incremental cost and resources needed to add additional end offices are relatively minor because most costs, *i.e.*, SCP hardware and signalling links, OSS modifications, and shared regional database costs, will have already been incurred.<sup>204</sup>

59. Discussion. We agree with the majority of the parties commenting on this issue that it is reasonable to focus initial efforts in implementing number portability in areas where competing carriers plan to enter. This approach will permit LECs to target their resources where number portability is needed and avoid expenditures in areas within an MSA in which competitors are not currently interested.<sup>205</sup> We further agree that such a procedure will foster efficient deployment, network planning, and testing, reduce costs, and lessen demands on software vendors.<sup>206</sup> Moreover, we believe that limiting deployment to switches in which a competitor expresses interest in number portability will address the concerns of smaller and rural LECs with end offices within the 100 largest MSAs that they may have to upgrade their networks at

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<sup>200</sup> Sprint December 19, 1996 Ex Parte Filing at 2.

<sup>201</sup> Time Warner Comments at 7. Time Warner further asserts that it may be appropriate to authorize states to oversee industry meetings to determine which end offices within a particular MSA will face competition, so that a state could then support the waiver petitions of any carriers that it has determined will not face competitive entry at the time of the deployment deadlines. Id.

<sup>202</sup> MCI Reply at 5.

<sup>203</sup> Id. at 6.

<sup>204</sup> Id. at 5-6.

<sup>205</sup> See, e.g., BellSouth Petition at 14; USTA Petition at 16-18; Ameritech Reply at 1-5; GTE Opposition at 15; JSI Petition at 9; NTCA/OPASTCO Petition at 3-4.

<sup>206</sup> See USTA Petition at 17; Ameritech Reply at 2.

significant expense even if no competitors desire portability.<sup>207</sup> Limiting deployment to switches in which a competitor expresses interest in deployment will be consistent to a large extent with procedures suggested by Ameritech and BellSouth and already considered by several state commissions,<sup>208</sup> as well as our past practice in implementing conversion to equal access for independent telephone companies.<sup>209</sup>

60. We therefore conclude that LECs need only provide number portability within the 100 largest MSAs in switches for which another carrier has made a specific request for the provision of portability.<sup>210</sup> We leave it to the industry and to state commissions to determine the most efficient procedure for identifying those switches in which carriers have expressed interest and which will be deployed with number portability according to the original deployment schedule for the 100 largest MSAs. We find, however, that any procedure to identify and request switches for deployment of number portability must comply with certain minimum criteria to ensure that minimal burden is imposed upon carriers requesting deployment in particular switches, and that carriers that receive requests for deployment in their switches have adequate time to fulfill the requests. As explained below, we require that: (1) any wireline carrier that is certified, or has applied for certification, to provide local exchange service in the relevant state, or any licensed CMRS provider, must be allowed to make a request for deployment; (2) requests for deployment must be submitted at least nine months before the deadline in the Commission's deployment schedule for that MSA; (3) carriers must make available lists of their switches for which deployment has and has not been requested; and (4) additional switches must be deployed upon request within the time frames described below.

61. First, any wireline carrier that is certified (or has applied for certification) to provide local exchange service in a state, or any licensed CMRS provider, must be given a

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<sup>207</sup> See USTA Petition at 17-18; JSI Petition at 9; NECA Petition at 3; NTCA/OPASTCO Petition at 3-4; NTCA/OPASTCO Reply at 1-4. See also Ameritech Reply at 2; GTE Opposition at 14-15; Time Warner Comments at 7. In addition, limiting deployment to switches in which a competitor expresses interest in number portability is likely to lessen the burden on many rural or smaller LECs that are otherwise likely to file a waiver, and the burden on the Commission to review those petitions. See USTA Comments at 3.

<sup>208</sup> See Ameritech Reply at 1-5 (Illinois); BellSouth November 1, 1996 Ex Parte Filing at 4 (Georgia); Sprint December 19, 1996 Ex Parte Filing (Florida, Illinois, Indiana, Ohio).

<sup>209</sup> A procedure under which independent telephone companies (ITCs) must convert specific end offices in their networks to equal access has been in place for a decade. Under that procedure, "[e]nd offices equipped with SPC [stored program controlled] switches must be converted to offer exchange access services that are equal in type and quality to that offered to AT&T, within three years of the receipt of a reasonable request for equal access services from any OCC [other common carrier]." MTS and WATS Market Structure Phase III, Report and Order, 100 FCC 2d 860, 875 (1985).

<sup>210</sup> See Ameritech Reply at 1-2; BellSouth Petition at 11, 14-15; USTA Petition at 16-18. In contrast, for switches in which portability has been requested, a LEC must still file a petition for waiver of a deployment deadline if the LEC claims it is unable to meet our deployment schedule.

reasonable opportunity to make a specific request for deployment of number portability in any particular switch located in the MSAs in that state designated in the First Report & Order. According to the Act, any carrier that desires number portability from a LEC must be able to obtain portability, in accordance with the requirements established by the Commission.<sup>211</sup> A state commission, however, may review whether the requests made by a carrier are unreasonable, given the state commission's knowledge of that carrier's plans to enter the state. Based on the limited information available to us at this time, the states that are reviewing seemingly unreasonable requests appear to be acting in good faith to accommodate carriers' interests in number portability capabilities.<sup>212</sup> If we receive evidence in the future that states are unreasonably limiting deployment, then we can revisit this issue at that time.

62. Second, a carrier must make its specific requests for deployment of number portability in particular switches at least nine months before the deadline for completion of implementation of number portability in that MSA.<sup>213</sup> We conclude that this deadline will enable a LEC to plan ahead for the deployment of number portability in multiple switches in a given MSA. We encourage carriers to make such requests earlier than the nine-month deadline to give the LEC that operates the switch in which portability is requested more time to implement number portability capabilities. In addition, carriers may agree among themselves, or state commissions may require carriers, to comply with a deadline for submitting requests that is more than nine months prior to the implementation deadline.

63. We encourage carriers, before requests for deployment are submitted, to seek to reach a consensus on the particular switches that initially will be deployed with number portability. We note, moreover, that the state commission may decide, or carriers affected in the state may agree, that it would be preferable for the state commission to aggregate the requests to produce a master list of requested switches.<sup>214</sup> In addition, we conclude that carriers may negotiate private agreements specifying that a carrier will not request that certain switches be deployed according to the Commission's schedule if the LEC from which deployment is requested agrees to deploy other number portability-capable switches, either inside or outside the 100 largest MSAs, at an earlier date than the deadlines in the Commission's schedule.<sup>215</sup>

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<sup>211</sup> 47 U.S.C. § 251(b)(2).

<sup>212</sup> See, e.g., Sprint December 19, 1996 Ex Parte Filing at 4-5 (minutes of Ohio Local Number Portability Workshop).

<sup>213</sup> See, e.g., USTA Petition at 16.

<sup>214</sup> See Ameritech Reply at 3, 5 (suggesting that each new entrant submit a list of switches to the state commission of the exchanges it desires to have converted).

<sup>215</sup> For example, NEXTLINK suggests waiving the scheduled deployment deadlines for switches in the 100 largest MSAs for which no competitor expresses interest in deployment, and allowing carriers instead to deploy switches outside the 100 largest MSAs in which a competitor expresses interest, according to the deadlines for

64. Third, after carriers have submitted their requests, a carrier must make readily available upon request to any interested parties a list of its switches for which number portability has been requested and a list of its switches for which number portability has not been requested. We find that simplifying the task of identifying the switches in each MSA in which number portability is initially scheduled to be deployed is consistent with our policy of facilitating the deployment of number portability in areas where new competitors plan to enter.

65. Fourth, carriers must be able to request at any time that number portability be deployed in additional switches. LECs must provide portability in these additional switches upon request, after the deployment deadline mandated by the Commission's schedule for that MSA, within the time frames that we adopt here, unless requesting carriers specify a later date. Although carriers may make specific requests for deployment in additional switches in a particular MSA at any time, the time frames set forth below will commence after the deadline for deployment in that particular MSA in our implementation schedule. We agree with Sprint and Time Warner that specific time frames within which number portability must be deployed in all switches that were not initially requested are necessary to ensure that competitive LECs can be certain that portability will be available in areas in which they plan to compete and can formulate their business plans accordingly.<sup>216</sup> Absent this certainty, competing carriers would have an incentive to request more switches during the initial request process, including those serving markets which they do not plan to enter in the near future, in order to ensure deployment of portability in any switch in which they might ever want portability. We find, therefore, that establishing specific time frames for deployment in all additional switches will benefit competitive LECs by ensuring that portability will be available to them at a designated future time, and will benefit incumbent LECs by reducing their initial deployment burdens.

66. We find that the time frames developed by the carriers participating in the ICC Workshop generally successfully balance the needs of competitive LECs for certainty of deployment and the burdens faced by incumbent LECs in deploying number portability in additional switches that require different levels of upgrades.<sup>217</sup> We therefore adopt, with slight modification, the time frames developed by the ICC Workshop for the conversion of additional exchanges: (1) Equipped Remote Switches within 30 days; (2) Hardware Capable Switches within 60 days; (3) Capable Switches Requiring Hardware within 180 days; and (4) Non-Capable

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those unrequested switches within the 100 largest MSAs. NEXTLINK Petition at 7-8 n.4; NEXTLINK Reply at 3.

<sup>216</sup> See Sprint Opposition at 13 (urging us to determine a specific time frame within which number portability must be deployed in initially unrequested switches, once requested); cf. Time Warner Comments at 8 n.14 (arguing that any exemptions for switches not facing competition should only be for a specific period of time or simply subject to a bona fide request).

<sup>217</sup> We recognize that the ICC has not yet decided whether to adopt the time frames developed by the ICC Workshop. Ameritech Reply at 4.



Switches within 180 days.<sup>218</sup> For example, if carriers request deployment in a certain number of switches in the Pittsburgh, PA MSA nine months before that MSA's Phase III deadline of June 30, 1998 (*i.e.*, they make requests by September 30, 1998), and a carrier requests on April 1, 1998, deployment in an additional Equipped Remote Switch in Pittsburgh, then the additional switch must be equipped with number portability capability on or before July 30, 1998 (*i.e.*, 30 days after June 30, 1998). We note that the ICC Workshop developed the time frames for the first three switch categories, but did not reach agreement on a time frame for converting a Non-Capable Switch.<sup>219</sup> Since we find, as discussed above, that specific time frames for deployment of all additional switches are necessary, we find that it is reasonable to allow no more time for deployment of any switches within the 100 largest MSAs than is allowed for deployment of switches outside the 100 largest MSAs. Deployment in additional switches will be less burdensome for carriers with networks within the 100 largest MSAs that have already made network-wide upgrades, *e.g.*, SCP hardware and OSS modifications, to support number portability in the initially requested switches.

67. Carriers seeking relief from these deadlines may file a petition for waiver under the procedures set forth in the First Report & Order.<sup>220</sup> We note that the deadlines for switches in categories (1) and (2) are shorter than switches in categories (3) and (4) because the former require less extensive upgrades. We realize that the shorter deadlines for switches in categories (1) and (2) do not allow time for carriers to file a petition for waiver under the procedure established in the First Report & Order on the grounds of extraordinary circumstances that prevent it from complying with the Commission's deployment requirements. We therefore will suspend the deadlines for switches in categories (1) and (2) during the period that the Commission is considering a carrier's petition for waiver.<sup>221</sup>

68. We agree with MCI that, after portability has been introduced in an MSA, the incremental cost and resources needed to add additional end offices are relatively minor because most costs, *e.g.*, SCP hardware and signalling links, OSS modifications, and shared regional database costs, will have already been incurred.<sup>222</sup> Number portability, consequently, can be deployed more quickly in the switches for which number portability is requested after the initial deployment of number portability. We therefore decline to adopt suggestions by USTA and GTE

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<sup>218</sup> See supra ¶ 52 for definitions of terms; see also Ameritech Reply at 3-4.

<sup>219</sup> Id. at 4.

<sup>220</sup> See First Report & Order, 11 FCC Rcd at 8397.

<sup>221</sup> For example, if a LEC receives a request for deployment in an additional switch that is an Equipped Remote Switch, and five days later the LEC files a petition for waiver, then the LEC need not deploy number portability in the switch until 25 days after the Commission denies its petition, or until the date specified in the Commission's grant of the petition.

<sup>222</sup> MCI Reply at 5-6.

to allow a longer time after receipt of a request for deployment of number portability capability in switches not in the initial deployment.<sup>223</sup>

69. We emphasize that a carrier operating a non-portability-capable switch must still properly route calls originated by customers served by that switch to ported numbers. When the switch operated by the carrier designated to perform the number portability database query is non-portability-capable, that carrier could either send it to a portability-capable switch operated by that carrier to do the database query, or enter into an arrangement with another carrier to do the query.

70. We conclude that permitting carriers to specify those switches within the 100 largest MSAs in which they desire portability is more workable than the procedures proposed by some petitioners that would require incumbent LECs to file waiver requests for specific switches for which the incumbent LECs believe that no competitor is interested.<sup>224</sup> A waiver procedure would create a period of uncertainty for both the incumbent LEC and the competitive LEC as to whether portability would actually be deployed in that switch.<sup>225</sup> Moreover, a waiver procedure would burden the incumbent LEC with preparing and filing the petition for waiver, require that we review the petition, and potentially burden the state commission with determining whether there is actual competitive interest in the switch. In addition, these proposals by petitioners appear to assume generally that no competitive LEC would oppose the waiver petition; if this is not the case, then a waiver procedure would burden competing carriers with challenging the waiver. A waiver procedure would also burden both competing carriers and consumers by hampering competitive entry into the market while waiting for a determination by the Commission or a state commission.

71. We believe that the criteria set forth above adequately address MCI's concern that requesting carriers would bear an unnecessary burden of justifying deployment in each end office and endure uncertainty as to deployment.<sup>226</sup> The only burden on requesting carriers is to identify and request their preferred switches. In addition, carriers have a time frame for deployment of the initially unrequested switches within the 100 largest MSAs. Competitive LECs can thus market their services as widely as they desire with assurance that number portability will be available in the areas where, and at the times when, they desire to compete. As an additional safeguard

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<sup>223</sup> See USTA Petition at 16 (suggesting that carriers have nine months after receipt of a request to deploy additional switches); GTE Petition at 9 (proposing that a LEC not be required to implement portability in additional switches until six months after receipt of a request, and even then only if the switch already has SS7 and AIN capabilities). Cf. MCI Reply at 6 n.12 (asserting there is no reason why it should take even six months to deploy software in additional switches).

<sup>224</sup> See USTA Petition at 16; GTE Opposition at 14-15; Pacific Comments at 4; Sprint Opposition at 11.

<sup>225</sup> See MCI Reply at 5.

<sup>226</sup> See *id.* at 5-6.

against anticompetitive abuses of the procedures to identify and request those switches for which a carrier desires deployment of number portability, we delegate authority to the Chief, Common Carrier Bureau, to take action to address any problems that arise over any specific procedures.

### 3. Extension of Implementation Schedule

72. Pleadings. Several BOCs and GTE argue that the current schedule for implementation by wireline carriers allows too little time for implementing a technology that requires such extensive network-wide modifications.<sup>227</sup> These petitioners argue that the present schedule could jeopardize network reliability because it does not allow sufficient time to complete numerous tasks, many of which, they allege, are beyond their control, including: (1) review and incorporation of the results from the Chicago trial,<sup>228</sup> and resolution of critical carrier-specific operational issues that the Chicago trial will not address;<sup>229</sup> (2) development and testing of number portability-specific and "generic" software upgrades;<sup>230</sup> (3) development and testing of

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<sup>227</sup> BellSouth Petition at 10-15; NYNEX Petition at 7-12; GTE Petition at 3-8; SBC Petition at 11; U S West Petition at 1-3 (Commission's performance criteria require that the technology not degrade service quality or network reliability (quoting First Report & Order, 11 FCC Rcd at 8378, 8382)). See also Pacific Comments at 3-4 (concurring with network reliability concerns and the need to allow flexibility in the schedule for testing); U S West Reply at 2.

<sup>228</sup> U S West Petition at 6 (stating that carriers serving seven of the most populous MSAs must start installing portability and supporting live traffic the day after reports for the Chicago trial are due); NYNEX Petition at 12; GTE Opposition at 12; U S West Reply at 2-4; BellSouth Reply at 4.

<sup>229</sup> U S West Petition at 6-11 (listing as examples: network engineering; network load/stress; software system stability and reliability; impact on back-up systems; and modifications of systems such as ordering, capacity provisioning, maintenance, repair, and billing). See also GTE Petition at 4-5 (claiming that the Chicago test will not include several switch types and will only involve one specific network configuration); GTE Opposition at 13; Pacific Comments at 3 (claiming that the Chicago trial will not adequately test many systems, as Ameritech is performing many of the activities involved in that trial on a manual basis); NYNEX Reply at 8 n.28. USTA further claims that unspecified small and mid-size carriers will be introducing SS7 and/or AIN capabilities into their networks for the first time, and that these carriers' networks are especially different from those networks being tested in the Chicago trial. USTA Reply at 9-10.

<sup>230</sup> GTE claims that testing of switch software could take 3-6 months, and, moreover, additional time is needed to install the software for long-term number portability in all switches and remove transitional number portability methods. GTE Petition at 4-5. BellSouth claims that many switches' generic software cannot handle the necessary upgrades. BellSouth Petition at 11. NYNEX claims that switch vendors cannot meet their current workloads, and that the time estimated for software upgrades does not reflect the fact that most upgrades will take place on weekends in order to minimize system disruptions. NYNEX Petition at 8-9. See also BellSouth Petition at 12; NYNEX Petition at 7-8 (urging that we not hold carriers responsible for switch vendors' failure to deliver software in time for carriers to meet the deployment schedule); NYNEX Opposition at 2-3; CBT Comments at 2-3; Pacific Comments at 4; GTE Opposition at 11.

infrastructure modifications and additions to support number portability capabilities;<sup>231</sup> (4) modification of operational support systems (OSS);<sup>232</sup> (5) modification of vendor software if state commissions dictate inconsistent rate centers for identifying and billing calls;<sup>233</sup> and (6) establishment of regional databases and associated technical standards by the NANC.<sup>234</sup> On February 19, 1997, SBC submitted a study it commissioned from Bellcore that purportedly demonstrates that the deployment schedule set forth in the First Report & Order for Phase I would threaten network reliability in Houston.<sup>235</sup>

73. In their petitions and comments, some of the incumbent LECs recommend specific ways to relax the deployment schedule for wireline carriers. U S West suggests extending the deadline for each phase by three months, claiming this would give carriers not participating in the Chicago trial the necessary time to study the results of the trial and conduct tests within their own networks.<sup>236</sup> BellSouth, CBT, and GTE recommend that the deadlines for completing implementation of Phases I and II each be extended from 90 to 180 days.<sup>237</sup> Under this plan, new

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<sup>231</sup> U S West Petition at 11; see also BellSouth Petition at 13 (claiming our schedule does not account for availability of switch vendor functionality, SMS and SCP functionality, and billing systems and associated procedures, despite the fact that these factors were reported to the Georgia Public Service Commission as essential to LRN implementation); NYNEX Petition at 9 (stating that switch vendors' representations did not discuss the infrastructure that needs to be added, such as signalling links, STPs, databases, and operator services).

<sup>232</sup> CBT Comments at 2-3; Pacific Comments at 4; GTE Petition at 6; BellSouth Petition at 13; NYNEX Petition at 9.

<sup>233</sup> GTE Petition at 7; GTE Opposition at 11-12.

<sup>234</sup> U S West Petition at 11; see NYNEX Petition at 11; NYNEX Opposition at 2-3; GTE Petition at 7; GTE Opposition at 11-14; BellSouth Petition at 16.

<sup>235</sup> SBC February 19, 1997 Ex Parte Filing at att. at 1-2. The Bellcore study asserts that what it characterizes as the Commission's "accelerated" (*i.e.*, three-month) implementation schedule for Phase I will increase the probability of a "catastrophic outage" by a factor of nine, to 0.435 percent, and increase the probability of an "FCC reportable outage" by a factor of 4.5, to 65.9 percent. Id. The Bellcore study defines a "catastrophic outage" as "losing all intraLATA interoffice service for most or all of Houston" and an "FCC reportable outage" as "an outage that potentially affects 30,000 or more subscribers for 30 or more minutes." Id. at att. at 5. See also Bellcore March 5, 1997 Ex Parte Filing.

<sup>236</sup> U S West Petition at 2-3; U S West Reply at 3-4. Specifically, U S West advocates extending the schedule for three months so that U S West may perform a "first region application" test during the fourth quarter of 1997, after the Chicago "first office application" trial is done in the third quarter of 1997. Id. at 3-4. SBC and Bell Atlantic advocate more flexible guidelines, including extensions to the implementation schedule, to account for any implementation problems. SBC Petition at 11; Bell Atlantic Reply at 10. See also Pacific, et al., February 24, 1997 Ex Parte Filing at 1-2) (advocating six-month extension for every market in Pacific's region).

<sup>237</sup> BellSouth Petition at 11; GTE Opposition at 16; CBT Comments at 2-4. CBT claims such an extension would recognize that small and mid-size LECs located in the 100 largest MSAs cannot make software and OSS upgrades as quickly as the BOCs, and would allow the larger LECs to test and resolve the problems of this new

Phase I would extend from October 1997 through March 1998; new Phase II would extend from January 1998 through June 1998, and the remaining phases would remain the same (e.g., Phase III would still extend from April 1998 through June 1998).<sup>238</sup> BellSouth claims that, because its plan would extend only the deadlines for completing implementation of long-term number portability for Phases I and II, LECs would still start implementation of all phases, and complete deployment in Phases III through V, according to our original schedule.<sup>239</sup> In addition, BellSouth seeks clarification that Phase I implementation may begin at any time during Phase I (i.e., from October 1997 through March 1998, under its proposed schedule).<sup>240</sup> GTE urges us to clarify that LECs will be entitled to a waiver of the deployment deadlines if they cannot meet the deployment schedule for reasons "outside the control of the LECs."<sup>241</sup> USTA proposes allowing each state commission and/or its workshop to evaluate evidence of local competition in areas within that state, and either accelerate or decelerate the deployment schedule in those areas, as long as the "overall burden" on carriers implementing number portability is not increased.<sup>242</sup>

74. NYNEX urges us to expedite the Chicago trial, or, in the alternative, to select other areas to hold field trials.<sup>243</sup> NYNEX also urges us to encourage states to be flexible in opting out of the regional database or choosing to construct joint databases, and to work with less active neighboring states to establish regional databases.<sup>244</sup> NYNEX also suggests that, during Phase I of the schedule (fourth quarter of 1997), we allow LECs to deploy long-term number portability in smaller MSAs as test beds, instead of requiring deployment in the largest MSAs.<sup>245</sup>

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technology, thereby reducing testing costs for small and mid-size LECs. *Id.* at 3-4. See also SBC Ex Parte Letter, at 1-2, from Link Brown, to William F. Caton, FCC, CC Docket No. 95-116, filed Feb. 10, 1997 (SBC February 10, 1997 Ex Parte Filing) (proposing, based on Bellcore study, that deadlines for SBC's Phase I and Phase II markets be extended by three months).

<sup>238</sup> See BellSouth Petition at 11.

<sup>239</sup> BellSouth Reply at 4.

<sup>240</sup> BellSouth Petition at 15 n.17.

<sup>241</sup> GTE Opposition at 10-14; GTE Reply at 5; see also Bell Atlantic Reply at 9 (claiming that LECs must rely on others, especially switch vendors, to meet the schedule); NYNEX Opposition at 2.

<sup>242</sup> USTA Comments at 4-6. USTA cautions, however, that states must not make changes to the deployment schedule that would harm a carrier's ability to deploy portability in another state, or undo state deployment plans to which carriers have already agreed (e.g., in Illinois). *Id.* at 6.

<sup>243</sup> NYNEX Petition at 12. See also GTE Opposition at 13.

<sup>244</sup> NYNEX Petition at 11-12.

<sup>245</sup> NYNEX claims that new capabilities in the public switched network are typically introduced and tested in a smaller market first before widespread deployment. NYNEX Opposition at 3 & n.10; NYNEX Reply at 7-8 (asserting that Charleston, West Virginia was used as a test bed for introducing equal access signalling). NYNEX

75. The prospective entrants generally oppose any delay in the implementation schedule for wireline carriers. AT&T responds that the Commission's schedule is justified by specific showings in the record that an industry Service Management System (SMS) could be deployed, upgrades of carrier networks could be performed, and operational issues could be addressed in time for completion of widespread deployment (i.e., in 84 MSAs) of long-term number portability by the third quarter of 1998.<sup>246</sup> MCI argues that our schedule is reasonably based on the schedules that several states had already established which ordered deployment to begin in the third or fourth quarter of 1997.<sup>247</sup> In *ex parte* filings, AT&T and MCI both argue that the late-filed Bellcore study does not provide an adequate basis for extending the implementation schedule, and that the study is "fatally flawed."<sup>248</sup>

76. MCI argues that the safeguards in the First Report & Order -- monitoring of implementation by the Chief of the Common Carrier Bureau, the Chicago trial, and the waiver procedure for extending the deployment deadlines if necessary -- will be adequate to avoid alleged network reliability risks and technical problems.<sup>249</sup> MCI also urges us to instruct the LECs that

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claims that, under its proposal, the MSAs currently scheduled for deployment in Phase I would instead be deployed three months later during Phase II, and the MSAs currently scheduled for deployment in Phase II would instead be deployed during Phase III, and so on, but deployment would still be completed by the end of 1998. *Id.* at 8-9. NYNEX also expresses additional concerns over introducing new technology into the network during the busy holiday season and notes that the Commission specifically delayed the introduction of 800 number portability until after the holiday season. NYNEX Petition at 10 n.25; NYNEX Reply at 8. See also SBC February 19, 1997 Ex Parte Filing at att. at 1.

<sup>246</sup> AT&T Opposition at 20-21 & n.65; see also ACSI Reply at 8-9 (supporting AT&T's assertion that the incumbent LECs will be able to meet the schedule and urging us not to extend the schedule or relax the standards for obtaining a waiver of the schedule). TRA asserts that the schedule considers projected switch software availability dates and installation rates and burdens on incumbent LECs, and provides for field testing. TRA Late-Filed Comments at 6.

<sup>247</sup> MCI Opposition at 16.

<sup>248</sup> AT&T February 26, 1997 Ex Parte Filing at 1-3; MCI February 26, 1997 Ex Parte Filing at 1-3. For instance, they point out that the Bellcore study describes a "highly improbable scenario" in which all four number portability SCPs (two mated pairs) in the Houston MSA would undergo simultaneous dual failures, yet the study acknowledges there has never been a dual failure of even one mated pair. AT&T February 26, 1997 Ex Parte Filing at 2; MCI February 26, 1997 Ex Parte Filing at 3. AT&T alleges, moreover, that the Bellcore study makes various incorrect and internally inconsistent assumptions that, if the first mated SCP pair fails, then it is extremely likely that subsequent SCP pairs will also fail simultaneously. AT&T February 26, 1997 Ex Parte Filing at 2. AT&T also asserts that the Bellcore study incorrectly assumes that the use of switch-based software fault factors increases the likelihood that components other than the switch will fail. *Id.* at 3. MCI claims that implementation of number portability will indeed follow the "normal" approach to service implementation, as every item listed by Bellcore as part of a "normal" introduction process will be performed in the Chicago trial, as well as by regional regulatory bodies. MCI February 26, 1997 Ex Parte Filing at 2.

<sup>249</sup> *Id.* at 17-18. U S West claims, however, that it would be dangerous to wait to issue a waiver until carriers are about to begin porting "live" traffic. U S West Reply at 4.

they will not receive a waiver of the schedule if they introduce new services or technologies that are incompatible with LRN, experience implementation problems as a result, and then claim more time is needed to modify LRN and resolve the problems caused by the introduction of incompatible services or technologies.<sup>250</sup> AT&T, ICG, NEXTLINK, Sprint, and TRA also argue that a procedure for relief already exists if carriers show that they cannot meet the implementation schedule.<sup>251</sup> Therefore, argues NEXTLINK, requests for delay of the implementation schedule are premature and fail to demonstrate the "extraordinary circumstances" required by the First Report & Order.<sup>252</sup> ALTS argues that the incumbent LECs challenging the technical aspects of the schedule should instead first try to resolve their claims with the involved carriers and vendors, and then seek Commission intervention with respect to any remaining issues.<sup>253</sup> Time Warner argues that, given the incumbent LECs' strong incentive to delay competition, we should closely scrutinize claims of infeasibility in case-by-case waiver requests, and deny a waiver if another carrier facing similar technical challenges (e.g., upgrading similar generic software on similar switches) has met the deployment deadlines.<sup>254</sup>

77. ICG claims BellSouth's request to extend the number portability implementation schedule for Phases I and II is unjustified and would slow implementation in the later phases as well.<sup>255</sup> ICG suggests that if we do grant BellSouth's request, however, then the implementation dates for Phases III, IV, and V should not be changed.<sup>256</sup> ICG and NEXTLINK oppose U S West's request that carriers not participating in the Chicago trial receive an extension of the implementation schedule, arguing that: the four month period between the completion of the Chicago trial and the completion of implementation in Phase I is ample time for carriers to review the results of the Chicago trial, and carriers can schedule their own trials if they want more time;<sup>257</sup> LECs need not wait for the outcome of the Chicago trial before testing and modifying their own networks, as the trial's results will be available as it progresses;<sup>258</sup> and U S West

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<sup>250</sup> MCI Reply at 7-8. MCI cites BellSouth's plan to roll out a new service that uses the AINO.2 software platform, which it claims is incompatible with LRN. Id. at 8 n.18.

<sup>251</sup> AT&T Opposition at 21; ICG Comments at 6; NEXTLINK Opposition at 4; Sprint Opposition at 13-14; TRA Late-Filed Comments at 6, 10.

<sup>252</sup> NEXTLINK Opposition at 4.

<sup>253</sup> ALTS Opposition at 6 n.7.

<sup>254</sup> Time Warner Comments at 8-9; see also MCI Opposition at 18.

<sup>255</sup> ICG Comments at 5.

<sup>256</sup> Id. at 6 n.2.

<sup>257</sup> Id. at 6-7.

<sup>258</sup> NEXTLINK Opposition at 3-4; see also ICG Comments at 6-7.

participates in state and industry fora where implementation and inter-carrier OSS impacts of number portability have been extensively analyzed.<sup>259</sup> Similarly, MCI claims that the results of the Chicago trial will be applicable to all networks, because all carriers use switches from the same few vendors and have similar network designs.<sup>260</sup> Finally, MCI claims that USTA's proposal to allow states to alter the Commission's deployment schedule would let incumbent LECs influence the states to delay the schedule and thus "cripple" deployment of long-term number portability in every MSA.<sup>261</sup>

78. Discussion. We grant, with some modifications, the requests by BellSouth and other parties to extend the deadlines for completion of deployment of long-term number portability for Phases I and II, as set forth in Appendix E of this First Reconsideration Order.<sup>262</sup> On reconsideration, we extend the end date for Phase I by three months. Thus, deployment in Phase I will now take place from October 1, 1997, through March 31, 1998. We take this action because we are now persuaded that initial implementation of this new number portability technology is likely to require more time than subsequent deployment once the technology has been thoroughly tested and used in a live environment. For example, initial implementation of this new technology is likely to involve more extensive testing, and may require extra time to resolve any problems that may arise during the testing. It therefore is appropriate that Phase I be longer than subsequent phases in the schedule to allow carriers to take appropriate steps to safeguard network reliability.

79. We also note that the participants in the Chicago trial have recently informed us that the completion date of the Chicago trial, previously scheduled for August 31, 1997, has been postponed by approximately one month until September 26, 1997.<sup>263</sup> While the Chicago trial participants have committed to providing the Commission with weekly updates on trial progress, the full report on the Chicago trial that participants had planned to file September 30, 1997, is now scheduled to be filed October 17, 1997.<sup>264</sup> Consistent with this notification by the Chicago trial participants, we hereby extend our deadline for carriers that are members of the ICC Workshop to conduct a field test of any technically feasible long-term database method for number portability in the Chicago, Illinois, MSA and to report the results of that trial. While we

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<sup>259</sup> NEXTLINK Opposition at 3-4.

<sup>260</sup> MCI Opposition at 17 n.10.

<sup>261</sup> MCI Reply at 5.

<sup>262</sup> See BellSouth Petition at 11; CBT Comments at 2-4; GTE Opposition at 16.

<sup>263</sup> Midwest Region Local Number Portability L.L.C. Ex Parte Letter at 1-2, from Roger P. Marshall, et al., to Regina Keeney, FCC, CC Docket No. 95-116, filed Feb. 27, 1997 (Midwest LNP L.L.C. February 27, 1997 Ex Parte Filing).

<sup>264</sup> Id. at 2.



understand that participants in the Chicago trial are prepared to commence implementation in Chicago immediately upon conclusion of the trial and still expect to meet the original December 31, 1997, deadline,<sup>265</sup> we recognize that carriers operating in other MSAs may require additional time to interpret the results of the Chicago trial in light of their individual network configurations. Finally, we find some merit in CBT's argument that an extra 90 days for initial implementation may permit small and mid-size LECs to reduce their testing costs by allowing time for larger LECs to test and resolve the problems of new technology.<sup>266</sup> Given all the factors listed above, we conclude that a three-month extension of the time period for initial deployment in Phase I markets appropriately safeguards network reliability, and therefore is warranted.

80. We also extend the end date for Phase II by 45 days. Thus, deployment in Phase II will now take place from January 1, 1998, through May 15, 1998. We extend Phase II to alleviate potential problems that may arise if deployment in markets in Phase I and II must be completed on the same date. Requiring that implementation be completed in a greater number of markets by a specific deadline may make that deadline more difficult to meet (e.g., by straining vendor resources to perform software upgrades in any given period of time).<sup>267</sup> For the same reason, we decline to extend Phase II by 90 days as requested by BellSouth, as such an extension would establish the same deadline for completion of deployment for Phases II and III. We conclude that the modest adjustment of the deadline for Phase II adopted in this First Reconsideration Order will more effectively stagger the deadlines for deployment in different markets than BellSouth's proposal.

81. We clarify, per BellSouth's request, that implementation of number portability for a phase may begin at any time during that phase, provided that implementation in the designated markets is completed by the end of that phase.<sup>268</sup> Contrary to the allegations of Pacific and other parties, number portability thus need not be introduced "on virtually the same day" in the seven of the largest MSAs, especially because it may now be phased into the first markets more gradually over six months, instead of three.<sup>269</sup>

82. We strongly advise carriers to begin implementation early in each phase, however, as they will not be able to obtain a waiver of the schedule if they cannot demonstrate, through substantial, credible evidence, at least sixty days before the completion deadline, the extraordinary circumstances beyond their control that leave them unable to comply with the schedule, including "a detailed explanation of the activities that the carrier has undertaken to meet the implementation

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<sup>265</sup> Id.

<sup>266</sup> See CBT Comments at 3-4.

<sup>267</sup> See ICG Comments at 5, 6 n.2.

<sup>268</sup> BellSouth Petition at 15 n.17.

<sup>269</sup> See, e.g., Pacific, et al., February 24, 1997 Ex Parte Filing at 1.

schedule prior to requesting an extension of time."<sup>270</sup> This is especially applicable to Phases I and II, given that we now are granting carriers additional time during those phases specifically so that they can implement number portability more gradually. We will not look favorably upon a waiver request if the carrier has not taken significant action to implement portability, if the carrier does not place orders with switch manufacturers in a timely manner, or, for example, if the carrier requests a waiver for a Phase II market because it only began preparing for implementation for a Phase I market in the first quarter of 1998, and then claims that it has too many software upgrades to perform from January through May 15, 1998. Carriers should be able to identify any specific technical problems that may necessitate an extension of the deployment deadline for Phase I during the four months between the scheduled end of the Chicago trial and the deadline for requesting an extension for Phase I, especially because carriers will be receiving initial feedback from testing in Chicago far in advance of the Chicago trial's conclusion. As noted above, the participants in the Chicago trial have committed to providing weekly progress reports as the trial progresses. Initial tests of LRN hardware and software on a subset of switches in the Chicago MSA began in January 1997.<sup>271</sup> Intra-network and database testing in Chicago is scheduled to take place for several months before the start of the Chicago trial mandated by the Commission.<sup>272</sup>

83. Our decision to extend the deadlines for completing Phases I and II of our deployment schedule reflects the fact that we consider network reliability to be of paramount importance. Consistent with that commitment, in the First Report & Order we delegated authority to the Chief, Common Carrier Bureau, to monitor generally the progress of number portability implementation and take appropriate action, as well as establishing a procedure for individual LECs to obtain an extension of the deployment deadlines as necessary for their specific markets.<sup>273</sup> The Chief, Common Carrier Bureau, will monitor the weekly reports from the Chicago trial and any other pertinent developments. We find that further adjustment of the deployment schedule in response to these developments is more properly a matter for the Chief, Common Carrier Bureau, to handle as number portability technology is tested and carriers discover any actual, specific difficulties. If significant problems arise during the Chicago trial, or other significant implementation problems arise during Phase I, the Chief, Common Carrier Bureau, has the authority to adjust the schedule for the Chicago trial or the deadline for Phase I implementation, as appropriate, to ensure network reliability.

84. Although the findings of the Bellcore study submitted by SBC were vigorously challenged by AT&T and MCI,<sup>274</sup> it bears mention that extending the Phase I completion date by

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<sup>270</sup> See First Report & Order, 11 FCC Rcd at 8397.

<sup>271</sup> Comm. Daily, vol. 17, no. 15, Telephony Section, Jan. 23, 1997.

<sup>272</sup> Midwest LNP L.L.C. February 27, 1997 Ex Parte Filing at 2.

<sup>273</sup> First Report & Order, 11 FCC Rcd at 8393.

<sup>274</sup> See supra note 248.

three months is responsive to the recommendation in the Bellcore study that we should allow additional "time for testing, integration, and soaking (limited use of the software in a live environment for a length of time sufficient to find initial defects) of the software."<sup>275</sup> In fact, the Bellcore study specifically recommended that the Commission "[e]xtend the time interval for introduction of [number portability] by 3 months."<sup>276</sup> Our extension of Phase I, in combination with our conclusion that carriers need provide portability only in requested switches,<sup>277</sup> also allows carriers the flexibility to introduce portability more gradually, beginning with a subset of switches within the MSA.<sup>278</sup>

85. We deny the petitions to extend the deployment deadlines for all markets or otherwise provide wireline carriers greater flexibility in the schedule to implement long-term number portability.<sup>279</sup> Although we conclude that initial implementation of this new number portability technology may require additional time, we are not persuaded that implementation in subsequent phases, after the technology has already been tested and installed in the initial markets, need be delayed to the extent requested by some petitioners. We find on the basis of the record in this proceeding that the implementation schedule as revised in this First Reconsideration Order is reasonable, and that granting any further delay of the schedule at this time is premature and unnecessary, especially because there is still approximately one year before LECs must complete deployment for the earliest phase. Petitioners have only speculated that unpredictable events may, at some point in the future, generally delay implementation, and have not shown that a specific factor will render the later schedule impossible to meet for any particular reason, much less for any particular LEC.

86. For example, despite NYNEX's vague claim that switch vendors cannot meet current workloads,<sup>280</sup> no party has submitted any evidence refuting the specific vendor representations cited in the First Report & Order that vendors will be able to begin providing software for at least one long-term number portability method around mid-1997.<sup>281</sup> Indeed, GTE admits that it "has no reason to doubt that [the switch vendors Lucent, Northern Telecom, Siemens, and Ericsson] can meet their commitments" to "begin supplying LRN software in early-

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<sup>275</sup> SBC February 19, 1997 Ex Parte Filing at att. at 1.

<sup>276</sup> Id. at att. at 2.

<sup>277</sup> See supra ¶ 60.

<sup>278</sup> SBC February 19, 1997 Ex Parte Filing at att. at 3.

<sup>279</sup> See, e.g., U S West Petition at 2-3; SBC Petition at 11; Bell Atlantic Reply at 10; Pacific, et al., February 24, 1997 Ex Parte Filing at 6.

<sup>280</sup> NYNEX Petition at 8-9.

<sup>281</sup> First Report & Order, 11 FCC Rcd at 8393.

to-mid 1997."<sup>282</sup> It is our understanding that the switch vendors Lucent and Nortel are still on schedule to provide LRN software by mid-1997.<sup>283</sup>

87. NYNEX also claims that the time estimated for software upgrades does not account for the fact that most upgrades will take place on weekends in order to minimize system disruptions, and generally alleges that "[t]here are probably not enough weekends" to complete deployment according to the schedule.<sup>284</sup> NYNEX fails, however, to specify the additional time that, according to its estimate, would be necessary to complete the necessary upgrades. Similarly, GTE claims generally that more time is necessary to install the software for long-term number portability in all switches and remove transitional number portability capabilities, but does not estimate the additional time it believes it would need.<sup>285</sup> GTE also claims in general terms that the schedule does not accurately reflect the time needed to modify vendor software if state commissions dictate inconsistent rate centers, but does not explain to what extent the rate centers are inconsistent and thus need modified software, nor does it show that a specific amount of additional time will be needed.<sup>286</sup>

88. Petitioners' arguments are even more speculative given that their implementation obligations are likely to be significantly lighter than they assume, because, as we discuss above, LECs are required to deploy number portability only in switches for which they receive requests for number portability capability.<sup>287</sup> Moreover, even if the problems identified by petitioners do in fact develop, in our First Report & Order we established a procedure for LECs to obtain an extension of the deployment deadlines as necessary, and delegated authority to the Chief, Common Carrier Bureau, to monitor the progress of number portability implementation.<sup>288</sup>

89. In addition, contrary to petitioners' claims,<sup>289</sup> the schedule set forth in the First Report & Order did allow time for factors such as the need to modify OSS (e.g., ordering and

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<sup>282</sup> GTE Petition at 4.

<sup>283</sup> Comm. Daily, vol. 17, no. 15, Telephony Section, Jan. 23, 1997 (Lucent has provided LRN software to Ameritech for testing); Nortel Ex Parte Presentation at 5, CC Docket 95-116, filed Jan. 27, 1997 (Nortel January 27, 1997 Ex Parte Filing) (Nortel will make LRN software available in the third quarter of 1997).

<sup>284</sup> NYNEX Petition at 8-9.

<sup>285</sup> GTE Petition at 5.

<sup>286</sup> Id. at 7.

<sup>287</sup> See supra ¶ 60.

<sup>288</sup> First Report & Order, 11 FCC Rcd at 8393.

<sup>289</sup> See, e.g., BellSouth Petition at 11-13; NYNEX Petition at 7-9; GTE Petition at 4-6; CBT Comments at 2-3; Pacific Comments at 4.

billing systems) and the need to upgrade the number portability-specific and the generic switch software. We noted in the First Report & Order that we based the schedule largely on state commission deployment schedules.<sup>290</sup> State commissions and workshops, organized under their auspices and composed of industry representatives, have been and still are working to resolve deployment issues and many of the associated issues that petitioners now claim warrant delay.<sup>291</sup> While studying these issues in detail, those states that established deployment schedules prior to our First Report & Order nonetheless concluded that deployment could commence in certain MSAs in those states by mid-1997.<sup>292</sup> Moreover, since October, 1993, the industry, under the auspices of the Number Portability Workshop of the Industry Numbering Committee (INC), has been "assess[ing] the technical feasibility and implementation requirements, impacts, and attributes of number portability," including the factors identified by petitioners.<sup>293</sup> We conclude that state commissions were well aware of the concurrent need to resolve associated issues such as modification of OSS, and allowed time to resolve these associated issues when setting their long-term number portability implementation schedules. While the First Report & Order did not expressly consider how much time is necessary to modify OSS and to upgrade software, the schedule the Commission adopted relies upon the prior work and expertise of the state commissions in establishing those state implementation schedules. At any rate, the extensions of Phases I and II, as discussed above, should alleviate any potential concerns about the sufficiency of time for modifying OSS and upgrading switch software.

90. We have concluded that a modest extension of the deployment schedule for Phase I (and Phase II) markets is warranted to allow more time for testing and modifications to be made when local number portability is first implemented. We do not believe, however, that speculative and unspecified concerns about possible future technical concerns are sufficient to justify an across-the-board delay in implementing number portability in view of the adverse effects of delay on competition in local markets. The Commission found in the First Report & Order that number portability is essential to effective facilities-based competition in the provision of local

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<sup>290</sup> See First Report & Order, 11 FCC Rcd at 8362-65, 8392.

<sup>291</sup> For example, the Maryland and Illinois state commissions throughout 1996 studied issues associated with long-term number portability such as operations, switch requirements, SCP requirements, technical strategies, billing and rating, operator services, and SMS database system requirements and testing. MD LNP Consortium October 1996 Report at 15-19; Staff of the Public Service Commission of Maryland, Commission's Investigation into Long Term Solutions to Number Portability in Maryland: Second Quarterly Report of the Maryland Local Number Portability Consortium, Case No. 8704, at 6-12 (rel. Apr. 1996) (MD LNP Consortium April 1996 Report); AT&T Ex Parte Presentation at 13, CC Docket No. 95-116, filed Feb. 6, 1996 (AT&T February 6, 1996 Ex Parte Filing); see also First Report & Order, 11 FCC Rcd at 8364.

<sup>292</sup> See First Report & Order, 11 FCC Rcd at 8362-65, 8392.

<sup>293</sup> Industry Carriers Compatibility Forum (ICCF), INC Report on Number Portability, July 11, 1996, at 7. Among the technical considerations that the INC has been studying are impact of implementation of number portability on switches and operations systems. Id. at 36-38.

exchange services.<sup>294</sup> Extending the schedule now for deployment of long-term number portability, beyond the modifications adopted in this First Reconsideration Order, based on unsubstantiated concerns will thus hamper the development of that competition.<sup>295</sup> Such an extension, moreover, would conflict with the 1996 Act's intent to open monopoly local telecommunications markets to competition as soon as possible.<sup>296</sup>

91. Moreover, we are not persuaded by the argument that we should delay the implementation schedule to account for problems that some other LECs may experience, due to differences in LEC networks that may prevent them from deploying number portability at the same speed.<sup>297</sup> We believe that Congress, in requiring the provision of number portability "to the extent technically feasible," did not intend for LECs that are capable of providing number portability according to our deployment schedule to delay deployment on the grounds that some other LECs may encounter technical obstacles in adapting their networks.<sup>298</sup> We recognize, as Bell Atlantic points out, that the BOCs were permitted to develop and deploy equal access pursuant to a more relaxed schedule.<sup>299</sup> The BOCs, however, did not have a statutory mandate to deploy equal access as soon as it was technically feasible to do so, and no party has shown that the schedule established by the Modification of Final Judgment (MFJ) for deployment of equal access could not have been accelerated.

92. Furthermore, we find it unnecessary to act on GTE's request that we clarify that LECs may obtain a waiver if they cannot meet the schedule for reasons beyond their control. The waiver procedure established in the First Report & Order for extending deployment deadlines as necessary provides an effective vehicle for addressing any problems in implementing number

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<sup>294</sup> First Report & Order, 11 FCC Rcd at 8367.

<sup>295</sup> See TRA Late-Filed Comments at 7-8.

<sup>296</sup> See S. Conf. Rep. No. 230, 104th Cong., 2d Sess. 1 (1996); 141 Cong. Rec. S7880, S7984 (daily ed. June 7, 1995) (statements of Sens. Pressler and Hollings).

<sup>297</sup> See GTE Opposition at 13; USTA Reply at 9-10; BellSouth Petition at 11. Regarding CBT's argument that small and mid-size LECs located in the 100 largest MSAs have more limited resources to upgrade their networks than the BOCs, we note that the deployment schedule already eases the burden on those LECs by starting with the more populous markets, in which the incumbent LEC is more likely to be a large carrier; in addition, small LECs' concerns are further relieved by our conclusion, as set forth above, that portability need be deployed only in requested switches. See supra ¶ 60; CBT Comments at 3-4.

<sup>298</sup> See 47 U.S.C. § 251(b). See also Time Warner Comments at 8-9 (arguing against granting a waiver if another carrier facing similar technical challenges (e.g., upgrading similar generic software on similar switches) has met the deadlines).

<sup>299</sup> See Bell Atlantic Reply at 9.

portability that LECs can document.<sup>300</sup> We note that carriers may file petitions for waiver of the deployment schedule more than 60 days in advance of an implementation deadline, and thus receive relief earlier, if they are able to present substantial, credible evidence at that time establishing their inability to comply with our deadlines.<sup>301</sup>

93. We reject USTA's proposal to give every state commission and/or workshop the authority to extend independently our deployment deadlines according to their assessments of the level of local competition in an area. As set forth above, we require carriers to identify the switches in which they desire number portability capability well before the deadline for deployment in a particular MSA.<sup>302</sup> We find that this requirement will enable LECs to deploy number portability in areas in which local competition is likely to develop at an early stage, while relieving LECs of the obligation to install the capability in areas that competitive LECs have no initial interest in serving.<sup>303</sup> This requirement, in our view, addresses USTA's concerns by striking a reasonable balance between a LEC's interest in avoiding unnecessary switch upgrades, and a competitive LEC's interest in having assurances that number portability will be available in areas where it plans to compete to serve existing LEC customers.

94. We decline to expedite the Chicago trial, as requested by NYNEX.<sup>304</sup> The First Report & Order scheduled the completion date for the Chicago trial for as early as appeared reasonably possible at that time. Given the record before us now, we conclude that it would not be possible to accelerate the commencement of that trial.<sup>305</sup> Moreover, we agree with the Chicago trial participants that it would be inappropriate to shorten or delete any of the planned testing.<sup>306</sup>

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<sup>300</sup> In particular, if problems necessitating delay do arise, the Chief of the Common Carrier Bureau may waive or stay any of the dates in the implementation schedule, as the Chief determines is necessary to ensure the efficient development of number portability, for a period not to exceed nine months. In the event a carrier is unable to meet our deadlines for implementing a long-term number portability method, it may file with us, at least 60 days in advance of the deadline, a petition to extend the time by which implementation in its network will be completed. First Report & Order, 11 FCC Rcd at 8397. See ALTS Opposition at 6 n.7 (arguing that incumbent LECs should try to settle their claims with carriers and vendors and develop a record before challenging our schedule); Sprint Opposition at 13-14.

<sup>301</sup> See First Report & Order, 11 FCC Rcd at 8397; supra ¶ 82.

<sup>302</sup> See supra ¶ 60.

<sup>303</sup> See supra ¶ 59.

<sup>304</sup> NYNEX Petition at 12; GTE Opposition at 13.

<sup>305</sup> Midwest LNP L.L.C. February 27, 1997 Ex Parte Filing at 1-2.

<sup>306</sup> Id. at 2.

95. We also decline to order additional field tests, as requested by NYNEX.<sup>307</sup> The requirement that there be a field trial in Chicago is only intended to ensure that at least one field trial is held to identify technical problems in advance of widespread deployment, which will provide all carriers, as well as the Commission, with information on implementation. All carriers will have an opportunity to monitor testing in Chicago and evaluate the results of the testing on an ongoing basis. We find, moreover, that LECs currently have access to additional information concerning the impact of number portability on their systems, because many LECs are, and have been for some time, analyzing extensively implementation and inter-carrier OSS impact of number portability under the auspices of state and industry fora.<sup>308</sup> As we stated in the First Report & Order, we do not routinely schedule field trials in rulemaking proceedings; our requiring a field trial in the Chicago MSA is an exceptional step that we adopted to safeguard against any risk to the public switched telephone network.<sup>309</sup> The need for any further trials should be determined by the industry.

96. To the extent that other networks differ in design or switch use or other relevant variables, we do not preclude the testing of either software or hardware in other areas or by other carriers, either contemporaneously with the Chicago trial or even before that trial begins.<sup>310</sup> Indeed, we encourage carriers to test portability within their own networks as early as possible.<sup>311</sup> For example, Bell Atlantic plans to do "first office application" testing in Gaithersburg, Maryland, from July 15, 1997, to August 30, 1997.<sup>312</sup> The Gaithersburg test, therefore, will have been completed seven months before Bell Atlantic's March 31, 1998, deadline to complete implementation in Philadelphia, the market in which it must deploy long-term number portability

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<sup>307</sup> NYNEX Petition at 12.

<sup>308</sup> See NEXTLINK Opposition at 3-4; MD LNP Consortium October 1996 Report at 15-19; MD LNP Consortium April 1996 Report at 6-12; AT&T February 6, 1996 Ex Parte Filing at 13; First Report & Order, 11 FCC Rcd at 8364.

<sup>309</sup> First Report & Order, 11 FCC Rcd at 8394.

<sup>310</sup> See ICG Comments at 6-7.

<sup>311</sup> We note that U S West's argument on whether the deployment schedule accounts for sufficient time for carrier-specific testing is internally inconsistent. U S West has made no showing that switch vendors will not release number portability software in time for U S West to do its own first office testing; rather, it has only alleged vaguely that vendors "are generally reluctant to provide additional early software releases" because they prefer not to have multiple carriers test, and find problems in, "the same early-release software." U S West Reply at att. at 9. If, however, the software that U S West purchases is the same as that being tested in the Chicago trial, then U S West should be able to rely largely on the ongoing results of the Chicago trial. Since U S West claims that the software to be tested in Chicago differs from the software it will use, there appears to be no reason for the software vendors to refuse to release different software for first office testing so that U S West may do testing in its own network contemporaneously with the Chicago trial. Id. at 3.

<sup>312</sup> MD LNP Consortium October 1996 Report at app. 3 at att. 3. A "first office application" is an initial test of new technology, performed in a limited area, to find and eliminate bugs before widespread deployment.



in Phase I under our revised schedule. In any event, carriers should have the opportunity to perform their own testing, including on "live traffic," well before the date by which they must request any waiver of the Phase I implementation requirements.

97. We also decline to adopt NYNEX's proposal to deploy portability in smaller MSAs instead of the largest ones during Phase I of the deployment schedule.<sup>313</sup> At this time, there is only speculation that starting with the most populous MSAs will result in technical problems. Indeed, carriers are further ahead in preparing for number portability in many of the larger MSAs than in the smaller ones; for example, several state commissions that had addressed the issue of number portability before issuance of the First Report & Order had ordered that deployment begin in several major cities that are currently in Phases I or II of our schedule.<sup>314</sup> Therefore, switching the deadlines of those larger MSAs with other, smaller MSAs now would, at a minimum, disrupt planning by competitive LECs and state commissions in those jurisdictions. Moreover, our three-month extension of the end date of Phase I, in combination with our conclusion that carriers need provide portability only in requested switches,<sup>315</sup> will serve much the same purpose as NYNEX's request by allowing carriers the flexibility to begin deployment in a subset of switches within each of the Phase I MSAs and gradually increase coverage over the six-month period. In addition, we do not prohibit, but rather encourage, carriers to take whatever additional actions they believe are necessary to safeguard their networks, including testing deployment of portability in one of their smaller MSAs before or during Phase I of our deployment schedule. For example, Bell Atlantic is testing number portability in the smaller market of Gaithersburg, MD before Phase I.<sup>316</sup>

98. We also deny NYNEX's request that we explicitly encourage states to be flexible in opting out of the regional database or choosing to construct joint databases, or to work with less active neighboring states to establish regional databases.<sup>317</sup> We find that the First Report & Order allows sufficient flexibility for states to opt out of the regional databases.<sup>318</sup> In addition, NYNEX's concern that the NANC would not resolve the database issues in time for carriers to

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<sup>313</sup> See NYNEX Opposition at 3 & n.10; NYNEX Reply at 7-9.

<sup>314</sup> After a first office application in Gaithersburg, Baltimore and the Maryland portion of the Washington, DC LATA are first on Maryland's deployment schedule. MD LNP Consortium October 1996 Report at 3, app. 3 at att. 3; MD LNP Consortium April 1996 Report at 40. The Georgia workshop scheduled initial implementation in Atlanta. BellSouth Ex Parte Presentation at 4, CC Docket No. 95-116, filed Nov. 1, 1996 (BellSouth November 1, 1996 Ex Parte Filing). The Chicago LATA was scheduled for initial deployment in Illinois. Ameritech Further Comments at 8, CC Docket No. 95-116, filed Mar. 29, 1996.

<sup>315</sup> See supra ¶ 60.

<sup>316</sup> MD LNP Consortium October 1996 Report at app. 3 at att. 3.

<sup>317</sup> NYNEX Petition at 11-12.

<sup>318</sup> See also BellSouth November 1, 1996 Ex Parte Filing at 4 (Georgia and Florida are working together to develop a regional database).

meet the deployment schedule is now largely moot, given the recent activities of the NANC. The NANC has committed to making its final recommendations to the Commission on the database system by May 1, 1997.<sup>319</sup> The NANC's working groups and task forces relating to number portability are already organized and holding regular meetings to resolve the database issues.<sup>320</sup> The Local Number Portability Administration Selection Working Group projects that all seven regional databases will be ready for testing on dates ranging from April 18, 1997, to July 1, 1997, and will be ready to support number portability deployment on or before October 1, 1997, in accordance with the deployment schedule set forth in the First Report & Order.<sup>321</sup>

99. Finally, we clarify that the first performance criterion, that any method "support existing network services, features, and capabilities," refers only to services existing at the time of the First Report & Order. We caution LECs that problems in implementing their chosen number portability method due to modifications necessitated by the introduction of a new service or technology will not justify a delay of the deployment schedule.<sup>322</sup> We decline, however, specifically to prohibit the introduction of any new service that is incompatible with LRN, as the First Report & Order did not adopt LRN or mandate use of any specific long-term number portability method.<sup>323</sup>

#### 4. Acceleration of Implementation Schedule

100. Pleadings. Several competitive LECs urge us to accelerate the deployment schedule in smaller markets.<sup>324</sup> ACSI contends that the present schedule incorrectly assumes larger markets will experience competition first. ACSI claims that in fact many competitors are

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<sup>319</sup> NANC Timeline at 1.

<sup>320</sup> LNPA Selection Working Group February 26, 1997 Status Report at 1; see also LNPA Selection Working Group December 2, 1996 Status Report at 7.

<sup>321</sup> Id. See also NANC January 8, 1997 State NPAC/SMS Status at 1-5.

<sup>322</sup> See MCI Reply at 7-8.

<sup>323</sup> First Report & Order, 11 FCC Rcd at 8377.

<sup>324</sup> ACSI Petition at 3, 7-12; KMC Petition at 2-3, 5-13. See also ICG Comments. ACSI adds that the 1996 Act is predicated on promoting competition without reference to the size of the market. ACSI Petition at 11. KMC argues that we could not have intended to foreclose number portability in smaller markets where "meaningful competition" exists. KMC Petition at 7.

focusing on MSAs beyond the largest 50.<sup>325</sup> Consequently, accelerating the deployment of number portability in those smaller markets would promote competition in all markets and treat competitors more equally regardless of the size of market they are entering.<sup>326</sup> ACSI proposes that the schedule for the 100 largest markets be accelerated so that all BOCs implement number portability "according to roughly the same schedule as a function of population served."<sup>327</sup> ACSI also proposes requiring non-BOC incumbent LECs to deploy portability in their largest market in the fourth quarter of 1997, or, at the latest, the first quarter of 1998.<sup>328</sup> In the alternative, ACSI urges us to allow carriers with "operational networks in the 100 largest MSAs and the authority to provide local exchange services" to request, beginning July 1, 1997, the deployment of number portability on a specified date six or more months in the future.<sup>329</sup> ACSI would place upon an incumbent LEC the burden of proving that it cannot provide number portability, and proposing an alternative date for implementation no more than three months later than the date requested.<sup>330</sup> ALTS agrees that incumbent LECs should be required to implement portability in a region before the scheduled implementation date for that region, if the incumbent LEC is able to do so.<sup>331</sup>

101. For markets outside the 100 largest MSAs, KMC contends that we should require LECs to accept bona fide requests for deployment of portability, after January 31, 1997, and to require implementation of such requests within six months.<sup>332</sup> Alternatively, KMC urges us to require all LECs immediately to accept bona fide requests for markets outside the 100 largest MSAs, and to satisfy such requests within 24 months, unless the LEC can prove technical

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<sup>325</sup> ACSI Petition at 9, 11.

<sup>326</sup> Id.

<sup>327</sup> Id. at 10 & n.18. See also ICG Comments at 4. ACSI submits a proposed schedule under which certain specific MSAs in the 100 largest MSAs would be deployed earlier. ACSI Petition at att. A. ACSI also suggests that the implementation date of the Fort Worth MSA be accelerated to coincide with that of Dallas so competing carriers can cover the entire Dallas-Fort Worth area. Id. at 10 n.16. ICG expands on this idea to recommend that all "consolidated MSAs," as determined by the Rand McNally Major Trading Area definitions (e.g., Cleveland and Dayton, Ohio) be deployed at the earlier of the two relevant MSAs' implementation deadlines. ICG Comments at 3-4 & n.1.

<sup>328</sup> ACSI Petition at 10.

<sup>329</sup> Id. at 12. See also ICG Comments at 4.

<sup>330</sup> ACSI Petition at 12. ACSI adds that its proposal imposes no greater burden on any incumbent LEC than the burden the two BOCs with the largest implementation burden, Bell Atlantic and Pacific, have under the deployment schedule in the First Report & Order. Id. at 8-9.

<sup>331</sup> ALTS Opposition at 6; see also ACSI Petition at 3.

<sup>332</sup> KMC Petition at 6.

infeasibility.<sup>333</sup> Another option presented by KMC and ACSI is to permit carriers to submit requests for markets outside the 100 largest MSAs as early as July 1, 1998, so that implementation of these requests can begin immediately upon completion of deployment in the 100 largest MSAs.<sup>334</sup> NEXTLINK urges us to accept requests earlier than the First Report & Order allows for the provision of number portability for markets outside the 100 largest MSAs, consult with the relevant state commission regarding the extent of competition in that requested market, and grant the request if there is "sufficient evidence" of competition.<sup>335</sup> NEXTLINK contends that accelerating the schedule will not be overly burdensome because incumbent LECs may still seek a waiver.<sup>336</sup>

102. Several BOCs, GTE, USTA, and ALLTEL oppose accelerating the deployment schedule for markets below the top 100 MSAs.<sup>337</sup> BellSouth and GTE assert that accelerating deployment will impede the phased deployment and jeopardize carriers' ability to meet the original schedule.<sup>338</sup> GTE, USTA, Sprint, and Pacific argue that resources would be diverted from deployment in larger markets where competitors are more likely to be interested in entering.<sup>339</sup> BellSouth asserts that, if we add new central offices to the schedule, then we should remove a

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<sup>333</sup> Id. at 10.

<sup>334</sup> KMC Petition at 12; ACSI Petition at 10. See also ICG Comments at 4-5; MCI Reply at 6. ACSI adds that, in regions served by NYNEX, Southwestern Bell, and U S West, bona fide requests for markets outside the 100 largest MSAs should be permitted beginning April 1, 1998, since, under ACSI's proposed changes to the initial deployment schedule, those carriers would complete implementation for the markets among the 100 largest they serve by September 1998. ACSI Petition at 10 n.18. In addition, suggests ACSI, requests for markets outside the 100 largest MSAs served by a non-BOC incumbent LEC should be accepted six months before that LEC must complete implementation in the last scheduled MSA that it serves that is within the 100 largest MSAs. Id.

<sup>335</sup> NEXTLINK Petition at 5-6. The determination of "sufficient evidence" of competition would consider whether the requesting carrier has a central office switch in the relevant MSA with assigned NXXs, has interconnected with the LEC operating the requested switch, and will itself provide number portability within the same time period. NEXTLINK Ex Parte Presentation at 4-5, CC Docket No. 95-116, filed Oct. 18, 1996 (NEXTLINK October 18, 1996 Ex Parte Filing). NEXTLINK specifically urges us to accept a request for accelerated deployment of portability in the Spokane MSA, asserting that U S West's obligations are disproportionately light compared with other BOCs. NEXTLINK Petition at 7 & n.4.

<sup>336</sup> NEXTLINK Reply at 2-3.

<sup>337</sup> NYNEX Opposition at 2; GTE Opposition at 11-12; ALLTEL Opposition at 2. Specifically, BellSouth, GTE, NYNEX, and USTA argue that sufficient switch software may not be available to support an accelerated schedule. BellSouth Opposition at 6; NYNEX Opposition at 2-3; GTE Opposition at 10-11; USTA Comments at 4. Similarly, NYNEX suggests that any schedule modification should reflect the NANC's ability to accomplish its responsibilities. NYNEX Opposition at 2-3; see also GTE Opposition at 13-14.

<sup>338</sup> BellSouth Opposition at 6; GTE Opposition at 10-11; see also NYNEX Opposition at 2.

<sup>339</sup> GTE Opposition at 10; USTA Comments at 4; Sprint Opposition at 12; Pacific Comments at 2.

corresponding number of central offices from the original schedule.<sup>340</sup> BellSouth also suggests that, if we add new central offices to the schedule, then failure to implement any of those additional MSAs according to deadlines on the original schedule should not constitute a failure to meet a Section 271 checklist requirement.<sup>341</sup> In response to ACSI's claim that the Commission's schedule discriminates against smaller markets, GTE asserts that the phased schedule takes into account the differing levels of local exchange competition in different areas, the burden on carriers serving multiple regions, and the fact that more significant upgrades may be necessary for carriers operating in smaller areas.<sup>342</sup>

103. USTA supports KMC's recommendation that LECs be able to submit requests for deployment in markets outside the 100 largest MSAs earlier than January 1, 1999, but proposes that such requests be fulfilled on a negotiated timetable subject to the decisions of each state commission, instead of by December 1998, or within 24 months, as suggested by KMC.<sup>343</sup> ALLTEL contends that accelerating the schedule will force carriers to file waivers or seek suspensions of implementation.<sup>344</sup> ALLTEL argues, moreover, that smaller providers should not be required to invest in number portability technologies until they have been proven reliable in larger markets.<sup>345</sup>

104. Discussion. We deny the petitions for reconsideration that advocate: (1) accelerating deadlines for certain MSAs;<sup>346</sup> (2) allowing carriers with operational networks in the 100 largest MSAs and the authority to provide local exchange service to request portability in any MSA in the 100 largest MSAs beginning July 1, 1997, and requiring LECs to fulfill such requests on a specified date six or more months in the future;<sup>347</sup> (3) adding MSAs outside the largest 100 MSAs to the initial deployment schedule;<sup>348</sup> or (4) combining the deadlines of consolidated

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<sup>340</sup> BellSouth Opposition at 6-7.

<sup>341</sup> Id. at 7.

<sup>342</sup> GTE Opposition at 10-11.

<sup>343</sup> USTA Comments at 6-7. USTA proposes allowing each state commission and/or its workshop to evaluate evidence of local competition in areas within that state, and either accelerate or decelerate the schedule in those areas, as long as the "overall burden" is not increased. Id. at 4-6.

<sup>344</sup> ALLTEL Opposition at 3. ALLTEL contends further that the present schedule does not prohibit competitors from using the Section 252 negotiation process to enter into number portability agreements prior to January 1999. Id.

<sup>345</sup> Id. at 2-3. See also NTCA/OPASTCO Reply at 3-4.

<sup>346</sup> See ACSI Petition at 9-12; ICG Comments at 3-4.

<sup>347</sup> See ACSI Petition at 9-12; ALTS Opposition at 6; ICG Comments at 3-4.

<sup>348</sup> See NEXTLINK Petition at 5-6.

MSAs.<sup>349</sup> The current schedule is based on the projected availability of switch software,<sup>350</sup> and recognizes the burden on carriers serving multiple regions and the fact that more significant upgrades may be necessary for carriers operating in smaller areas.<sup>351</sup> Petitioners have not made a showing that the necessary software, hardware, and other resources will be available earlier in areas originally scheduled for later deployment, or will be available in quantities sufficient to support deployment in additional areas, particularly in areas outside the 100 largest MSAs. If such hardware and software is not available for deployment early enough or in sufficient quantities to support deployment in additional areas, then accelerating deployment deadlines for smaller MSAs may divert these limited resources from deployment in other, larger MSAs, and thus delay deployment of number portability where a greater population might benefit from competition.<sup>352</sup>

105. For the reasons stated above, we also reject ACSI's request to require deployment in Phase I in certain additional markets in which the incumbent LECs are not BOCs. In addition, we continue to believe that non-BOC incumbent LECs, most of which have more limited resources than the BOCs, should have additional time to upgrade and test their networks.<sup>353</sup> Moreover, we conclude above that LECs need deploy number portability in the 100 largest MSAs only in switches for which another carrier has made a specific request for the provision of portability.<sup>354</sup> Requiring that additional MSAs be deployed in Phase I does not give sufficient notice to carriers or states to establish switch-requesting procedures in MSAs for which they had no previous notice that deployment was required in Phase I. We also decline to adopt USTA's proposal that state commissions be free to accelerate the deployment schedule. While we are sympathetic to the desires of some states to advance deployment where actual competitive interest exists, we conclude that the schedule adopted in the First Report & Order, as modified in this First Reconsideration Order, represents a reasonable balancing of competing interests, and carriers need to have certainty that these are the requirements with which they must comply. Our First Report & Order was silent on the issue of whether states could accelerate the deployment schedule. We therefore grandfather any state decisions to accelerate deployment for a particular market from one phase to an earlier phase that were adopted prior to release of this First Reconsideration Order.

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<sup>349</sup> See ICG Comments at 3-4 & n.1; ACSI Petition at 10 n.16.

<sup>350</sup> See First Report & Order, 11 FCC Rcd at 8393-95; see also BellSouth Opposition at 6; GTE Opposition at 10-11; NYNEX Opposition at 2-3.

<sup>351</sup> See First Report & Order, 11 FCC Rcd at 8393-95; see also GTE Opposition at 10-11.

<sup>352</sup> See BellSouth Opposition at 6; GTE Opposition at 10; USTA Comments at 4; Sprint Opposition at 12; Pacific Comments at 2.

<sup>353</sup> See CBT Comments at 3-4.

<sup>354</sup> See supra ¶ 60.

106. We do not prohibit LECs from agreeing to accelerate implementation, either for specific MSAs or specific switches within MSAs. We find, however, that acceleration of our schedule is more properly determined by private agreements among carriers. Competitive LECs are free to negotiate with incumbent LECs for deployment of number portability ahead of our schedule.<sup>355</sup> Moreover, to the extent that carriers agree to "swap" the implementation deadlines for specific MSAs or switches within MSAs, they can jointly file specific waiver petitions to do so.<sup>356</sup>

107. We grant in part the petitions of ACSI, KMC, and NEXTLINK to allow requests for deployment of number portability in areas outside the 100 largest MSAs to be submitted earlier than January 1, 1999. We therefore modify our rules to permit carriers to submit requests for deployment of number portability in areas outside the 100 largest MSAs at any time. We decline, however, to require that deployment be completed within six months of request for requests filed prior to January 1, 1999. This modification to our rules will benefit all parties, because receiving earlier notice to upgrade switches will likely ease a LEC's compliance burden and help to ensure that competing carriers will receive portability within the time requested. Finally, we clarify that, contrary to KMC and ACSI's view, our current schedule does not leave an implementation gap between December 31, 1998, and July 1, 1999, since implementation of requests for deployment of number portability in areas outside the 100 largest MSAs filed on or before January 1, 1999, will occur during the first six months of 1999. KMC and ACSI's suggestion that we permit requests for markets outside the 100 largest MSAs beginning July 1, 1998, and require fulfillment of those requests within six months, would actually require that those smaller markets be completed at the same time as the MSAs in the last phase of our deployment schedule, thus sharply increasing the burden on carriers during that phase.<sup>357</sup>

## 5. Exemptions for Rural and/or Smaller LECs

108. Pleadings. JSI, NECA, and NTCA/OPASTCO argue that requiring rural LECs to provide number portability where no competitor has requested it will burden rural LECs significantly without benefitting the public by increasing competition.<sup>358</sup> NECA and NTCA/OPASTCO state that requiring rural LECs to provide portability absent such a request contravenes our intent to let the pace of competitive entry into local markets determine the need

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<sup>355</sup> See ALLTEL Opposition at 3.

<sup>356</sup> See NEXTLINK Petition at 7-8 n.4.

<sup>357</sup> See ACSI Petition at 10; KMC Petition at 12.

<sup>358</sup> JSI Petition at 9 (asserting that the cost of implementation in areas in which there is no competition will result in higher rates for consumers); NECA Petition at 3; NTCA/OPASTCO Petition at 3-4; NTCA/OPASTCO Reply at 1-4. See also USTA Comments at 2; ALLTEL Opposition at 4-5; Sprint Opposition at 13.

for number portability.<sup>359</sup> NTCA/OPASTCO asserts that these small businesses do not have the resources to test portability technologies.<sup>360</sup> GTE argues that the same concerns that prompted us to forego an implementation schedule for areas outside the 100 largest MSAs, *i.e.*, lack of imminent competition and the need for significant network upgrades, apply to smaller offices within the 100 largest MSAs.<sup>361</sup> JSI, NECA, and NTCA/OPASTCO contend that the need for such an exemption is apparent in Congress' Joint Explanatory Statement which states, "Duties imposed under new Section 251(b) make sense only in the context of a specific request from another telecommunications carrier . . . ."<sup>362</sup>

109. JSI and NTCA/OPASTCO suggest that we exempt rural LECs operating within the 100 largest MSAs from complying with the implementation deadlines until receipt of a request for deployment.<sup>363</sup> Several other parties agree with JSI and NTCA's suggestion, and would expand the exemption to include: (1) LECs with less than five percent of their subscribers in an MSA, or LECs with only 10 percent of their access lines within an MSA;<sup>364</sup> (2) rural LECs with study areas that only partially overlap one of the 100 largest MSAs;<sup>365</sup> or (3) any carrier with less than two percent of the nation's access lines.<sup>366</sup> JSI further argues that we should not apply our deployment requirements to rural LECs until there is factual evidence that number portability is technologically feasible, and will not disproportionately burden rural LECs.<sup>367</sup> GTE suggests that, if no competitors express an interest in entering the market, and the state commission does not object, smaller LECs should be allowed to present a waiver to us that, if approved, would exempt

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<sup>359</sup> NECA Petition at 2; NTCA/OPASTCO Petition at 3.

<sup>360</sup> NTCA/OPASTCO Reply at 4-5.

<sup>361</sup> GTE Petition at 9-10.

<sup>362</sup> JSI Petition at 3-5 (quoting S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 121 (1996)); NTCA/OPASTCO Petition at 3 (same); NECA Petition at 3-4 (quoting H.R. Report 104-458, Joint Explanatory Statement of the Committee of Conference at 121).

<sup>363</sup> JSI Petition at 7-8; NTCA/OPASTCO Petition at 2.

<sup>364</sup> USTA Petition at 19. USTA argues that many LECs located within MSAs (1) do not provide service within the MSA, (2) serve a small percentage of the MSA, or (3) have operations within the MSA which constitute a small percentage of the LEC's total operations. Id. at 18.

<sup>365</sup> NECA Petition at 2-3 (claiming that of the 115 rural LECs operating in the 100 largest MSAs, only four are completely contained within a top 100 MSA, and the remaining 111 overlap a top 100 MSA by only a small fraction of their total customer base); JSI Petition at 8.

<sup>366</sup> ALLTEL Opposition at 5.

<sup>367</sup> JSI Petition at 7. JSI argues that we have not justified expediting implementation for a rural LEC solely because it is located within a top 100 MSA. Id. at 6.



them from portability requirements until six months after a request is made.<sup>368</sup> CBT suggests that we exempt from the implementation schedule carriers granted a suspension or modification of the number portability requirements under Section 251(f)(2) until the state commission removes the suspension.<sup>369</sup>

110. USTA urges us to exempt from the deployment schedule rural LECs that are exempt from interconnection requirements under Section 251(f).<sup>370</sup> JSI goes further and argues that Section 251(f)(1) prohibits the imposition of number portability requirements on rural LECs because rural LECs are automatically exempt from the interconnection requirements of Section 251(c).<sup>371</sup> JSI states that this exemption from interconnection requirements permits us to impose number portability requirements upon rural LECs only to the extent it is technically feasible for rural LECs to provide portability without upgrading their networks to utilize databases, installing SS7 or AIN capabilities, or installing and furnishing functions requiring new switching software.<sup>372</sup> JSI adds that this exemption may be terminated only by a state commission.<sup>373</sup> In addition, JSI argues, the Commission recognized in the First Report & Order that carriers meeting the 251(f) criteria may be exempt from number portability requirements.<sup>374</sup>

111. NTCA/OPASTCO claims that the First Report & Order's Final Regulatory Flexibility Analysis does not address the impact of the rules on small incumbent LECs, and is thus inconsistent with the Local Competition Order.<sup>375</sup> NTCA/OPASTCO suggests that exempting

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<sup>368</sup> GTE Petition at 9. See also GTE Opposition at 15. GTE asserts that permitting these waivers would free LECs to devote resources to areas in which competition is more immediate. Id.

<sup>369</sup> CBT Comments at 4.

<sup>370</sup> USTA Comments at 3. USTA suggests that, should a state commission end the interconnection exemption for a particular rural provider, then the commission should determine that provider's deployment schedule. USTA argues that this is necessary to preserve state authority over the full range of interconnection issues affecting smaller and rural LECs. Id. at 3. See also Pacific Comments at 4 (claiming that implementation makes sense only in areas where interconnection has been requested).

<sup>371</sup> JSI Petition at 3-4.

<sup>372</sup> Id. at 3. See also NECA Petition at 3-4.

<sup>373</sup> JSI Petition at 4.

<sup>374</sup> Id. at 5 (citing First Report & Order, 11 FCC Rcd at 8396). But see USTA Comments at 2 (claiming that the Section 251(f)(1) exemption covers only Section 251(c) obligations, not Section 251(b) obligations); NTCA/OPASTCO Petition at 2 n.3 (same); ALLTEL Opposition at 4.

<sup>375</sup> NTCA/OPASTCO Petition at 4 & n.6.

rural LECs from number portability requirements absent a specific request would fulfill our responsibility under the Regulatory Flexibility Act.<sup>376</sup>

112. Time Warner and MCI oppose any "blanket waiver" of number portability requirements for smaller and/or rural LECs.<sup>377</sup> MCI argues that such waivers will "lessen the likelihood" that competition will ever reach areas served by smaller and rural providers.<sup>378</sup> MCI claims that a blanket waiver is unnecessary, because smaller and rural LECs can receive waivers under the statutory provision or under the procedure described in the First Report & Order.<sup>379</sup> Time Warner argues that any blanket waiver, either for technical difficulties or for a carrier's smaller size, will be overly inclusive and result in unnecessary delay, and that carriers should have to file individually for waivers that demonstrate why they should be exempt from the number portability deployment schedule.<sup>380</sup>

113. Discussion. As set forth above, we grant the petitions to limit deployment of portability to those switches for which a competitor has expressed interest in deployment by concluding that LECs need only provide number portability within the 100 largest MSAs in switches for which another carrier has made a specific request for the provision of portability.<sup>381</sup> We find that this modification to our rules should address the concerns of parties that urge us to waive number portability requirements for rural and/or smaller LECs serving areas in the largest 100 MSAs until receipt of a request.<sup>382</sup>

114. We deny the petitions that request a blanket waiver of our number portability requirements for rural and/or smaller LECs that receive a request for deployment in one of their switches. We find that such a blanket waiver is unnecessary and may hamper the development of

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<sup>376</sup> Id. at 5.

<sup>377</sup> Time Warner Comments at 7; MCI Opposition at 18. But see USTA Reply at 9 (protesting that recognizing that failure to receive an interconnection request constitutes "extraordinary circumstances beyond the LEC's control" justifying a waiver does not constitute a "blanket waiver").

<sup>378</sup> MCI Opposition at 18-19. MCI argues, moreover, that once a small office receives a bona fide request, it should be required to deploy portability within one or two months, not six months as proposed by GTE. MCI Reply at 6 n.12. According to MCI, the LEC will already have deployed portability within the MSA, and, therefore, can deploy portability in a new office quickly. Id.

<sup>379</sup> MCI Opposition at 18.

<sup>380</sup> Time Warner Comments at 6-7.

<sup>381</sup> See supra ¶ 60.

<sup>382</sup> See JSI Petition at 7; NTCA/OPASTCO Petition at 3; NECA Petition at 2; GTE Petition at 9; NTCA/OPASTCO Reply at 1-2; ALLTEL Opposition at 4-5; USTA Petition at 18-19.

competition in areas served by smaller and rural LECs that competing carriers want to enter.<sup>383</sup> If, as petitioners allege, competition is not imminent in the areas covered by rural/smaller LEC switches,<sup>384</sup> then the rural or smaller LEC will not receive requests from competing carriers to implement portability, and thus will not need to expend its resources, until competition actually develops in its service area. In addition, by that time extensive non-carrier-specific testing will likely have been done, and carriers' testing costs will likely be smaller.<sup>385</sup>

115. Further, to the extent that portability is requested in a rural or smaller LEC's switch, and that LEC has difficulty complying with the request, it has two avenues for relief. Pursuant to the First Report & Order, a LEC may apply for an extension of time on the basis of extraordinary circumstances beyond its control that prevent it from complying with the Commission's deployment schedule.<sup>386</sup> In addition, under Section 251(f)(2), a LEC with fewer than two percent of the nation's subscriber lines installed in the aggregate nationwide (an "eligible LEC") may petition the appropriate state commission for suspension or modification of the requirements of Section 251(b).<sup>387</sup> The state commission is required to act on the petition within 180 days.<sup>388</sup> We believe eligible LECs will have sufficient time to obtain any appropriate Section 251(f)(2) relief as provided by the statute, especially since the state commission can suspend the application of our deployment deadlines to that LEC while it is considering the LEC's petition for suspension or modification of our requirements.<sup>389</sup>

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<sup>383</sup> See MCI Opposition at 18-19. Moreover, the Commission recognized in the First Report & Order that some smaller LECs may face greater burdens in upgrading their networks to implement number portability. The phased deployment schedule also recognizes that carriers in areas outside the 100 largest MSAs are more likely to be smaller or rural LECs, and thus requires that portability be deployed earlier in the more populous MSAs, and deployed in smaller markets only upon receipt of a specific request. First Report & Order, 11 FCC Rcd at 8393-95.

<sup>384</sup> See GTE Petition at 8; GTE Opposition at 15; JSI Petition at 9; NTCA/OPASTCO Reply at 2-4.

<sup>385</sup> NTCA/OPASTCO Reply at 4-5.

<sup>386</sup> First Report & Order, 11 FCC Rcd at 8397.

<sup>387</sup> The state commission shall grant such petition to the extent that, and for as long as, the state commission determines that such suspension or modification: (A) is necessary to avoid a significant adverse economic impact on end users, to avoid imposing an unduly economically burdensome requirement, or to avoid imposing a technically infeasible requirement; and (B) is consistent with the public interest, convenience and necessity. 47 U.S.C. § 251(f)(2).

<sup>388</sup> Id.

<sup>389</sup> Section 251(f)(2) provides that "[t]he State commission shall act upon any petition filed under [Section 251(f)(2)] within 180 days after receiving such petition. Pending such action, the State commission may suspend enforcement of the requirement or requirements to which the petition applies with respect to the petitioning carrier or carriers." Id.

116. If, however, a competitor is interested in number portability in a particular switch operated by a rural or smaller LEC, and the LEC cannot demonstrate extraordinary circumstances justifying an extension of our deployment requirements, and the state commission denies a Section 251(f)(2) request for suspension or modification, we find no statutory basis for excusing such a LEC from its obligations to provide number portability.<sup>390</sup> Rather, Congress established a specific procedure under which state commissions are empowered to make case-by-case decisions on the application of number portability requirements to eligible LECs pursuant to Section 251(f)(2), based on the particular facts and circumstances presented. Eligible LECs that have been granted suspension or modification of number portability requirements under Section 251(f)(2) are not bound by our implementation schedule until the state commission removes the suspension.<sup>391</sup>

117. The comments of some parties in this proceeding appear to reflect a misapprehension of the scope of Section 251(f).<sup>392</sup> Sections 251(f)(1) and 251(f)(2) apply to different classes of carriers, and provide different types of relief. Section 251(f)(1) applies only to rural LECs, and offers an exemption only from the requirements of Section 251(c). In contrast, Section 251(f)(2) applies to all LECs with less than two percent of the nation's subscriber lines. In addition, Section 251(f)(2) establishes a procedure for requesting suspension or modification of the requirements of Sections 251(b) and 251(c). Number portability is an obligation imposed by Section 251(b). Because Section 251(f)(1) does not exempt rural LECs from the requirements of Section 251(b), there is no exemption for rural LECs of their number portability obligations under Section 251(f)(1).<sup>393</sup> The only statutory avenue for relief from the Section 251(b) requirements specifically for eligible LECs is to request suspension or modification of the number portability requirements under the procedure established by Section 251(f)(2).

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<sup>390</sup> In addition, issuance of a blanket exemption in this proceeding would be inconsistent with the Local Competition Order, in which the Commission generally declined to adopt national rules regarding Section 251(f), or provide for different treatment of rural and smaller carriers. Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15,499, 16,118-19 (1996), motion for stay of the FCC's rules pending judicial review denied, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Order, 11 FCC Rcd 11754 (1996), partial stay granted, Iowa Utilities Board v. FCC, No. 96-3321, 1996 WL 589204 (8th Cir. 1996) (Local Competition Order).

<sup>391</sup> See CBT Comments at 4.

<sup>392</sup> See JSI Petition at 3. But see NTCA/OPASTCO Petition at 2 n.3 (claiming that the Commission incorrectly asserted in the First Report & Order that Section 251(f)(1) per se exempted rural LECs from number portability requirements).

<sup>393</sup> We note, however, that Section 251(f)(1) does exempt rural carriers from the duty to negotiate in good faith over the terms and conditions of agreements to fulfill the duties of Section 251(b), including number portability.

118. The plain text of the statute refutes JSI's argument that Section 251(f)(1) exempts rural LECs from number portability requirements.<sup>394</sup> JSI states that the Section 251(f)(1) exemption from interconnection requirements permits us to impose number portability requirements upon rural LECs only to the extent it is technically feasible for rural LECs to provide portability without having to upgrade their networks to utilize databases, install SS7 or AIN capabilities, or install and furnish functions requiring new switching software.<sup>395</sup> JSI adds that this exemption may be terminated only by a state commission.<sup>396</sup>

119. Because Sections 251(b) and 251(c) are separate statutory mandates, the requirements of Section 251(b) apply to a rural LEC even if Section 251(f)(1) exempts such LECs from a concurrent Section 251(c) requirement. To interpret Section 251(f)(1) otherwise would undercut Section 251(b) and, in this case, would effectively preclude any provision of long-term number portability by rural LECs until termination of the Section 251(f)(1) exemption by a state commission. We find such an interpretation to be contrary to Congress's mandate that all LECs provide number portability, and Congress's exclusion of the Section 251(b) obligations, including the duty to provide number portability, from the Section 251(f)(1) exemption for rural LECs.

120. Moreover, under JSI's interpretation, the only carriers that would have to provide number portability would be incumbent LECs that are not exempt under Section 251(f)(1). Non-incumbent LECs, as well as rural incumbent LECs that are exempt under Section 251(f)(1), would not have to satisfy the requirements of Section 251(b) and, consequently, would not have to provide number portability. This directly contradicts Section 251(b)(2), which specifically requires "all local exchange carriers" to provide number portability.<sup>397</sup> Section 251(c) sets forth "additional obligations" that apply only to incumbent LECs, whereas Section 251(b) sets forth obligations that apply to all LECs.

121. Even if we were to agree with JSI's statutory interpretation that rural LECs that are exempt from the Section 251(c) requirements are also exempt from any requirements of Sections 251(b) and (c) that overlap, petitioners have not demonstrated that the Section 251(b) and (c) obligations in fact overlap. To provide long-term number portability under Section 251(b)(2), LECs obviously must install and use any necessary databases, SS7 or AIN capabilities, or switching software. Section 251(c), in contrast, requires incumbent LECs to

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<sup>394</sup> See JSI Petition at 3-4.

<sup>395</sup> *Id.* at 3. USTA advocates, similarly, that any carrier that is exempt from the interconnection requirements under 47 U.S.C. § 251(f) should be automatically exempt from the implementation schedule. USTA Comments at 3; USTA Reply at 9.

<sup>396</sup> JSI Petition at 4.

<sup>397</sup> 47 U.S.C. § 251(b)(2).

provide unbundled access to network elements, including call-related databases.<sup>398</sup> Number portability does not require any provision of unbundled access to these elements. Moreover, to provide number portability, carriers can interconnect either directly or indirectly as required under Section 251(a)(1).<sup>399</sup> Section 251(c), in contrast, imposes an additional requirement on incumbent LECs to provide "equal" interconnection at "any technically feasible point within the carrier's network,"<sup>400</sup> which a carrier does not need to provide number portability. Thus, Sections 251(a) and (b), not Section 251(c), require that carriers interconnect and install and use necessary network elements to provide number portability.<sup>401</sup> We therefore deny JSI and USTA's request to "automatically exempt" rural LECs from our number portability requirements to the extent that they are exempt from the requirements of Section 251(c) under the provisions of Section 251(f)(1).<sup>402</sup>

122. We also deny the requests that we clarify that smaller and/or rural LECs serving areas that only partially overlap one of the 100 largest MSAs need not deploy number portability until receipt of a bona fide request.<sup>403</sup> We believe that, when determining whether a suspension or modification is necessary to avoid imposing an unduly economically burdensome requirement, pursuant to Section 251(f)(2), state commissions would likely consider whether an eligible LEC's presence in the MSA is truly de minimus and whether such a LEC is entitled to a suspension or modification of the number portability requirements on this basis.

123. Finally, NTCA/OPASTCO erroneously claims that the First Report & Order violates the Regulatory Flexibility Act (RFA) because its Final Regulatory Flexibility Analysis (FRFA) does not address the impact of our rules on small incumbent LECs, and is, therefore, inconsistent with the Local Competition Order.<sup>404</sup> As we stated in the First Report & Order's FRFA, small incumbent LECs do not qualify as small businesses because they are dominant in

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<sup>398</sup> See 47 U.S.C. § 251(c)(3).

<sup>399</sup> See 47 U.S.C. § 251(a)(1). For example, a smaller rural carrier and a competing carrier might interconnect indirectly by both establishing direct connections with a third carrier and routing calls to each other through that third carrier. The smaller rural carrier could then provide portability by performing its own database queries and then routing the call to the competing carrier through that third carrier. Another option would be for the smaller rural LEC to contract with that third carrier to perform its queries and the necessary routing.

<sup>400</sup> See 47 U.S.C. § 251(c)(2).

<sup>401</sup> Rural LECs are not exempt from Section 251(a) or (b) requirements under Section 251(f)(1). See 47 U.S.C. § 251(f)(1); Local Competition Order, 11 FCC Rcd at 15,991.

<sup>402</sup> See JSI Petition at 7; USTA Comments at 3.

<sup>403</sup> See NECA Petition at 2-3; JSI Petition at 8; USTA Petition at 19.

<sup>404</sup> See NTCA/OPASTCO Petition at 4 & n.6.

their field of operation.<sup>405</sup> The Local Competition Order's FRFA likewise set forth the Commission's view that small incumbent LECs are not subject to regulatory flexibility analyses because they are not small businesses due to their dominance in their field of operation.<sup>406</sup> The Commission in that proceeding specifically stated that it was including small incumbent LECs in its FRFA only because two parties had especially questioned that conclusion in that proceeding's Initial Regulatory Flexibility Analysis (IRFA), and it wanted to "remove any possible issue of RFA compliance."<sup>407</sup> In contrast, no party commented on the IRFA in this proceeding.<sup>408</sup> We attach, nevertheless, as Appendix D a Supplemental Final Regulatory Flexibility Analysis that further explains our analysis of our rules' impact upon rural and smaller carriers and our basis for selecting the particular options that we have selected. This analysis takes into account NTCA/OPASTCO's specific claim raised in its petition for reconsideration, in order to "remove any possible issue of RFA compliance."<sup>409</sup> We also note that our establishment of a procedure whereby number portability would only be deployed in requested switches effectively grants the relief sought by NTCA/OPASTCO, the sole petitioner on this issue.<sup>410</sup>

## 6. Implementation Requirements for Intermediate (N-1) Carriers

124. Pleadings. Pacific urges us to require all intermediate (N-1) carriers, including interexchange carriers, to implement the capability to query number portability databases in order to route calls properly.<sup>411</sup> Pacific expresses concern that, if an intermediate carrier has not implemented portability, an interLATA call will be routed to the original terminating LEC, which must then query the database and reroute the call, in violation of performance criterion four.<sup>412</sup> Pacific urges us to clarify that the original terminating LEC will not be responsible for handling queries not performed by an intermediate carrier that lacks the capability to query number

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<sup>405</sup> First Report & Order, 11 FCC Rcd at 8487.

<sup>406</sup> Local Competition Order, 11 FCC Rcd at 16,145.

<sup>407</sup> Id.

<sup>408</sup> First Report & Order, 11 FCC Rcd at 8486.

<sup>409</sup> Cf. Local Competition Order, 11 FCC Rcd at 16,145.

<sup>410</sup> NTCA/OPASTCO suggests that exempting rural LECs from number portability requirements absent a specific request would fulfill our responsibility under the Regulatory Flexibility Act. NTCA/OPASTCO Petition at 5.

<sup>411</sup> Pacific Petition at 12-13. "N-1 carrier" refers to the carrier through which the call passes immediately before reaching the terminating service provider.

<sup>412</sup> Id. The fourth performance criterion mandates that any long-term number portability method must not require telecommunications carriers to rely on databases, other network facilities, or services provided by other telecommunications carriers in order to route calls to the proper termination point. First Report & Order, 11 FCC Rcd at 8378.

portability databases.<sup>413</sup> Pacific further asserts that requiring the original terminating LEC to query all interLATA and intraLATA calls will increase its implementation costs, and limit the ability of those LECs to meet the implementation schedule.<sup>414</sup> NYNEX asserts that granting Pacific's request will reduce the stress on the terminating LEC's signalling infrastructure by reducing that LEC's database queries.<sup>415</sup> NYNEX urges, in the alternative, that we confirm that terminating LECs may charge N-1 carriers for performing the query, where the N-1 carrier cannot or will not perform the query itself.<sup>416</sup> MCI claims that Pacific's request is unnecessary, since interexchange carriers already plan to deploy number portability as soon as possible.<sup>417</sup>

125. Discussion. We deny Pacific's request that we require all N-1 carriers, including interexchange carriers, to meet the implementation schedule we established for LECs.<sup>418</sup> Such a requirement is not mandated by the 1996 Act, which subjects only LECs, not interexchange carriers engaged in the provision of interexchange service, to our number portability requirements.<sup>419</sup> Moreover, petitioners have not demonstrated a need for us to impose such requirements under our independent rulemaking authority under Sections 1, 2, and 4(i) of the Communications Act of 1934, as amended.<sup>420</sup> In that regard, we are not convinced that Pacific's hypothetical situation, whereby the N-1 carrier would not perform any queries and the original terminating LEC would thus have to perform all the queries not performed by the originating LEC, will arise often. The industry already appears to favor using the N-1 scenario, under which the N-1 carrier performs the database query, as indicated in the majority of comments on call processing scenario issues received pursuant to the original Notice of Proposed Rulemaking.<sup>421</sup>

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<sup>413</sup> Pacific Petition at 13.

<sup>414</sup> Id.

<sup>415</sup> NYNEX Opposition at 3.

<sup>416</sup> Id. at 3-4 & n.13.

<sup>417</sup> MCI Opposition at 19. MCI claims that it, AT&T, Sprint, and other interexchange carriers have frequently announced their intentions to deploy portability in their networks as soon as it is available. MCI argues, moreover, that interexchange carriers are strongly motivated to deploy number portability because it would enable them to escape paying their current high LEC access charge rates by routing calls to competitive LECs that will likely offer terminating access at charges more closely related to costs. Id.

<sup>418</sup> See Pacific Petition at 13; NYNEX Opposition at 3.

<sup>419</sup> 47 U.S.C. 251(b)(2); see also First Report & Order, 11 FCC Rcd at 8453.

<sup>420</sup> 47 U.S.C. §§ 151, 152, 154(i).

<sup>421</sup> First Report & Order, 11 FCC Rcd at 8376.



The vast majority of interLATA calls are routed through the major interexchange carriers,<sup>422</sup> and the two largest interexchange carriers, at least, claim they plan to deploy portability as soon as possible.<sup>423</sup> Therefore, most interLATA calls will be queried by the major interexchange carriers, not the incumbent LECs. Moreover, as we stated in the First Report & Order, we wish to allow carriers the flexibility to choose and negotiate among themselves which carrier shall perform the database query, according to what best suits their individual networks and business plans.<sup>424</sup> Finally, we decline to address Pacific's argument that, if the terminating carrier is forced to perform queries, that would violate our fourth performance criterion.<sup>425</sup> Since we are eliminating our fourth performance criterion,<sup>426</sup> Pacific's argument is moot.

126. We clarify, however, per NYNEX's request, that if an N-1 carrier is designated to perform the query, and that N-1 carrier requires the original terminating LEC to perform the query, then the LEC may charge the N-1 carrier for performing the query, pursuant to guidelines the Commission will establish in the order addressing long-term number portability cost allocation and recovery.

### C. Implementation Schedule for Wireless Carriers

127. Background. In the First Report & Order, we required all cellular, broadband PCS, and covered SMR carriers<sup>427</sup> to have the capability of querying the appropriate number

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<sup>422</sup> Percentage of Total Toll Service Revenues for 1995: AT&T 45.8%; MCI 15.4%; Sprint 8.7%; LDDS 4.3%; all other carriers 12.2%; LECs 13.5%. Table 1.4 Statistics of Communications Common Carriers, Federal Communications Commission, 1995/1996 ed. The preceding figures actually understate the interexchange carriers' share of interLATA traffic, because the percentages are based on total toll traffic, which includes (particularly in the case of the BOCs) a large measure of intraLATA toll.

<sup>423</sup> See MCI Opposition at 19 (claiming that interexchange carriers have a powerful incentive to escape access charges); AT&T November 12, 1996 Ex Parte Filing at 1; MCI Ex Parte Presentation at 1, CC Docket No. 95-116, filed Nov. 6, 1996 (MCI November 6, 1996 Ex Parte Filing).

<sup>424</sup> First Report & Order, 11 FCC Rcd at 8384.

<sup>425</sup> See Pacific Petition at 13.

<sup>426</sup> See supra ¶ 19.

<sup>427</sup> The 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

portability database systems in order to deliver calls from their networks to ported numbers anywhere in the country by December 31, 1998.<sup>428</sup> These wireless carriers may implement the upgrades necessary to accomplish the queries themselves, or they may make arrangements with other carriers to provide that capability.<sup>429</sup> In addition, wireless carriers subject to our rules are required to offer service provider portability throughout their networks, including the ability to support roaming, by June 30, 1999.<sup>430</sup> In the First Report & Order, we delegated authority to the Chief, Wireless Telecommunications Bureau, to waive or stay any of the dates in the implementation schedule for a period not to exceed nine months, and to establish reporting requirements in order to monitor the progress of wireless carriers.<sup>431</sup> In the event a carrier subject to these requirements is unable to meet the Commission's deadlines for implementing a long-term number portability method, it must file a petition to extend the time by which implementation must be completed with the Commission at least 60 days in advance of the deadline, along with an explanation of the circumstances and the need for such an extension.<sup>432</sup>

128. Pleadings. Several parties urge the Commission to modify the number portability implementation schedule set forth in the First Report & Order for CMRS providers. AirTouch and GTE reason that the wireless industry is behind the wireline industry in considering how to implement number portability and, moreover, faces special technical challenges.<sup>433</sup> These parties assert that wireless carriers need to resolve various technical issues before implementing number portability, including establishing the standard for the intelligent wireless network, and redesigning network protocols and support systems.<sup>434</sup> GTE urges the Commission to allow enough time for wireless carriers to test thoroughly number portability to ensure network integrity.<sup>435</sup>

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telecommunications services. This term does not include local SMR licensees offering mainly dispatch services to specialized customers in a non-cellular system 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. § 52.1(c). We note that several parties have petitioned for reconsideration of the definition of "covered SMR." We will address this issue in a subsequent order.

<sup>428</sup> First Report & Order, 11 FCC Rcd at 8439; 47 C.F.R. § 52.11(b).

<sup>429</sup> First Report & Order, 11 FCC Rcd at 8439-40.

<sup>430</sup> Id. at 8440; 47 C.F.R. § 52.11(a).

<sup>431</sup> First Report & Order, 11 FCC Rcd at 8440-41; 47 C.F.R. § 52.11(c), (e).

<sup>432</sup> First Report & Order, 11 FCC Rcd at 8441; 47 C.F.R. § 52.11(d).

<sup>433</sup> AirTouch Petition at 14-16; GTE Petition at 21-23; see also CTIA Petition at 5-7; SBC Petition at 12-13.

<sup>434</sup> AirTouch Petition at 15-16; GTE Petition at 22-23.

<sup>435</sup> GTE Petition at 22-24.

129. AirTouch, CTIA, and SBC argue that the Commission should not limit to nine months the authority of the Chief, Wireless Telecommunications Bureau, to grant extensions of the schedule set forth the First Report & Order.<sup>436</sup> CTIA argues that the nine-month period within which the Chief, Wireless Telecommunications Bureau, may waive or stay the schedule is arbitrary because it is unsupported by the record, is not predicated on any analysis of industry's ability to comply with the schedule, and may not allow industry and the Wireless Telecommunications Bureau enough time to determine CMRS carriers' ability to comply.<sup>437</sup> GTE urges the Commission to repeal the deadlines set forth in the First Report & Order altogether and instead establish target dates.<sup>438</sup>

130. BANM and CTIA claim that the schedule for CMRS providers is stricter than that for wireline service providers because CMRS providers must provide number portability in areas outside the top 100 MSAs, even if it is not requested.<sup>439</sup> CTIA urges the Commission to clarify whether, in addition to supporting nationwide roaming of CMRS customers with ported numbers, CMRS providers must implement full number portability in every market throughout the nation, or in only the largest 100 markets and any market where number portability is requested, by June 30, 1999.<sup>440</sup> If the Commission requires full number portability in all markets, CTIA argues, then the wireless schedule should be conformed to the wireline schedule so that CMRS providers need only provide full number portability in the largest 100 MSAs by December 31, 1998, and, thereafter, in smaller markets upon creation of a regional database that includes both LEC and CMRS numbers.<sup>441</sup>

131. CTIA also reasons that, if a LEC does not provide number portability in an area, a regional database for that area may not exist, and the CMRS providers would have to establish their own individual databases.<sup>442</sup> BANM also points out that the regional databases that CMRS providers need to access may not all be in place, given the lack of any deadline for establishment of the databases and the possibility of statewide databases.<sup>443</sup> In addition, argues BANM, because

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<sup>436</sup> AirTouch Petition at 13-14; CTIA Petition at 7-8; SBC Petition at 13-14. See also RCA Reply at 2-3; RTG Comments at 3-5.

<sup>437</sup> CTIA Petition at 5-7. See also RCA Reply at 5; RTG Comments at 5.

<sup>438</sup> GTE Petition at 24.

<sup>439</sup> BANM Petition at 8; CTIA Petition at 2. See also RCA Reply at 2-3; RTG Comments at 3-4.

<sup>440</sup> CTIA Petition at 3. See also RCA Reply at 2-3; RTG Comments at 3-5.

<sup>441</sup> CTIA Petition at 3-5.

<sup>442</sup> Id. at 3-4.

<sup>443</sup> BANM Petition at 9.

many CMRS providers' service areas are not defined by MSAs, they often will not match the landline database regions.<sup>444</sup>

132. BANM urges the Commission to defer wireless number portability until wireline number portability is complete, and the record shows it is necessary.<sup>445</sup> BANM claims that the 1996 Act's explicit exclusion of CMRS providers from the definition of a LEC, and standards set forth in earlier Commission orders, require the Commission to demonstrate a "clear cut need" before regulating CMRS providers, and that the Commission did not do so.<sup>446</sup> According to BANM, the record does not support the Commission's conclusion that CMRS number portability rules are competitively important or are justified on other grounds.<sup>447</sup> If the Commission decides to maintain its rules, however, BANM argues, then no CMRS provider should have to provide number portability until June 30, 1999, and then only (1) six months after receiving a request, and (2) after regional or statewide databases are available.<sup>448</sup>

133. MCI opposes what it characterizes as delay tactics by the CMRS providers and observes that their arguments are reminiscent of the arguments advanced by portability opponents in the 800 portability proceeding.<sup>449</sup> MCI argues that they do not provide a compelling reason for the Commission to retreat from its CMRS number portability requirements.<sup>450</sup> MCI argues that the monitoring and reporting mechanism established during the implementation of 800 number portability worked well, and the similar mechanism established for CMRS number portability will provide an opportunity for the industry to address implementation issues quickly.<sup>451</sup> MCI opposes petitioners' requests for delay pending further study, establishing targets rather than deadlines, and granting authority to the Chief of the Wireless Telecommunications Bureau to defer indefinitely or

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<sup>444</sup> Id.

<sup>445</sup> Id. at 10.

<sup>446</sup> Id. at 4 (citing Petition of the Connecticut Department of Public Utility Control to Retain Regulatory Control of the Rates of Wholesale Cellular Service Providers in the State of Connecticut, Report and Order, 10 FCC Rcd 7025, 7031 (1995) (CT DPUC Petition)).

<sup>447</sup> BANM Petition at 5-6.

<sup>448</sup> Id. at 10.

<sup>449</sup> MCI Opposition at 20.

<sup>450</sup> Id.

<sup>451</sup> Id. at 20-21.

suspend the portability requirements.<sup>452</sup> TRA urges the Commission to resist efforts by CMRS providers to limit number portability in wireless markets.<sup>453</sup>

134. Discussion. We decline at this time to alter the implementation schedule imposed by the First Report & Order for wireless carriers. We recognize that the wireless industry has lagged behind the wireline industry in developing a method for providing number portability, and that the wireless industry faces special technical challenges in doing so. Nonetheless, we find that the schedule for implementation of number portability by cellular, broadband PCS, and covered SMR providers is reasonable and takes into account the current stage of development for wireless number portability. We find that a period of nearly two years is sufficient for wireless carriers either to implement the upgrades necessary to perform the database queries themselves, or to make arrangements with other carriers to provide that capability. We also believe it is reasonable to expect wireless carriers to implement long-term service provider portability, including roaming, in their networks in a period of more than two years. We continue to believe the monitoring and reporting mechanism established in the First Report & Order will ensure that wireless carriers will continue to work together to find solutions to technical problems associated with number portability, and to address quickly any implementation issues which may arise. As we provided in the First Report & Order, in the event a wireless carrier is unable to meet the Commission's deadlines for implementing a long-term number portability method, it may file a request for extension with the Commission.<sup>454</sup> If it becomes apparent that the wireless industry is not progressing as quickly as necessary to meet the deadlines for providing querying capability and service provider portability, the Wireless Telecommunications Bureau Chief may waive or stay the implementation dates for a period of up to nine months.<sup>455</sup> We find that enough flexibility has been incorporated into the implementation schedule for wireless carriers, and that no modification is needed.

135. We also decline to establish target dates in lieu of actual deadlines or to defer imposing number portability requirements on wireless carriers, as some petitioners have suggested. As we stated in the First Report & Order, requiring cellular, broadband PCS, and covered SMR providers to provide number portability is in the public interest because these entities are expected to compete in the local exchange market, and number portability will enhance competition among wireless service providers, as well as between wireless service providers and wireline service providers.<sup>456</sup> Service provider portability offered by wireless service providers will enable customers to switch carriers more readily and encourage the

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<sup>452</sup> Id. at 21.

<sup>453</sup> TRA Comments at 14.

<sup>454</sup> First Report & Order, 11 FCC Rcd at 8441.

<sup>455</sup> Id. at 8440-41.

<sup>456</sup> Id. at 8433.

successful entry of new service providers into wireless markets.<sup>457</sup> Removing barriers, such as the requirement that customers must change phone numbers when changing providers, is likely to foster the development of new services and create incentives for carriers to lower prices and costs. In light of these positive competitive results that are likely to be produced, we continue to believe that number portability should be provided by wireless carriers with as little delay as possible. Setting specific deadlines, rather than amorphous "target dates," is consistent with this goal.

136. In response to requests by CTIA and BANM, we agree that some clarification of our requirements under the schedule is necessary. Contrary to the petitioners' claims, the schedule for CMRS providers is not stricter than the schedule for wireline service providers. Some carriers apparently misunderstood our First Report & Order to require wireless providers to provide number portability in areas outside the largest 100 MSAs, even if number portability is not requested in those areas. We require cellular, broadband PCS, and covered SMR providers to have the capability to query the number portability databases nationwide, or arrange with other carriers to perform the queries, by December 31, 1998, in order to route calls from wireless customers to customers who have ported their numbers. We clarify that, by June 30, 1999, CMRS providers must (1) offer service provider portability in the 100 largest MSAs, and (2) be able to support nationwide roaming. Although we have not provided a specific phased deployment schedule for CMRS providers as we have for wireline carriers, we expect that CMRS providers will phase in implementation in selected switches over a number of months prior to the June 30, 1999, deadline for deployment.

137. In addition, consistent with our modification to the wireline schedule deployment requirements, CMRS carriers need only deploy local number portability by this deadline in the 100 largest MSAs in which they have received a specific request at least nine months before the deadline (*i.e.*, a request has been received by September 30, 1998).<sup>458</sup> As in the wireline context, any wireline carrier that is certified, or has applied for certification, to provide local exchange service in the relevant state, or any licensed CMRS provider, must be allowed to make a request for deployment; and cellular, broadband PCS, and covered SMR providers must make available lists of their switches for which deployment has and has not been requested.<sup>459</sup> Additional switches within the 100 largest MSAs (*i.e.*, those that are not requested initially) must be deployed upon request, after the June 30, 1999, deadline for wireless carriers, within the same time frames that we adopt here for wireline carriers, unless requesting carriers specify a later

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<sup>457</sup> Id. at 8433-34.

<sup>458</sup> See supra ¶ 60. As explained above, for an MSA in the 100 largest MSAs, LECs need only provide number portability capability according to the implementation schedule, as modified in this First Order on Reconsideration, in those switches that provide service in that MSA for which carriers have, at least nine months before the deployment deadline, specifically requested deployment. Id.

<sup>459</sup> See supra ¶ 60.

date.<sup>460</sup> The time frames for deployment of additional wireless switches are as follows: (1) Equipped Remote Switches within 30 days; (2) Hardware Capable Switches within 60 days; (3) Capable Switches Requiring Hardware within 180 days; and (4) Non-Capable Switches within 180 days.<sup>461</sup> As in the wireline context, carriers may submit requests for deployment of number portability in areas outside the 100 largest MSAs at any time. CMRS providers must provide number portability in those smaller areas within six months after receiving a request or within six months after June 30, 1999, whichever is later. As a result, the schedule for wireless providers is comparable to the one for wireline carriers in terms of timing.

138. We add one further requirement for any procedures that limit deployment in such fashion to requested wireless switches. The existing state procedures for limiting deployment of number portability capabilities within one of the 100 largest MSAs to requested wireline switches generally appear to require carriers to specify which switches located within the MSA the carrier wishes to be deployed.<sup>462</sup> We do not wish to disturb a number of state decisions concluding that it is preferable to limit the selection of wireline switches for deployment to switches located within the MSA rather than switches serving subscribers within the MSA. We recognize, however, that the wireless switches that provide service to areas within a particular MSA are more likely to be located outside the perimeter of that MSA than the wireline switches that provide service to areas within the MSA. We conclude, therefore, that, when limiting deployment within one of the 100 largest MSAs to particular requested wireless switches, carriers must be able to request deployment in any wireless switch that provides service to any area within that MSA, even if the wireless switch is located outside of the perimeter of that MSA, or outside any of the 100 largest MSAs.

139. By June 30, 1999, we expect that regional or statewide local number portability databases containing both wireless and wireline numbers will be widely available; therefore, we do not anticipate a need to condition the requirement that number portability be required on request after June 30, 1999, upon the existence of regional or statewide databases. If there is a delay in the development of the databases, the Wireless Telecommunications Bureau Chief has been delegated authority to waive or stay the deadline for CMRS providers.<sup>463</sup>

140. In its petition for reconsideration, BANM questions the Commission's authority and its basis in the record for imposing number portability obligations upon CMRS providers.<sup>464</sup> Specifically, BANM claims that we have previously held that our regulatory authority over CMRS

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<sup>460</sup> See *supra* ¶ 65.

<sup>461</sup> See *supra* ¶¶ 52, 66.

<sup>462</sup> See, e.g., Ameritech Reply at 3-5.

<sup>463</sup> *Id.* at 8440-41.

<sup>464</sup> BANM Petition at 3-7.

providers is limited to instances in which there is a "clear cut need" for doing so, and that regulation of number portability is not clearly necessary in the CMRS market.<sup>465</sup> BANM advanced essentially the same argument previously in this proceeding, and its reconsideration petition raises no new issues. Accordingly, we affirm our prior rejection of this argument. As we stated in the First Report & Order, the CT DPUC Petition does not limit our authority to require CMRS providers to provide number portability to other CMRS or wireline carriers because that proceeding was restricted to the question of state authority to regulate rates of CMRS providers.<sup>466</sup> The CT DPUC Petition did not reach the question of the Commission's authority to impose number portability requirements on CMRS providers. We affirm our determination that we have authority to impose number portability obligations on CMRS providers based on our findings that this requirement will result in pro-competitive effects, and furthers our CMRS regulatory policy of establishing moderate, symmetrical regulation of all services.<sup>467</sup>

141. We recognize that the 1996 Act excludes CMRS providers from the definition of a LEC, thereby excluding them from the Section 251(b) obligation to provide number portability, unless the Commission concludes that CMRS providers should be included in the definition of local exchange carrier.<sup>468</sup> In our Local Competition Order, we declined to find that CMRS providers should be treated as LECs for purposes of other LEC obligations under Section 251.<sup>469</sup> As we explained in the First Report & Order, however, we possess independent authority under Sections 1, 2, 4(i), and 332 of the Communications Act of 1934, as amended, to require CMRS providers to provide number portability as we deem appropriate. These provisions of the Communications Act authorize us to ensure that the portability of telephone numbers within the United States is handled efficiently and fairly, as part of our obligation to ensure that "a rapid, efficient, Nation-wide, and world-wide wire and radio communication service" is available.<sup>470</sup> Section 1 also establishes a significant federal interest in ensuring the efficient and uniform treatment of numbering, because such a system is essential to the efficient delivery of interstate and international telecommunications.<sup>471</sup> In addition, Sections 2 and 332(c)(1) of the Act give the Commission authority to regulate commercial mobile service providers as common carriers,

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<sup>465</sup> First Report & Order, 11 FCC Rcd at 8432 (citing BANM Further Comments on Notice at 3 n.3).

<sup>466</sup> Petition of CT DPUC, Order, 10 FCC Rcd at 7025, 7032-33.

<sup>467</sup> See id. at 7033-34 (concluding that Omnibus Budget Reconciliation Act of 1993 validates the Commission's CMRS regulatory approach).

<sup>468</sup> See 47 U.S.C. § 153(26).

<sup>469</sup> Local Competition Order, 11 FCC Rcd at 15,995-96.

<sup>470</sup> 47 U.S.C. § 151.

<sup>471</sup> See Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech - Illinois, Declaratory Ruling and Order, 10 FCC Rcd 4596, 4602 (1995).



except for the provisions of Title II that we specify are inapplicable.<sup>472</sup> We found in the First Report & Order that implementation of long-term service provider portability by CMRS carriers will have an impact on the efficient use and uniform administration of the numbering resource. Section 4(i), moreover, grants the Commission authority to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with [the Communications Act of 1934, as amended], as may be necessary in the execution of its functions."<sup>473</sup> We conclude that the public interest is served by requiring the provision of number portability by CMRS providers because number portability will promote competition between providers of local telephone services and thereby promote competition between providers of interstate access services.<sup>474</sup>

142. BANM has not introduced any new evidence or arguments that cause us to reconsider our conclusion in the First Report & Order that provision of number portability by CMRS carriers is important to competition. Previously in this proceeding, several PCS providers attested to the importance of number portability in fostering competition in the CMRS industry.<sup>475</sup> The record in this proceeding contains convincing evidence that service provider portability would enhance competition between wireless service providers, as well as between wireless and wireline service providers, by removing the requirement that a customer must change numbers when changing service providers. We also reject BANM's argument that we failed to make a determination on the technical feasibility of wireless number portability.<sup>476</sup> The record in this proceeding supports our prior conclusion that cellular, broadband PCS, and covered SMR providers will be able to resolve any technical issues necessary to implement number portability.<sup>477</sup>

#### **D. Deferral of Implementation Until Resolution of Cost Recovery Issues**

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<sup>472</sup> 47 U.S.C. §§ 152, 332. Section 332 provides that "[a] person engaged in the provision of a service that is a commercial mobile service shall, insofar as such person is so engaged, be treated as a common carrier for purposes of this Act, except for such provisions of title II as the Commission may specify by regulation as inapplicable to that service or person." 47 U.S.C. § 332(c)(1)(A).

<sup>473</sup> 47 U.S.C. § 154(i).

<sup>474</sup> See Notice, 10 FCC Rcd at 12362; Expanded Interconnection with Local Telephone Company Facilities, Memorandum Opinion and Order, 9 FCC Rcd 5154, 5158-59 (1994).

<sup>475</sup> First Report & Order, 11 FCC Rcd at 8426-27 (describing statements by Omnipoint, PCIA, and PCS Primeco supporting number portability for CMRS industry).

<sup>476</sup> See BANM Petition at 7-8.

<sup>477</sup> First Report & Order, 11 FCC Rcd at 8438 (citing pleadings of Competitive Carriers, Pacific, and PCIA, and INC Report).

143. Background. Section 251(e)(2) of the Act requires that the costs of establishing number portability "be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."<sup>478</sup> In conjunction with the First Report & Order, we adopted a Further Notice of Proposed Rulemaking (Further Notice) that seeks comment on appropriate cost recovery mechanisms for long-term number portability. We have not yet issued the Second Report & Order addressing these issues, although we intend to do so in the near future.

144. Pleadings. U S West argues that, as a matter of law and policy, the Commission must put in place a mechanism for full cost recovery prior to requiring any carrier to implement number portability.<sup>479</sup> According to U S West, it is not enough for the Commission to establish a cost recovery mechanism before carriers actually commence the provision of long-term number portability, because carriers will begin incurring costs now to meet the implementation schedule.<sup>480</sup> U S West asserts that carriers have a statutory and constitutional right to recover their "full" costs of number portability in a timely manner, because the number portability requirement is a federal mandate.<sup>481</sup> Furthermore, U S West claims that deferring the establishment of cost recovery to a future proceeding will cause "distorting effects" on investment decisions, the use of number portability facilities, and the relationships among providers and between providers and their customers.<sup>482</sup> U S West also asserts that deferring cost-recovery issues is inconsistent with the Commission's own precedent, because the Commission recently made its E911 requirements for wireless carriers contingent upon adoption of a cost recovery mechanism.<sup>483</sup> JSI makes similar arguments with respect to rural LECs.<sup>484</sup>

145. Sprint argues that delaying the implementation of a long-term number portability solution until a cost recovery mechanism is in place is unwarranted because there is no basis for concluding that cost recovery issues will not be resolved before LECs must deploy long-term number portability in Phase I markets.<sup>485</sup> Moreover, claims Sprint, any cost recovery method adopted by the Commission may allow carriers to recover the reasonable costs of implementation

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<sup>478</sup> 47 U.S.C. § 251(e)(2).

<sup>479</sup> U S West Petition at 16-19.

<sup>480</sup> U S West Reply at 6; see also U S West January 16, 1997 Ex Parte Filing at 8 (estimating that the cost of deploying number portability in its top ten MSAs will be approximately \$310 million).

<sup>481</sup> U S West January 16, 1997 Ex Parte Filing at 16; U S West Reply at 8.

<sup>482</sup> U S West Petition at 17.

<sup>483</sup> U S West Reply at 6-7 & n.15.

<sup>484</sup> JSI Petition at 10 (arguing that it is unwise and unfair to mandate rural LEC implementation of long-term number portability before settling long term cost recovery issues).

<sup>485</sup> Sprint Opposition at 12-13; see also NEXTLINK Opposition at 6.

that were already incurred.<sup>486</sup> ALTS points out that U S West was subject to an equal access requirement long before the Equal Access and Network Reconfiguration (EANR) access element was approved.<sup>487</sup> ALTS also argues that U S West's constitutional claim is premature, because U S West cannot show that it will necessarily fail to recover a constitutionally mandated amount.<sup>488</sup>

146. Discussion. We are not persuaded by the requests of U S West and JSI that LECs should be permitted to suspend ongoing preparations to meet the deployment schedule until the Commission has acted on the issues raised in the Further Notice in this proceeding that involve the LECs' recovery of their costs of providing number portability. As stated above, we plan to adopt a Second Report & Order in this proceeding in the near future implementing the statutory provision that expenses incurred as a result of number portability be "borne by all telecommunications carriers on a competitively neutral basis."<sup>489</sup> U S West appears to suggest that it necessarily will be barred from assessing charges in the future that are intended to recover costs that it incurs in connection with the implementation of long-term number portability prior to our resolution of the cost recovery issues posed in the Further Notice. That speculative assertion is unfounded. We anticipate that the Second Report & Order will be adopted well before a LEC is required by the deployment schedule to commence the provision of long-term number portability to the public in the Phase I markets. Moreover, we expect that LECs will maintain records of the costs that they incur in implementing the requirements of the First Report & Order in this proceeding. Those records will enable the LECs to comply with the decisions we reach in the Second Report & Order with respect to their recovery of long-term number portability costs. The Act does not mandate that we complete action on cost recovery issues prior to the LECs' commencement of the planning and other steps required to deploy long-term number portability consistent with the schedule adopted in the First Report & Order. Indeed, permitting carriers to suspend their ongoing preparations to meet the deployment schedule for number portability until we have adopted specific cost recovery rules may be inconsistent with the statutory mandate that carriers must provide number portability "to the extent technically feasible."<sup>490</sup>

147. The fact that we made the implementation of E911 contingent on the adoption of cost recovery mechanisms by state and local governments does not require us to defer implementation of number portability until a federal cost recovery mechanism is adopted.<sup>491</sup> In

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<sup>486</sup> Sprint Opposition at 12-13.

<sup>487</sup> ALTS Opposition at 6 n.7.

<sup>488</sup> Id.

<sup>489</sup> 47 U.S.C. § 251(e)(2).

<sup>490</sup> 47 U.S.C. § 251(b)(2).

<sup>491</sup> In the E911 proceeding, the Commission made implementation of E911 service contingent upon the adoption of a cost recovery mechanism (in that case, by a state or local government), but declined to prescribe a

other instances, we have made cost recovery determinations after LECs had incurred costs in compliance with our orders and have permitted carriers to recover such previously-incurred costs as part of a cost-recovery scheme.<sup>492</sup>

148. We also conclude that U S West has not described, much less documented, the specific "distorting effects" on investment decisions, the use of number portability facilities, and the relationships among providers and between providers and their customers that it claims will ensue from our brief deferral of long-term number portability cost recovery issues.<sup>493</sup> We further agree with ALTS that U S West's constitutional claim is premature,<sup>494</sup> because it is impossible for any party to establish that a cost recovery mechanism that has not yet been adopted is unconstitutional.<sup>495</sup> Finally, because the arguments advanced by JSI on behalf of rural carriers with respect to these cost recovery issues repeat the points asserted by U S West, we reach the same conclusions.<sup>496</sup>

#### IV. ORDERING CLAUSES

149. Accordingly, IT IS ORDERED that, pursuant to the authority contained in Sections 1, 4(i), 4(j), 201-205, 218, 251, and 332 of the Communications Act as amended, 47 U.S.C. §§ 151, 154(i), 154(j), 201-205, 218, 251 and 332, Part 52 of the Commission's rules, 47 C.F.R. § 52, is AMENDED as set forth in Appendix B hereto.

150. IT IS FURTHER ORDERED that the Petitions for Reconsideration and/or Clarification ARE GRANTED to the extent indicated herein and otherwise ARE DENIED.

151. IT IS FURTHER ORDERED that the policies, rules, and requirements set forth herein ARE ADOPTED, effective 30 days after publication of a summary of this First Reconsideration Order in the Federal Register, except for collections of information subject to

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particular cost recovery methodology. Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 94-102, at ¶¶ 89-90 (rel. July 26, 1996) (E911 Order).

<sup>492</sup> See, e.g., Provision of Access for 800 Service, Second Report & Order, 8 FCC Rcd 907, 911 (1993) (stating that LECs are allowed to treat as exogenous the reasonable costs they incurred specifically for the implementation and operation of the basic 800 data base service required by prior Commission orders).

<sup>493</sup> See U S West Petition at 17.

<sup>494</sup> ALTS Opposition at 6 n.7.

<sup>495</sup> See, e.g., Illinois Bell Co. v. FCC, 911 F.2d 776 (D.C. Cir. 1990) (claim that Commission's rate base policies were confiscatory is not ripe prior to a Commission determination regarding the rate of return to be applied to that rate base).

<sup>496</sup> See, e.g., JSI Petition at 10.

approval by the Office of Management and Budget (OMB), which are effective 150 days following publication in the Federal Register.

152. IT IS FURTHER ORDERED that the Motion to Accept Late-Filed Comments of Telecommunications Resellers Association and the Motion to Accept Late-Filed Reply Comments of U S West ARE GRANTED.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton  
Acting Secretary

**APPENDIX A - LIST OF PARTIES****Petitions for Reconsideration/Clarification, filed 8/26/96:**

AirTouch Communications, Inc. [AirTouch]  
American Communications Services, Inc. [ACSI]  
American Mobile Telecommunications, Inc. [AMTA]  
Bell Atlantic  
Bell Atlantic NYNEX Mobile, Inc. [BANM]  
BellSouth Corporation and BellSouth Telecommunications, Inc. [BellSouth]  
Cellular Telecommunications Industry Association [CTIA]  
Cincinnati Bell Telephone Company [CBT]  
GTE Service Corporation [GTE]  
John Staurulakis, Inc. [JSI]  
KMC Telecom, Inc. [KMC]  
MCI Telecommunications Corporation and MCIMetro [MCI]  
National Exchange Carrier Association, Inc. [NECA]  
National Telephone Cooperative Association and Organization for the  
Promotion and Advancement of Small Telecommunications Companies  
[NTCA/OPASTCO]  
Nextel Communications, Inc. [Nextel]  
NEXTLINK Communications LLC [NEXTLINK]  
NYNEX Telephone Companies [NYNEX]  
Pacific Telesis Group, Pacific Bell, Nevada Bell, Pacific Bell Mobile Services [Pacific]  
SBC Communications Inc. [SBC]  
United States Telephone Association [USTA]  
U S West, Inc. [U S West]

**Petitions for Reconsideration/Clarification, late-filed 8/30/96:**

Small Business in Telecommunications, Inc. [SBT]

**Oppositions/Comments to Petitions for Reconsideration, filed 9/27/96:**

ALLTEL Telephone Services Corporation [ALLTEL]  
AT&T Corp. [AT&T]  
Association for Local Telecommunications Services [ALTS]  
Bell Atlantic  
BellSouth  
CTIA  
CBT

GTE  
IntelCom Group (USA), Inc. [ICG]  
MCI  
NEXTLINK  
NYNEX  
RAM Mobile Data USA Limited Partnership [RMD]  
Rural Telecommunications Group [RTG]  
Pacific  
Sprint Corporation [Sprint]  
Time Warner Communications Holdings, Inc. [Time Warner]  
USTA

**Oppositions/Comments to Petitions for Reconsideration, late-filed 9/30/96:**

Telecommunications Resellers Association [TRA]

**Replies, filed 10/7/96:**

Ameritech  
NEXTLINK  
Teleport Communications Group [TCG]  
Rural Cellular Association [RCA]  
NTCA/OPASTCO

**Replies, filed 10/10/96:**

ACSI  
Bell Atlantic  
BellSouth  
CBT  
GTE  
MCI  
NYNEX  
Pacific  
SBC  
USTA  
U S West

**APPENDIX B - FINAL RULES****AMENDMENTS TO THE CODE OF FEDERAL REGULATIONS**

Part 52 of Title 47 of the Code of Federal Regulations is amended as follows:

**PART 52 - NUMBERING**

1. Section 52.23 is amended by revising paragraphs (a)(4) through (a)(8), removing paragraph (a)(9), and revising paragraphs (b) and (g) to read as follows:

**§ 52.23                      Deployment of long-term database methods for number portability by LECs.**

(a)     \* \* \*

(4) Does not result in unreasonable degradation in service quality or network reliability when implemented;

(5) Does not result in any degradation in service quality or network reliability when customers switch carriers;

(6) Does not result in a carrier having a proprietary interest;

(7) Is able to migrate to location and service portability; and

(8) Has no significant adverse impact outside the areas where number portability is deployed.

(b)(1) All LECs must provide a long-term database method for number portability in the 100 largest Metropolitan Statistical Areas (MSAs) by December 31, 1998, in accordance with the deployment schedule set forth in the Appendix to this part, in switches for which another carrier has made a specific request for the provision of number portability, subject to paragraph (b)(2) of this section.

(b)(2) Any procedure to identify and request switches for deployment of number portability must comply with the following criteria:

(i) Any wireline carrier that is certified (or has applied for certification) to provide local exchange service in a state, or any licensed CMRS provider, must be permitted to make a request for deployment of number portability in that state;



(ii) Carriers must submit requests for deployment at least nine months before the deployment deadline for the MSA;

(iii) A LEC must make available upon request to any interested parties a list of its switches for which number portability has been requested and a list of its switches for which number portability has not been requested; and

(iv) After the deadline for deployment of number portability in an MSA in the 100 largest MSAs, according to the deployment schedule set forth in the Appendix to this part, a LEC must deploy number portability in that MSA in additional switches upon request within the following time frames:

(A) For remote switches supported by a host switch equipped for portability ("Equipped Remote Switches"), within 30 days;

(B) For switches that require software but not hardware changes to provide portability ("Hardware Capable Switches"), within 60 days;

(C) For switches that require hardware changes to provide portability ("Capable Switches Requiring Hardware"), within 180 days; and

(D) For switches not capable of portability that must be replaced ("Non-Capable Switches"), within 180 days.

\* \* \* \* \*

(g) Carriers that are members of the Illinois Local Number Portability Workshop must conduct a field test of any technically feasible long-term database method for number portability in the Chicago, Illinois, area. The carriers participating in the test must jointly file with the Common Carrier Bureau a report of their findings within 30 days following completion of the test. The Chief, Common Carrier Bureau, shall monitor developments during the field test, and may adjust the field test completion deadline as necessary.

2. Section 52.31 is amended by revising paragraph (a) to read as follows:

**§ 52.31                      Deployment of long-term database methods for number portability by CMRS Providers.**

(a) By June 30, 1999, all cellular, broadband PCS, and covered SMR providers must provide a long-term database method for number portability, in the MSAs identified in the Appendix to this part in compliance with the performance criteria set forth in section 52.23(a), in switches for which another carrier has made a specific request for the provision of number portability, subject to paragraph (a)(1) of this section.

(1) Any procedure to identify and request switches for deployment of number portability must comply with the following criteria:

(i) Any wireline carrier that is certified (or has applied for certification) to provide local exchange service in a state, or any licensed CMRS provider, must be permitted to make a request for deployment of number portability in that state;

(ii) For the MSAs identified in the Appendix to this part, carriers must submit requests for deployment by September 30, 1998;

(iii) A cellular, broadband PCS, or covered SMR provider must make available upon request to any interested parties a list of its switches for which number portability has been requested and a list of its switches for which number portability has not been requested;

(iv) After June 30, 1999, a cellular, broadband PCS, or covered SMR provider must deploy additional switches serving the MSAs identified in the Appendix to this part upon request within the following time frames:

(A) For remote switches supported by a host switch equipped for portability ("Equipped Remote Switches"), within 30 days;

(B) For switches that require software but not hardware changes to provide portability ("Hardware Capable Switches"), within 60 days;

(C) For switches that require hardware changes to provide portability ("Capable Switches Requiring Hardware"), within 180 days; and

(D) For switches not capable of portability that must be replaced ("Non-Capable Switches"), within 180 days.

(v) Carriers must be able to request deployment in any wireless switch that serves any area within that MSA, even if the wireless switch is outside that MSA, or outside any of the MSAs identified in the Appendix to this part.

(2) By June 30, 1999, all cellular, broadband PCS, and covered SMR providers must be able to support roaming nationwide.

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3. The Appendix to Part 52 is revised to read as follows:

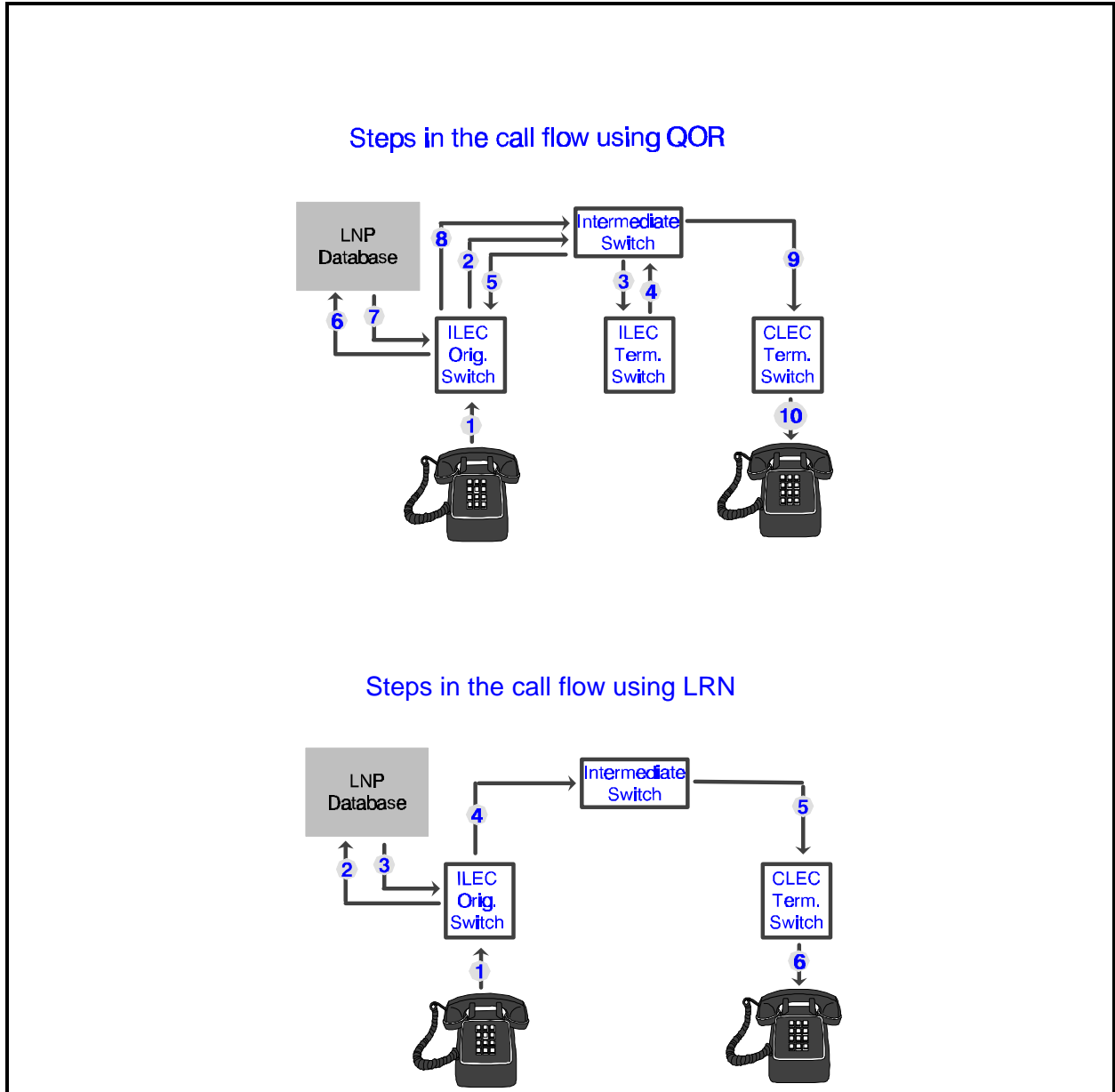
**APPENDIX to Part 52 - Deployment Schedule  
for Long-Term Database Methods for Local Number Portability**

Implementation must be completed by the carriers in the relevant MSAs during the periods specified below:

Phase I -- 10/1/97-3/31/98	Phase II -- 1/1/98-5/15/98	Phase III -- 4/1/98-6/30/98
Chicago, IL            3	Detroit, MI            6 Cleveland, OH        20	Indianapolis, IN      34 Milwaukee, WI        35 Columbus, OH        38
Philadelphia, PA      4	Washington, DC       5 Baltimore, MD        18	Pittsburgh, PA        19 Newark, NJ            25 Norfolk, VA           32
Atlanta, GA            8	Miami, FL             24 Fort Lauderdale, FL   39 Orlando, FL           40	New Orleans, LA      41 Charlotte, NC         43 Greensboro, NC       48 Nashville, TN         51
		Las Vegas, NV        50
	Cincinnati, OH       30	
	Tampa, FL            23	
New York, NY          2	Boston, MA           9	Nassau, NY            13 Buffalo, NY            44
Los Angeles, CA      1	Riverside, CA        10 San Diego, CA        14	Orange Co, CA        15 Oakland, CA           21 San Francisco, CA    29
		Rochester, NY        49
Houston, TX            7	Dallas, TX            11 St. Louis, MO        16	Kansas City, KS      28 Fort Worth, TX        33
		Hartford, CT         46
Minneapolis, MN      12	Phoenix, AZ           17 Seattle, WA            22	Denver, CO            26 Portland, OR           27

Phase IV -- 7/1/98-9/30/98		Phase V -- 10/1/98-12/31/98	
Grand Rapids, MI	56	Toledo, OH	81
Dayton, OH	61	Youngstown, OH	85
Akron, OH	73	Ann Arbor, MI	95
Gary, IN	80	Fort Wayne, IN	100
Bergen, NJ	42	Scranton, PA	78
Middlesex, NJ	52	Allentown, PA	82
Monmouth, NJ	54	Harrisburg, PA	83
Richmond, VA	63	Jersey City, NJ	88
		Wilmington, DE	89
Memphis, TN	53	Birmingham, AL	67
Louisville, KY	57	Knoxville, KY	79
Jacksonville, FL	58	Baton Rouge, LA	87
Raleigh, NC	59	Charleston, SC	92
West Palm Beach, FL	62	Sarasota, FL	93
Greenville, SC	66	Mobile, AL	96
		Columbia, SC	98
Honolulu, HI	65	Tulsa, OK	70
Providence, RI	47	Syracuse, NY	69
Albany, NY	64	Springfield, MA	86
San Jose, CA	31	Ventura, CA	72
Sacramento, CA	36	Bakersfield, CA	84
Fresno, CA	68	Stockton, CA	94
		Vallejo, CA	99
San Antonio, TX	37	El Paso, TX	74
Oklahoma City, OK	55	Little Rock, AR	90
Austin, TX	60	Wichita, KS	97
		New Haven, CT	91
Salt Lake City, UT	45	Omaha, NE	75
Tucson, AZ	71	Albuquerque, NM	76
		Tacoma, WA	77

APPENDIX C - DESCRIPTION OF NUMBER PORTABILITY METHODS



## 1. Location Routing Number (LRN)

Under AT&T's LRN proposal, a carrier seeking to route a call to a ported number queries or "dips" an external routing database, obtains a ten-digit location routing number for the ported number, and uses that location routing number to route the call to the end office switch which serves the called party.<sup>1</sup> The carrier dipping the database may be the originating carrier, the terminating carrier, or the N-1 carrier (the carrier prior to the terminating carrier). Under the LRN method, a unique location routing number is assigned to each switch. For example, a local service provider receiving a seven-digit local call, such as 887-1234, would examine the dialed number to determine if the NPA-NXX is a portable code.<sup>2</sup> If so, the seven-digit dialed number would be prefixed with the NPA and a ten-digit query (e.g., 679-887-1234) would be launched to the routing database. The routing database then would return the LRN (e.g., 679-267-0000) associated with the dialed number which the local service provider uses to route the call to the appropriate switch. The local service provider then would formulate an SS7 call set-up message with a generic address parameter, along with the forward call indicator set to indicate that the query has been performed, and route the call to the local service provider's tandem for forwarding.<sup>3</sup>

LRN is a "single-number solution" because only one number (i.e., the number dialed by the calling party) is used to identify the customer in the serving switch.<sup>4</sup> Each switch has one network address -- the location routing number. The record and the Industry Numbering Committee (INC) indicate that LRN supports custom local area signalling services (CLASS), emergency services, and operator and directory services, but may result in some additional post-dial delay.<sup>5</sup> LRN can support location and service as well as service provider portability.<sup>6</sup> Finally, LRN supports wireless-wireline and wireless-wireless service provider portability.<sup>7</sup>

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<sup>1</sup> See Telephone Number Portability, Notice of Proposed Rulemaking, 10 FCC Rcd 12350, 12364 (Notice). See also AT&T Comments on Notice at 18-23; AT&T February 6, 1996 Ex Parte Filing at 6-9.

<sup>2</sup> An NXX code, or central office code, is the second three digits of a ten digit telephone number and identifies the service provider switch that serves a specific customer location. See Notice, 10 FCC Rcd at 12354.

<sup>3</sup> This description of call flow employing the LRN method was adapted from the Proposed Final Draft on number portability produced by the Industry Numbering Committee. See INC Report at 49-51.

<sup>4</sup> AT&T Comments on Notice at 20; INC Report at 45.

<sup>5</sup> INC Report at 45.

<sup>6</sup> Id. at 46.

<sup>7</sup> Id. at 45-58.

## 2. Query on Release (QOR)

Also known as "Look Ahead," QOR is a method which performs queries only for calls to ported numbers.<sup>8</sup> Prior to querying a routing database, the switch from which the call originates reserves the appropriate call path through the SS7 network and attempts to complete a call to the switch where the NPA-NXX of the dialed number resides. If the number is ported, the call is released back to a previous switch in the call path, which performs a query to determine the LRN of the new serving switch. The call then is routed to the serving switch. The switch that redirects the call also performs the query, thus eliminating the need for the carrier to which the number was originally assigned to provide routing information.<sup>9</sup> Pacific Bell indicates that QOR can support both location and service portability, since any call can be released back and routed through a non-incumbent provider's network.<sup>10</sup>

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<sup>8</sup> Pacific Bell Further Comments on Notice at 4 n.10.

<sup>9</sup> Id. at 4 & n.10.

<sup>10</sup> Id. at 7 n.18.

## APPENDIX D

## SUPPLEMENTAL FINAL REGULATORY FLEXIBILITY ANALYSIS

1. As required by Section 603 of the Regulatory Flexibility Act (RFA), 5 U.S.C. § 603, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Notice of Proposed Rulemaking (Notice). The Commission sought written public comment on the proposals in the Notice. In addition, pursuant to Section 603, a Final Regulatory Flexibility Analysis (FRFA) was incorporated in the First Report & Order. That FRFA conformed to the RFA, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA)<sup>1</sup> The Supplemental Final Regulatory Flexibility Analysis in this First Memorandum Opinion and Order on Reconsideration (First Reconsideration Order) (Supplemental FRFA) also conforms to the RFA.

A. Need for and Objectives of this First Reconsideration Order and the Rules Adopted Herein

2. The need for and objectives of the rules adopted in this First Reconsideration Order are the same as those discussed in the FRFA in the First Report & Order.<sup>2</sup> In general, our rules implement the statutory requirement that all LECs provide telephone number portability when technically feasible.<sup>3</sup> In this First Reconsideration Order, we grant in part and deny in part several of the petitions filed for reconsideration and/or clarification of the First Report & Order, in order to further the same needs and objectives. First, we conclude that QOR is not an acceptable long-term number portability method. Second, we extend our implementation schedule for wireline carriers, clarify the requirements imposed thereunder, and address issues raised by rural LECs and certain other parties. We conclude that LECs need only provide number portability within the 100 largest MSAs in switches for which another carrier has made a specific request for the provision of portability. Finally, we affirm and clarify our implementation schedule for wireless carriers.

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<sup>1</sup> 5 U.S.C. § 601 *et seq.* The SBREFA is Title II of the Contract With America Advancement Act of 1996 (CWAAA), Pub. L. No. 104-121, 110 Stat. 847 (1996).

<sup>2</sup> First Report & Order, 11 FCC Rcd at 8486.

<sup>3</sup> See 47 U.S.C. § 251(b)(2).



**B. Analysis of Significant Issues Raised in Response to the FRFA**

3. *Summary of the FRFA.*<sup>4</sup> In the FRFA, we concluded that incumbent LECs do not qualify as small businesses because they are dominant in their field of operation, and, accordingly, we did not address the impact of our rules on incumbent LECs.<sup>5</sup> We noted that the RFA generally defines the term "small business" as having the same meaning as the term "small business concern" under the Small Business Act.<sup>6</sup> A small business concern is one that (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>7</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>8</sup> This standard also applies in determining whether an entity is a small business for purposes of the Regulatory Flexibility Act.<sup>9</sup>

4. We did recognize that our rules may have a significant economic impact on a substantial number of small businesses insofar as they apply to telecommunications carriers other than incumbent LECs, including competitive LECs, as well as cellular, broadband PCS, and covered SMR providers. Based upon data contained in the most recent census and a report by the Commission's Common Carrier Bureau, we estimated that 2,100 carriers could be affected.<sup>10</sup> We also discussed the reporting requirements imposed by the First Report & Order.<sup>11</sup>

5. Finally, we discussed the steps we had taken to minimize the impact on small entities, consistent with our stated objectives.<sup>12</sup> We concluded that our actions in the First Report & Order would benefit small entities by facilitating their entry into the local exchange market. We found that the record in this proceeding indicated that the lack of

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<sup>4</sup> For a summary of the IRFA and an analysis of the significant issues raised in response to the IRFA, see First Report & Order, 11 FCC Rcd at 8486-87.

<sup>5</sup> Id. at 8487.

<sup>6</sup> Id.; 15 U.S.C. § 632.

<sup>7</sup> First Report & Order, 11 FCC Rcd at 8487; 15 U.S.C. § 632.

<sup>8</sup> First Report & Order, 11 FCC Rcd at 8487; 13 C.F.R. § 121.201.

<sup>9</sup> First Report & Order, 11 FCC Rcd at 8487.

<sup>10</sup> Id. at 8487-88.

<sup>11</sup> Id. at 8488-89.

<sup>12</sup> Id.

number portability would deter entry by competitive providers of local service because of the value customers place on retaining their telephone numbers.<sup>13</sup> These competitive providers, many of which may be small entities, may find it easier to enter the market as a result of number portability, which will eliminate this barrier to entry.<sup>14</sup> We noted that, in general, we attempted to keep burdens on local exchange carriers to a minimum. For example, we adopted a phased deployment schedule for implementation in the 100 largest MSAs, and then elsewhere upon a carrier's request; we conditioned the provision of currently available measures upon request only; we did not require cellular, broadband PCS, and covered SMR providers, which may be small businesses, to offer currently available number portability measures; and we did not require paging and messaging service providers, which may be small entities, to provide any number portability.<sup>15</sup>

#### 1. Treatment of Small Incumbent LECs

6. *Comments.* NTCA/OPASTCO claims that the First Report & Order's Final Regulatory Flexibility Analysis does not address the impact of the rules on small incumbent LECs, and is thus inconsistent with the Local Competition Order.<sup>16</sup> NTCA/OPASTCO suggests that exempting rural LECs from number portability requirements absent a bona fide request would fulfill our responsibility under the Regulatory Flexibility Act.<sup>17</sup>

7. *Discussion.* Because the small incumbent LECs subject to these rules are either dominant in their field of operations or are not independently owned and operated, consistent with our prior practice, they are excluded from the definition of "small entity" and "small business concerns."<sup>18</sup> As we stated in the Local Competition Order,<sup>19</sup> we have found incumbent LECs to be "dominant in their field of operation" since the early 1980's,

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<sup>13</sup> See id. at 8368, 8489.

<sup>14</sup> See id. at 8367-68, 8489.

<sup>15</sup> See id. at 8489.

<sup>16</sup> NTCA/OPASTCO Petition at 4 & n.6.

<sup>17</sup> Id. at 5.

<sup>18</sup> See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15,499, 16,144-45, 16,150 (1996), motion for stay of the FCC's rules pending judicial review denied, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Order, 11 FCC Rcd 11754 (1996), partial stay granted, Iowa Utilities Board v. FCC, No. 96-3321, 1996 WL 589204 (8th Cir. 1996) (Local Competition Order).

<sup>19</sup> Id. at 16,145.

and we consistently have certified under the RFA<sup>20</sup> that incumbent LECs are not subject to regulatory flexibility analyses because they are not small businesses.<sup>21</sup> We have made similar determinations in other areas.<sup>22</sup> Accordingly, our use of the terms "small entities" and "small businesses" does not encompass small incumbent LECs.<sup>23</sup> Although we are not fully persuaded on the basis of this record that our prior practice has been incorrect, in light of the special concerns raised by NTCA/OPASTCO in this proceeding, for regulatory flexibility analysis purposes, we will include small incumbent LECs in this Supplemental FRFA and use the term "small incumbent LECs" to refer to any incumbent LECs that arguably might be defined by SBA as "small business concerns."<sup>24</sup> Out of an abundance of caution, therefore, we will include small incumbent LECs in the Supplemental FRFA in this First Reconsideration Order to remove any possible issue of RFA compliance.<sup>25</sup>

## 2. Other Issues

8. Although not in response to the FRFA, certain parties urge us to waive number portability requirements for rural and/or smaller LECs serving areas in the largest 100 MSAs until receipt of a bona fide request, or to grant an exemption from our rules on the basis of rural and/or smaller LEC status. We discuss these issues above in the First Reconsideration Order.<sup>26</sup>

### C. Description and Estimates of the Number of Small Entities Affected by this First Reconsideration Order

9. For the purposes of this First Reconsideration Order, the RFA defines a "small business" to be the same as a "small business concern" under the Small Business

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<sup>20</sup> See 5 U.S.C. § 605(b).

<sup>21</sup> See, e.g., Expanded Interconnection with Local Telephone Company Facilities, Supplemental Notice of Proposed Rulemaking, 6 FCC Rcd 5809 (1991); MTS and WATS Market Structure, Report & Order, 2 FCC Rcd 2953, 2959 (1987) (citing MTS and WATS Market Structure, Third Report and Order, 93 F.C.C. 2d 241, 338-39 (1983)).

<sup>22</sup> See, e.g., Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7418 (1995).

<sup>23</sup> See Local Competition Order, 11 FCC Rcd at 16,150.

<sup>24</sup> See id. at 16,145.

<sup>25</sup> See id.

<sup>26</sup> See First Reconsideration Order, supra ¶¶ 108-122.

Act, 15 U.S.C. § 632, unless the Commission has developed one or more definitions that are appropriate to its activities.<sup>27</sup> Under the Small Business Act, a "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the SBA.<sup>28</sup> SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities with fewer than 1,500 employees.<sup>29</sup> We first discuss generally the total number of small telephone companies falling within both of those SIC categories. Then, we discuss the number of small businesses within the two subcategories that may be affected by our rules, and attempt to refine further those estimates to correspond with the categories of telephone companies that are commonly used under our rules.

10. Consistent with our prior practice, we shall continue to exclude small incumbent LECs from the definition of a small entity for the purpose of this Supplemental FRFA. Nevertheless, as mentioned above, we include small incumbent LECs in our Supplemental FRFA. Accordingly, our use of the terms "small entities" and "small businesses" does not encompass "small incumbent LECs." We use the term "small incumbent LECs" to refer to any incumbent LECs that arguably might be defined by SBA as "small business concerns."<sup>30</sup>

11. *Total Number of Telephone Companies Affected.* Many of the decisions and rules adopted herein may have a significant effect on a substantial number of the small telephone companies identified by SBA. The United States Bureau of the Census ("the Census Bureau") reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.<sup>31</sup> This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not

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<sup>27</sup> See 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632).

<sup>28</sup> 15 U.S.C. § 632. See, e.g., Brown Transport Truckload, Inc. v. Southern Wipers, Inc., 176 B.R. 82 (N.D. Ga. 1994).

<sup>29</sup> 13 C.F.R. § 121.201.

<sup>30</sup> See 13 C.F.R. § 121.210 (SIC 4813).

<sup>31</sup> United States Department of Commerce, Bureau of the Census, 1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size, at Firm Size 1-123 (1995) (1992 Census).

"independently owned and operated."<sup>32</sup> For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. We believe that our rules may affect certain subcategories within that estimate, *i.e.*, wireline carriers and service providers, including local exchange carriers and competitive access providers; and wireless carriers, including cellular service carriers, broadband PCS licensees, and SMR licensees. We discuss those subcategories below in further detail. We believe, on the other hand, that our rules will not affect certain subcategories within that estimate, *i.e.*, interexchange carriers, operator service providers, pay telephone operators, mobile service carriers, and resellers, and, moreover, will not affect small cable system operators.

12. *Wireline Carriers and Service Providers.* SBA has developed a definition of small entities for telephone communications companies other than radiotelephone (wireless) companies. The Census Bureau reports that, there were 2,321 such telephone companies in operation for at least one year at the end of 1992.<sup>33</sup> According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing fewer than 1,500 persons.<sup>34</sup> All but 26 of the 2,321 non-radiotelephone companies listed by the Census Bureau were reported to have fewer than 1,000 employees. Thus, even if all 26 of those companies had more than 1,500 employees, there would still be 2,295 non-radiotelephone companies that might qualify as small entities or small incumbent LECs. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of wireline carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions and rules adopted in this First Reconsideration Order.

13. *Local Exchange Carriers.* Neither the Commission nor SBA has developed a definition of small providers of local exchange services (LECs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of LECs nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS). According to our most recent data, 1,347 companies reported that they were engaged in the provision of local exchange services.<sup>35</sup> Although it seems certain that some of these carriers are not

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<sup>32</sup> 15 U.S.C. § 632(a)(1).

<sup>33</sup> 1992 Census, *supra* note 31, at Firm Size 1-123.

<sup>34</sup> 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812.

<sup>35</sup> Federal Communications Commission, CCB, Industry Analysis Division, Telecommunications Industry Revenue: TRS Fund Worksheet Data, Tbl. 1 (Average Total Telecommunications Revenue Reported by Class of

independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,347 small incumbent LECs that may be affected by the decisions and rules adopted in this First Reconsideration Order.

14. *Competitive Access Providers.* Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of competitive access services (CAPs). The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of CAPs nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 57 companies reported that they were engaged in the provision of competitive access services.<sup>36</sup> Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of CAPs that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 57 small entity CAPs that may be affected by the decisions and rules adopted in this First Reconsideration Order.

15. *Wireless (Radiotelephone) Carriers.* SBA has developed a definition of small entities for radiotelephone (wireless) companies. The Census Bureau reports that there were 1,176 such companies in operation for at least one year at the end of 1992.<sup>37</sup> According to SBA's definition, a small business radiotelephone company is one employing fewer than 1,500 persons.<sup>38</sup> The Census Bureau also reported that 1,164 of those radiotelephone companies had fewer than 1,000 employees. Thus, even if all of the remaining 12 companies had more than 1,500 employees, there would still be 1,164 radiotelephone companies that might qualify as small entities if they are independently owned and operated. Although it seems certain that some of these carriers are not independently owned and operated, we are unable at this time to estimate with greater precision the number of radiotelephone carriers and service providers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 1,164 small entity radiotelephone companies that may be affected by the decisions and rules adopted in this First Reconsideration Order.

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Carrier) (Dec. 1996) (TRS Worksheet).

<sup>36</sup> Id.

<sup>37</sup> 1992 Census, supra note 31, at Firm Size 1-123.

<sup>38</sup> 13 C.F.R. § 121.201, Standard Industrial Classification (SIC) Code 4812.

16. *Cellular Service Carriers.* Neither the Commission nor SBA has developed a definition of small entities specifically applicable to providers of cellular services. The closest applicable definition under SBA rules is for telephone communications companies other than radiotelephone (wireless) companies. The most reliable source of information regarding the number of cellular service carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the TRS. According to our most recent data, 792 companies reported that they were engaged in the provision of cellular services.<sup>39</sup> Although it seems certain that some of these carriers are not independently owned and operated, or have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are fewer than 792 small entity cellular service carriers that may be affected by the decisions and rules adopted in this First Reconsideration Order.

17. *Broadband PCS Licensees.* The broadband PCS spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission defined "small entity" for Blocks C and F as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.<sup>40</sup> For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with their affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.<sup>41</sup> These regulations defining "small entity" in the context of broadband PCS auctions have been approved by the SBA. No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40 percent of the 1,479 licenses for Blocks D, E, and F.<sup>42</sup> However, licenses for blocks C through F have not been awarded fully; therefore, there are few, if any, small businesses currently providing PCS services. Based on this information, we conclude that the number of small broadband PCS licensees will include the 90 winning C Block bidders and the 93 qualifying bidders in the D, E, and F blocks, for a total of 183 small PCS providers as defined by the SBA and the Commission's auction rules.

18. *SMR Licensees.* Pursuant to 47 C.F.R. § 90.814(b)(1), the Commission has defined "small entity" in auctions for geographic area 800 MHz and 900 MHz SMR

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<sup>39</sup> Id.

<sup>40</sup> See Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, Report and Order, FCC 96-278, WT Docket No. 96-253, ¶¶ 57- 60 (rel. June 24, 1996) (Amendment of Parts 20 and 24 Order); see also 47 C.F.R. § 24.720(b).

<sup>41</sup> See Amendment of Parts 20 and 24 Order at ¶ 60.

<sup>42</sup> FCC News, Broadband PCS, D, E and F Block Auction Closes, No. 71744 (rel. Jan. 14, 1997).

licenses as a firm that had average annual gross revenues of less than \$15 million in the three previous calendar years. This definition of a "small entity" in the context of 800 MHz and 900 MHz SMR has been approved by the SBA.<sup>43</sup> The rules adopted in this First Reconsideration Order may apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of less than \$15 million. We assume, for purposes of this Supplemental FRFA, that all of the extended implementation authorizations may be held by small entities, which may be affected by the decisions and rules adopted in this First Reconsideration Order.

19. The Commission's auctions for geographic area licenses in the 900 MHz SMR band concluded in April of 1996. There were 60 winning bidders who qualified as small entities in the 900 MHz auction. Based on this information, we conclude that the number of geographic area SMR licensees affected by the rules adopted in this First Reconsideration Order includes these 60 small entities. No auctions have been held for 800 MHz geographic area SMR licenses. Therefore, no small entities currently hold these licenses. A total of 525 licenses will be awarded for the upper 200 channels in the 800 MHz geographic area SMR auction. However, the Commission has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. There is no basis, moreover, on which to estimate how many small entities will win these licenses. Given that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz licensees can be made, we assume, for purposes of this Supplemental FRFA, that all of the licenses may be awarded to small entities who, thus, may be affected by the decisions in this First Reconsideration Order.

20. *Cable System Operators.* SBA has developed a definition of small entities for cable and other pay television services, which includes all such companies generating less than \$11 million in revenue annually. This definition includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems and subscription television services. According to the Census Bureau, there were 1,432 such cable and other pay television services

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<sup>43</sup> See Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, PR Docket No. 89-553, Second Order on Reconsideration and Seventh Report & Order, 11 FCC Rcd 2639, 2693-702 (1995); Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, PR Docket No. 93-144, First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking, 11 FCC Rcd 1463 (1995).



generating \$11 million or less in annual receipts that were in operation for at least one year at the end of 1992.<sup>44</sup>

21. The Commission has developed its own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company," is one serving fewer than 400,000 subscribers nationwide.<sup>45</sup> Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable system operators at the end of 1995.<sup>46</sup> Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,468 small entity cable system operators that may be affected by the decisions and rules adopted in this First Reconsideration Order.

22. The Communications Act also contains a definition of a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."<sup>47</sup> There were 63,196,310 basic cable subscribers at the end of 1995, and 1,450 cable system operators serving fewer than one percent (631,960) of subscribers.<sup>48</sup> Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

**D. Summary Analysis of the Projected Reporting, Recordkeeping, and Other Compliance Requirements and Steps Taken to Minimize the Significant Economic Impact of this First Reconsideration Order on Small Entities and Small Incumbent LECs, Including the Significant Alternatives Considered and Rejected**

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<sup>44</sup> 1992 Census, *supra* note 31, at Firm Size 1-123.

<sup>45</sup> 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determination that a small cable system operator is one with annual revenues of \$100 million or less. Implementation of Sections of the 1992 Cable Act: Rate Regulation, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393.

<sup>46</sup> Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

<sup>47</sup> 47 U.S.C. § 543(m)(2).

<sup>48</sup> Paul Kagan Associates, Inc., Cable TV Investor, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

23. *Structure of the Analysis.* In this Section of the Supplemental FRFA, we analyze the projected reporting, recordkeeping, and other compliance requirements that may apply to small entities and small incumbent LECs as a result of this First Reconsideration Order.<sup>49</sup> As a part of this discussion, we mention some of the types of skills that will be needed to meet the new requirements. We also describe the steps taken to minimize the economic impact of our decisions on small entities and small incumbent LECs, including the significant alternatives considered and rejected.<sup>50</sup>

24. We provide this summary analysis to provide context for our analysis in this Supplemental FRFA. To the extent that any statement contained in this Supplemental FRFA is perceived as creating ambiguity with respect to our rules or statements made in the First Report & Order or preceding Sections of this First Reconsideration Order, the rules and statements set forth in the First Report & Order and those preceding Sections of this First Reconsideration Order shall be controlling.

#### 1. Implementation Schedule

25. *Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements.* In the First Report & Order, we required local exchange carriers operating in the 100 largest MSAs to offer long-term service provider portability, according to a phased deployment schedule commencing on October 1, 1997, and concluding by December 31, 1998, set forth in Appendix F of the First Report & Order.<sup>51</sup> In this First Reconsideration Order, we extend the end dates for Phase I of our deployment schedule by three months, and for Phase II by 45 days. Thus, deployment will now take place in Phase I from October 1, 1997, through March 31, 1998, and in Phase II from January 1, 1998, through May 15, 1998. We also clarify that LECs need only provide number portability within the 100 largest MSAs in switches for which another carrier has made a specific request for the provision of portability. LECs must make available lists of their switches for which deployment has and has not been requested. The parties involved in such requests identifying preferred switches may need to use legal, accounting, economic and/or engineering services.

26. *Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered.* In this First Reconsideration Order, we lighten the burdens on rural and smaller LECs by establishing a procedure whereby, within as well as outside the 100 largest MSAs, portability need only be implemented in the switches for which another carrier has made a specific request for the provision of

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<sup>49</sup> See 5 U.S.C. § 604(a)(4).

<sup>50</sup> See 5 U.S.C. § 604(a)(5).

<sup>51</sup> First Report & Order, 11 FCC Rcd at 8393.

portability. If, as petitioners allege, competition is not imminent in the areas covered by rural/small LEC switches,<sup>52</sup> then the rural or smaller LEC should not receive requests from competing carriers to implement portability, and thus need not expend its resources until competition does develop. By that time, extensive non-carrier-specific testing will likely have been done, and rural and small LECs need not expend their resources on such testing.<sup>53</sup> We note that the majority of parties representing small or rural LECs specified as the relief sought that we only impose implementation requirements where competing carriers have shown interest in portability.<sup>54</sup> Moreover, our extension of Phases I and II of our deployment schedule may permit smaller LECs to reduce their testing costs by allowing time for larger LECs to test and resolve the problems of this new technology.<sup>55</sup>

27. Indeed, in this First Reconsideration Order, we reject several alternatives put forth by parties that might impose greater burdens on small entities and small incumbent LECs. We reject requests put forth by ACSI, KMC, ICG, NEXTLINK, and ALTS to accelerate the deployment schedule for areas both within and outside the 100 largest MSAs.<sup>56</sup> We also reject the procedures proposed by some parties that would require LECs to file waiver requests for their specific switches if they believe there is no competitive interest in those switches, instead of requiring LECs to identify in which switches of other LECs they wish portability capabilities.<sup>57</sup> The suggested waiver procedures would burden the LEC from whom portability is requested with preparing and filing the petition for waiver. In addition, a competing carrier that opposes the waiver petition would be burdened with challenging the waiver. In contrast, under the procedure we establish, the only reporting burden on requesting carriers is to identify and request their preferred switches. Carriers from which portability is being requested, which may be small incumbent LECs, only incur a reporting burden if they wish to lessen their burdens further by requesting more time in which to deploy portability. Finally, we clarify that CMRS providers, like wireline providers, need only provide portability in requested switches, both within and outside the 100 largest MSAs.

## 2. Exemptions for Rural or Small LECs

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<sup>52</sup> See GTE Petition at 8; GTE Opposition at 15; JSI Petition at 9; NTCA/OPASTCO Reply at 2-4.

<sup>53</sup> NTCA/OPASTCO Reply at 4-5.

<sup>54</sup> See JSI Petition at 9; NECA Petition at 3; NTCA/OPASTCO Petition at 3-4; NTCA/OPASTCO Reply at 1-4; USTA Comments at 2; ALLTEL Opposition at 4-5; Sprint Opposition at 13; GTE Petition at 9-10.

<sup>55</sup> See CBT Comments at 3-4.

<sup>56</sup> See ACSI Petition at 3, 7-12; KMC Petition at 2-3, 5-13; NEXTLINK Petition at 5-6; ICG Comments at 3-5; ALTS Opposition at 6.

<sup>57</sup> See USTA Petition at 16; GTE Opposition at 14-15; Pacific Comments at 4; Sprint Opposition at 11.

28. *Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements.* Section 251(f)(2) provides that LECs with fewer than two percent of the nation's subscriber lines may petition a state commission for a suspension or modification of any requirements of Sections 251(b) and 251(c). Section 251(f)(2) is available to all LECs, including competitive LECs, which may be small entities. A small incumbent LEC or a competitive LEC, which may be a small entity, seeking under 251(f)(2) to modify or suspend the number portability requirements imposed by Section 251(b)(2), bears the burden of proving that the number portability requirements would: (1) create a significant adverse economic impact on telecommunications users; (2) be unduly economically burdensome; or (3) be technically infeasible. The parties involved in such a proceeding may need to use legal, accounting, economic and/or engineering services.

29. *Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered.* As explained above in the First Reconsideration Order, we consider it unnecessary to create a general exemption for all small and/or rural LECs, as suggested by some parties.<sup>58</sup> We have effectively granted the small and rural LEC petitioners' requests that we waive number portability requirements for rural and/or small LECs serving areas in the largest 100 MSAs until receipt of a bona fide request, since we now require all competing carriers specifically to request, of any LEC, the particular switches in which they desire portability.<sup>59</sup> To the extent that portability is requested in a rural or small LEC's switch, and that LEC has difficulty complying with the request, it may apply for an extension of time on the basis of extraordinary circumstances beyond its control that prevent it from complying with the Commission's deployment schedule<sup>60</sup> or, if eligible, it may petition the appropriate state commission for suspension or modification of the requirements of Section 251(b).<sup>61</sup> Our grant of petitioners' requests to limit deployment to requested switches, however, decreases the likelihood that smaller and rural LECs will have to apply for extensions of time or file petitions under section 251(f)(2).

30. As we stated in the Local Competition Order, the determination whether a Section 251(f)(2) suspension or modification should be continued or granted lies primarily with the relevant state commission.<sup>62</sup> By largely leaving this determination to the states, the Local Competition Order stated, our decisions permit this fact-specific inquiry to be administered in a manner that minimizes regulatory burdens and the economic impact on

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<sup>58</sup> See First Reconsideration Order, supra ¶ 114.

<sup>59</sup> See First Reconsideration Order, supra ¶ 60.

<sup>60</sup> First Report & Order, 11 FCC Rcd at 8397; see First Reconsideration Order, supra ¶ 115.

<sup>61</sup> 47 U.S.C. § 251(f)(2); see First Reconsideration Order, supra ¶ 115.

<sup>62</sup> Local Competition Order, 11 FCC Rcd at 16,176.

small entities and small incumbent LECs.<sup>63</sup> However, to minimize further regulatory burdens and minimize the economic impact of our decision, in the Local Competition Order we adopted several rules that may facilitate the efficient resolution of such inquiries, provide guidance, and minimize uncertainty.<sup>64</sup> In the Local Competition Order, we found that the rural LEC or smaller LEC must prove to the state commission that the financial harm shown to justify a suspension or modification would be greater than the harm that might typically be expected as a result of competition.<sup>65</sup> Finally, we concluded that Section 251(f) adequately provides for varying treatment for smaller or rural LECs where such variances are justified. As a result, we stated, we expect that Section 251(f) will significantly minimize regulatory burdens and economic impacts from the rules adopted in the First Report & Order and this First Reconsideration Order.<sup>66</sup>

### 3. Reporting Requirements by the Chief, Wireless Telecommunications Bureau, on Carriers' Progress

31. *Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements.* In the First Report & Order, the Commission delegated authority to the Chief, Wireless Telecommunications Bureau, to require reports from cellular, PCS, and covered SMR providers in order to monitor the progress of these providers toward implementing long-term number portability. These reporting requirements were not defined in sufficient detail in the First Report & Order to obtain approval from the Office of Management and Budget. Separate approval will be requested when the specific requirements are imposed by the Wireless Telecommunications Bureau.

32. *Steps Taken to Minimize Significant Economic Impact on Small Entities and Small Incumbent LECs, and Alternatives Considered.* Although no party to this proceeding suggested that changes to these reporting requirements would affect small entities or small incumbent LECs, several parties requested that the Chief, Wireless Telecommunications Bureau, be given greater authority to act to increase flexibility in the schedule.<sup>67</sup> As explained above in this First Reconsideration Order, we lighten the burden on smaller and rural wireless carriers by modifying our rules so that CMRS providers, like wireline providers, need only provide portability in requested switches, both within and outside the

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<sup>63</sup> Id.

<sup>64</sup> Id. at 16,176-77.

<sup>65</sup> Id. at 16,177.

<sup>66</sup> Id.

<sup>67</sup> See, e.g., RTG Comments at 4-5.

100 largest MSAs.<sup>68</sup> We also decline at this time to alter further the implementation schedule imposed by the First Report & Order for wireless carriers because we find that enough flexibility has been incorporated into the implementation schedule for wireless carriers, and that no modification is needed.<sup>69</sup>

**E. Report to Congress**

33. The Commission shall send a copy of this Supplemental FRFA, along with this First Reconsideration Order, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A). A copy of this Supplemental FRFA will also be published in the Federal Register.

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<sup>68</sup> See First Reconsideration Order, *supra* ¶¶ 136-138.

<sup>69</sup> See First Reconsideration Order, *supra* ¶¶ 134-135.

## APPENDIX E - IMPLEMENTATION SCHEDULE

Implementation must be completed by the carriers in the relevant MSAs during the periods specified below:

Phase I -- 10/1/97-3/31/98	Phase II -- 1/1/98-5/15/98	Phase III -- 4/1/98-6/30/98
Chicago, IL            3	Detroit, MI            6 Cleveland, OH        20	Indianapolis, IN     34 Milwaukee, WI        35 Columbus, OH        38
Philadelphia, PA     4	Washington, DC     5 Baltimore, MD        18	Pittsburgh, PA        19 Newark, NJ            25 Norfolk, VA           32
Atlanta, GA            8	Miami, FL             24 Fort Lauderdale, FL   39 Orlando, FL           40	New Orleans, LA     41 Charlotte, NC        43 Greensboro, NC      48 Nashville, TN        51
		Las Vegas, NV        50
	Cincinnati, OH      30	
	Tampa, FL            23	
New York, NY         2	Boston, MA           9	Nassau, NY           13 Buffalo, NY           44
Los Angeles, CA     1	Riverside, CA        10 San Diego, CA        14	Orange Co, CA        15 Oakland, CA           21 San Francisco, CA    29
		Rochester, NY        49
Houston, TX           7	Dallas, TX            11 St. Louis, MO        16	Kansas City, KS     28 Fort Worth, TX       33
		Hartford, CT         46
Minneapolis, MN    12	Phoenix, AZ           17 Seattle, WA            22	Denver, CO            26 Portland, OR           27

<b>Phase IV -- 7/1/98-9/30/98</b>		<b>Phase V -- 10/1/98-12/31/98</b>	
<b>Grand Rapids, MI</b>	<b>56</b>	<b>Toledo, OH</b>	<b>81</b>
<b>Dayton, OH</b>	<b>61</b>	<b>Youngstown, OH</b>	<b>85</b>
<b>Akron, OH</b>	<b>73</b>	<b>Ann Arbor, MI</b>	<b>95</b>
<b>Gary, IN</b>	<b>80</b>	<b>Fort Wayne, IN</b>	<b>100</b>
<b>Bergen, NJ</b>	<b>42</b>	<b>Scranton, PA</b>	<b>78</b>
<b>Middlesex, NJ</b>	<b>52</b>	<b>Allentown, PA</b>	<b>82</b>
<b>Monmouth, NJ</b>	<b>54</b>	<b>Harrisburg, PA</b>	<b>83</b>
<b>Richmond, VA</b>	<b>63</b>	<b>Jersey City, NJ</b>	<b>88</b>
		<b>Wilmington, DE</b>	<b>89</b>
<b>Memphis, TN</b>	<b>53</b>	<b>Birmingham, AL</b>	<b>67</b>
<b>Louisville, KY</b>	<b>57</b>	<b>Knoxville, KY</b>	<b>79</b>
<b>Jacksonville, FL</b>	<b>58</b>	<b>Baton Rouge, LA</b>	<b>87</b>
<b>Raleigh, NC</b>	<b>59</b>	<b>Charleston, SC</b>	<b>92</b>
<b>West Palm Beach, FL</b>	<b>62</b>	<b>Sarasota, FL</b>	<b>93</b>
<b>Greenville, SC</b>	<b>66</b>	<b>Mobile, AL</b>	<b>96</b>
		<b>Columbia, SC</b>	<b>98</b>
<b>Honolulu, HI</b>	<b>65</b>	<b>Tulsa, OK</b>	<b>70</b>
<b>Providence, RI</b>	<b>47</b>	<b>Syracuse, NY</b>	<b>69</b>
<b>Albany, NY</b>	<b>64</b>	<b>Springfield, MA</b>	<b>86</b>
<b>San Jose, CA</b>	<b>31</b>	<b>Ventura, CA</b>	<b>72</b>
<b>Sacramento, CA</b>	<b>36</b>	<b>Bakersfield, CA</b>	<b>84</b>
<b>Fresno, CA</b>	<b>68</b>	<b>Stockton, CA</b>	<b>94</b>
		<b>Vallejo, CA</b>	<b>99</b>
<b>San Antonio, TX</b>	<b>37</b>	<b>El Paso, TX</b>	<b>74</b>
<b>Oklahoma City, OK</b>	<b>55</b>	<b>Little Rock, AR</b>	<b>90</b>
<b>Austin, TX</b>	<b>60</b>	<b>Wichita, KS</b>	<b>97</b>
		<b>New Haven, CT</b>	<b>91</b>
<b>Salt Lake City, UT</b>	<b>45</b>	<b>Omaha, NE</b>	<b>75</b>
<b>Tucson, AZ</b>	<b>71</b>	<b>Albuquerque, NM</b>	<b>76</b>
		<b>Tacoma, WA</b>	<b>77</b>