

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 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

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<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.

<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.

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 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

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<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.

<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.

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 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

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<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).

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 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.

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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 Salemm, 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.

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

**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>

**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

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<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.

<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).

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 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>

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<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.

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

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

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>

## 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>

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<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.

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

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

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 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>

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<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.

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

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

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>

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

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<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.

<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

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 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>

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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.

<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.

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 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>

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<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.

<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

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 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

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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.

<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.

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 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.

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<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.

<sup>211</sup> 47 U.S.C. § 251(b)(2).

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>

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

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

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 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

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<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.

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

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 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>

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<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.

<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).

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 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

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<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.

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 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

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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.

<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.

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 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,

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<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 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.

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>

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

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<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 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.

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 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

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<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.

<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.

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 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

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<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.

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

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 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

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<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.

<sup>265</sup> Id.

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 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

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<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.

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

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 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

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<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.