

exchanging cells with ATM switches, in addition to connecting subscriber lines served by remote terminals to the rest of the telephone network. We ask whether line cards are equipment necessary for interconnection or access to unbundled network elements. We also recognize that manufacturers are continually increasing the capabilities of these line cards to enable carriers to provide telecommunications services, including advanced services, and information services more efficiently. We request comment on impending developments in these cards. We ask whether limiting the functionalities of the line cards that a competitive LEC could collocate would reduce innovation in digital loop carrier systems, assuming that these line cards are necessary for interconnection or access to unbundled network. We also ask whether such a limitation would be consistent with section 251(c)(6) and further Congress' goal of promoting the deployment of advanced services to all Americans.<sup>194</sup>

83. We seek comment, in addition, on the effect, if any, of each alternative definition of "necessary" would have on a collocator's ability to provide the types of telecommunications services it wishes to provide or to serve the types of areas it wishes to serve. We ask, for instance, whether, pursuant to section 251(c)(6), providers of dark fiber<sup>195</sup> or interoffice transport services may collocate in incumbent LEC central offices. In the event a proposed definition of "necessary" would prevent a collocator from providing a desired telecommunications service or serving a particular type of area, we invite comment on how limiting the telecommunications services a collocator may provide would further the purpose behind section 251(c)(6) and the goals of the 1996 Act, and would be just, reasonable, and nondiscriminatory and satisfy sections 251(c)(2) and (3).

84. We ask, in addition, whether any proposed definition of "necessary" would "unnecessar[ily] tak[e]" incumbent LEC property.<sup>196</sup>

## 2. Cross Connections between Collocators

### a) Background

85. Section 251(c)(6) requires an incumbent LEC to permit collocation of equipment "necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier."<sup>197</sup> Section 251(a)(1) requires each telecommunications carrier "to interconnect directly or indirectly with the facilities and equipment of other telecommunications

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<sup>194</sup> See section 706(a) of the 1996 Act, Pub.L. 104-104, Title VII, § 706(a), Feb. 8, 1996, 110 Stat. 153, reproduced in notes under 47 U.S.C. § 157.

<sup>195</sup> See *UNE Remand Order*, 15 FCC Rcd 3776, ¶ 174 (defining "dark fiber" as "fiber that has not been activated through connection to the electronics that 'light it'").

<sup>196</sup> See *GTE v. FCC*, 205 F.3d at 421.

<sup>197</sup> 47 U.S.C. § 251(c)(6).

carriers . . . .”<sup>198</sup> Section 251(c)(2) requires an incumbent LEC “to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier’s network . . . for the transmission and routing of telephone exchange service and exchange access . . . .”<sup>199</sup> Section 251(c)(3) requires an incumbent LEC “to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis . . . .”<sup>200</sup> In the *Local Competition First Report and Order*, the Commission concluded that the term “interconnection” as used in section 251(c)(2) refers “only to the physical linking of two networks for the mutual exchange of traffic.”<sup>201</sup>

86. In the *Local Competition Order*, the Commission required that an incumbent LEC allow a collocating carrier to connect its collocated equipment to the collocated equipment of another carrier within the same incumbent LEC premises so long as each collocator’s equipment is used for interconnection with the incumbent or access to the incumbent’s unbundled network elements.<sup>202</sup> In the *Advanced Services First Report and Order*, we amended this rule to require incumbent LECs to permit collocating carriers to construct their own cross-connect facilities between collocated equipment located on the incumbent’s premises, subject only to the same reasonable safety requirements the incumbent places on its own facilities.<sup>203</sup>

87. In *GTE v. FCC*, the D.C. Circuit vacated and remanded the cross-connects rule adopted in the *Advanced Services First Report and Order*.<sup>204</sup> The court stated that “requiring [incumbent] LECs to allow collocating competitors to interconnect their equipment with other collocating carriers . . . imposes an obligation on [incumbent] LECs that has no apparent basis in the statute.”<sup>205</sup> The court also stated that section 251(c)(6) is focused solely on connecting new competitors to incumbent LECs’ networks and that the Commission had not even attempted to

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<sup>198</sup> 47 U.S.C. § 251(a)(1). Interconnection is direct when a carrier’s facilities or equipment is attached to another carrier’s facilities or equipment. Interconnection is indirect when the attachment occurs through the facilities or equipment of an additional carrier or carriers.

<sup>199</sup> 47 U.S.C. § 251(c)(2).

<sup>200</sup> 47 U.S.C. § 251(c)(3).

<sup>201</sup> *Local Competition First Report and Order*, 11 FCC Rcd at 15590, ¶ 176.

<sup>202</sup> *Id.* at 15801-02, ¶ 594.

<sup>203</sup> *Advanced Services First Report and Order*, 14 FCC Rcd at 4779-80, ¶ 33. A cross connection or cross-connect is defined as “[a] connection scheme between cabling runs, subsystems, and equipment using patch cords or jumpers that attach to connecting hardware on each end.” Newton’s Telecom Dictionary, 206 (15<sup>th</sup> ed. 1999).

<sup>204</sup> *GTE v. FCC*, 205 F.3d at 423-24 (vacating and remanding “offending portions” of the *Advanced Services First Report and Order*).

<sup>205</sup> *Id.* at 423.

show that cross-connects between collocators are “necessary for interconnection or access to unbundled network elements” within the meaning of that provision.<sup>206</sup>

### b) Discussion

88. We invite comment on whether section 251(c)(6) encompasses cross-connects between collocators. We also invite comment on when a cross-connect between collocators should be deemed “necessary for interconnection or access to unbundled network elements” within the meaning of section 251(c)(6). We ask whether we may permissibly interpret “interconnection” as used in section 251(c)(6) as referring only to the interconnection of a collocator’s equipment or network to the incumbent LEC’s network, and not to the interconnection of two collocators’ equipment or networks as well. Assuming that “interconnection” as used in section 251(c)(6) may be construed to encompass interconnection between two collocators pursuant to section 251(a)(1) as well as interconnection pursuant to section 251(c)(2), we also ask whether section 251(c)(6) encompasses both direct interconnection (i.e., direct physical links between the collocators’ facilities or equipment) and indirect interconnection (i.e., links through the incumbent’s facilities or equipment).<sup>207</sup>

89. With respect to indirect interconnection, we ask whether section 251(c)(6) authorizes the Commission to require that incumbent LECs permit telecommunications carriers to collocate for the sole purpose of interconnecting with other collocating carriers through the use of cross-connects. Additionally, we ask whether we may require an incumbent LEC to provide direct physical connections between two collocators pursuant to any other statutory provision, such as sections 251(a)(1), 251(c)(2), and 251(c)(3) of the Communications Act.<sup>208</sup>

90. We also invite comment on whether a cross-connect between two collocators is “necessary” within the meaning of section 251(c)(6) when the collocators have alternative means of interconnecting. Specifically, we ask whether a direct physical link between two collocators’ collocated equipment is “necessary for interconnection . . . at the premises of the local exchange carrier” when the incumbent LEC offers the collocators indirect interconnection within that premises or the collocators are able to interconnect directly or indirectly outside that premises. We request detailed information regarding the relative costs and quality of these three types of interconnection (direct physical links between collocators at the incumbent’s premises, indirect links at that premises, and direct or indirect links outside that premises). We seek comment on whether any of these interconnection alternatives impose disproportionate costs or adverse

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<sup>206</sup> *Id.*

<sup>207</sup> See generally 47 U.S.C. § 251(a)(1) (requiring “each telecommunications carrier . . . to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers . . .”). Two carrier’s facilities and equipment are directly linked when they are attached to each other.

<sup>208</sup> See generally Letter from Jonathan E. Canis, *et al.*, Counsel for Metromedia Fiber, to Magalie Roman Salas, Secretary, FCC, at 7-8 (filed May 23, 2000) (*Metromedia Fiber May 23, 2000 Letter*) (urging us to find that section 201(a) of the Communications Act authorizes the Commission to require that an incumbent LEC provide cross-connects between two collocators).

operational impacts on the incumbent or other collocators. We ask whether a significant disparity in costs or quality among these alternatives makes any particular alternative “necessary” within the meaning of section 251(c)(6).<sup>209</sup> That is, we ask what weight, if any, should we give to disparities in cost or quality in determining whether equipment is necessary for interconnection or access to unbundled network elements within the meaning of section 251(c)(6). We also seek comment on whether the interconnection alternatives available to collocators would affect a collocator’s ability to exploit the features, functions, and capabilities of the collocated equipment, provide a desired telecommunications service, or serve a particular type of geographic area. Additionally, we ask whether the time intervals necessary for provisioning and constructing cross-connects would vary depending upon whether they are constructed by an incumbent LEC or a competitive LEC.

91. We further invite comment on whether there are any circumstances in which we may, consistent with section 251(c)(6), require that an incumbent LEC permit collocators to construct their own cross connections as opposed to obtaining them from the incumbent. We ask for detailed information on the relative costs, quality, and provisioning intervals of collocator and incumbent LEC construction in this area and whether a significant disparity in costs, quality, or provisioning intervals makes construction by a collocator necessary for interconnection or access to unbundled network elements. We seek comment on whether permitting collocators to construct their own cross connections would impose disproportionate costs or adverse operational impacts on the incumbent LEC or other collocators.

92. We invite comment on whether, if we may permissibly construe section 251(c)(6) to permit collocators to cross-connect at the incumbent’s premises, we should require incumbent LECs to designate specific points at which collocators may enter the incumbent’s premises in order to cross-connect to other collocators’ equipment. We note that Metromedia Fiber states that many incumbent LEC central offices are surrounded by five, ten, or more manholes and that it could cross-connect to other collocators most efficiently if it were able to enter the incumbent LEC’s structure at one or two predesignated manholes.<sup>210</sup> We therefore ask whether, assuming that section 251(c)(6) encompasses cross-connects between collocators, the Commission may require incumbents to provide requesting carriers with one or two points of entry into the incumbent LEC’s premises so that collocators may cross-connect more efficiently. We also request specific comment on whether incumbent LECs should exercise exclusive discretion over determining which manholes will act as a point of entry for collocated carriers, whether it is technically feasible for incumbent LECs to designate one or two points of entry into the central office, and whether we may require incumbent LECs to permit cross-connecting collocators to utilize the same point of entry into the central office.

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<sup>209</sup> See *AT&T v. Iowa Util. Bd.*, 525 U.S. at 389-90 (holding that assuming that “any increase in cost (or decrease in quality) imposed by denial of a network element renders access to that element ‘necessary’ . . . is simply not in accord with the ordinary and fair meaning of [section 251(d)(2)’s] terms); see also *GTE v. FCC*, 205 F.3d at 426.

<sup>210</sup> See *Metromedia Fiber May 23, 2000 Letter*, *supra* note 208, at 5-7.

## C. Meaning of “Physical Collocation” under Section 251(c)(6)

### 1. Background

93. In the *Advanced Services First Report and Order*, we required that “an incumbent LEC must give competitors the option of collocating equipment in any unused space within the incumbent’s premises, to the extent technically feasible. We also precluded an incumbent LEC from requiring competitors to collocate in a room or isolated space separate from the incumbent’s own equipment.”<sup>211</sup> We specified that while an incumbent LEC may require collocators to use a central entrance to the incumbent’s premises, the incumbent cannot require construction of a new entrance for the collocators’ use.<sup>212</sup>

94. In *GTE v. FCC*, the D.C. Circuit determined that we had not adequately justified the rules set forth above. The court stated that those rules “appear[ed] to favor the [incumbent] LECs’ competitors in ways that exceed what is ‘necessary’ to achieve reasonable ‘physical collocation’ and in ways that may result in unnecessary takings of [incumbent] LEC property.”<sup>213</sup> The court therefore vacated and remanded these rules. The court stated, however, that we would have the opportunity on remand to “refine [our] regulatory requirements to tie the rules to the statutory standard, which only mandates physical collocation as ‘necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier.’”<sup>214</sup>

### 2. Discussion

95. The physical collocation requirements that the D.C. Circuit remanded implicate three aspects of our collocation policies: the procedure by which physical collocation space is assigned; where within an incumbent LEC’s premises that space is located; and how the collocator accesses its assigned space. We invite comment on the extent of our statutory authority regarding each of the areas. We also invite comment on what physical collocation requirements, if any, we should adopt to replace those the D.C. Circuit vacated.

96. We invite comment on what space assignment policies are necessary to achieve reasonable and nondiscriminatory physical collocation that does not result in any “unnecessary taking” of incumbent LEC property.<sup>215</sup> We ask that the commenters address whether the incumbent, as opposed to the requesting carrier, should select a requesting carrier’s physical collocation space from among the unused space in the incumbent’s premises. If so, we invite

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<sup>211</sup> *Advanced Services First Report and Order*, 14 FCC Rcd at 4784-85, ¶ 42.

<sup>212</sup> *Id.*

<sup>213</sup> *GTE v. FCC*, 205 F.3d at 426.

<sup>214</sup> *Id.* (quoting 47 U.S.C. § 251(c)(6)). We note that Sprint’s petition requests that we clarify that an incumbent LEC may not require that a wall or similar structure separate its equipment from collocated equipment. Sprint Petition at 4-6. In view of the D.C. Circuit’s opinion, we invite further comment on this area. See para. 97, *infra*.

<sup>215</sup> See *GTE v. FCC*, 205 F.3d at 426.

comment on what criteria, if any, we should require the incumbent to employ in selecting that space. We also invite comment on whether an incumbent would be providing physical collocation under just, reasonable, and nondiscriminatory rates, terms, and conditions if it assigned a collocator space that would cost more or take longer to provision than the space the incumbent assigns to itself on any of its affiliates.

97. We invite comment on whether we may, consistent with section 251(c)(6), preclude the incumbent from placing collocators in a room or isolated space separate from the incumbent's own equipment. In particular, we seek comment on whether an incumbent's placing collocators in isolated or separate space affects the ability of collocators to collocate equipment that is "directly related to and thus necessary, required, or indispensable to interconnection or access to unbundled network elements."<sup>216</sup> Assuming we have authority to preclude such placement, we ask under what circumstances, if any, would such placement be unjust, unreasonable, or discriminatory within the meaning of section 251(c)(6). We seek comment on any technical issues involved in connection with such placement and whether relegating collocators to separate rooms or space affects the quality of collocation arrangements. We also invite comment on whether placing collocators in such a room or space would increase the costs of conditioning space for physical collocation or otherwise affect physical collocation costs. We ask the commenters to address whether any such cost increases would eliminate the cost savings from cageless collocation. We request comment on whether an incumbent LEC may require a collocator to construct or pay for a wall, structure, or buffer separating the incumbent LEC's equipment from collocator equipment. We invite comment on whether the construction of such a wall, structure, or buffer zone would lengthen collocation intervals and, if so, whether we should preclude an incumbent LEC from using its perceived need for such a wall, structure, or buffer zone to delay collocation by a requesting carrier.

98. We invite comment on whether section 251(c)(6) permits an incumbent LEC to require requesting carriers to construct or pay for new entrances to the incumbent's premises for the collocators' use. We ask the commenters to address whether construction of such separate entrances is technically feasible in remote terminals. We request comment on whether an incumbent LEC may use its perceived need for such an entrance to delay physical collocation by a requesting carrier.

#### **D. Minimum Space Requirements**

99. In the *Advanced Services First Report and Order*, we specified that incumbent LECs must ensure that cageless collocation arrangements do not place unreasonable minimum space requirements on collocating carriers.<sup>217</sup> We required incumbent LECs "to make collocation space available in single-bay increments, meaning that a competing carrier can purchase space in

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<sup>216</sup> *Id.* at 424.

<sup>217</sup> *Advanced Services First Report and Order*, 14 FCC Rcd at 4785-86, ¶ 43.

increments small enough to collocate a single rack, or bay, of equipment.”<sup>218</sup> We did not specifically address, however, whether incumbent LECs must make physical collocation space available in smaller increments. In its petition, Sprint requests that we require incumbent LECs to make physical collocation space available in increments of less than a rack or bay.<sup>219</sup> In *GTE v. FCC*, the D.C. Circuit affirmed that incumbent LECs must not impose unreasonable minimum space requirements on collocators.<sup>220</sup>

100. We invite comment on whether we have statutory authority to require incumbent LECs to permit the physical collocation of competitive LEC equipment within spaces too small to accommodate a rack or bay of equipment or to permit smaller increments such as a quarter rack. Assuming *arguendo* that we have such authority, we also invite comment on whether this authority extends to requiring incumbent LECs to permit placement of competitive LEC and incumbent LEC equipment within the same racks or bays when no other physical collocation space is available, given the D.C. Circuit’s vacatur of our action precluding incumbent LECs from requiring competitors to collocate in a room or isolated space separate from the incumbent’s own equipment.<sup>221</sup> We ask the commenters to address, in particular, whether the placement of incumbent LEC and competitive LEC equipment within these spaces is necessary to achieve reasonable and nondiscriminatory physical collocation in premises having insufficient physical collocation space available to accommodate all carriers requesting physical collocation space in a separate space apart from the incumbent LEC’s own equipment.

101. We also invite comment on whether physical collocation of competitive LEC equipment within the same racks or bays as incumbent LEC equipment is a practical solution to space shortages within incumbent LEC structures, including remote terminals. We ask whether it is feasible to physically collocate any equipment that is necessary for interconnection or access to unbundled network elements in space smaller than that required for a rack or bay. In part V.B.1.b, above, we request that competitive LECs describe the equipment they seek to collocate in incumbent LECs’ premises. We ask whether any of this equipment would fit in space smaller than a rack or bay. We also ask whether any equipment that competitive LECs seek to collocate need not be placed within racks or bays.

102. We ask for information on the security implications of placing incumbent LEC and competitive LEC equipment within the same racks or bays, or in areas that cannot accommodate racks or bays of equipment. We recognize, of course, that the cages and other partitions incumbent LECs have used to separate their own equipment from collocators’ equipment were not designed to separate different carriers’ equipment within a rack or bay. We invite comment

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<sup>218</sup> *Id.* at 4785-86, ¶ 43. A “rack” or “bay” is a structure consisting of vertical panels or mounting strips within which an incumbent LEC or collocator places equipment shelves and/or equipment. A “line-up” is a series of racks or bays arranged side-by-side.

<sup>219</sup> Sprint Petition at 6.

<sup>220</sup> *GTE v. FCC*, 205 F.3d at 426.

<sup>221</sup> *See id.*

on whether construction of different types of partitions, such as lockable equipment cabinets, would adequately protect an incumbent LEC's own equipment without reducing the space available for physical collocation. We ask, in addition, whether an incumbent LEC may use its perceived need for a partition to delay collocation by a requesting carrier or require a collocator to construct or pay for these types of partitions. We also invite comment on whether a collocator should be allowed to construct such cabinets and similar partitions in cageless and shared collocation space or whether there are other adequate security measures under such a scenario.<sup>222</sup>

#### **E. Collocation at Remote Incumbent LEC Premises**

103. In the *UNE Remand Order*, we required incumbent LECs to offer unbundled access to subloops, or portions of the local loop, where technically feasible.<sup>223</sup> We defined subloops as "portions of the loop that can be accessed at terminals in the incumbent's outside plant."<sup>224</sup> We stated that an accessible terminal is "a point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the fiber within."<sup>225</sup> In addition, we made clear that our collocation rules apply to collocation at any technically feasible point, from the largest central office to the most compact feeder distribution interface.<sup>226</sup>

104. We invite comment on whether and to what extent we should modify our collocation rules to facilitate subloop unbundling. We ask whether physical collocation in remote terminals presents technical or security concerns and, if so, whether these concerns warrant modification of our collocation rules. We request collocating carriers to describe the technical arrangements necessary for collocation in controlled environmental huts, controlled environmental vaults, and cabinets, including sufficient heat, air conditioning, power, and physical connectivity for the types of services collocating carriers wish to offer. In addition, we request comment regarding procedures for ensuring that collocating carriers receive the necessary power arrangements and other technical support in remote terminals.

105. We ask incumbent LECs to describe their current deployment of controlled environmental huts, controlled environmental vaults, and cabinets as well as their plans for future

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<sup>222</sup> Letter from Patrick J. Donovan, *et al.*, Counsel for BroadSpan, to Magalie Roman Salas, Secretary, FCC, at 4-6 (filed Feb. 18, 2000) (*BroadSpan Feb. 18, 2000 Letter*)

<sup>223</sup> *UNE Remand Order*, 15 FCC Rcd at 3789, ¶ 205. We defined subloops as "portions of the loop that can be accessed at terminals in the incumbent's outside plant." *Id.* at 3789-90, ¶ 206. We stated that an accessible terminal is "a point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the fiber within." *Id.*

<sup>224</sup> *Id.*

<sup>225</sup> *Id.*

<sup>226</sup> *UNE Remand Order*, 15 FCC Rcd at 3796, ¶ 221. We note that the *UNE Remand Order*, which was released after the *Advanced Services First Report and Order*, defines controlled environmental vaults as being located below ground and controlled environmental huts as being located above ground. *Id.* We are amending our collocation rules to make clear our intent to require collocation in either controlled environmental huts or vaults, as well as other remote terminals, in appropriate circumstances.

deployment of these structures. We understand, for example, that cabinets are often specifically designed to house a single manufacturer's equipment.<sup>227</sup> We request that incumbent LECs state how much space within each type of remote terminal will be available for physical collocation.<sup>228</sup> Further, to the extent that the digital loop carrier systems now being manufactured occupy less space than the systems currently installed in incumbent LEC remote terminals, we invite comment on whether incumbent LECs intend to retrofit existing remote terminals with this relatively compact equipment and, if so, how much additional space will thereby be made available for collocation. We invite competitive LECs to state how much space, if any, they wish to obtain within remote terminals to collocate equipment necessary for interconnection or access to unbundled network elements.

106. We invite manufacturers to state whether they make or plan to make each type of remote terminal in a range of sizes, rather than in one standard size, and whether these structures are capable of expansion. We request that commenters specify the factors they believe an incumbent should consider in determining the size and configuration of new and renovated remote terminals.<sup>229</sup> We also request comment on whether manufacturers of remote terminals currently offer or intend to make available structures that are suitable for collocation adjacent to remote terminals, such as small cabinets that can be interconnected with incumbent LEC remote terminals.

107. We invite suggestions for amendments to our collocation rules that might allow incumbents and collocators to make more efficient use of the space available in remote incumbent LEC structures. We note that the configuration of remote terminals may make it impossible for the incumbent to place collocators in separate space isolated from the incumbent's own equipment.<sup>230</sup> We ask whether we should require that incumbent LECs allow the placement of competitive LEC and incumbent LEC equipment within the same racks or bays in remote locations, even if we do not require that incumbents allow this practice in central offices.<sup>231</sup> We also ask what effect any such amendments to our collocations rules would have upon the obligation of incumbent LECs to unbundle packet switching capability under Commission rule

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<sup>227</sup> Cabinets are often designed to house digital loop carrier systems. See Telecordia Technologies, GR-303-CORE, Integrated Digital Loop Carriers Systems Generic Requirements, Objectives, Interface (Issue 3, Dec. 1999).

<sup>228</sup> We note that during a recent public forum on competitive access to next-generation remote terminals, certain incumbent LEC representatives indicated that many existing controlled environmental vaults, controlled environmental huts, and cabinets lack physical collocation space. These representatives also indicated that many of the remote vaults, huts, and cabinets incumbents plan to install in the future will lack sufficient physical collocation space to accommodate physical collocation of even one rack or bay of equipment. *Public Forum: Competitive Access to Next-Generation Remote Terminals*, CC Dockets Nos. 96-98, *et al.*, Transcript, at 16-19 (May 10, 2000) (*Remote Terminal Forum*).

<sup>229</sup> See 47 C.F.R. § 51.323(f)(3) (requiring that "[w]hen planning renovations of existing facilities or constructing or leasing new facilities, an incumbent LEC must take into account projected demand for collocation of equipment").

<sup>230</sup> See *Remote Terminal Forum*, *supra* note 228, at 16-21.

<sup>231</sup> See part V.D. *supra*.

51.319(c)(5). Additionally, we ask whether incumbent LECs should be required to provide requesting carriers with demographic and other information regarding particular remote terminals similar to the information available regarding incumbent LEC central offices.

108. We ask the commenters to suggest potential solutions for the collocation space shortages within remote terminals. We invite comment on whether we should require incumbent LECs to make a certain amount of additional space available for collocation within all remote terminals and, if so, how much space we should require. For example, we ask whether we should require that each remote terminal have sufficient space available to accommodate a particular number of collocators and, if so, how many collocators should be accommodated.

109. We seek specific comment on Rhythms' proposal that we require incumbent LECs to permit collocation of individual line cards in digital loop carriers located in incumbent LEC remote terminals, assuming that these line cards are equipment necessary for interconnection or access to unbundled network elements.<sup>232</sup> We invite comment on whether it is feasible for competitive LECs to collocate their own line cards, either physically or virtually, within incumbent LECs' digital loop carriers. We request comment on whether and to what extent providing service through digital loop carriers owned by an incumbent LEC might prevent a data LEC from offering the xDSL-based services it wishes to offer. We ask, in particular, whether deployment of digital loop carriers affects distinct types of collocating carriers differently (*e.g.*, interexchange carriers operating as competitive LECs as compared to data LECs).

110. As set forth in the attached *Order*, an incumbent LEC must make available physical collocation in adjacent controlled environmental vaults or similar structures, to the extent technically feasible, only when physical collocation space in a particular incumbent LEC structure is legitimately exhausted.<sup>233</sup> We invite comment on whether we should require that an incumbent LEC allow adjacent collocation of equipment that cannot be collocated within a remote terminal without interfering with the operation of equipment already placed within that terminal. We ask whether we should require an incumbent LEC to allow adjacent collocation at remote premises of structures, such as cabinets similar to those incumbent LECs install, that occupy less space than controlled environmental vaults and similar structures. We invite the commenters to suggest other steps we might take to ensure that adjacent collocation becomes an acceptable substitute for physical collocation within remote incumbent LEC structures.

111. We request that the commenters discuss how, if at all, zoning, rights-of-way, and other property laws will affect an incumbent LEC's ability to install remote structures that are

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<sup>232</sup> See *Remote Terminal Forum*, *supra* note 228, at 106-22. In paragraph 82, *supra*, we invite comment on whether line cards are equipment necessary for interconnection or access to unbundled network elements. We note that an arbitrator recently recommended that the Pennsylvania Commission require Bell Atlantic to permit Covad and Rhythms to collocate line cards in digital loop carriers in Bell Atlantic's remote terminals. *Petition of Covad Communications Co. for an Arbitration Award against Bell Atlantic-Pennsylvania, Inc. Implementing the Line Sharing Unbundled Network Element*, Docket Nos. A-310696F0002, *et al.*, Recommended Decision, 43 (Pa. PUC June 28, 2000).

<sup>233</sup> See part IV.B. *supra*. The competitive LEC would construct these facilities. See *id.*

sufficiently large to accommodate potential collocators. We invite comment on whether incumbent LECs' easements permit adjacent collocation of remote terminals. We ask whether local governments, electric power companies, and similar third parties will allow collocators to place their own controlled environmental huts, controlled environmental vaults, cabinets, and other structures at remote locations, including on public rights of way. We note that in the *UNE Remand Order* we found that a competitive LEC should be responsible for resolving any obstacles that it encounters from municipalities or electric utilities in seeking to obtain unbundled access to an incumbent's subloop elements.<sup>234</sup> We invite comment on whether a competitive LEC should also be responsible for resolving similar problems in connection with collocation at remote incumbent LEC premises.

112. We invite comment, in addition, on whether virtual collocation constitutes an acceptable substitute for physical collocation in remote locations.<sup>235</sup> We ask commenters to discuss the relative advantages and disadvantages to incumbent and competitive LECs of physical and virtual collocation in remote incumbent LEC structures. We note that under virtual collocation, the incumbent is responsible for installing, maintaining, and repairing equipment designated by a competitive LEC.<sup>236</sup> The incumbent also might install, maintain, and repair similar equipment located in the same remote structure and used in its own or an affiliate's operations. We invite comment on what steps, if any, we should take to ensure that an incumbent does not discriminate in favor of itself or its affiliate in these installation, maintenance, and repair activities. We ask the commenters to suggest how we might amend our virtual collocation rules to facilitate subloop unbundling and access to remote terminals.

#### F. Line Sharing

113. In the *Line Sharing Order*, we required incumbent LECs to provide unbundled access to a new network element, the high frequency portion of the local loop.<sup>237</sup> We reasoned that this unbundled network element would enable competitive LECs to compete with incumbent LECs to provide xDSL-based services through telephone lines that the competitive LECs can share with incumbent LECs.<sup>238</sup> We specified that incumbent LECs must provide to requesting carriers unbundled access to the high frequency portion of the loop at the remote terminal as well as at the central office.<sup>239</sup> We invite comment on what changes to our collocation rules, if any, we should adopt to facilitate line sharing.

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<sup>234</sup> *UNE Remand Order*, 15 FCC Rcd at 3792, ¶ 213.

<sup>235</sup> *See Remote Terminal Forum*, *supra* note 228, at 128-31.

<sup>236</sup> *See* para. 8, *supra*.

<sup>237</sup> *Line Sharing Order*, 14 FCC Rcd at 20915, ¶ 4.

<sup>238</sup> *Id.*

<sup>239</sup> *Id.* at 20956, ¶ 91.

### G. Provisioning Intervals

114. In the attached *Order*,<sup>240</sup> we require that to the extent a state does not set its own standard or a requesting carrier and the incumbent LEC have not agreed to an alternative standard, an incumbent LEC must provide physical collocation, including cageless collocation, no later than 90 calendar days after receiving a collocation application. In establishing this national standard, we specifically recognize that an incumbent LEC should be able to provision many collocation arrangements in periods shorter than 90 calendar days.<sup>241</sup> We invite comment on whether we should specify an overall maximum collocation provisioning interval shorter than 90 calendar days or shorter intervals for particular types of collocation arrangements. Like the 90 calendar day interval we adopt above, these shorter intervals would apply to the extent a state does not set its own standard or a requesting carrier and the incumbent LEC have not agreed to an alternative standard.

115. We ask commenters to suggest possible maximum intervals for caged, cageless, shared, and adjacent collocation arrangements, modifications to existing collocation arrangements, collocation within remote incumbent LEC premises, and collocation involving conditioned and unconditioned space.<sup>242</sup> We also ask commenters to provide detailed information regarding the steps required to provision each of these types of collocation arrangements and the time it should take an incumbent LEC to complete those steps. We ask further whether we should specify shorter intervals when the carrier requesting collocation is willing to construct portions of a collocation arrangement itself. For instance, we ask whether we should specify a maximum provisioning interval shorter than 90 calendar days for arrangements in which a competitive LEC would install its own cage. We ask whether different collocation intervals should apply to conditioned and unconditioned space and, if so, what those intervals should be. We also invite comment on whether we should specify maximum provisioning intervals for virtual collocation arrangements and, if so, what those intervals should be.

### H. Space Reservation Policies

116. As discussed in the attached *Order*,<sup>243</sup> several state commissions, including the California Commission, Texas Commission, and Washington Commission, have taken significant steps to limit the period for which incumbent LECs and collocators can reserve space in incumbent LEC premises. We believe that these state policies properly recognize the importance of space reservation practices and their impact on a competitive LECs' ability to collocate in certain incumbent LEC premises.<sup>244</sup> As stated in the attached *Order*, we also believe

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<sup>240</sup> See part IV.A.2, *supra*.

<sup>241</sup> See note 79, *supra*.

<sup>242</sup> See *Texas Commission Order No. 51*, *supra* note 41, at 3-4.

<sup>243</sup> See part IV.C.1, *supra*.

<sup>244</sup> See *id*.

that state commissions should have the primary responsibility for resolving space reservation disputes.<sup>245</sup> In that *Order*, we encourage state commissions to adopt space reservation policies similar to those adopted by the California Commission, Texas Commission, and Washington Commission, and we decline to mandate specific space reservation periods at this time.<sup>246</sup>

117. We now seek comment on whether we should adopt a national space reservation policy that would apply where a state does not set its own standard. We ask about the prevalence of incumbent LEC premises in which physical collocation space is or is about to become exhausted and the need for a national space reservation standard. To the extent commenters indicate that a national space reservation standard is warranted, we request comment on appropriate standards for varying types of equipment. The Texas Commission, for instance, restricts space reservations in SBC central offices to one year for transport equipment; three years for digital cross-connect systems; and five years for switching equipment, power equipment, and main distribution frames.<sup>247</sup> We request comment on whether these or other standards would be appropriate for a national space reservation policy applicable where a state does not set its own standard.

## **VI. FIFTH FURTHER NOTICE OF PROPOSED RULEMAKING IN CC DOCKET NO. 96-98**

### **A. Background**

118. We recognize that some incumbent LECs are investing in new technologies and upgrading their networks by installing fiber transmission facilities and advanced electronics in the loop facility. One incumbent LEC, for example, has announced plans to deploy additional fiber transmission facilities from its central offices to new or retrofitted remote terminal sites where it will install "Next Generation" Digital Loop Carrier (NGDLC) systems and related equipment.<sup>248</sup> These NGDLC systems will convert and multiplex signals originating at customers' premises for transport back to the central office, and demultiplex and convert the signals coming from a central office for transport to customers' premises. In this section, we seek comment on whether the deployment of new network architectures, including the installation of fiber deeper into the neighborhood, necessitates any modification to or clarification of the Commission's local competition rules, particularly our rules pertaining to access to unbundled transport, loops, and subloops.

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<sup>245</sup> See *id.*

<sup>246</sup> See para. 52, *supra*

<sup>247</sup> *Texas Commission Order No. 59, supra* note 42, at 3. A digital cross-connect system is a high-speed data channel switch that, in response to dialing instructions independent of the data traveling through, switches transmission paths.

<sup>248</sup> See SBC Communications, Inc., *SBC Launches \$6 Billion Broadband Initiative*, Press Release (Oct. 18, 1999) (*SBC Oct. 18, 1999 Press Release*).

## B. Access to Loops, Subloops and Interoffice Transport

### 1. Loops and Interoffice Transport

119. In the *UNE Remand Order*, the Commission required incumbent LECs to provide access to loops and dedicated transport on an unbundled basis. The Commission clarified that the loop facility includes dark fiber, or fiber that has not been activated through connection to the electronics that “light” it.<sup>249</sup> Specifically, the Commission defined the loop network element to include “all features, functions, and capabilities of the transmission facilities, including dark fiber and attached electronics (except those used for the provision of advanced services, such as DSLAMs) owned by the incumbent LEC, between an incumbent LEC’s central office and the loop demarcation point at the customer premises.”<sup>250</sup> Thus, with the exception of DSLAMs, the loop includes attached electronics, including multiplexing equipment used to derive the loop transmission capacity.<sup>251</sup> The Commission also required incumbent LECs to provide unbundled access to interoffice transport on a dedicated and shared basis.<sup>252</sup>

120. There have been a number of developments, including new product introductions, that have occurred since the release of the *UNE Remand Order*. For example, some incumbent LECs may intend to deploy dense wavelength division multiplexing (DWDM)<sup>253</sup> or similar multiplexing equipment in the fiber feeder portion of the loop element, as well as in the transport portion of the network. Such multiplexing equipment will significantly increase the capacity of the loop from the central office to the remote terminal. Currently, an incumbent LEC is obligated to provide an unbundled loop including, but not limited to DS1, DS3, fiber and other high capacity loops as an unbundled network element under section 251(c)(3), regardless of whether the incumbent has deployed DWDM equipment or a digital loop carrier system.<sup>254</sup> An incumbent LEC is also required to provide dedicated transport, including DS1, DS3 and OC-n levels, along with the necessary attached electronics.<sup>255</sup>

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<sup>249</sup> See *UNE Remand Order*, 15 FCC Rcd at 3776, ¶ 174; see also 47 C.F.R. § 51.319(a)(1).

<sup>250</sup> See *UNE Remand Order*, 15 FCC Rcd at 3772-73, ¶ 167; see also 47 C.F.R. § 51.319(a)(1). Section 3(29) of the Act defines the term “network element” as a “facility or equipment used in the provision of a telecommunications service,” which includes “features, functions, and capabilities that are provided by means of such facility or equipment.” 47 U.S.C. § 153(29).

<sup>251</sup> *UNE Remand Order*, 15 FCC Rcd at 3776-77, ¶ 175.

<sup>252</sup> See 47 C.F.R. § 51.319(d).

<sup>253</sup> Wavelength division multiplexing (WDM) multiplies the capacity of an optical fiber by simultaneously operating at more than one wavelength, thereby allowing multiple information streams to be transmitted simultaneously over the fiber. DWDM is a higher-speed WDM system. See *NEWTON’S TELECOM DICTIONARY* 795-96 (14th ed. 1998).

<sup>254</sup> 47 C.F.R. § 51.319(a)(1).

<sup>255</sup> 47 C.F.R. § 51.319(d); see *UNE Remand Order*, 15 FCC Rcd at 3842-43, ¶ 323.

121. To the extent that incumbent LECs deploy DWDM equipment on any portion of the fiber loop, we invite comment on whether an individual optical wavelength generated by DWDM equipment is itself a loop or is it a feature, function, or capability of the fiber loop.<sup>256</sup> Parties should also address whether there are any proprietary concerns related to accessing an optical wavelength of the loop. We ask these same questions with respect to unbundled dedicated transport.

122. We also seek comment on the nature and type of electronics that are or may be attached to a loop. Currently our unbundling rules specify that the loop includes “attached electronics (except those electronics used for the provision of advanced services, such as Digital Subscriber Line Access Multiplexers).”<sup>257</sup> In view of developments in technology, we seek comment on whether we should modify this rule to exclude only those electronics used “exclusively” or “primarily” in the provision of advanced services. For example, we excluded DSLAMs from the definition of “attached electronics” because an integral function of a DSLAM is the routing and packetizing of data.<sup>258</sup> We did not, however, identify any attached electronics other than the DSLAM that were excluded from the definition of the loop. In order to clarify an incumbent LEC’s obligation to provide access to unbundled loops, we seek comment on whether there is specific equipment other than a DSLAM that should be excluded from the definition of the loop. And, if so, on what basis should we exclude this equipment? For example, should equipment that is multi-functional (*i.e.*, used for both voice and data) be included in the definition of a loop? How should we consider, for purposes of the loop definition, such multi-functional equipment?

## 2. Subloops

123. In the *UNE Remand Order*, we required incumbent LECs to offer unbundled access to subloops, defined as the portions of the loop that can be accessed at terminals in the incumbent’s outside plant, including the feeder, feeder/distribution interface, and distribution components of the loop.<sup>259</sup> The subloop element therefore includes, among other possible portions, the portion of the loop between the remote terminal and the customers’ premises, as well as the portion of the loop between the central office and the remote terminal (*i.e.*, the feeder portion of the loop), as distinct unbundled network elements. As with the loop, the subloop element also includes the attached electronics with the exception of equipment used to provide advanced services such as DSLAMs. We invite comment generally on whether the deployment of new network

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<sup>256</sup> See 47 C.F.R. § 51.319(a)(1) (noting that the loop “includes, but is not limited to, DS1, DS3, fiber and other high capacity loops”).

<sup>257</sup> *Id.*

<sup>258</sup> *UNE Remand Order*, 15 FCC Rcd at 3833-34, ¶¶ 303-04.

<sup>259</sup> 47 C.F.R. § 51.319(a)(2); see *UNE Remand Order*, 15 FCC Rcd at 3789-90, ¶ 206.

architectures necessitates any modification to or clarification of the Commission's rules concerning subloops, as well as those pertaining to line sharing.<sup>260</sup>

124. As discussed above, some incumbent LECs may intend to overlay or replace their existing network architecture with new remote terminals, fiber feeder subloops, and NGDLC systems. For example, new network architectures that employ NGDLC systems will allow incumbent LECs to provide xDSL services (as well as traditional voice services) to customers that are served by loop facilities consisting of fiber feeder plant and copper distribution plant. We ask incumbent LECs to describe their current deployment of fiber and associated multiplexing equipment in any portion of the loop facility, as well as their plans for future deployment. As incumbent LECs modify their network, we seek comment on whether incumbent LECs are required under section 251(c)(5) or any other provision of the Act to notify competing carriers of where they are deploying fiber facilities in the loop. If so, how much advance notice is appropriate? We seek comment from equipment manufacturers regarding their plans to build NGDLC systems in response to carriers' plans. We also invite manufacturers of NGDLC systems and other "next generation" equipment to describe the features, functions, and capabilities of their products, and to indicate whether their products are designed with open or proprietary interfaces.

125. As incumbent LECs deploy new network architectures, such as fiber feeder and NGDLC systems, we seek comment on what features, functions, and capabilities of the subloop are created by such deployment.<sup>261</sup> In particular, we ask whether accessing the features, functions, and capabilities of subloops consisting of fiber facilities includes access to all technically feasible transmission speeds and quality of service (QoS) classes such as Constant Bit Rate (CBR) and real time and non-real time Variable Bit Rate (VBR) that exist in the attached electronics.<sup>262</sup> We invite comment on whether the provision of multiple CBR and or VBR channels, circuits, paths, or connections over the same fiber feeder facility would cause interference or congestion that could lead to service degradation. We further seek comment on how to eliminate or control such interference. We also ask whether, in providing access to the features, functions, and capabilities of the subloop, incumbent LECs must provide access to all technically feasible transmission speeds and QoS classes even if the incumbent (or any applicable affiliate) is not itself using such capability.<sup>263</sup> In addition, we seek comment on how the various service levels should be priced, including how common costs should be allocated.

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<sup>260</sup> See 47 C.F.R. §§ 51.319(h), 51.230-233.

<sup>261</sup> 47 U.S.C. § 153(29) (defining the term "network element").

<sup>262</sup> By using various bit rates and protocols over the fiber transmission facility, carriers can tailor and segregate services to various customers along the same transmission route. We note that our unbundling rules for interoffice transmission network elements specify that transmission facilities include "all technically feasible capacity-related services, including, but not limited to, DS1, DS3 and [OC-n] levels." 47 C.F.R. § 51.319(d)(1)(i).

<sup>263</sup> For example, our unbundling rules for local circuit switching require incumbent LECs to make available all vertical features that the switch is capable of providing, regardless of the particular vertical features that the incumbent offers to its retail customers. See 47 C.F.R. § 51.319(c)(1)(iii)(B).

126. With respect to the capacity of the subloop, particularly the fiber feeder subloop, we seek comment on how capacity should be allocated among carriers where there appears to be inadequate capacity in the subloop to accommodate the services they seek to provide. In other words, how can a competitor obtain access to the fiber subloop between the central office and the remote terminal when there is not sufficient capacity on the fiber, or other available dark fiber, for the competitor to provide its service?<sup>264</sup> What are incumbent LECs' obligations to provide unbundled access to the subloop in these situations? We note that, by installing electronics on both ends of the fiber, the capacity of fiber can be increased many fold.<sup>265</sup> To the extent that the necessary electronics have already been installed, but not fully activated, our rules require incumbent LECs, at the competitors' expense, to activate such electronics to permit access by requesting carriers. In other situations, is it technically feasible for a competing carrier to install multiplexing equipment in the remote terminal and the central office that would enable competitors to access the subloop? If so, must a competitor access the fiber subloop through the incumbent's equipment, or can it access the fiber, or a wavelength, directly? To the extent the capacity between the central office and remote terminal is dictated by the equipment attached to it, is a competitor's ability to access the subloop limited by the equipment that the incumbent installs in the remote terminal? Are there any proprietary concerns related to accessing the subloop at the remote terminal?

127. To the extent there is dark fiber available between the central office and the remote terminal, competitive carriers could install the necessary electronics to light the fiber and thereby access the subloop element. If there is no space in the remote terminal to access the dark fiber, however, competitors may be unable to install the appropriate electronics. To the extent that competitors are unable to install the appropriate electronics, we seek comment on whether under section 251(d)(2) and 251(c)(3) incumbent LECs should be required to increase the capacity of the subloop to accommodate carriers' requests for access to the subloop.<sup>266</sup> We invite comment on manufacturers' plans to build NGDLC systems and other equipment to maximize the transmission capacity of the subloop.

128. We seek comment on what modifications, if any, to an incumbent's operations support systems are needed to ensure nondiscriminatory access under section 251(c)(3) in order for requesting carriers to order loops and subloops, including the features, functions, and capabilities of the fiber feeder portion of the loop. We also seek comment on operational issues stemming from these new network architectures, including how the deployment of fiber facilities and NGDLC systems affects the ability of carriers to test and monitor loop and subloop facilities and equipment. To what extent would lack of remote testing capabilities impair competitors' access to the subloop network element?

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<sup>264</sup> This situation could occur, for instance, where a competitor seeks to provide a service such as entertainment quality video over vDSL, which requires a large amount of capacity.

<sup>265</sup> See *UNE Remand Order*, 15 FCC Rcd at 3785-86, ¶ 198.

<sup>266</sup> See *Local Competition First Report and Order*, 11 FCC Rcd at 15602, 15692, ¶¶ 198, 382 (noting that the obligations imposed by sections 251(c)(2) and 251(c)(3) include modification to incumbent LEC facilities to the extent necessary to accommodate interconnection or access to network elements).

### 3. Spare Copper

129. As part of their plans to upgrade their networks, some incumbent LECs may overlay existing copper facilities in portions of the loop with fiber facilities and install NGDLC equipment in remote terminals.<sup>267</sup> When incumbents overlay existing copper facilities with fiber facilities, the copper facilities that remain in the field represent unused loop capacity that is already installed and capable of providing service. We note that in the *UNE Remand Order*, we clarified that unused loop capacity that incumbents keep dormant but ready for service, like dark fiber, is included within the definition of the loop and must be unbundled pursuant to sections 251(d)(2) and 251(c)(3).<sup>268</sup> We seek comment on what obligations incumbent LECs have with respect to the loop plant that is being replaced. For example, should competitors bear the cost and responsibility of maintaining this copper plant, to the extent they seek to utilize it?

130. In light of the anticipated deployment of additional fiber facilities, we ask incumbent LECs to describe any plans that they have to decommission, or remove from the network, copper facilities, including copper terminated at the remote terminal and copper terminated at a distribution frame in the central office. We ask incumbent LECs to describe the processes by which they determine whether to retire unused loop facilities, including unused copper facilities, and whether they intend to alter their retirement policies, such as by accelerating retirement of copper wire, in the event that they deploy additional fiber facilities in the network. In addition, we seek comment on whether incumbents should provide notice to competitors before retiring and removing copper facilities. For example, how far in advance should incumbents notify competitors of such retirement and by what means should incumbents provide such notice?

131. We ask whether the removal of copper plant would be consistent with incumbent LECs' obligations under section 251(c)(3) to provide unbundled access to loops and subloops. We inquire about the extent of involvement by state regulatory authorities in the process of retiring and removing loop plant. Should there be a state or federal approval process before incumbent LECs are permitted to retire and remove loop plant? We also seek comment on the various scenarios that could occur if an incumbent decides to retire and remove its loop plant. For example, should competitors have an opportunity to purchase copper plant that the incumbent LEC intends to retire, particularly along routes where no other copper facilities are available? If an incumbent sells its loop plant to another entity, what are the implications under the Act and our rules? Would the purchasing entity be considered a successor or assign of the incumbent for that particular loop pursuant to section 251(h)(1)(B)(ii)?

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<sup>267</sup> See *SBC Oct. 18, 1999 Press Release*, *supra* note 248.

<sup>268</sup> See *UNE Remand Order*, 15 FCC Rcd at 3776, ¶ 174. As such, incumbent LECs are required to condition such spare copper capacity to allow requesting carriers to use the basic features of the loop. See *id.* at 3771, 3775, ¶¶ 167, 172 (concluding that conditioning, or removing any devices that may diminish the capability of the loop to deliver high-speed switched wireline telecommunications capability such as xDSL, was required in order to secure access to the loop's full features, functions, and capabilities).

#### 4. Cross Connection

132. Because the Commission concluded in the *UNE Remand Order* that cross connection presents a potential bottleneck, and that incumbents may have the incentive to impose unreasonable rates, terms, and conditions for cross-connect facilities, the Commission required incumbent LECs to provide cross-connect facilities according to sections 252(d)(2) and 251(c)(3) at any technically feasible point that a requesting carrier seeks access to the loop.<sup>269</sup> The Commission further established a rebuttable presumption that the subloop can be unbundled at any accessible terminal in the outside loop plant.<sup>270</sup>

133. In light of the new network architectures that incumbent LECs are deploying, we seek comment on the technically feasible points for accessing the copper distribution portion of the loop and the fiber feeder portion of the loop at remote terminal locations. Specifically, is it technically feasible for carriers to access the subloop by interconnecting at the remote terminal? In other words, are cables containing copper pairs typically hardwired into remote terminal equipment? If so, is there a technical reason why this arrangement is necessary? Should we require incumbent LECs to modify their facilities to allow carriers to interconnect and access the subloop at the remote terminal?<sup>271</sup> With respect to new build-outs, should we require incumbent LECs to ensure that there is a technically feasible access point at the remote terminal? In general, are there any circumstances under which a special construction arrangement, including a cable splice, is necessary to access a subloop?<sup>272</sup> If so, how should these special construction arrangements be priced? Should they be priced in the same way as cross-connects? That is, should incumbents provide these according to section 252(d)(1)?<sup>273</sup> Are there means, other than special construction arrangements, that will enable competing carriers to obtain access to the subloop at the remote terminal when the copper pairs are hardwired at the remote terminal? Commenters should provide detailed information on the operational, technical and cost issues involved in the alternative ways of accessing the subloop element at the remote terminal.

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<sup>269</sup> *UNE Remand Order*, 15 FCC Rcd at 3778, ¶ 179.

<sup>270</sup> *Id.* at 3797, ¶ 223.

<sup>271</sup> See *Local Competition First Report and Order*, 11 FCC Rcd at 15602, 15692, ¶¶ 198, 382; note 266, *supra*.

<sup>272</sup> One incumbent, for example, suggests that an "engineering controlled splice" outside the remote terminal may be necessary to access the subloop at the remote terminal. See Letter from Austin C. Schlick, Counsel for SBC Communications Inc., to Magalie Roman Salas, Secretary, FCC, CC Docket No. 98-141; ASD File No. 99-49 (filed July 13, 2000), Att. at 5 (SBC Voluntary Commitments).

<sup>273</sup> See *UNE Remand Order*, 15 FCC Rcd at 3777-78, ¶ 178 (requiring charges for cross-connect facilities to meet the cost-based standard of section 252(d)(1), and the terms and conditions of providing cross-connect facilities to be reasonable and nondiscriminatory pursuant to section 251(c)(3)).

## VII. PROCEDURAL MATTERS

### A. Order on Reconsideration

#### 1. Supplemental Final Regulatory Flexibility Analysis

134. As required by the Regulatory Flexibility Act (RFA),<sup>274</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Memorandum Opinion and Order and Notice of Proposed Rulemaking* in CC Docket No. 98-147.<sup>275</sup> The Commission sought written public comment on the proposals in this *NPRM*, including comment on the IRFA.<sup>276</sup> In addition, pursuant to the RFA,<sup>277</sup> a Final Regulatory Flexibility Analysis was incorporated in the *First Report and Order* in CC Docket No. 98-147.<sup>278</sup> Appendix C, part A sets forth the Supplemental Final Regulatory Flexibility Analysis for the present *Order on Reconsideration*.

#### 2. Final Paperwork Reduction Act Analysis

135. The *Notice of Proposed Rulemaking* from which this *Order* issues proposed changes to the Commission's collocation requirements. As required by the Paperwork Reduction Act of 1995, the Commission sought comment from the public and from OMB on the proposed changes.<sup>279</sup> This *Order* contains several modified information collections that have been submitted to OMB for approval. Implementation of these information collections is subject to OMB approval, as prescribed by the Paperwork Reduction Act.

### B. Notices of Proposed Rulemaking

#### 1. Ex Parte Presentations

136. These matters shall be treated as a "permit-but-disclose" proceedings in accordance with the Commission's *ex parte* rules.<sup>280</sup> Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one or two sentence

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<sup>274</sup> See 5 U.S.C. § 603.

<sup>275</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 13 FCC Rcd 24011, 24112-16, ¶¶ 215-27 (1998) (*Advanced Services Order and NPRM*), recon. denied, FCC 00-293 (rel. Aug. 4, 2000).

<sup>276</sup> *Id.* at 24100, ¶ 199.

<sup>277</sup> See 5 U.S.C. § 604.

<sup>278</sup> *Advanced Services First Report and Order*, Appendix C, 14 FCC Rcd at 4843-47, ¶¶ 1-13.

<sup>279</sup> *Advanced Services Order and NPRM*, 13 FCC Rcd at 24099, ¶ 198.

<sup>280</sup> 47 C.F.R. §§ 1.1200 *et seq.*

description of the views and arguments presented is generally required.<sup>281</sup> Other rules pertaining to oral and written presentations are set forth in section 1.1206(b) as well.

## 2. Initial Regulatory Flexibility Act Analysis

137. Appendix C, part B sets forth the Commission's IRFA regarding the policies and rules proposed in the *Second Further Notice of Proposed Rulemaking* in CC Docket No. 98-147 and the *Fifth Further Notice of Proposed Rulemaking* in CC Docket No. 96-98. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Second Further Notice* and the *Fifth Further Notice*. The Commission will send a copy of the *Second Further Notice* and the *Fifth Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.<sup>282</sup> In addition, the *Second Further Notice* and the *Fifth Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.<sup>283</sup>

## 3. Initial Paperwork Reduction Act Analysis

138. The rule changes proposed in the *Second Further Notice* and the *Fifth Further Notice* may cause modifications to the collections of information approved by OMB in connection with the *Advanced Services First Report and Order* and the *Local Competition Second Report and Order*.<sup>284</sup> As part of our continuing effort to reduce paperwork burdens, we invite the general public and OMB to comment on the information collections contained in this *Second Further Notice* and the *Fifth Further Notice*, as required by the Paperwork Reduction Act of 1995. Public and agency comments are due at the same time as other comments on the *Second Further Notice* and the *Fifth Further Notice*; OMB comments are due 60 days from the date of publication of notice of the *Second Further Notice* and the *Fifth Further Notice* in the Federal Register. Comments should address: (a) whether the proposed information collections are necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

## 4. Comment Filing Procedures

139. Pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission's rules,<sup>285</sup> interested parties may file comments on or before September 18, 2000.

<sup>281</sup> See 47 C.F.R. § 1.1206(b)(2).

<sup>282</sup> See 5 U.S.C. § 603(a).

<sup>283</sup> See *id*.

<sup>284</sup> See OMB control number 3060-0848.

<sup>285</sup> 47 C.F.R. §§ 1.415, 1.419.

and reply comments on or before October 10, 2000. All filings should refer to CC Docket No. 98-147 and CC Docket No. 96-98. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.<sup>286</sup> Comments filed through the ECFS can be sent as an electronic file via the Internet to <<http://www.fcc.gov/e-file/ecfs.html>>. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket number, which in this instance is CC Docket No. 98-147. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to [ecfs@fcc.gov](mailto:ecfs@fcc.gov), and should include the following words in the body of the message, "get form <your e-mail address.>" A sample form and directions will be sent in reply.

140. Parties who choose to file by paper must file an original and four copies of each filing. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, Room TW-B204, 445 12th St. S.W., Washington, D.C. 20554.

141. Parties who choose to file by paper should also submit their comments on diskette. These diskettes should be submitted to Janice Myles, Common Carrier Bureau, Policy & Program Planning Division, 445 12th Street, S.W., Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible format using WordPerfect 5.1 for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the docket numbers, in this case, CC Docket No. 98-147 and CC Docket No. 96-98), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette. The label should also include the following phrase "Disk Copy - Not an Original." Each diskette should contain only one party's pleadings, preferably in a single electronic file. In addition, commenters must send diskette copies to the Commission's copy contractor, International Transcription Service, Inc., 1231 20th Street, N.W., Washington, D.C. 20036.

142. Regardless of whether parties choose to file electronically or by paper, parties should also file one copy of any documents filed in this docket with the Commission's copy contractor, International Transcription Services, Inc., 1231 20th Street, N.W., Washington, D.C. 20036. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center, Room CY-A257, 445 12th Street, S.W., Washington, D.C. 20554.

143. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with section 1.49 and all other applicable sections of the Commission's rules.<sup>287</sup> We also direct

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<sup>286</sup> See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24,121 (1998).

<sup>287</sup> See 47 C.F.R. § 1.49.

all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission. We also strongly encourage that parties track the organization set forth in the *Second Further Notice* and the *Fifth Further Notice* in order to facilitate our internal review process.

144. Written comments by the public on the proposed and/or modified information collections are due on or before September 18, 2000, and reply comments on or before October 10, 2000. Written comments must be submitted by the OMB on the proposed and/or modified information collections on or before 60 days after date of publication of notice of this *Second Further Notice* in the Federal Register. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Judy Boley, Federal Communications Commission, 1-C804, 445 12th Street, S.W., Washington, D.C. 20554 or via the Internet to [jboley@fcc.gov](mailto:jboley@fcc.gov) and to Virginia Huth, OMB Desk Officer, 10236 NEOB, 725 17th Street, N.W., Washington, D.C. 20503, or via the Internet to [vhuth@omb.eop.gov](mailto:vhuth@omb.eop.gov).

### VIII. ORDERING CLAUSES

145. Accordingly, IT IS ORDERED, pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r), that the Petition for Partial Reconsideration and/or Clarification filed June 1, 1999, by Sprint Corporation IS GRANTED to the extent indicated herein and otherwise IS DENIED.

146. IT IS FURTHER ORDERED, pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r), that the *Second Further Notice of Proposed Rulemaking* in CC Docket No. 98-147 and the *Fifth Further Notice of Proposed Rulemaking* in CC Docket No. 96-98 ARE ADOPTED.

147. IT IS FURTHER ORDERED, pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r), that Part 51 of the Commission's rules, 47 C.F.R. Part 51, IS AMENDED, as set forth in Appendix B.

148. IT IS FURTHER ORDERED, pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r), that the requirements and rules adopted in this *Order on Reconsideration* not pertaining to new or modified reporting or recordkeeping requirements SHALL BECOME EFFECTIVE thirty (30) days after publication of the text or summary thereof in the Federal Register.

149. IT IS FURTHER ORDERED, pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r), that the requirements and rules adopted in this *Order on Reconsideration* pertaining to new or modified reporting or recordkeeping requirements are

subject to approval by the Office of Management and Budget (OMB) as prescribed by the Paperwork Reduction Act and SHALL BECOME EFFECTIVE upon announcement in the Federal Register of OMB approval.

150. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Order on Reconsideration and Second Further Notice of Proposed Rulemaking* in CC Docket No. 98-147 and this *Fifth Further Notice of Proposed Rulemaking* in CC Docket No., including the Supplemental Final Regulatory Flexibility Analysis and the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION



Magalie Roman Salas  
Secretary

**APPENDIX A -- LIST OF PARTIES  
SPRINT PETITION FOR RECONSIDERATION  
(CC Docket No. 98-147)**

**Comments**

1. Ameritech
2. AT&T Corp. (AT&T)
3. Bell Atlantic
4. BellSouth Corporation (BellSouth)
5. GTE Service Corporation (GTE)
6. SBC Communications Inc. (SBC)
7. United States Telephone Association (USTA)
8. U S WEST Communications, Inc. (U S WEST)

**Replies**

1. AT&T
2. Bell Atlantic
3. Network Access Solutions Corp. (NAS)
4. Sprint

**Ex Parte Letters**

1. @link Networks, Inc. (@link)
2. Allegiance Telecom, Inc. (Allegiance)
3. Association for Local Telecommunications Services (ALTS)
4. Bell Atlantic
5. BellSouth
6. Bluestar Communications, Inc. (Bluestar)
7. BroadSpan Communications, Inc. (BroadSpan)
8. Cavalier Telephone Company (Cavalier)
9. Cisco Systems, Inc. (Cisco)
10. CoreComm Incorporated (CoreComm)
11. Covad Communications (Covad)
12. DSL Access Telecommunications Alliance (DATA)
13. DSLnet Communications, LLC (DSLnet)
14. GTE
15. Gluon Networks (Gluon)
16. Indiana Utility Regulatory Commission (Indiana Commission)
17. Intermedia Communications Inc. (Intermedia)
18. MCI WorldCom, Inc. (WorldCom)
19. Metromedia Fiber Network Services, Inc. (Metromedia Fiber)
20. New Edge Networks, Inc. (New Edge)
21. NewPath Holdings, Inc. (NewPath)
22. NorthPoint Communications, Inc. (NorthPoint)

23. Rhythms NetConnections Inc. (Rhythms)
24. SBC
25. Sigma Networks (Sigma)
26. USTA
27. U S WEST

**APPENDIX B -- FINAL RULES**

Part 51 of Title 47 of the Code of Federal Regulations is amended as follows:

**PART 51 -- INTERCONNECTION**

1. The authority for Part 51 continues to read as follows:

Authority: Sections 1-5, 7, 201-05, 207-09, 218, 225-27, 251-54, 271, 332, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 151-55, 157, 201-05, 207-09, 218, 225-27, 251-54, 271, 332, unless otherwise noted.

2. § 51.5 is amended by revising the definition of “premises” and by adding in alphabetical order a definition of “day” to read as follows:

§ 51.5 Terms and definitions.

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*Day.* Day means calendar day.

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*Premises.* Premises refers to an incumbent LEC's central offices and serving wire centers; all buildings or similar structures owned, leased, or otherwise controlled by an incumbent LEC that house its network facilities; all structures that house incumbent LEC facilities on public rights-of-way, including but not limited to vaults containing loop concentrators or similar structures; and all land owned, leased, or otherwise controlled by an incumbent LEC that is adjacent to these central offices, wire centers, buildings, and structures.

\*\*\*\*\*

3. § 51.321 is amended by revising paragraph (f) to read as follows:

\*\*\*\*\*

(f) An incumbent LEC shall submit to the state commission, subject to any protective order as the state commission may deem necessary, detailed floor plans or diagrams of any premises where the incumbent LEC claims that physical collocation is not practical because of space limitations. These floor plans or diagrams must show what space, if any, the incumbent LEC or any of its affiliates has reserved for future use, and must describe in detail the specific future uses for which the space has been reserved and the length of time for each reservation. An incumbent LEC that contends space for physical collocation is not available in an incumbent LEC premises must also allow the requesting carrier to tour the entire premises in question, not only the area in which space was denied, without charge, within ten days of the receipt of the incumbent's denial of space. An incumbent LEC must allow a requesting telecommunications

carrier reasonable access to its selected collocation space during construction.

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4. § 51.323 is amended revising paragraphs (b), (f), and (k), and by adding paragraph (l) to read as follows:

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(b) Whenever an incumbent LEC objects to collocation of equipment by a requesting telecommunications carrier for the purposes within the scope of section 251(c)(6) of the Act, the incumbent LEC shall prove to the state commission that the equipment will not be actually used by the telecommunications carrier for the purpose of obtaining interconnection or access to unbundled network elements. An incumbent LEC may not object to the collocation of equipment on the grounds that the equipment does not comply with safety or engineering standards that are more stringent than the safety or engineering standards that the incumbent LEC applies to its own equipment. An incumbent LEC may not object to the collocation of equipment on the ground that the equipment fails to comply with Network Equipment and Building Specifications performance standards or any other performance standards. An incumbent LEC that denies collocation of a competitor's equipment, citing safety standards, must provide to the competitive LEC within five business days of the denial a list of all equipment that the incumbent LEC locates at the premises in question, together with an affidavit attesting that all of that equipment meets or exceeds the safety standard that the incumbent LEC contends the competitor's equipment fails to meet. This affidavit must set forth in detail: the exact safety requirement that the requesting carrier's equipment does not satisfy; the incumbent LEC's basis for concluding that the requesting carrier's equipment does not meet this safety requirement; and the incumbent LEC's basis for concluding why collocation of equipment not meeting this safety requirement would compromise network safety. Equipment used for interconnection or access to unbundled network elements includes, but is not limited to:

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(f) An incumbent LEC shall allocate space for the collocation of the equipment identified in paragraph (b) of this section in accordance with the following requirements:

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(4) An incumbent LEC may retain a limited amount of floor space for its own specific future uses, provided, however, that neither the incumbent LEC nor any of its affiliates may reserve space for future use on terms more favorable than those that apply to other telecommunications carriers seeking to reserve collocation space for their own future use.

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(k) An incumbent LEC's physical collocation offering must include the following:

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(3) *Adjacent space collocation.* An incumbent LEC must make available, where physical collocation space is legitimately exhausted in a particular incumbent LEC structure, collocation in adjacent controlled environmental vaults, controlled environmental huts, or similar structures located at the incumbent LEC premises to the extent technically feasible. The incumbent LEC must permit a requesting telecommunications carrier to construct or otherwise procure such an adjacent structure, subject only to reasonable safety and maintenance requirements. The incumbent must provide power and physical collocation services and facilities, subject to the same nondiscrimination requirements as applicable to any other physical collocation arrangement. The incumbent LEC must permit the requesting carrier to place its own equipment, including, but not limited to, copper cables, coaxial cables, fiber cables, and telecommunications equipment, in adjacent facilities constructed by the incumbent LEC, the requesting carrier, or a third-party. If physical collocation space becomes available in a previously exhausted incumbent LEC structure, the incumbent LEC must not require a carrier to move, or prohibit a competitive LEC from moving, a collocation arrangement into that structure. Instead, the incumbent LEC must continue to allow the carrier to collocate in any adjacent controlled environmental vault, controlled environmental vault, or similar structure that the carrier has constructed or otherwise procured.

\*\*\*\*\*

(l) An incumbent LEC must offer to provide and provide all forms of physical collocation (i.e., caged, cageless, shared, and adjacent) within the following deadlines, except to the extent a state sets its own deadlines or the incumbent LEC has demonstrated to the state commission that physical collocation is not practical for technical reasons or because of space limitations.

(1) Within ten days after receiving an application for physical collocation, an incumbent LEC must inform the requesting carrier whether the application meets each of the incumbent LEC's established collocation standards. A requesting carrier that resubmits a revised application curing any deficiencies in an application for physical collocation within ten days after being informed of them retains its position within any collocation queue that the incumbent LEC maintains pursuant to paragraph (f)(1) of this section.

(2) Except as stated in paragraphs (1)(3) and (1)(4) of this section, an incumbent LEC must complete provisioning of a requested physical collocation arrangement within 90 days after

receiving an application that meets the incumbent LEC's established collocation application standards.

(3) An incumbent LEC need not meet the deadline set forth in paragraph (1)(2) of this section if, after receipt of any price quotation provided by the incumbent LEC, the telecommunications carrier requesting collocation does not notify the incumbent LEC that physical collocation should proceed.

(4) If, within seven days of the requesting carrier's receipt of any price quotation provided by the incumbent LEC, the telecommunications carrier requesting collocation does not notify the incumbent LEC that physical collocation should proceed, then the incumbent LEC need not complete provisioning of a requested physical collocation arrangement until 90 days after receiving such notification from the requesting telecommunications carrier.

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**APPENDIX C – REGULATORY FLEXIBILITY ACT****I. ORDER ON RECONSIDERATION – SUPPLEMENTAL FINAL REGULATORY FLEXIBILITY ANALYSIS**

1. As required by the Regulatory Flexibility Act (RFA),<sup>1</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Advanced Services Order and NPRM* (Notice) in CC Docket 98-147.<sup>2</sup> The Commission sought written public comment on the proposals in the Notice, including comment on the IRFA.<sup>3</sup> We received no comments specifically directed toward the IRFA. In addition, we incorporated the Final Regulatory Flexibility Analysis (FRFA) into the *Advanced Services First Report and Order* and received no petitions for reconsideration specifically directed toward the FRFA. This Supplemental Final Regulatory Flexibility Analysis (SFRFA) conforms to the RFA.

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

2. This *Order* continues our efforts to facilitate the development of competition in telecommunications services. In the *Advanced Services First Report and Order*, we strengthened our collocation rules to reduce the costs and delays faced by competitors that seek to collocate equipment in incumbent LEC premises. In this *Order*, we take additional steps toward implementing Congress' goals in enacting section 251(c)(6) of the Communications Act by clarifying and further strengthening our collocation rules. These steps should eliminate the major problems competitive LECs have been encountering in seeking to collocate in incumbent LEC premises, and thereby reduce the barriers that frustrate competitive LECs' efforts to compete effectively in the provision of advanced services and other telecommunications services.

**B. Summary of Significant Issues Raised by Public Comments in Response of the FRFA**

3. In the IRFA, we stated that any rule changes would impose minimum burdens on small entities and solicited comments on alternatives to our proposed rules that would minimize the impact that might have on small entities. In the *Final Regulatory Flexibility Analysis* (FRFA), we discussed the impact on small entities of the rules adopted in the *Advanced Services First Report and Order*. As noted above, we have received no comments or petitions specifically directed to the IRFA or the FRFA. In making the determinations reflected in the *Order*, however, we have considered the impact of our actions on small entities.

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<sup>1</sup> See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

<sup>2</sup> *Advanced Services Order and NPRM*, 13 FCC Rcd at 24112-16, ¶¶ 215-27.

<sup>3</sup> *Id.* at 24100, ¶ 199.

### C. Description and Estimate of the Number of Small Entities Affected by the Order on Reconsideration

4. In the IRFA to the *Advanced Services Order and NPRM*, we adopted the analysis and definitions set forth in determining the small entities affected by this *Order* for purposes of this SFRFA. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of entities that will be affected by the rules.<sup>4</sup> The RFA generally defines "small entity" as having the same meaning as the term "small business," "small organization," and "small governmental jurisdiction."<sup>5</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate to its activities.<sup>6</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 Small Business Administration (SBA).<sup>7</sup> The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone) to be small entities when they have no more than 1,500 employees.<sup>8</sup> We first discuss the number of small telephone companies falling within these SIC categories, then attempt to refine further those estimates to correspond with the categories of telephone companies that are commonly used under our rules.

5. The most reliable source of information regarding the total numbers of common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its Carrier Locator report, derived from filings made in connection with the Telecommunications Relay Service (TRS).<sup>9</sup> According to data in the most recent report, there are 4,144 interstate carriers.<sup>10</sup> These carriers include, *inter alia*, LECs, wireline carriers and service providers, interexchange carriers, competitive access providers, operators services providers, pay telephone operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

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<sup>4</sup> 5 U.S.C. §§ 603(b)(3), 604(a)(3).

<sup>5</sup> 5 U.S.C. § 601(6).

<sup>6</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, established one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition in the Federal Register."

<sup>7</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>8</sup> 13 C.F.R. § 121.201.

<sup>9</sup> FCC, Carrier Locator: Interstate Service Providers, Figure 1 (Jan. 2000) (*Carrier Locator*).

<sup>10</sup> *Id.*

6. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."<sup>11</sup> The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.<sup>12</sup> We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on FCC analyses and determinations in other, non-RFA contexts.

7. *Total Number of Telephone Companies Affected.* The United States Bureau of the Census (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>13</sup> These firms include a variety of different categories of carriers, including LECs, 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 4,144 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."<sup>14</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. It seems reasonable to conclude, therefore, that fewer than 4,144 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by the decisions and rules adopted in this Order.

8. *Wireline Carriers and Service Providers.* SBA has developed a definition of small entities for telephone communications companies other than radiotelephone 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>15</sup> According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons.<sup>16</sup> All but 26 of the 2,231 non-radiotelephone companies listed by the Census Bureau were reported

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<sup>11</sup> 5 U.S.C. §601(3).

<sup>12</sup> Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (filed May 27, 1999) (*SBA May 27, 1999 Letter*). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." See U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.201(b). Since 1996, out of an abundance of caution, the Commission has included small incumbent LECs in its regulatory flexibility analyses. See, e.g., *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket 96-98, First Report and Order, 11 FCC Rcd 15499, 16144-45 (1996).

<sup>13</sup> United States Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size 1-123 91995* (1992 Census).

<sup>14</sup> 15 U.S.C. § 632(a)(1).

<sup>15</sup> 1992 Census, *supra* note 13, at Firm Size 1-123.

<sup>16</sup> 13 C.F.R. § 121.201, SIC Code 4813.

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 *Order*.

9. *Local Exchange Carriers.* The Commission has not developed a special size definition of small LECs or competitive LECs. The closest applicable definition for these types of carriers under SBA rules is, again, that used for telephone communications companies other than radiotelephone (wireless) companies.<sup>17</sup> The most reliable source of information regarding the number of these carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS).<sup>18</sup> According to our most recent data, there are 1,348 incumbent LECs, 212 competitive LECs,<sup>19</sup> and 442 resellers.<sup>20</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 these carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are no more than 1,348 small entity incumbent LECs, 212 competitive LECs, and 442 resellers that may be affected by the decisions and rules adopted in this *Order*.<sup>21</sup>

#### **D. Description of Projected Reporting, Record Keeping, and other Compliance Requirements**

10. In this *Order*, we take a number of steps that may affect small entities that either provide or obtain collocation pursuant to section 251(c)(6) of the Communications Act. The requirements we adopt will require small incumbent LECs to improve their collocation provisioning processes and otherwise change their collocation practices. As Congress contemplated in enacting section 251(c)(6), however, our collocation requirements benefit small competitive LECs in their efforts to compete against incumbent LECs in the provision of telecommunications services, including advanced services. We believe that, on balance, the benefits to small competitive LECs of our actions in this *Order* far outweigh any burdens the *Order* places on small incumbent LECs.

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<sup>17</sup> 13 C.F.R. § 121.201, SIC Code 4813.

<sup>18</sup> See 47 C.F.R. § 64.601 *et seq.*; *Carrier Locator*, *supra* note 9, at fig. 1.

<sup>19</sup> The total for competitive LECs includes both competitive LECs and competitive access providers.

<sup>20</sup> *Carrier Locator*, *supra* note 9, at Fig. 1. The total for resellers includes both toll resellers and local resellers.

<sup>21</sup> This TRS category also includes competitive access providers.

11. Specifically, the national standards for physical collocation intervals that we adopt in this *Order* will decrease the costs and delays small competitive LECs encounter in seeking to collocate at incumbent LEC premises. In particular, the provisioning interval requirements we adopt (paragraphs 12-16 of this Supplemental FRFA, below) should enable competitive LECs that are small entities to bring services to potential customers more quickly than previously and thus increase their ability to compete against larger firms. Similarly, the adjunct collocation requirements (paragraphs 17 and 18, below), space denial standards (paragraphs 19 & 21, below), and safe-time work practice standards (paragraph 20, below) adopted in the *Order* should benefit competitive LECs that are small entities helping them obtain the collocation space they need to compete and otherwise helping them streamline their collocation-related operations.

12. We require that, except to the extent a state sets its own standards or the requesting carrier and the incumbent LEC have mutually agreed to alternative standards, an incumbent LEC must notify the requesting telecommunications carrier as to whether a collocation application has been accepted or denied within ten calendar days after receiving the application. We also require that if the incumbent LEC deems a collocation application unacceptable, it must advise the competitive LEC of any deficiencies within this ten calendar day period. We require that an incumbent LEC must provide sufficient detail so that the requesting carrier has a reasonable opportunity to cure each deficiency. We specify that to retain its place in the incumbent LEC's collocation queue, the competitive LEC must cure any deficiencies in its collocation application and resubmit the application within ten calendar days after being advised of them. We also require that, if the requesting carrier informs an incumbent LEC that physical collocation should proceed within seven calendar days after receiving the incumbent LEC's price quotation, the incumbent LEC must comply with the 90 calendar day provisioning interval set forth below, or any alternative interval set by a state commission or agreed to by the requesting carrier and the incumbent LEC.

13. We require, in addition, that if the competitive LEC fails to meet this deadline, the provisioning interval will begin on the date the requesting carrier informs the incumbent LEC that physical collocation should proceed. We specify that an incumbent LEC must complete any technically feasible physical collocation arrangement, whether caged or cageless, no later than 90 calendar days after receiving an acceptable collocation application, where space, whether conditioned or unconditioned, is available in the incumbent LEC premises and the state commission does not set a different interval or the incumbent and requesting carrier have not agreed to a different interval. We specify that complete provisioning of a collocation arrangement, an incumbent LEC must finish construction in accordance with the requesting carrier's application and turn functioning space over to the requesting carrier.

14. We state that incumbent LECs and competitive LECs must comply with renegotiation clauses in their interconnection agreements in negotiating specific provisions to *implement changes in our collocation rules, including the application processing deadline and 90 calendar day physical collocation interval we adopt above*. We further conclude that, within 30 days after the effective date of this Order on Reconsideration, the incumbent LEC must file with the state commission proposed amendments to any tariff or statement of generally available terms and conditions (SGAT) that does not comply with the national standards. These amendments must provide for application processing intervals and physical collocation intervals

no longer than the national standards except to the extent a state sets its own standard. We require that, for SGAT, the national standards shall take effect within 60 days after the amendment's filing except to the extent the state commission specifies other application processing or provisioning intervals for a particular type of collocation arrangement, such as cageless collocation. We also require that, where a tariff must be amended to reflect the national standards, those standards shall take effect at the earliest time permissible under applicable state requirements.

15. Absent the incumbent LEC's and requesting carrier's mutual consent, the ten calendar day deadline for responding to a collocation application and the 90 calendar day provisioning deadline will serve as maximum intervals, to the extent a state does not set its own deadlines. We require that an incumbent LEC must provide any information the state commission requires. Where an incumbent LEC seeks a departure from either deadline, the incumbent also must provide any additional information the state commission requires to resolve whether an incumbent LEC should be allowed to depart from the ten day deadline for telling the requesting carrier whether a collocation application is acceptable or the 90 calendar day provisioning deadline.

16. We conclude that to the extent the state commission permits, the incumbent LEC may require a competitive LEC to pay reasonable application fees or portions of the total collocation charges prior to processing a collocation application or provisioning a collocation agreement. We specify that a competitive LEC's exercise of any right it has to dispute those fees or charges, or any of the rates, terms, or conditions under which an incumbent LEC seeks to provide collocation, shall not relieve the incumbent LEC of its obligation to comply with each of the time limits set forth in this section. We state that an incumbent LEC may require a competitive LEC to forecast its physical collocation demands. We also specify that, absent state action conditioning compliance with application processing and provisioning intervals upon forecasts, a competitive LEC's failure to submit timely forecasts will not relieve the incumbent LEC of its obligation to comply with deadlines described above.

17. We confirm that, when space is exhausted in a particular structure, the incumbent LEC must permit a competitive LEC to collocate in a controlled environmental vault or similar structure that the competitive LEC or a third party constructs adjacent to an incumbent LEC structure. We amend section 51.5 of our rules to make clear that "premises" includes all buildings and similar structures owned, leased, or otherwise controlled by the incumbent LEC that house its network facilities, all structures that house incumbent LEC facilities on public rights-of-way, and all land owned, leased, or otherwise controlled by an incumbent LEC that is adjacent to these structures.

18. We conclude that an incumbent must make available collocation in adjacent controlled environmental vaults or similar structures, to the extent technically feasible, at premises where physical collocation space is legitimately exhausted, even if virtual collocation space is not exhausted. We specify that if collocation space becomes available in a previously exhausted incumbent LEC structure, the incumbent LEC must not require a competitive LEC to move, or preclude a competitive LEC from moving, a collocation arrangement into that structure. Where technically feasible, an incumbent LEC must make physical collocation

available in any incumbent LEC structure that houses network facilities and has space available for collocation. Such structures include, to the extent technically feasible, central offices, controlled environmental vaults, controlled environmental huts, cabinets, pedestals, and other remote terminals.

19. In the *Advanced Services First Report and Order*, we required that an incumbent LEC that denies collocation of a competitor's equipment based on safety standards must, within five business days after the denial, provide the requesting carrier with an affidavit attesting that all equipment that the incumbent LEC locates at the premises in question meets or exceeds the safety standard that, according to the incumbent LEC, the competitor's equipment does not meet. In this Order, we require that the affidavit set forth in detail: the exact safety requirement that the requesting carrier's equipment does not satisfy; the incumbent LEC's basis for concluding that the requesting carrier's equipment does not meet this safety requirement; and the incumbent LEC's basis for concluding why collocation of equipment not meeting this safety requirement would compromise network safety.

20. We require that an incumbent LEC allow the carrier requesting collocation reasonable access to its selected collocation space while the incumbent LEC prepares that space for collocation. While we do not preclude an incumbent LEC from applying reasonable and nondiscriminatory "safe-time" work practices to itself and collocators, we specify requirements for when such a practice will be considered reasonable and nondiscriminatory.

21. In the *Local Competition First Report and Order*, the Commission required any incumbent LEC that denies a request for physical collocation to provide the state commission with detailed floor plans or diagrams of its premises. In this Order, we require that each incumbent LEC provide the state commission with all information necessary for the state commission to evaluate the reasonableness of the incumbent LEC's and its affiliates' reservations of space for future growth. We require that this information shall include any information the state commission may require to implement its specific space reservation policies, including which space, if any, the incumbent or any of its affiliates have reserved for future use. We also require that the incumbent shall provide the state commission with a detailed description of the specific future uses for which the space has been reserved. We require further that an incumbent LEC shall permit any requesting telecommunications carrier to inspect any floor plans or diagrams that the incumbent LEC provides a state commission, subject to any nondisclosure protections the state commission deems appropriate. As indicated, all these requirements will produce benefits to small competitive LECs that far outweigh any burdens the Order places on small incumbent LECs.

**E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

22. In this *Order*, we clarify and strengthen our collocation rules in implementation of section 251(c)(6) of the Communications Act. These actions will affect both telecommunications carriers that request collocation and the incumbent LECs that, under section

251(c)(6). must provide collocation. As indicated above, both groups of carriers include entities that, for purposes of this SFRFA, are classified as small entities.

23. The record makes clear that, despite our actions in the *Advanced Services First Report and Order*, incumbent LECs have continued to impede requesting telecommunications carriers collocation efforts. Our actions in this *Order* should benefit requesting telecommunications carriers, many of which may be small entities, by reducing barriers they encounter in seeking to compete effectively in the provision of advanced services and other telecommunications services. These actions include requiring that, where a state does not set its own standard, an incumbent LEC must provide physical collocation, including cageless collocation, within 90 calendar days after receiving a collocation application.

24. In taking the actions in this *Order*, we have considered significant alternatives, such as setting maximum collocation provisioning intervals either shorter or longer than 90 calendar days. We selected 90 calendar days, however, based on the balance of competing considerations, including competitive LECs' need for a provisioning interval of relatively short duration. We also considered adopting shorter collocation intervals for particular types of collocation arrangements, different adjunct collocation requirements, and requirements regarding reserving space for future use, but instead invite comment on those requirements in the *Second Further Notice*. Finally, any alternative space denial and safe-time work practice requirements would decrease the ability of competitive LECs that are small entities to compete effectively. In choosing among the various alternatives, we have sought to minimize the adverse economic impact on carriers, including those that are small entities. We recognize that, while our actions should benefit competitive LECs, they may impose economic burdens on incumbent LECs, as Congress envisioned when it enacted section 251(c)(6). In comparison to incumbent LECs, however, many competitive LECs are small, entrepreneurial businesses. Our actions in this *Order* should reduce the costs and delays these competitive LECs encounter in seeking to collocate in incumbent LEC premises.

#### **F. Report to Congress**

25. The Commission will send a copy of the *Order*, including this SFRFA, in a report to be sent to Congress pursuant to the SBREFA.<sup>22</sup> In addition, the Commission will send a copy of the *Order*, including the SFRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Order* and the SFRFA (or summaries thereof) will also be published in the Federal Register.<sup>23</sup>

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<sup>22</sup> See 5 U.S.C. § 801(a)(1)(A).

<sup>23</sup> See 5 U.S.C. § 604(b).

## II. SECOND FURTHER NOTICE OF PROPOSED RULEMAKING IN CC DOCKET NO. 98-147 – SUPPLEMENTAL INITIAL REGULATORY FLEXIBILITY ACT ANALYSIS

26. As required by the Regulatory Flexibility Act (RFA),<sup>24</sup> the Commission has prepared this present Supplemental Initial Regulatory Flexibility Analysis (SIRFA) of the possible significant economic impact on small entities by the policies and rules proposed in the *Second Further Notice of Proposed Rulemaking* in Docket No. 98-147 (*Second Further Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Second Further Notice*. The Commission will send a copy of the *Second Further Notice*, including this SIRFA, to the Chief Counsel for Advocacy of the Small Business Administration.<sup>25</sup> In addition, the *Second Further Notice* and SIRFA (or summaries thereof) will be published in the Federal Register.<sup>26</sup>

### A. Need for and Objectives of the Proposed Rules

27. This *Second Further Notice* continues our efforts to facilitate the development of competition in telecommunications services. In the *Advanced Services First Report and Order*, we strengthened our collocation rules to reduce the costs and delays faced by competitors that seek to collocate equipment in incumbent LEC premises. While many aspects of those rules were affirmed on appellate review, the D.C. Circuit vacated and remanded certain aspects of those rules. In this *Second Further Notice*, we invite comment on what action we should take regarding the rules the D.C. Circuit vacated and remanded, and on other collocation related issues. We also invite comment on whether we should amend our unbundled network element rules to ensure that carriers are able to access subloops as incumbent LECs introduce new network technologies.

### B. Legal Basis

28. The *Second Further Notice* is adopted pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r).

### C. Description and Estimate of the Number of Small Entities Affected by this Second Further Notice

29. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposals in this Further NPRM, if adopted.<sup>27</sup> In the IRFA to the *Advanced Services Order and NPRM*, we adopted the

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<sup>24</sup> See 5 U.S.C. § 603.

<sup>25</sup> See 5 U.S.C. § 603(a).

<sup>26</sup> See *id.*

<sup>27</sup> See 5 U.S.C. § 603(b)(3).

analysis and definitions set forth in determining the small entities affected by this Second Further Notice for purposes of this SIRFA. The RFA generally defines "small entity" as having the same meaning as the term "small business," "small organization," and "small governmental jurisdiction."<sup>28</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate to its activities.<sup>29</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 Small Business Administration (SBA).<sup>30</sup> The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone) to be small entities when they have no more than 1,500 employees.<sup>31</sup>

30. We further describe and estimate below the number of small telephone companies that may be affected by the proposals in the *Second Further Notice*, if adopted.

31. The most reliable source of information regarding the total numbers of common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its Carrier Locator report, derived from filings made in connection with the Telecommunications Relay Service (TRS).<sup>32</sup> According to data in the most recent report, there are 4,144 interstate carriers.<sup>33</sup> These carriers include, *inter alia*, LECs, wireline carriers and service providers, interexchange carriers, competitive access providers, operators services providers, pay telephone operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

32. The SBA has defined establishments engaged in providing "Telephone Communications, Except Radiotelephone" to be small businesses when they have no more than 1,500 employees.<sup>34</sup> We discuss below the total estimated number of telephone companies and small businesses in this category and then attempt to refine further those estimates.

33. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer

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<sup>28</sup> 5 U.S.C. § 601(6).

<sup>29</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632).

<sup>30</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>31</sup> 13 C.F.R. § 121.201.

<sup>32</sup> *Carrier Locator*, *supra* note 9, at fig. 1.

<sup>33</sup> *Id.*

<sup>34</sup> 13 C.F.R. § 121.201, SIC Codes 4812 and 4813. *See* Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual* (1987).

employees), and "is not dominant in its field of operation."<sup>35</sup> The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.<sup>36</sup> We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on FCC analyses and determinations in other, non-RFA contexts.

34. *Total Number of Telephone Companies Affected.* 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>37</sup> These firms include a variety of different categories of carriers, including LECs, 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 4,144 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."<sup>38</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. It seems reasonable to conclude, therefore, that fewer than 4,144 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by the decisions and rules proposed in this *Second Further Notice*.

35. *Wireline Carriers and Service Providers.* SBA has developed a definition of small entities for telephone communications companies other than radiotelephone 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>39</sup> According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons.<sup>40</sup> All but 26 of the 2,231 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 proposed in this *Second Further Notice*.

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<sup>35</sup> 5 U.S.C. § 601(3)

<sup>36</sup> *SBA May 27, 1999 Letter, supra* note 12.

<sup>37</sup> *1992 Census, supra* note 13, at Firm Size 1-123.

<sup>38</sup> 15 U.S.C. § 632(a)(1).

<sup>39</sup> *1992 Census, supra* note 13, at Firm Size 1-123.

<sup>40</sup> 13 C.F.R. § 121.201, SIC Code 4813

36. *Local Exchange Carriers.* The Commission has not developed a special size definition of small LECs or competitive LECs. The closest applicable definition for these types of carriers under SBA rules is, again, that used for telephone communications companies other than radiotelephone (wireless) companies.<sup>41</sup> The most reliable source of information regarding the number of these carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS).<sup>42</sup> According to our most recent data, there are 1,348 incumbent LECs, 212 competitive LECs,<sup>43</sup> and 442 resellers.<sup>44</sup>

37. 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 these carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are no more than 1,348 small entity incumbent LECs, 212 competitive LECs, and 442 resellers that may be affected by the proposals in this *Second Further Notice*.<sup>45</sup>

#### **D. Description of Projected Reporting, Record Keeping, and other Compliance Requirements**

38. In the *Second Further Notice*, we seek comment regarding rules recently vacated and remanded by the D.C. Circuit, as well as on other issues regarding collocation by incumbent LECs. We invite comment, for instance, on whether we should require incumbent LECs to make physical collocation space available in increments smaller than the space necessary to accommodate a single rack or bay of equipment. We request comment on issues relating to collocation at remote incumbent LEC premises, and on whether we should change our collocation rules to facilitate line sharing and subloop unbundling. We ask whether we should specify an overall maximum collocation provisioning interval shorter than 90 calendar days or shorter intervals for particular types of collocation arrangements, such as cageless collocation, modifications to existing collocation arrangements, or collocation within remote incumbent LEC structures. We also ask whether we should adopt national standards governing the period for which incumbent LECs and collocating carriers can reserve space for future use in incumbent LEC premises. As described below, the measures under consideration in this *Second Further Notice* may, if adopted, result in additional reporting, record keeping, or other compliance requirements for telecommunications carriers, including small entities.

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<sup>41</sup> *Id.* at SIC Code 4813.

<sup>42</sup> See 47 C.F.R. § 64.601 *et seq.*; *Carrier Locator*, *supra* note 9, at fig. 1.

<sup>43</sup> The total for competitive LECs includes both competitive LECs and competitive access providers.

<sup>44</sup> *Carrier Locator*, *supra* note 9, at Fig. 1. The total for resellers includes both toll resellers and local resellers.

<sup>45</sup> This TRS category also includes competitive access providers.

39. If the Commission does not establish any new requirements regarding the provision of collocation, no additional compliance requirements are anticipated from further consideration of these issues. If, however, further obligations with respect to the provision of collocation are imposed, depending upon the specific nature of those obligations, small entities, including small incumbent LECs, may be subject to additional reporting, recordkeeping, and other compliance requirements. If further collocation requirements are imposed, compliance with further requests for collocation may require the use of engineering, technical, operational, accounting, billing, and legal skills.

**E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

40. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.<sup>46</sup>

41. In this *Second Further Notice*, we seek to develop a record sufficient to adequately address issues related to developing long-term policies related to collocation. In addressing these issues, we seek to ensure that competing providers, including small entity carriers, obtain access to inputs necessary to the provision of advanced services. We believe that the issues on which we invite comment would impose minimal burdens on small entities, including both telecommunications carriers that request collocation and the incumbent LECs that, under section 251 of the Communications Act, must provide collocation to requesting carriers. As indicated above, both groups of carriers include entities that, for purposes of this SIRFA, are classified as small entities. In framing the issues in this *Second Further Notice*, we have sought to develop a record on the potential impact our proposed rules could have upon small entities. We thus ask that commenters propose measures to avoid significant economic impact on small business entities.

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<sup>46</sup> 5 U.S.C. § 603(c).

**F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rules**

42. None.

**III. FIFTH FURTHER NOTICE OF PROPOSED RULEMAKING IN CC DOCKET NO. 96-98 – SUPPLEMENTAL INITIAL REGULATORY FLEXIBILITY ACT ANALYSIS**

43. As required by the Regulatory Flexibility Act (RFA),<sup>47</sup> the Commission has prepared this present Supplemental Initial Regulatory Flexibility Analysis (SIRFA) of the possible significant economic impact on small entities by the policies and rules proposed in the *Fifth Further Notice of Proposed Rulemaking* in Docket No. CC 96-98 (*Fifth Further Notice*). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Fifth Further Notice*. The Commission will send a copy of the *Fifth Further Notice*, including this SIRFA, to the Chief Counsel for Advocacy of the Small Business Administration.<sup>48</sup> In addition, the *Fifth Further Notice* and SIRFA (or summaries thereof) will be published in the Federal Register.<sup>49</sup>

**A. Need for and Objectives of the Proposed Rules**

44. This *Fifth Further Notice* continues our efforts to facilitate the development of competition in telecommunications services, particularly local telecommunications. We invite comment on whether we should amend our unbundled network element rules to ensure that carriers are able to gain competitive access to subloops and loops as incumbent LECs introduce new network technologies. Specifically, the Commission seeks comment on the legal and policy bases for amending our local competition unbundling rules to ensure that competitors will have competitive access to subloops and loops as new network technologies are deployed.

**B. Legal Basis**

45. The *Fifth Further Notice* is adopted pursuant to sections 1-4, 201, 202, 251-254, 256, 271, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201, 202, 251-254, 256, 271, and 303(r).

**C. Description and Estimate of the Number of Small Entities Affected by this Fifth Further Notice**

46. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposals in this *Further*

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<sup>47</sup> See 5 U.S.C. § 603.

<sup>48</sup> See 5 U.S.C. § 603(a).

<sup>49</sup> See *id.*

*NPRM*, if adopted.<sup>50</sup> In the IRFA to the *Advanced Services Order and NPRM*, we adopted the analysis and definitions set forth in determining the small entities affected by this *Fifth Further Notice* for purposes of this SIRFA. The RFA generally defines "small entity" as having the same meaning as the term "small business," "small organization," and "small governmental jurisdiction."<sup>51</sup> In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act, unless the Commission has developed one or more definitions that are appropriate to its activities.<sup>52</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 Small Business Administration (SBA).<sup>53</sup> The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone) to be small entities when they have no more than 1,500 employees.<sup>54</sup>

47. We further describe and estimate below the number of small telephone companies that may be affected by the proposals in the *Fifth Further Notice*, if adopted.

48. The most reliable source of information regarding the total numbers of common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its Carrier Locator report, derived from filings made in connection with the Telecommunications Relay Service (TRS).<sup>55</sup> According to data in the most recent report, there are 4,144 interstate carriers.<sup>56</sup> These carriers include, *inter alia*, LECs, wireline carriers and service providers, interexchange carriers, competitive access providers, operators services providers, pay telephone operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

49. The SBA has defined establishments engaged in providing "Telephone Communications, Except Radiotelephone" to be small businesses when they have no more than 1,500 employees.<sup>57</sup> We discuss below the total estimated number of telephone companies and small businesses in this category and then attempt to refine further those estimates.

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<sup>50</sup> See 5 U.S.C. § 603(b)(3).

<sup>51</sup> 5 U.S.C. § 601(6).

<sup>52</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632).

<sup>53</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>54</sup> 13 C.F.R. § 121.201.

<sup>55</sup> *Carrier Locator*, *supra* note 9, at fig. 1

<sup>56</sup> *Id.*

<sup>57</sup> 13 C.F.R. § 121.201, SIC Codes 4812 and 4813. See Executive Office of the President, Office of Management and Budget, *Standard Industrial Classification Manual* (1987).

50. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."<sup>58</sup> The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.<sup>59</sup> We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on FCC analyses and determinations in other, non-RFA contexts.

51. *Total Number of Telephone Companies Affected.* 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>60</sup> These firms include a variety of different categories of carriers, including LECs, 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 4,144 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."<sup>61</sup> For example, a PCS provider that is affiliated with an interexchange carrier having more the 1,500 employees would not meet the definition of a small business. It seems reasonable to conclude, therefore, that fewer than 4,144 telephone service firms are small entity telephone service firms or small incumbent LECs that may be affected by the decisions and rules proposed in this *Second Further Notice*.

52. *Wireline Carriers and Service Providers.* SBA has developed a definition of small entities for telephone communications companies other than radiotelephone 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>62</sup> According to SBA's definition, a small business telephone company other than a radiotelephone company is one employing no more than 1,500 persons.<sup>63</sup> All but 26 of the 2,231 non-radiotelephone companies listed by the Census Bureau were reported to have fewer that 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

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<sup>58</sup> 5 U.S.C. §601(3)

<sup>59</sup> SBA May 27, 1999 Letter, *supra* note 12.

<sup>60</sup> 1992 Census, *supra* note 13, at Firm Size 1-123.

<sup>61</sup> 15 U.S.C. § 632(a)(1).

<sup>62</sup> 1992 Census, *supra* note 13, at Firm Size 1-123.

<sup>63</sup> 13 C.F.R. § 121.201, SIC Code 4813

2,295 small entity telephone communications companies other than radiotelephone companies that may be affected by the decisions and rules proposed in the *Fifth Further Notice*.

53. *Local Exchange Carriers*. The Commission has not developed a special size definition of small LECs or competitive LECs. The closest applicable definition for these types of carriers under SBA rules is, again, that used for telephone communications companies other than radiotelephone (wireless) companies.<sup>64</sup> The most reliable source of information regarding the number of these carriers nationwide of which we are aware appears to be the data that we collect annually in connection with the Telecommunications Relay Service (TRS).<sup>65</sup> According to our most recent data, there are 1,348 incumbent LECs, 212 competitive LECs,<sup>66</sup> and 442 resellers.<sup>67</sup>

54. 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 these carriers that would qualify as small business concerns under SBA's definition. Consequently, we estimate that there are no more than 1,348 small entity incumbent LECs, 212 competitive LECs, and 442 resellers that may be affected by the proposals in this *Fifth Further Notice*.<sup>68</sup>

#### **D. Description of Projected Reporting, Record Keeping, and other Compliance Requirements**

55. In the *Fifth Further Notice* in CC Docket No. 96-98, we invite comment on several issues concerning the deployment of new network architectures. We ask, for instance, whether we should modify or clarify our definition of the loop to include access for requesting carriers at the wavelength level. We request comment on the features, functions, and capabilities of the subloop created by the deployment of new network architectures. We invite comment on incumbent LECs' obligations to provide unbundled access to the subloop, particularly the fiber feeder portion, in situations where there is inadequate existing capacity. We also seek comment on whether we should change the technically feasible points at which competing carriers may access subloops at remote terminal locations. We further invite comment on whether, as part of their deployment of additional fiber facility, incumbent LECs plan to retire and remove existing copper plant and how that would affect their obligations under our local competition rules. Finally, we inquire about whether we should alter our definition of the transport element in view of new network architectures being deployed by carriers.

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<sup>64</sup> *Id.* at SIC Code 4813.

<sup>65</sup> See 47 C.F.R. § 64.601 *et seq.*; *Carrier Locator*, *supra* note 9, at fig. 1.

<sup>66</sup> The total for competitive LECs includes both competitive LECs and competitive access providers.

<sup>67</sup> *Carrier Locator*, *supra* note 9, at Fig. 1. The total for resellers includes both toll resellers and local resellers.

<sup>68</sup> This TRS category also includes competitive access providers.

56. If the Commission does not amend our local competition rules, no additional compliance requirements are anticipated from further consideration of these issues. If, however, the Commission amends or clarifies the local competition rules to impose further obligations upon incumbent LECs to ensure competitive access to unbundled network elements, depending upon the specific nature of those obligations, small entities, including small incumbent LECs, may be subject to additional reporting, recordkeeping, and other compliance requirements. If further requirements are imposed, compliance with further requests for unbundled network elements may require the use of engineering, technical, operational, accounting, billing, and legal skills.

**E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered**

57. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.<sup>69</sup>

58. In the *Fifth Further Notice*, we seek to develop a record sufficient to adequately address issues related to developing long-term policies for ensuring that competitive carriers have access to unbundled network elements as changes are made to traditional telephone networks. In addressing these issues, we seek to ensure that competing providers, including small entity carriers, obtain access to inputs necessary to the provision voice and advanced telecommunications services. We believe that the issues on which we invite comment could impose minimal burdens on small entities, including both telecommunications carriers that request unbundled network elements and the incumbent LECs that, under section 251 of the Communications Act, must provide unbundled network elements to requesting carriers. As indicated above, both groups of carriers include entities that, for purposes of this SIRFA, are classified as small entities. In framing the issues in this *Fifth Further Notice*, we have sought to develop a record on the potential impact our proposed rules could have upon small entities. We thus ask that commenters propose measures to avoid significant economic impact on small business entities.

**F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rules**

59. None.

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<sup>69</sup> 5 U.S.C. § 603(c).