

For example, Pacific Bell is selectively complying with some ADSL standards specification (T1E1.413 Issue 2) but not with others.<sup>158</sup> Obviously, then, spectrum management cannot be left to incumbent discretion.<sup>159</sup> Indeed, even the incumbents themselves do not contend that they should be the sole arbiters of spectrum management issues.<sup>160</sup>

Where possible, the Commission should rely upon industry forum-based standards. As AT&T (pp. 57-64) discussed in its opening comments, existing standards already address many of the necessary interference issues. But the promulgation of interference standards alone cannot prevent incumbents from using those standards to disadvantage their competitors. The most important standards will address the nondiscriminatory application of such criteria, and no industry forums are currently addressing these issues in any comprehensive manner.<sup>161</sup> Consequently, the Commission should convene a forum to establish nondiscrimination rules that complement the emerging industry standards.<sup>162</sup>

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<sup>158</sup> MCI WorldCom, p. 74.

<sup>159</sup> See, e.g., GSA, p. 18; ITA, p. 18; Transwire, pp. 35-36; e.spire, p. 36; CIX, p. 27; ICG, p. 30; Rhythms, p. 7; First Regional, p. 7; IAC, pp. 19-20; U S WEST, p. 47; KMC, p. 20; MCI WorldCom, p. 65; NCTA, pp. 8-9; Allegiance, p. 8; ALTS, p. 6; accord e.spire, p. 36

<sup>160</sup> See, e.g., Ameritech, p. 24; BellSouth, p. 52; accord U S WEST, p. 47 (“U S WEST expects that its development of PSD masks and others’ contributions to the standards-setting process will adequately resolve current spectrum management issues without need for any intervention by the Commission”).

<sup>161</sup> KMC, pp. 20-21; e.sprie, p. 36; Northpoint, pp. 18-19; AT&T, p. 60; accord Sprint, p. 23; Intermedia, p. 52.

<sup>162</sup> Intermedia, p. 52; accord MCI WorldCom, p. 66; Sprint, p. 25.

The potential for incumbent abuse pending the promulgation of nondiscriminatory spectrum management standards is significant and, therefore, incumbent proposals that they should be the arbiters of spectrum management issues during this interim period must be rejected.<sup>163</sup> Already, incumbents have adopted policies that make it difficult for entrants to deploy advanced services. For example, “several of the ILECs are imposing loop specifications for the deployment of DSL services that are more restrictive than the industry defined specifications for the technology.”<sup>164</sup> Allowing incumbents to resolve spectrum management issues would allow them to favor themselves or their affiliates at the expense of their competitors. At a minimum, then, “the Commission should adopt a rule that no ILEC is permitted to exclude non-affiliated CLECs from placing DSL customers within loop plant unless that ILEC has also, at a minimum: (1) publicly announced the rules governing the deployment of xDSL technologies in its loop plant; and (2) applied those rules to its own deployment.”<sup>165</sup>

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<sup>163</sup> See, e.g., SBC, p. 34-35 (spectrum management should be controlled by the ILEC pending national standards).

<sup>164</sup> MCI WorldCom, p. 74.

<sup>165</sup> ALTS, pp. 61-62; see also AT&T, pp. 61-62; Sprint, p. 23 (pending development of national spectrum management standards, ILEC should publish guidelines and apply them nondiscriminatorily. “The ILEC guidelines should be competitively neutral and not favor the performance of the service, equipment or technology used by the ILEC (or its affiliate). . . . The guidelines must also be based on technical feasibility criteria and cannot favor the particular technology or service employed by the ILEC (or its affiliate)”).

Disclosure, however, will not be enough. Incumbents also can use this interim period to entrench their own technology as well as their own services that generate spectral interference (such as repeater-based T1). Through such tactics an incumbent would gain a long-term anticompetitive advantage for itself – or its data affiliate – and create an environment where an ILEC’s rearrangement of services or replacement of equipment is the primary determinant of how fast advanced services are deployed. Indeed, that appears to be exactly what SBC plans. SBC argues that “[e]xisting services should have priority if they operate with the applicable PSD mask requirements, and that new services should be allowed only when they will not degrade an existing service to an unacceptable level.”<sup>166</sup> The PSD masks to which SBC refers are at least in part its own internally developed PSD masks, not industry standard PSD masks and SBC admits that most PSD masks “were not designed with spectrum management in mind, and therefore [are] insufficient for that purpose.”<sup>167</sup> In other words, SBC would have the Commission grandfather its existing services based on its internal PSD masks and prohibit conflicting new services even though those PSD masks may not comply with industry standards and may be incompatible with current spectrum management needs.

For these reasons, AT&T and other commenters have concluded that a balance should be struck between existing technologies and new technologies that will support higher

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<sup>166</sup> SBC, p. 35.

<sup>167</sup> Id.

quality services at lower costs.<sup>168</sup> “[G]iven the current speed at which technology is evolving, establishing an absolute, permanent right for older technology could severely limit the ability of competitors to deploy advanced services[.]”<sup>169</sup> Thus, the Commission also should direct the industry forum it convenes to establish a reasonable sunset period for any equipment or services deployed prior to promulgation of new industry standards that are incompatible with those standards or that create barriers to the rapid growth of advanced services.

Finally, the comments leave no room for doubt that mandatory spectrum unbundling on individual loops would create technical, quality, billing, maintenance, and customer service problems. The host of difficulties detailed by various parties including entrants clearly outweigh the benefits of spectrum unbundling.<sup>170</sup> This does not mean that spectrum

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<sup>168</sup> See, e.g., Sprint, pp. 21-22 (“the Commission should establish a reasonable future date certain prior to which these non-standard technologies must be brought into compliance with the new standards. And once the standards are adopted, all new installations should conform with those standards.”); Qwest, p. 61 (“the Commission should include in its rules requirements that the ILEC continue to upgrade its network facilities to support the widespread provision of advanced services.”); accord GTE, p. 85 (“to the extent that ILECs rearrange plant to accommodate their new service offerings, they should accommodate the requests of CLECs as well. To the extent that CLECs desire the plant to be rearranged for their purposes, they should be required to pay for such rearrangements.”).

<sup>169</sup> Qwest, p. 62.

<sup>170</sup> See, e.g., SBC, pp. 38-39 (“Without a clear point of demarcation between each carrier’s responsibility and the ability of each to manage and control its network, it would be difficult, if not impossible, to perform testing, repair and maintenance on a timely basis, and an administrative nightmare to assess responsibility for an out-of-service condition on a customer’s shared line.”); GTE, p. 89 (with respect to spectrum unbundling, “there is bound to be confusion about which party must perform routine maintenance of the physical facility and how the costs of such maintenance are to be divided.”); Ameritech, p. 21 (“New issues that arise from spectrum sharing include service quality and  
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cannot be unbundled, but any unbundling should be at the discretion of the loop owner.<sup>171</sup> As AT&T (p. 63) discussed in its initial comments, the Commission should find that the features, functions, and capabilities that pass with “ownership” of the loop can be leased to other service providers.<sup>172</sup> There is no reason to believe that a loop supporting voice and data traffic simultaneously cannot support multiple carriers<sup>173</sup> and, in fact, incumbents themselves intend to separate their loops’ advances data service capability from their voice functions.<sup>174</sup> Thus,

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reliability; equipment compatibility; inter-carrier cooperation; operational procedures and practices; administrative systems; and OSS.”); *id.*, p. 22 (“Reserving the higher frequencies on a loop for data spectrum sharing could permanently relegate voice services and CPE to the lower voice frequencies.”); BellSouth, p. 52 (“the cause of the interference would be transparent to the subscriber, who would erroneously attribute the reduction in quality to inferior service by the voice carrier”); AT&T, p. 64 (“If, for example, an internet service provider could obtain the data functionality of a loop owned by another LEC without its authorization, significant billing and customer service difficulties may arise. When service complications arise, the customer is likely to call the LEC despite the fact that (i) the problem may have been caused by the internet service provider or (ii) the LEC might lack the ability to address the problem because the internet service provider controls the implicated facilities.”); U S WEST, p. 47; Bell Atlantic, p. 49; Ameritech, p. 22; Cincinnati Bell, p. 32.

<sup>171</sup> The CLEC controls the loop if it leases that unbundled network element from the ILEC.

<sup>172</sup> Accord Sprint, p. 24 (“When a requesting carrier purchases an xDSL-capable loop as an unbundled network element, then it is purchasing the entire capacity of that loop”).

<sup>173</sup> See, e.g., Ameritech, p. 28; e.spire, p. 37; accord KMC, p. 21; Level 3, p. 16; GSA, p. 16; Allegiance, p. 8; MachOne, pp. 3-4, 9; ICG, pp. 30-31; GST, pp. 34-35; Ad Hoc, p. 27; xDSL Networks, p. 9; ALTS, p. 58.

<sup>174</sup> See, e.g., Bell Atlantic Telephone Companies, Tariff No. 1, Transmittal No. 1076, CC Docket No. 98-168, Order Suspending Tariff and Designating Issues for Investigation, (released September 15, 1998); BellSouth Telecommunications, Inc., BellSouth Tariff FCC No., BellSouth Transmittal No. 476, CC Docket No. 98-161, Order Suspending Tariff and Designating Issues for Investigation, (released September 1, 1998); GTE (footnote continued on following page)

consistent with the principle that “[t]he Commission should not allow a carrier that purchases a loop to reallocate the responsibility of offering voice service to the CLEC’s customers onto the incumbent simply because it does not wish to provide that service,”<sup>175</sup> it also should not permit an ILEC to prohibit a CLEC from unbundling spectrum to other service providers so long as the services that will be carried over the loop by the other service providers could have been carried over the loop by the CLEC.<sup>176</sup>

**IV. THE COMMENTS EXHIBIT WIDESPREAD AGREEMENT THAT THE EXISTING COLLOCATION REQUIREMENTS MUST BE STRENGTHENED TO PROMOTE COMPETITION AND THE EFFICIENT USE OF SPACE.**

The initial comments filed by a host of competitive entrants confirm the extraordinary difficulties that CLECs encounter in obtaining physical collocation in ILEC central

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Telephone Operators, GTOC Tariff No. 1, GTOC Transmittal No. 1148, CC Docket No. 98-79, Order Designating Issues for Investigation, (released August 20, 1998); Pacific Bell Telephone Company, Pacific Bell Tariff FCC No. 128, Pacific Transmittal No. 1986, CC Docket No. 98-103, Order Designating Issues for Investigation, (released September 2, 1998).

<sup>175</sup> GTE, p. 89.

<sup>176</sup> There is one instance in which an incumbent should be required to take back voice service from an entrant. If an incumbent provides this service for its affiliate, then it must do so for non-affiliates as well; otherwise, the incumbent could anticompetitively disadvantage its competitors. See, e.g., Sprint, p. 26; GSA, p. 16 (“Incumbent LECs should not be permitted to allow advanced services affiliates to use the ‘other half’ of a loop, while denying that privilege to unaffiliated competitors.”). The Commission should find that the incumbent must take back the voice traffic (if requested) at the lesser of (i) the service’s forward-looking cost or (ii) the rate the incumbent charges its affiliate. This nondiscriminatory pricing standard will reduce the incumbent’s ability to engage in a price squeeze or to give its affiliate an unfair competitive advantage.

offices. The exclusionary practices of the ILECs are manifest throughout the nation, and offer strong evidence of the compelling need for the Commission to promulgate national standards, require collocation of additional types of equipment, expand the types of permissible collocation arrangements, and adopt other collocation requirements to enhance competition for advanced services to consumers.

**A. The Commission Has Clear Legal Authority To Issue Additional Collocation Rules.**

Ameritech complains that the Commission lacks jurisdiction to issue additional collocation rules for advanced services under the Eighth Circuit's decision in Iowa Utils. Bd. v. FCC.<sup>177</sup> But the Commission has unquestioned authority to modify and improve its collocation rules. To begin with, even Ameritech recognizes the Commission's authority to issue such rules if "xDSL technology is an interstate (or jurisdictionally mixed) offering."<sup>178</sup> As AT&T and other parties have explained in the Commission proceedings relating to the various ILEC interstate ADSL offerings, both local and interstate traffic will be carried over the same xDSL loop facility, just as local and interstate calls are carried over traditional voice loops today.<sup>179</sup>

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<sup>177</sup> Ameritech, pp. 32-37.

<sup>178</sup> Id.

<sup>179</sup> See, e.g., GTE Telephone Operators, GTOC Tariff No. 1, GTOC Transmittal No. 1148, Pacific Bell Telephone Company, Pacific Bell Tariff FCC No. 128, Pacific Transmittal No. 1986, BellSouth Telecommunications, Inc., BellSouth Tariff FCC No., BellSouth Transmittal No. 476, CC Docket Nos. 98-79, 98-103, 98-161, Opposition of AT&T Corp. to Direct Cases, pp. 3-6 (filed September 18, 1998); id., MCI WorldCom Comments on Direct Cases, p. 10 (filed September 18, 1998) ("ADSL services have both interstate and intrastate uses"); id., Comments on Direct Cases of Internet Service Providers' (footnote continued on following page)

Ameritech's reliance on the Eighth Circuit's Iowa Utilities Board decision ignores three essential facts. First, as Ameritech admits, the court expressly found that the Commission has authority to issue rules relating to CLEC access to unbundled network elements. CLECs use collocation for precisely that purpose. Second, § 251(c)(6) was enacted specifically to overrule the judicial decision that held the Commission could not issue rules that require incumbents to offer physical collocation.<sup>180</sup> Congress' action clearly authorizes the Commission to issue rules on that subject now. Third, the Eighth Circuit's decision itself upheld the Commission's collocation rules.<sup>181</sup> Indeed, in arguing that the Commission's existing collocation rules should be enforced without change, other ILECs effectively concede the Commission's jurisdiction to issue such rules.<sup>182</sup> In short, there can be no serious claim that the Commission lacks authority to issue additional collocation rules here.

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Consortium, p. 5 (filed September 18, 1998) ("subscribers will use ADSL for the same purpose as the conventional local loop").

<sup>180</sup> See House Report, p. 73 (purpose of § 251(c)(6) was to overrule Bell Atlantic v. FCC, 24 F.3d 1441 (D.C. Cir. 1994)).

<sup>181</sup> The LECs asked the Eighth Circuit "to vacate the FCC's entire First Report and Order," Iowa Utilities Board, 120 F.3d at 819. Nevertheless, the court expressly stated that it was "uphold[ing] all of the Commission's unbundling regulations" except for the specific rules it vacated as substantively contrary to the Act. Id. at 818 n. 38. Thus, for example, the court upheld the regulations governing collocation for access to network elements (see, e.g., 47 C.F.R. §§ 51.321, 51.323), without even questioning the Commission's authority to issue those rules.

<sup>182</sup> See, e.g., GTE, p. 76, Bell Atlantic, p. 31.

**B. The Commission Should Establish Additional National Standards.**

In the NPRM, the Commission proposed the adoption of additional national standards that would be used to establish a “floor” on collocation requirements. The Commission made clear that state commissions would remain free to strengthen (but not weaken) the national standards. The comments demonstrate broad support from a wide range of parties, including State commissions, for the view that strengthening the existing collocation standards is not only appropriate, but necessary to promote local competition nationally.<sup>183</sup>

The ILECs generally argue that only the states should have a role in establishing collocation policies.<sup>184</sup> Forcing CLECs to litigate basic rights to access and use of space in every jurisdiction and, ultimately, to contend with individual and varying state standards would not serve the Commission’s goal of efficient national deployment of advanced data services. Indeed, even putting aside the significant additional delay, experience demonstrates that a patchwork of differing state collocation policies could make deployment of consistent telecommunications services across the country all but impossible. Instead, promulgation of national standards that establish fundamental rights of access and space allocation, and which can be improved upon by the individual states, is the only practicable means to enhance the prospects for the national deployment of advanced data services.

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<sup>183</sup> MCI WorldCom, p. 52, US Xchange, p. 7, Minnesota, p. 17; KMC, p. 13, Allegiance, pp. 2-3, RCN, pp. 11-12, CWI, p. 9, Texas, p. 7; Illinois, p. 8, xDSL Networks, Inc., p. 12; Westel, p. 13; Nextlink, p. 12; ICG, p. 16; Intermedia, p. 21; TRA, p. 38; Sprint, p. 10; Level 3, p. 8; and CompTel, p. 8.

<sup>184</sup> See, e.g., Bell Atlantic, p. 31, BellSouth, p. 46, SBC, p. 20, U S WEST, p. 36.

**C. The Commission Should Expand The Types Of Equipment That May Be Collocated.**

Many commenters share AT&T's view that it is imperative that the Commission clarify and expand its rules with respect to the types of equipment that may be collocated.<sup>185</sup> As AT&T explained, the Commission should expressly permit collocators to place Remote Switching Modules ("RSMs") in collocation arrangements, and prohibit any limitations or restrictions on the use of the RSM's capabilities. Although ILECs have offered no legitimate justification why CLECs should not be allowed to collocate and use RSMs in the same manner as ILECs use them today, AT&T and other CLECs have had to litigate their right to do so in numerous individual state arbitrations and federal court appeals.<sup>186</sup> More generally, AT&T and other parties propose that the Commission refrain from specifying that only particular technologies or types of equipment are eligible for collocation. Technological advances and new market demands are producing rapid changes in equipment characteristics and functions that make it impractical and counterproductive for the Commission to attempt specific definitions of permissible and impermissible equipment.<sup>187</sup>

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<sup>185</sup> AT&T, pp. 73-78; MCI WorldCom, p. 53; KMC, p. 14; Allegiance, p. 3; RCN, pp. 12-13; CWI, p. 10; Texas, p. 8; ACTA, p. 17; ICG, p. 17, MGC, pp. 33-35; Transwire, p. 24; Intermedia, pp. 32-34; CIX, p. 24; ALTS, p. 43; Sprint, p. 11; GSA, p. 12; CompTel, p. 38; and TRA, p. 39.

<sup>186</sup> AT&T, pp. 76-77. See also MGC, p. 15, Intermedia, pp. 32-34.

<sup>187</sup> See, e.g., KMC, p. 14, GSA, p. 13; GST, p. 27; accord ALTS, p. 44; Sprint, p. 11.

ILECs also should be required to permit CLECs to collocate packet switches. Packet switching equipment placed at the edge of the network are more efficient than if they are centrally located. As such, the deployment of advanced data services will be encouraged if both ILEC and CLECs can deploy efficient data networks. In addition, unlike circuit switched equipment that has a sizeable footprint, packet technology is typically much smaller, amounting to little more than 3 to 6 square feet.<sup>188</sup> Thus, objectives of section 706 can best be served by allowing collocation of packet switching technology.

A number of ILECs object to the suggestion that the Commission should, or could, expand the list of equipment permissible for collocation – arguing, for example, that required collocation of additional equipment is unlawful because it is not “necessary.”<sup>189</sup> These arguments have already been rejected both by the Commission and the Eighth Circuit. The Commission has already, in light of the 1996 Act’s pro-competitive purpose, declined to interpret the term “necessary” in Section 251(c)(6) to mean “indispensable.”<sup>190</sup> Rather, in order “to promote competition consistent with the purposes of the Act,” the Commission properly interpreted the statutory language to mean “used” or “useful.” This decision was not appealed by

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<sup>188</sup> See, e.g., Alcatel 1100 HSS Series 700 or 1000 ATM switch description on the World-Wide-Web at <http://www.usa.and.alcatel.com/dataproduct/hssatmt.htm>.

<sup>189</sup> Cincinnati Bell, p. 20; U S WEST, p. 36; SBC, p. 16; Bell Atlantic, pp. 37-38 (the term “necessary” in 251(c)(6) means that CLECs may not collocate any equipment “that is not used exclusively for interconnection or access to unbundled network elements” (emphasis in original));

<sup>190</sup> Local Competition Order ¶ 579.

the incumbents, and there are no changed circumstances or new facts that suggest a contrary view today.<sup>191</sup> Accordingly, there can be no question that the Commission can expand the list of equipment eligible for collocation, consistent with the terms of the statute as interpreted by the Commission and Court.<sup>192</sup>

**D. The Commission Should Expand The Types Of Collocation, Including The Offering Of Cageless Collocation.**

It is also important that the Commission require incumbents to make available additional types of collocation arrangements, in order to make more collocation space available and increase the efficiency of its use. Specifically, AT&T recommended that “cageless collocation” – the alternative that would make the most efficient use of limited space – be required.<sup>193</sup> AT&T’s position was echoed by many parties.<sup>194</sup>

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<sup>191</sup> Indeed, the incumbents’ efforts to make the same argument in a similar context were flatly rejected by the Eighth Circuit. In Iowa Utilities Board, the incumbents sought to have the Court apply a similarly rigid definition of the term “necessary” in the context of § 251(d)(2)(A) (availability of network elements). On appeal, the Eighth Circuit expressly affirmed the Commission’s decision. Iowa Utils. Bd., 120 F.3d at 811; see also id., FCC Brief on Petition for Review, p. 91 (reviewing Supreme Court jurisprudence on meaning of the word “necessary”); id., Joint Brief of Intervenors in Support of the FCC, pp. 80-81 (same).

<sup>192</sup> Some ILECs also contend that the Commission cannot require them to collocate equipment that performs switching functions, because to do so would be a taking. See, e.g., GTE, pp. 61-64; Ameritech, pp. 39-40; U S WEST, pp. 36-38. In fact, as explained above, even if collocation is deemed a taking the Act’s collocation provisions were enacted to give the Commission express authority to “take” incumbent property through collocation requirements (with “just compensation” provided by the payment of forward-looking cost-based charges authorized by the Act)

<sup>193</sup> AT&T, pp. 79-81, 85-87.

Consistent with the general theme of their comments that there are no problems requiring Commission action, a number of ILECs argue that no changes should be made in the types of available collocation. Some argued that the Commission should not require cageless collocation, because there was no basis to change from the Commission's decision requiring secured areas in the Local Competition Order.<sup>195</sup> However, additional information that was unavailable in 1996 clearly supports such a change.

First, the available evidence indicates that ILECs are claiming that they have no physical collocation space in an increasing number of offices. The possibility that ILEC data affiliates might begin consuming scarce collocation space also gives the Commission a very real need to explore collocation alternatives that will provide for additional physical collocation space. Otherwise, new competitors will simply be frozen out of an opportunity to compete. Second, the real-world experience of U S WEST, as well as the commercial practices of the internet community, demonstrate that cageless collocation is practical and workable.<sup>196</sup> The new

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<sup>194</sup> MCI WorldCom, pp. 57-61, US Xchange, p. 8, IAC, p. 18; KMC, p. 16, Allegiance, p. 4, RCN, p. 13, CWI, p. 12, xDSL Networks, p. 12; Transwire, p. 26; MGC, p. 21; Intermedia, p. 30; ICG, pp. 21-22; GSA, p. 13; Sprint, p. 14; ALTS, p. 53; TRA, p. 40; CompTel, p. 37 and attached White Paper: "Uncaging Competition."

<sup>195</sup> See, e.g., Bell Atlantic, pp. 32-33; GTE, pp. 68-69.

<sup>196</sup> See AT&T, pp. 85-87. While SBC claims that the U S WEST approach is "impossible to manage from a security standpoint," that statement reveals more about SBC's attitudes towards competition than any inherent flaws in U S WEST's practices. See SBC, pp. 22-27. SBC offers nothing more than fanciful speculations about possible security risks, but no evidence that security problems have occurred in other circumstances  
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evidence, therefore, provides an ample basis for the Commission to revisit its prior collocation rules.<sup>197</sup>

ILECs also argue that cageless collocation poses unacceptable security risks.<sup>198</sup> For example, Ameritech argues that there must either be separate keyed entrances to a confined space or there must be escorts.<sup>199</sup> Limiting cageless collocation to a “shared” confined space with separate entrances does not significantly increase the amount of space otherwise available for collocation – only a limited portion of the central office is typically available for collocation

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involving non-ILEC personnel, or any reason to assume that CLEC technicians would be likely to commit such acts.

<sup>197</sup> BellSouth contends that the Commission cannot presume that an arrangement is technically feasible at one location simply because it is used at another, because that is not always so. BellSouth, p. 46. But it is usually so, and that alone justifies the Commission’s proposed presumption, particularly in light of the incumbents’ asymmetrical control over the relevant facilities and data and their anticompetitive incentives to abuse that control to deny access. As always, the incumbent would be permitted to rebut the rebuttable presumption with specific, convincing evidence that a particular arrangement used at one location is infeasible at another location.

<sup>198</sup> BellSouth, p. 46 (opposing any FCC national regulations on collocation as “micromanagement”); SBC, p. 22; Bell Atlantic, pp. 32-34; and GTE, p. 68. Bell Atlantic states that adoption of cageless collocation would mean that ILECs are the only entities that could not secure their own equipment to protect it from access by others. Bell Atlantic, p. 34. Naturally, in a cageless collocation situation Bell Atlantic could elect to house its equipment in secure cabinets if it wished. Bell Atlantic also overlooks the fact that all CLEC circuits ultimately are served from the ILEC’s Main Distribution Frame, and thus the ILEC always has exclusive access to every circuit that the CLEC has provisioned in an office.

<sup>199</sup> Ameritech, p. 42.

arrangements with separate entrances. Cageless collocation, by contrast, allows any available conditioned space to be used for collocation.<sup>200</sup>

Nor does Ameritech explain why escorts are necessary. U S WEST does not require escorts for cageless collocation, but permits CLEC technicians to enter their facility provided they are suitably registered and have the proper identification and pass cards. Moreover, ILECs permit contract maintenance personnel, vendor technicians, temporary employees, and many other people to enter their central offices every day without requiring that they be escorted everywhere they go. None of the ILECs offer any reasons why CLEC technicians must be regarded as a greater security risk than any of the other non-ILEC personnel who are allowed to work in ILEC central offices.

The comments also make clear that virtual collocation is not an adequate alternative to cageless collocation. Virtual collocation deprives the CLEC of important access to its equipment, may result in inexperienced ILEC technicians attempting to maintain the equipment, and can result in unacceptably long repair intervals where emergency repairs are needed at unmanned locations or after normal working hours.<sup>201</sup> As CompTel points out, virtual collocation “increases the costs of routine maintenance and could adversely affect the service quality provided by the CLEC to its customers.”<sup>202</sup>

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<sup>200</sup> See, e.g., CompTel White Paper, pp. 11-14, 16, 18.

<sup>201</sup> See, e.g., *id.*, p. 16.

<sup>202</sup> *Id.*

Similarly, Covad highlights a number of basic shortcomings with virtual collocation that would not occur in a cageless collocation situation.<sup>203</sup> For example, virtual collocation leaves the CLEC with little or no control over their equipment cost and service quality. It imposes costs on the CLEC to train one or more ILEC technicians at considerable expense to perform maintenance, but gives the CLEC no control (e.g., the ability to assign or dismiss) a technician whose performance is unacceptable, or to keep one whose performance is exceptional. Moreover, if there is competing demand for the technician's time, ILEC services will likely be favored.<sup>204</sup> Virtual collocation also entails considerable coordination with the ILEC, which will inevitably lead to communication and logistical problems in connection with the virtually collocated equipment that the ILEC does not experience for its own services and equipment.<sup>205</sup> Covad also notes that virtual collocation may result in the ILEC learning trade secrets about its competitor's business.

To the extent the Commission believes there is any merit in the objections raised by the ILECs about cageless collocation – and there is none – an alternative approach would be to treat cageless collocation as a “fall back” requirement for central office collocation. Under this approach, the Commission would require that ILECs offer cageless collocation in central offices in which they can no longer satisfy collocater requests for physical collocation using

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<sup>203</sup> See Covad, pp. 35-36; id., Affidavit of Regan (“Regan Aff.”).

<sup>204</sup> Regan Aff., p. 32.

<sup>205</sup> Id., p. 33.

shared or individual caged collocation arrangements. In this way, the number of central offices in which cageless collocation is required will be reduced, and if an ILEC truly wishes to avoid offering cageless collocation it will have a strong incentive to find the necessary space for “caged” physical collocation.<sup>206</sup>

Although vastly inferior to cageless collocation, even shared collocation cages would be an improvement over the status quo, since a shared cage utilizes space much more efficiently than the standard individual 10 by 10 cages that the ILECs now require. Accordingly, at a minimum the Commission should require that ILECs offer shared collocation cages.

The Commission should not, however, simply order smaller minimum sizes for cages. As AT&T explained in its initial comments, smaller cages are an even less efficient use of central office space than the current arrangements.<sup>207</sup> For collocators with modest space needs, cageless or shared cage collocation is a far preferable alternative.<sup>208</sup>

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<sup>206</sup> In order to create an incentive for ILECs to properly plan for collocation needs, and provide the physical collocation space that their competitors need, ILECs should not be allowed to recover the costs of any additional security measures they deem necessary for “cageless” collocation. Such a result is appropriate given that U S WEST only requires appropriate pass cards and badging of CLEC technicians, and hence has established a appropriate “benchmark” standard. Moreover, the internet community does not utilize special security arrangements, which further demonstrates the practicality of this approach.

<sup>207</sup> AT&T, pp. 80, 83-84.

<sup>208</sup> Requiring ILECs to eliminate the use of “Point of Termination” bays (“POT bays”) will also significantly increase the efficiency of collocation space utilization and significantly decrease costs. AT&T, p. 82.

Finally, the Commission should also make clear that ILECs must provide appropriate “collocation” opportunities in remote terminals, controlled environmental vaults, and other points at which copper loop facilities terminate.<sup>209</sup> The ILECs predictably object to offering any collocation rights in remote locations,<sup>210</sup> but other commenters have demonstrated the clear need for such forms of collocation.<sup>211</sup> Although traditional “caged” collocation arrangements are unlikely to be feasible in many remote facilities, other options, such as cageless arrangements, are both practicable and necessary, in order to bring advanced services competition to customers whose copper loops terminate at such locations.

**E. The Commission Should Establish New Policies To Deal With Collocation Space Allocation and Exhaustion.**

As AT&T explained in its initial comments (pp. 88-89), the processes followed in the allocation of collocation space, and the treatment of collocators as space becomes exhausted, require reform. This need is especially acute where an ILEC data affiliate may be using scarce collocation space.

As multiple commenters note, one straightforward and effective solution to collocation space problems is to require incumbents to remove obsolete and out-of-service equipment and non-network related functions that are using up scarce space in ILEC central

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<sup>209</sup> AT&T, pp. 70-71; see also supra, p. 51.

<sup>210</sup> See, e.g., BellSouth, p. 50; Bell Atlantic, p. 51; SBC, p. 45.

<sup>211</sup> See, e.g., PSINet, p. 16; Transwire, p. 38; Northpoint, p. 20; xDSL Networks, p. 8; accord TNS, p. 9; MCI WorldCom, p. 70; Allegiance, p. 9.

office buildings.<sup>212</sup> ILECs complain that the concept of “obsolete” equipment is difficult to define and apply.<sup>213</sup> It is undoubtedly true that some equipment may be difficult to cubbyhole. It will be quite clear, however, that other equipment is obsolete or is simply being warehoused. Plainly, the Commission should not reject a rule that will significantly advance the Act’s mandate of nondiscriminatory collocation simply because it may prove difficult to enforce in some cases.<sup>214</sup> The Commission should, in all events, make clear that ILECs cannot deny collocation requests on U S WEST’s proposed ground that central office space is being used to “warehouse” inactive equipment.<sup>215</sup>

A number of parties strongly support the Commission’s suggestion that a requesting carrier should be permitted to tour the central office when the ILEC claims to have no space available.<sup>216</sup> ILECs counter that a series of continuing inspections by individual CLECs would be unduly burdensome. But, as GTE and SBC concede, such inspections could be conducted by a third party who could determine the necessary frequency of inspections based on

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<sup>212</sup> Allegiance, p. 5; Nextlink, p. 14; and ICG, p. 22. AT&T, p. 88.

<sup>213</sup> See Ameritech, p. 44, Bell Atlantic, pp. 42-43, U S WEST, p. 41.

<sup>214</sup> Proof problems could also be addressed, for example, by focusing on the removal of equipment that is not “used and useful,” rather than equipment that is “obsolete.”

<sup>215</sup> U S WEST, p. 41.

<sup>216</sup> See, e.g., ACTA, p. 17; Allegiance, p. 6; AT&T, p. 98; CTSI, p. 9; e.spire, pp. 28-29; First Regional, p. 31; ICG, p. 26; Illinois, p. 12; Sprint, p. 18; Rhythms, pp. 30-31; Northpoint, p. 15; Network Plus, p. 10; NAS, p. 25; MCI WorldCom, pp. 61-62; KMC, p. 18; Intermedia, p. 43; accord Qwest, p. 57.

the nature of requests and the pace of change at the office in question.<sup>217</sup> AT&T would not object to the use of third party inspections, provided that the selection of the third party is made jointly by the ILEC and the CLEC, or by the state commission, and provided that the ILEC agrees to abide by the recommendations of the inspector in the event that the inspector finds space available for collocation.<sup>218</sup>

ILECs also object to providing collocators with updated information on the availability of collocation space in particular central offices.<sup>219</sup> These objections are makeweights. ILECs must obviously monitor their central office space availability on a regular basis in order to gauge expansion requirements and capital investment plans. Requests that information on space availability be made available on a regular basis would not, therefore, be burdensome in the least. More fundamentally, CLECs need to know where collocation spaces are available in order to plan their own networks and capital spending, so this information is essential to proper management and planning of the CLEC's own network.

Finally, as AT&T explained in its opening comments, the ILECs have obvious, anticompetitive incentives to favor their separate subsidiaries in the allocation of collocation

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<sup>217</sup> SBC, p. 29, GTE, pp. 71-72. Ameritech states that state PUC inspections in response to claims of space exhaustion would be agreeable to it. Ameritech, p. 46 .

<sup>218</sup> Bell Atlantic objects to being a "tour operator." Bell Atlantic, p. 42. However, Bell Atlantic will have to give "tours" only where it has refused access to a bottleneck facility to a competitor.

<sup>219</sup> See, e.g., Ameritech, p. 47, BellSouth, p. 47.

space. This fact creates a risk that the ILECs' separate subsidiaries could squeeze out other potential competitors through reservation of collocation space. Accordingly, AT&T proposed that ILEC subsidiaries should not be allowed to occupy or reserve more than 25 percent of current or potential collocation space in any given ILEC location, including Remote terminals.<sup>220</sup> Many other parties expressed similar concerns.<sup>221</sup> The ILECs comments, which request absolute freedom for the ILECs and their affiliates to use up as much collocation space as they want, confirm the importance of Commission regulations that limit the reservation of space by ILEC subsidiaries.<sup>222</sup>

**F. Collocators Should Be Permitted To Use Copper Cable.**

The Commission should permit collocators to use copper cable to interconnect with the ILEC's network, without need for special authorizations.<sup>223</sup> The availability of copper cable, in addition to fiber, will provide important flexibility for advanced services. For example, it will allow parties to offer xDSL services using their own remotely located DSLAM equipment,

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<sup>220</sup> AT&T, pp. 90-91.

<sup>221</sup> MCI WorldCom, p. 54, ACTA, p. 16; Westel, pp. 14, 17-18 (advocating 33 percent limit on affiliate use of collocation space); Nextlink, p. 14; ICG, p. 26; CIX, p. 25 (affiliate should have no right to collocate unless three CLECs already have operational collocation arrangements); CompTel, p. 45 (advocating 33 percent limit on affiliate use of collocation space); and Sprint, p. 12.

<sup>222</sup> Ameritech, p. 48, GTE, p. 65.

<sup>223</sup> AT&T, pp. 91-93. The right to extend copper cables in collocation situations should be extended to all collocators, and therefore AT&T should not be disadvantaged in cases where it is interconnecting from a "condominium" arrangement in the same building as the central office.

in instances where collocation space is no longer available at the central office.<sup>224</sup> The “collocation by nearby location” concept suggested by NEXTLINK also appears to contemplate the use of copper cables from the nearby location into the central office.<sup>225</sup> Accordingly, the Commission should make clear that ILECs have an obligation to permit the use of copper cable, in addition to fiber, for purposes of collocation.

**V. THE COMMISSION SHOULD REJECT THE ILECS’ EFFORTS TO REMOVE EQUIPMENT AND FACILITIES USED FOR ADVANCED SERVICES FROM SECTION 251(C)(3) UNBUNDLING OBLIGATIONS.**

Numerous commenters support the Commission’s conclusions that “all equipment and facilities used in the provision of advanced services are ‘network elements’ as defined by section 153(29),” and “that the facilities and equipment used to provide advanced services are network elements subject to the obligations in section 251(c).” NPRM ¶ 57.<sup>226</sup> In particular, those comments confirm that packet switching, like circuit switching, is a functionality fully subject to the unbundling obligation.<sup>227</sup>

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<sup>224</sup> See Transwire, p. 25.

<sup>225</sup> Nextlink, pp. 16-18. Nextlink proposes placing collocation equipment in a nearby building and interconnecting from there to the ILEC central office, avoiding the need to place electronic equipment in the central office itself. AT&T presumes that this contemplates the use of copper cables from the “nearby” location into the central office, since the use of fiber optic cable would require the placement of electronics.

<sup>226</sup> See AT&T, pp. 93-96; MCI WorldCom, pp. 75-76, 85; SBA, p. 29; Qwest, pp. 8, 59, 69; KMC, p. 24; RCN, p. 20; Sprint, p. 63; ISP, p. 9; Intermedia, pp. 62-63.

<sup>227</sup> AT&T, p. 95; MCI WorldCom, p. 75; e.spire, p. 47; Qwest, p. 65; Intermedia, p. 59.

Not surprisingly, the incumbent LECs nevertheless ask the Commission to exempt the equipment and facilities that they use to provide advanced services from the Act's unbundling requirements. Having failed to convince the Commission that advanced services are not telecommunications services within the meaning of Section 251(c)(3), NPRM ¶¶ 40-44, and having failed to prevail on their claim that the Commission has the authority to forbear from enforcing the requirements of Section 251(c) under Section 706, NPRM ¶¶ 77-79, the incumbent LECs now try a different tack. In particular, the ILECs now argue that because "advanced electronics such as DSLAMs, ATM switches and other packet-switching equipment are . . . readily available to all carriers on the open market,"<sup>228</sup> the failure of an incumbent LEC to provide unbundled access to that equipment would purportedly not "impair" a new entrant's ability to provide advanced services.<sup>229</sup> Accordingly, the ILECs argue, the Commission should conclude that under Section 251(d)(2)'s standards that equipment should not be "subject to section 251(c)'s unbundling obligation."<sup>230</sup> This argument is baseless.

In its Local Competition Order, the Commission construed the term "impair" in Section 251(d)(2)(B) to mean "to make or cause to become worse; to diminish in value," and concluded that that standard is met, and a particular facility or equipment must be unbundled, whenever a new entrant's "cost of providing the service rises" "absent access to the requested

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<sup>228</sup> U S WEST, p. 4.

<sup>229</sup> Bell Atlantic, p. 19.

<sup>230</sup> Bell Atlantic, p. 2; U S WEST, pp. i, 3-7; BellSouth, p. 25.

element.” Local Competition Order ¶ 285. The Commission further concluded that it “must consider this standard by evaluating whether a carrier could offer a service using other unbundled elements within an incumbent LEC’s network.” Id. The Commission thus squarely held that the “impairment” standard is satisfied whenever “the failure of an incumbent to provide access to a network element would decrease the quality, or increase the financial or administrative cost of the service a requesting carrier seeks to offer, compared with providing that service over other unbundled elements in the incumbent LEC’s network.” Id. (emphasis added).

The incumbent LECs do not even attempt to satisfy this standard, much less provide any record evidence that a new entrant could provide advanced services absent access to the ILECs’ packet switches by using other equipment in the ILECs’ networks. Instead, the ILECs simply claim that new entrants could purchase their own ATM switches from third party vendors “on the open market.” See supra. But that claim is simply irrelevant under the Commission’s rules – and with good reason. It is always the case that any network element could theoretically be duplicated elsewhere. As the Commission correctly concluded, however, the failure of an incumbent LEC to provide access to its network elements would nevertheless create a barrier to entry, because new entrants would not initially have the volume of customers that the ILEC has and that is generally necessary to make purchase of redundant facilities economical and because the inherent practical limitations on collocation mean that owning a price of equipment does not assure an entrant the ability to utilize that equipment in conjunction with the incumbent’s network. See Local Competition Order ¶ 411 (finding that an ILEC’s failure to

provide access to its circuit switches would create a significant “barrier to entry”). An ILEC’s failure to provide unbundled access to its ATM switches would thus “impair” CLECs’ ability to compete as much as would the ILEC’s failure to unbundle its circuit switches.

**VI. THE COMMENTS CONFIRM THAT THE COMMISSION’S PROPOSALS FOR “TARGETED” INTERLATA RELIEF ARE MISGUIDED AND SHOULD NOT BE PURSUED.**

AT&T’s opening comments demonstrated that the Commission’s proposals for exercising its authority under Section 3(25)(B) to modify LATA boundaries as a means of granting BOCs “targeted” interlata relief were ill-advised and should not be adopted. The comments overwhelmingly confirm the soundness of those views – in two quite different respects.

First, the overwhelming majority of non-BOC commenters agree that using Section (3)(25)(B) to grant “piecemeal waivers” of Section 271’s interLATA restriction would be both unlawful and bad policy. They agree that such a policy would unlawfully subvert Section 271<sup>231</sup> and violate the explicit command of Section 10(d), which prohibits the Commission from forbearing from applying any provision of Section 271 until (as has not yet occurred) Section 271 has been “fully implemented.”<sup>232</sup> These comments further point out that Congress specifically provided in Section 271(g)(2) that BOCs could immediately provide, as

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<sup>231</sup> See, e.g., CIX, p. 31; CompTel, p. 51; KMC, p. 25; TNS, p. 10; US Xchange, p. 13.

<sup>232</sup> See, e.g., ALTS, pp. 68-70; CWI, pp. 17-18; Cablevision, pp. 4-6; CIX, p. 32; CompTel, pp. 49-50; e.spire, p. 50; Florida Digital Networking, p. 5; Hyperion, p. 7; Intermedia, p. 66; MCI WorldCom, p. 3; PSINet, p. 16; Transwire, p. 44.

incidental interLATA services, “two-way interactive video services or Internet services over dedicated facilities to or for elementary or secondary schools.”<sup>233</sup> Because the Act provides that this grant was “intended to be narrowly construed,”<sup>234</sup> it would contravene Congress’ express intent for the Commission to attempt to broaden that provision through the back door of LATA boundary modifications.<sup>235</sup>

These commenters further agree that granting such relief would diminish the BOCs’ incentives to comply with the market-opening requirements of Section 271.<sup>236</sup> Indeed, as CompTel points out, a permissive approach to requests for such modifications would also create perverse incentives for the BOCs to withhold providing advanced services as a means of “demonstrating” a need for interLATA relief.<sup>237</sup> The Commission has already begun to see such conduct. In particular, as several commenters note, Bell Atlantic advanced a trumped-up claim of a “bandwidth emergency” in West Virginia on the asserted ground that certain high-speed interLATA data links were unavailable, notwithstanding the fact that Bell Atlantic had never even asked AT&T for the circuits it claimed to the Commission that it could not obtain, that

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<sup>233</sup> See 47 U.S.C. § 271(g)(2).

<sup>234</sup> See 47 U.S.C. § 271(h).

<sup>235</sup> See, e.g., CIX, pp. 32-33; CompTel, p. 49; Florida Digital Network, p. 6; Intermedia, p. 67; Texas, p. 18; Transwire, pp. 44-45.

<sup>236</sup> See, e.g., CWI, p. 17; Cablevision, p. 7; CIX, p. 33; CTSI, pp. 12-13; Intermedia, p. 70; RCN, p. 22.

<sup>237</sup> See CompTel, pp. 50-51.