

conduit for fiber facilities and admit that time and expense can greatly be reduced if pre-existing conduit is available, or if aerial deployment is used.²²⁰

77. We assume for purposes of our analysis that existing conduit is available to competitive carriers that seek to deploy their own transport facilities. All LECs are obligated under sections 251(b)(4) and 224 of the Act to provide access to poles, ducts, and conduit.²²¹ The record contains evidence that existing conduit frequently is available for use by competitive LECs that wish to deploy their own fiber.²²² In light of these factors, it is reasonable to assume that a reasonably efficient competitive LEC, as a general rule, need not always install new conduit in order to deploy its own dedicated transport facilities.²²³ Even so, the record also shows that competitive LECs must still invest significant time and money to deploy facilities, even where conduit is already in place.²²⁴

2. Proxy Approach to Impairment

a. Defining Relevant Markets

78. Defining relevant markets is a prerequisite step to identifying where competitors are impaired or not impaired without unbundled access to dedicated transport.²²⁵ First, we define the relevant markets for transport as routes connecting two points. Then, we explain why it is important to analyze transport on a capacity-specific basis.

(i) Route-Specific Approach

79. Based on the economic characteristics described above and the variability of the cost of deployment, we measure impairment with regard to dedicated transport on a route-by-route basis.²²⁶

²²⁰ Alpheus Comments at 60-62 & Joint Declaration of Eleuterio (Teo) Galvan Jr. and Francisco Maella (Alpheus Galvan/Maella Decl.) at 30; ALTS *et al.* Comments at 65 (citing El Paso/Conversent Nov. 26, 2002 *Ex Parte* Letter, CC Dkt. Nos. 01-338, 96-98, 98-147, Attach. at 14-15 for the proposition that the cost of fiber construction increases tenfold when a carrier must deploy its own conduit, rather than pull fiber through existing conduit); Lightship Gawlick Decl. at para. 4 (noting that placing fiber underground can cost several hundred thousand dollars per mile, while placing fiber on poles costs a fraction of that amount); Loop and Transport Coalition Comments at 79-80 (same).

²²¹ 47 U.S.C. §§ 224, 251(b)(4).

²²² Qwest Reply at 36-37.

²²³ To the extent that any party may believe that sections 224 or 251(b)(4) of the Act require some different interpretation or implementation, such concerns are outside the scope of this proceeding. *See supra* para. 23.

²²⁴ Alpheus Galvan/Maella Decl. at paras. 60-88.

²²⁵ *See USTA II*, 359 F.3d at 574.

²²⁶ In contrast to other elements, such as fiber-to-the-home loops, hybrid loops, and mass market local circuit switching, we do not undertake an “at a minimum” analysis of factors other than impairment with respect to dedicated transport. In the case of fiber loops, our decisions to consider other factors in addition to impairment were designed to further deployment – by incumbent LECs and competitive LECs alike – of advanced telecommunications capabilities to the public. In the case of mass-market switching, our decision is based on a similar desire to promote infrastructure deployment, which we conclude below is hampered by the availability of the so-called “UNE Platform.” These concerns are not pertinent with regard to the dedicated transport links at issue here, which are (continued....)

However, we revise our approach to evaluating route-specific impairment, as described below, to accommodate reasonable inferences that can be drawn between similarly situated routes based on evidence of actual deployment by competing carriers. We find that this approach responds to the D.C. Circuit's concerns regarding the *Triennial Review Order's* dedicated transport rules, and is consistent with the court's guidance that "[a]ny process of inferring impairment (or its absence) from levels of deployment depends on a sensible definition of the markets in which deployment is counted."²²⁷ Thus, as we did in the *Triennial Review Order*, we identify the route as the appropriate level of granularity for our analysis. However, in order to give effect to the reasonable inferences that can be drawn between similar markets, we depart from the *Triennial Review Order's* exclusive focus on the particular route at issue, and instead establish categories of routes, as defined by the economic characteristics of each end-point of the route, in order to better identify routes with similar economic traits. We thus find no impairment not only on routes exhibiting actual competitive deployment but also on routes that are similar, in relevant respects, to those routes.

80. A route-specific market focus, as well as treating similar routes in a like fashion, is consistent with long-standing Commission precedent identifying transport as a link between two points.²²⁸ We define a route, for purposes of our analysis here, as a connection between incumbent LEC wire center or switch A and incumbent LEC wire center or switch Z. Even where in the incumbent LEC's network, a transport circuit from A to Z passes through an intermediate wire center X, the relevant determination is whether competitive providers are impaired without access between the two end-points, A and Z. Individual routes, even within the same larger geographic area, may have very different economic characteristics because, for instance, some routes may connect points of very high traffic aggregation while other routes do not. We find that analyzing transport at this very detailed level is necessary given the unique economic and operational characteristics of each individual route.

81. *Other Major Market Definition Proposals.* We believe the above market definition is the most reasonable, given that other proposed approaches would not provide a reliable definition of the market for the purpose of determining impairment. As a threshold matter, there are no comparable geographic regions that we are able to identify as administrable, appropriate, and otherwise reasonable at the federal level.²²⁹

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already widely deployed by incumbent LECs and will necessarily, subject to our ruling today, be utilized in conjunction with competitively deployed switches and/or other competitor-owned facilities.

²²⁷ *USTA II*, 359 F.3d at 574.

²²⁸ See, e.g., *LEC Classification Order*, 12 FCC Rcd at 15762, 15793, paras. 5, 65 ("We define the relevant geographic market for interstate, domestic, long distance services as all possible routes that allow for a connection from one particular location to another particular location (i.e., a point-to-point market). We conclude, however, that when a group of point-to-point markets exhibit sufficiently similar competitive characteristics (i.e., market structure), we can aggregate such markets, rather than examine each individual point-to-point market separately."); *Application of NYNEX Corp., Transferor, and Bell Atlantic Corp., Transferee, For Consent to Transfer Control of NYNEX Corp. and its Subsidiaries*, File No. NSD-L-96-10, Memorandum Opinion and Order, 12 FCC Rcd 19985, 20016-17, para. 54 (1997) ("A geographic market aggregates those consumers with similar choices regarding a particular good or service in the same geographical area. In the [*LEC Classification Order*], we found that each point-to-point market constituted a separate geographic market. We further concluded, however, that we could consider groups of point-to-point markets where customers faced the same competitive conditions.") (internal footnotes omitted).

²²⁹ See, e.g., Maryland Commission Comments, Attach. 4, Summary of the Impairment Analysis Performed by the Staff of the Public Service Commission of Maryland in Case Nos. 8983 and 8988 at 8-12 (describing the collection (continued....))

82. We reject the proposals by Verizon and BellSouth that the Commission adopt conclusions on transport that apply to entire MSAs.²³⁰ The Commission previously determined that a geographic area as large as a MSA is so large and varied that such a grouping is prone to significantly overbroad impairment determinations.²³¹ MSAs are comprised of communities that share a locus of commerce, but not necessarily common economic characteristics as they relate to telecommunications facilities deployment.²³² For example, the Washington, D.C. MSA includes outlying counties, such as Warren County, Virginia; Jefferson County, West Virginia; and Calvert County, Maryland.²³³ While these areas undoubtedly represent communities with ties to the Washington, D.C. area, the economic characteristics of fiber deployment in these areas lack a commonality with the economic characteristics of deployment in the urban areas of Washington, D.C. Thus, even if transport facilities are widely deployed throughout part of an MSA (such as in the urban areas of the Washington, D.C. region), it would be inappropriate to infer a lack of impairment on every route in every part of that MSA, because economic conditions may vary significantly from one part of an MSA to another: it cannot be that a lack of impairment in downtown Washington, D.C. means that distant areas, including parts of West Virginia, show a similar lack of impairment. Each of the BOCs has submitted detailed maps showing competitive transport deployment and other information on an MSA basis. These maps confirm that competitive fiber consistently is located in and around the core business district of every major city – and not necessarily elsewhere.²³⁴ Due to the wide variability in market characteristics within an MSA, MSA-wide conclusions would substantially over-predict the presence of actual deployment, as well as the potential ability to deploy.²³⁵ The route-specific test that we adopt more carefully measures actual and potential transport deployment and avoids the costs of failing to unbundle where, in fact, unbundling is

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of wire centers that combine to form three market areas in Maryland, as defined by the Maryland Commission staff: the Baltimore area, the Washington, D.C. area, and the remaining areas). Although these may be reasonable geographic markets, we instead adopt a framework for identifying markets that can readily be applied on a nationwide basis. See, e.g., Florida Public Service Commission, *Ex Parte* Comments at 2 (dated Dec. 1, 2004) (Florida PSC Dec. 1, 2004 *Ex Parte* Comments) in Letter from Cindy B. Miller, Director, Office of Federal & Legislative Liaison, Florida Public Service Commission, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Dec. 1, 2004) (asserting that the Commission should provide “clear and consistent definitions and standards” to avoid “a patchwork of disparate state policies”).

²³⁰ Verizon Comments at 83-85; BellSouth Reply at 34.

²³¹ *Triennial Review Order*, 18 FCC Rcd at 17228-29, para. 402 (finding that “broader scale” markets would be “over- and under-inclusive”).

²³² The Office of Management and Budget, charged with the establishment and updating of MSAs, describes the general concept of MSAs as “an area containing a recognized population nucleus and adjacent communities that have a high degree of integration with that nucleus” and includes both “urban cores and outlying, integrated areas.” OMB, *Standards for Defining Metropolitan and Micropolitan Statistical Areas*, 65 Fed. Reg. 82228 (2000).

²³³ OMB, *Update of Statistical Area Definitions and Additional Guidance on Their Uses*, Bulletin No. 04-03 (Feb. 18, 2004), Appendix at 52, 56 (listing the counties that constitute the “Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area” as of December 2003).

²³⁴ See *supra* para. 70.

²³⁵ See e.g., MCI Comments at 148-50; AT&T Reply, Reply Declaration of Lee L. Selwyn (AT&T Selwyn Reply Decl.) at paras. 94-103.

appropriate. Thus, unlike an MSA approach, the route-based approach we adopt is more closely “aimed at tracking relevant market characteristics and capturing significant variation.”²³⁶

83. Similarly, we reject competitive LEC proposals to use MSAs as a way to cabin the application of trigger proxies. Both ALTS and the Loop and Transport Coalition propose a test for identifying non-impairment for transport, but limit the focus of the proposed inquiry to the top 50 MSAs in the nation.²³⁷ Because we have evidence in the record suggesting that competitive transport deployment is not at all limited to the top 50 MSAs,²³⁸ it would be irresponsible to our statutory duty to ignore such deployment.

84. We also reject the proposal by BellSouth and Verizon to use a single end-point trigger test because it fails to consider the economics of deployment on both ends of a transport route.²³⁹ BellSouth’s test is based solely on the addressable market (including the presence of alternative transport) at one end of a route such that when one end of a route is found to be competitive, no unbundled transport will be available in or out of that wire center. This approach is inconsistent with the economics of deploying competitive transport facilities, as described above.²⁴⁰ BellSouth’s proposal would effectively leverage the existence of competitive alternatives at one end of a route to remove the unbundling obligation to many other locations without any proof that a requesting carrier could self-provide or utilize alternative transport to reach those other locations.²⁴¹ In other words, BellSouth’s proposal is designed to ignore significant and relevant economic factors that are fundamental to a competing carrier’s ability to deploy transport. This is not to say that we do not find any value in BellSouth’s proposal. In fact, BellSouth’s focus on the economics of an end-point of a transport route is central to our analysis. The test we adopt today adopts the focus on the ability to deploy transport facilities based on the economics of the end-point, but avoids the false sense of competitiveness inherent in focusing on only one end of a route, rather than both ends.

85. We also reject the proposals by NuVox and ATX *et al.* to analyze interoffice transport separately when it is used as a component of an EEL combination.²⁴² These proposals would, in effect, deem EELs

²³⁶ *USTA II*, 359 F.3d at 563.

²³⁷ Loop and Transport Coalition Comments at 82-84 (limiting application of the highest tier to the top 50 MSAs); ALTS *et al.* Comments at 81-84 (limiting application of the high and middle tier portions of the test to the top 50 MSAs).

²³⁸ *See, e.g.*, BOC UNE Fact Report 2004, App. D at D-6 through D-13.

²³⁹ BellSouth Comments at 42; Verizon Comments at 82; Letter from Susanne A. Guyer, Senior Vice President, Federal Regulatory Affairs, Verizon, and Michael E. Glover, Senior Vice President & Deputy General Counsel, Verizon, to Michael K. Powell, Chairman, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 4 (filed Dec. 8, 2004) (Verizon Dec. 8, 2004 Guyer/Glover *Ex Parte* Letter), *in* Letter from Ann D. Berkowitz, Associate Director, Federal Regulatory Advocacy, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket Nos. 01-338 (filed Dec. 8, 2004).

²⁴⁰ *See Triennial Review Order*, 18 FCC Rcd at 17227-28, para 401.

²⁴¹ *See, e.g.*, ALTS *et al.* Comments at 67; MCI Reply at 91-92.

²⁴² NuVox Comments at 15-21; ATX, Blackfoot, *et al.* Comments at 22-25.

to be a separate network element, an idea the Commission rejected in the *Triennial Review Order*.²⁴³ Instead, as we previously held, to the extent that the loop and transport elements that comprise a requested EEL circuit are available as unbundled elements, then the incumbent LEC must provide the requested EEL.²⁴⁴ Thus the Commission's combinations rules apply to combinations of network elements for which the Commission already has found impairment.²⁴⁵ We see no benefit in performing a duplicative analysis of the same elements, and the parties provide no compelling case why an impairment analysis of the individual element components of an EEL combination is insufficient. Nor do NuVox and ATX *et al.* answer why, if an efficient competitor could duplicate the transport facility on that route, NuVox should continue to have access to unbundled transport on that route.

(ii) **Capacity-Specific Approach**

86. Just as the Commission found in the *Triennial Review Order*, there are significant differences between the potential revenues available from circuits of different capacities.²⁴⁶ For example, a competing carrier is able to sell services at the DS1 level that only return a fraction of the revenues that are available from a service offered at DS3 or OCn capacity levels.²⁴⁷ While the BOCs suggest, and rightly so, that a fiber transmission facility can be channelized down to serve any level of capacity, we reject their argument that such ability requires a finding of no impairment for any capacity.²⁴⁸ Their argument simply ignores the high fixed and sunk costs associated with deploying local fiber transmission facilities that we find are overcome only at higher transmission capacities. It may be true that when a competing carrier already has justified deployment of transport facilities based on existing and expected revenues sufficient to overcome the high costs of deployment, that carrier can then add electronics to channelize or otherwise serve smaller capacity services using existing facilities.²⁴⁹ This is wholly

²⁴³ *Triennial Review Order*, 18 FCC Rcd at 17340-41, para. 575 & n.1775 ("We deny . . . CompTel's request to specify the EEL as an additional network element."). While NuVox asserts its request is different from a request to declare EEL combinations to be a separate UNE, we cannot distill how this distinction would be meaningful in implementation.

²⁴⁴ *Triennial Review Order*, 18 FCC Rcd at 17340-41, para. 575. Because we eliminate the state review aspects of the *Triennial Review Order* and do not disturb the EELs eligibility criteria established in the *Triennial Review Order*, and upheld by the *USTA II* decision, we dismiss as moot the petition for waiver filed on February 2, 2004 by BellSouth asking the Commission to grant a temporary waiver of our EELs unbundling rules until state completion of the proceedings described in the *Triennial Review Order*. See BellSouth Corporation Petition for Waiver, CC Docket Nos. 01-338, 96-98, 98-147 (filed Feb. 11, 2004).

²⁴⁵ 47 C.F.R. § 51.315, *aff'd Verizon Communications v. FCC*, 535 U.S. 467, 528-38 (2002).

²⁴⁶ *Triennial Review Order*, 18 FCC Rcd at 17210-11, paras. 376-77.

²⁴⁷ See *id.* We note that the Commission, in the *Triennial Review Order*, did not require incumbent LECs to unbundle OCn capacity transport facilities. *Triennial Review Order*, 18 FCC Rcd at 17219-21, paras. 388-89. The D.C. Circuit did not address this decision of the Commission.

²⁴⁸ See, e.g., Qwest Comments at 76-77, 88; SBC Reply at 29, 32; Verizon Pilgrim Reply Decl. at para. 3; BOC UNE Fact Report 2004 at III-2, III-10 (stating that "fiber-optic capacity is routinely "channelized" – SONET-based 'add/drop' multiplexers and demultiplexers at each end of the glass simply carve virtual dedicated circuits of varying bandwidths out of the single physical whole"); see also *Triennial Review Order*, 18 FCC Rcd at 17208-09, para. 372.

²⁴⁹ See, e.g., AT&T Reply at 34-38.

different than a carrier that only requires a very low capacity of transmission at a particular location and that cannot justify the costs of deployment based on the relatively low revenues available from serving customers at that capacity. Below, we describe how the economic characteristics of different capacities of transport vary, and thus require varied treatment.

b. Drawing Reasonable Inferences from One Market to Another

87. As noted above, the D.C. Circuit criticized the Commission's *Triennial Review Order* framework for dedicated transport for failing to provide a meaningful method to identify which routes were similar to other routes, and thus failing to make inferences where possible.²⁵⁰ We find that the best way to respond to this concern is by categorizing similar end-points, and then making determinations of impairment or non-impairment for the resulting combinations (*i.e.*, routes) connecting different classes of end-points. Specifically, we utilize evidence of actual deployment to define the general characteristics of incumbent LEC wire centers²⁵¹ where we believe there is a lack of impairment – that is, where reasonably efficient competitive LECs are capable of duplicating the incumbent LEC's network.²⁵² Thus, the proxies we use for this purpose identify where revenue opportunities are or could be sufficient to justify competitive LEC deployment. The tests that we adopt below therefore evaluate impairment through a focus on wire centers, the end-points of routes, in a manner that accounts for both actual and potential competition.

88. The tests we adopt today are designed to capture both actual and potential competition, based on indicia of significant revenue opportunities at wire centers. Our determinations, based on these indicia, are not, nor are they required to be, error-proof.²⁵³ The predictive nature of our tests permits us to “infer[] impairment (or its absence)” based on “a sensible definition of the markets in which deployment is counted.”²⁵⁴ Further, we are given significant latitude to infer the absence of impairment “where the element in question—though not literally ubiquitous—is significantly deployed on a competitive basis.”²⁵⁵ Moreover, we note that the D.C. Circuit encouraged the Commission to consider the additional

²⁵⁰ Instead, the Commission established a loose set of “economic characteristics” and provided little guidance for states to identify those routes that, although failing to satisfy one of the triggers, were capable of supporting “multiple, competitive supply” – essentially allowing states to determine similar routes. *Triennial Review Order*, 18 FCC Rcd at 17232-33, para. 410. *But see USTA II*, 359 F.3d at 574 (characterizing these criteria as “quite fluid and [not] quantified”).

²⁵¹ By “wire center,” we mean any incumbent LEC switching office that terminates and aggregates loop facilities. Thus, line counts derived on a wire center basis include all loops that terminate in that location, even if they terminate on separate switches. To the extent that an incumbent LEC switching office exists that has no line-side function, such as an access tandem located in a building apart from line-side switching facilities, we provide for such offices in our analysis, below. This definition also includes any incumbent LEC switches with line-side functionality that terminate loops that are “reverse collocated” in non-incumbent LEC collocation hotels.

²⁵² *See USTA II*, 359 F.3d at 575 (criticizing the Commission for failing to infer where “competition is possible,” particularly along similarly situated routes).

²⁵³ *See supra* Part IV.C; *WorldCom, Inc. v. FCC*, 238 F.3d 449, 461-62 (D.C. Cir. 2001) (concluding that the Commission's selection of trigger thresholds in the *Pricing Flexibility Order* were rational and that the Commission “is not held to a standard of perfection”).

²⁵⁴ *USTA II*, 359 F.3d at 574.

²⁵⁵ *USTA I*, 290 F.3d at 422 (quoted by *USTA II*, 359 F.3d at 574).

deployment that might occur in the absence of unbundling, thus providing additional latitude to make inferences toward findings of no impairment.²⁵⁶

89. Our approach accounts for the different ways that competitive LECs deploy their own transport networks. By focusing on the competitive characteristics of a wire center and the inferences we draw from similar routes, we believe we are able to capture competitive LEC deployment that does not precisely mirror the incumbent LEC's network design. This is because we are able to assess where competitors successfully have deployed or could deploy on both a wire center and route-specific basis, without being limited to individual carrier decisions about network planning.

90. Our approach here, though route-specific, is also consistent with the court's instruction to make inferences about potential economic deployment on similarly situated routes.²⁵⁷ The D.C. Circuit rebuked the Commission for "ignor[ing] facilities deployment along similar routes when assessing impairment."²⁵⁸ The court reasoned that, if offices A, B, and C are in the same geographic market and similarly situated, then competition on the A-B route is relevant to impairment on the A-C route, and should be considered in whatever test the Commission adopts to evaluate impairment. As discussed above,²⁵⁹ we have revised our analysis to account for such inferences. Thus, the analysis we adopt here is aimed at identifying whether particular routes are, in fact, "similarly situated with regard to the 'barriers to entry' that the Commission says are controlling."²⁶⁰ For example, even if a particular wire center exhibits few or no competitive fiber facilities, the fact that other wire centers displaying similar economic characteristics tend to be the site of more significant competitive facilities deployment will serve as the basis for a reasonable inference that the wire center in question could potentially support such deployment. By abstracting the economic characteristics of individual incumbent LEC wire centers to identify routes where competitive deployment is economic (based on indicia of high potential revenues), we are able to treat all routes with similar sets of end-points in a similar fashion, making reasonable inferences about potential competition even where no such competition has developed to date. Thus, if office C shares similar characteristics with offices A and B, then we will make inferences about competitive deployment and, accordingly, unbundling obligations. Conversely, if office C does not share common characteristics with offices A and B, then we will infer that the economics of the A to C route are different from, and cannot be compared directly to, the economics of deploying transport facilities between A and B.

91. As described below, the test we adopt in this Order examines the feasibility of duplicating dedicated transport facilities connecting incumbent LEC wire centers. Further, we have established proxies based on actual deployment to identify incumbent LEC offices to which it is feasible for competitive LECs to deploy alternative fiber facilities. We infer at this point that the ability to deploy

²⁵⁶ *USTA II*, 359 F.3d at 570 (suggesting that the Commission "integrate[] . . . some projection of the demand increase that would result from the withholding of [network elements] as UNEs"). As explained above, we do not conduct an "at a minimum" evaluation of factors other than impairment in our evaluation of unbundling obligations with regard to dedicated transport. See *supra* note 226.

²⁵⁷ See *USTA II*, 359 F.3d at 574-75.

²⁵⁸ *Id.* at 575.

²⁵⁹ See *supra* Part IV.C.

²⁶⁰ *USTA II*, 359 F.3d at 575.

facilities at the two end-points of a route signals the ability to connect, even if indirectly, the two end-points via a transport facility.²⁶¹ This comports with our understanding that it is necessary to inquire about the economics of deploying competitive transport facilities only after considering the economic conditions on both ends of a transport route. After identifying end-points that share similar characteristics, we infer impairment on routes between different classes of end-points. By doing so, we have established an accurate and easily administered mechanism to identify similarly situated routes.

92. We disagree with competitive LECs that warn that making such an inference is dangerous and likely to be over-inclusive.²⁶² Our thresholds for determining wire centers where deployment is possible have been chosen because significant actual deployment is evident at wire centers, or similar wire centers, where we find no impairment.

c. Inferences Based on Actual Deployment

93. We have weighed carefully a variety of actual competitive indicia for determining impairment²⁶³ and determine that the best and most readily administered indicator of the potential for competitive deployment is the presence of fiber-based collocators in a wire center.²⁶⁴ We also determine that business line density in a wire center is a useful tool to infer where carriers are likely to have collocated with fiber, and thus, a measure of where competitors are capable of duplicating the incumbent LEC's network.²⁶⁵ Both of these measures constitute proxies for where sufficient revenue opportunities exist to justify the high fixed and sunk costs of transport deployment.

94. Our test for impairment, therefore, relies on whether the wire centers defining a route's end-points have a particular number of incumbent LEC business lines or a particular number of fiber-based collocators. Although in many instances, wire centers will satisfy or fail to satisfy both thresholds, we conclude that applying these measures in a disjunctive tandem will better capture actual and potential deployment than any single measure. Specifically, these complementary tests will capture markets where only a small number of collocating carriers have fiber collocated in wire centers with a very large number of business lines, representing significant potential revenues and thus, the potential for further competitive build-out.²⁶⁶ Likewise, the complementary nature of these tests will also capture wire centers

²⁶¹ Compare SBC Reply at 29-30 with Declaration of Gary J. Ball, QSI Consulting at para. 12, in Letter from CompTel/ASCENT *et al.*, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket Nos. 01-338, 96-98, 98-147 (filed Nov. 2, 2004) (disputing whether facilities that indirectly connect to end-points counted for purposes of applying the *Triennial Review Order* triggers).

²⁶² See, e.g., AT&T Reply at 39-43, 48-49.

²⁶³ See *infra* paras. 98, 107-10 (evaluating other proposals).

²⁶⁴ We define the parameters of fiber-based collocation *infra* para. 102.

²⁶⁵ Alpheus Comments at 20 (“[B]usiness access lines have some value as a proxy for when competitors have in the past deployed fiber transport” because “above a certain level of business access line density, carriers have been able to obtain revenue sufficient to overcome the enormous barriers to entry.”).

²⁶⁶ This ability to capture wire centers with a high potential for competitive entry would be lost if we were to adopt a conjunctive test, requiring that both a fiber-based collocation and a business line threshold be satisfied. See, e.g., Letter from Steven A. Augustino, Counsel for XO Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket 01-338 at 1 (filed Dec. 8, 2004) (XO Dec. 8, 2004 Augustino *Ex Parte* Letter) (proposing that the Commission adopt a test for transport applying fiber-based collocation and business line counts (continued....))

with significant competitive fiber-based collocation, but with relatively few business lines, thus accounting for situations in which competition has developed notwithstanding the absence of such competition in similarly situated wire centers.²⁶⁷ Although these measures may prove occasionally to over- or under-predict the presence of actual competitive facilities, as explained below, we find that this test provides the best means to deduce where competitive LECs have the ability to duplicate the incumbent LECs' networks.

95. Intermodal competition is captured, at least in part, by the operation of both fiber-based collocation and business line counts.²⁶⁸ Our fiber-based collocation test captures intermodal competitors' transport facilities, including those using fixed-wireless²⁶⁹ and cable facilities, which often collocate in at least some locations.²⁷⁰ However, we recognize here, as the Commission and the D.C. Circuit have in the past, that fiber-based collocation does "underestimate[] competition in relevant markets as 'it fails to account for the presence of competitors that . . . have wholly bypassed incumbent LEC facilities.'"²⁷¹ On the other hand, incumbent LEC business line counts, even if they do not include lines served directly by competitors, measure the potential revenues available from a wire center. Wire centers that are rich in potential revenues will be counted similarly, capturing areas in which intermodal and intramodal competitors alike have incentives to deploy transmission facilities. Thus, intermodal competition is captured by our test through the working combination of both indicia.

96. *Fiber-Based Collocation.* We use fiber-based collocation as a key factor in determining where competing carriers already have deployed fiber transport facilities because a sufficient degree of such collocation indicates the duplicability of these network elements and, thus, a lack of impairment. The Commission previously has used fiber-based collocation as a key indicator of competitive fiber

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in a conjunctive manner). *But See, e.g.,* Letter from Joshua M. Bobeck, Counsel for Alpheus, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1-2 (filed Dec. 8, 2004) (asserting that a conjunctive test would be more appropriate).

²⁶⁷ Thus, wire centers that fall below a general business line threshold, but nevertheless exhibit signs of significant competition would not be addressed if we were to apply our fiber-based collocation and business lines in a conjunctive manner. *See, e.g.,* Qwest Reply at 49-57 (explaining that it faces significant competition in small wire centers throughout its region); Letter from Karen Brinkmann, Counsel for Independent Telephone & Telecommunications Alliance, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 22, 2004) (asserting that "general rules or 'bright-line' tests that rely on a single indicator of competition have the potential to inappropriately burden smaller and rural ILECs with unbundling requirements in markets where competition is obviously strong").

²⁶⁸ *See supra* para. 39.

²⁶⁹ *See infra* para. 102 (including fixed-wireless carrier collocation arrangements in our definition of fiber-based collocation).

²⁷⁰ Verizon Comments, Attach. B, Joint Declaration of Judy K. Verses, Ronald H. Lataille, Marion C. Jordan, and Lynelle J. Roney (Verizon Verses/Lataille/Jordan/Roney Decl.), Exhs. 3A & 3B (showing fiber-based collocations by carrier, including fixed wireless and cable operators). Such carriers may collocate in order to access incumbent LEC loops, to interconnect with the incumbent LEC or other carriers, or to provide wholesale transmission services.

²⁷¹ *WorldCom, Inc. v. FCC*, 238 F.3d 449, 462 (D.C. Cir. 2001) (quoting *Pricing Flexibility Order*, 14 FCC Rcd at 14265-66, para. 81).

deployment, and the D.C. Circuit has affirmed this use as reasonable.²⁷² Fiber-based collocation in a wire center very clearly indicates the presence of competitive transport facilities in that wire center and signals that significant revenues are available from customers served by that wire center sufficient to justify the deployment of transport facilities.²⁷³

97. Further, the record indicates that those competing carriers that deploy fiber and collocate do so in multiple incumbent LEC wire centers within core business areas, thus increasing the chances that competitive transport facilities exist connecting many incumbent LEC wire centers.²⁷⁴ For instance, Verizon submitted evidence, based on physical inspections of collocation arrangements in its wire centers, showing that dozens of competing carriers each have collocated with fiber facilities in several wire centers in various market areas.²⁷⁵ For these reasons, we find it likely that the same competing carriers will have fiber-based collocations on both ends of a route, making possible a connection between the two end-points.²⁷⁶

²⁷² *Pricing Flexibility Order*, 14 FCC Rcd at 14265-69, paras. 81-86 (describing why fiber-based collocation is an appropriate indicia for the purposes of determining special access pricing flexibility), *aff'd*, *WorldCom, Inc. v. FCC*, 238 F.3d 449, 458-60 (D.C. Cir. 2001) (affirming the Commission's use of fiber-based collocation as a reasonable proxy). We do not adopt the *Pricing Flexibility Order* test because we are applying a different statutory standard – one that looks carefully at duplicability and economic entry while the *Pricing Flexibility Order*, which relied in part on the availability of UNEs, concerned itself solely with the ability to constrain prices.

²⁷³ *WorldCom v. FCC*, 238 F.3d at 459 (“[C]ollocation can reasonably serve as a measure of competition in a given market and predictor of competitive constraints upon future LEC behavior.”).

²⁷⁴ MCI Comments at 144; BOC UNE Fact Report 2004 at III-8 through III-9; KMC Duke Decl. at paras. 7, 13; XO Tirado Decl. at paras. 10-14; Verizon Reply at 47; Verizon Pilgrim Reply Decl. at paras. 4-5.

²⁷⁵ Verizon Verses/Lataille/Jordan/Reney Decl., Exhs. 3A, 3B (for its largest MSAs listing each competing carrier with fiber collocation facilities by wire center) (contains proprietary information subject to the Protective Order). Verizon's data show that for those MSAs in the former Bell Atlantic region with at least three wire centers hosting fiber-based collocators, the competing carrier with the most fiber-based collocations in that MSA is collocated, on average, in 75% of the wire centers with any fiber-based collocators. The second-most widely based fiber collocator is collocated in 64% of such wire centers. These numbers increase substantially in those wire centers that host more than one fiber-based collocator. For wire centers with two or more fiber-based collocators, the most widely collocated carrier in each MSA has fiber-based collocations at 81% of such wire centers while the second-most widely collocated in each MSA carrier has fiber-based collocations at 79% of such wire centers. For wire centers with four or more fiber-based collocators, the most widely collocated carrier in each MSA has fiber-based collocations in 93% of such wire centers while the second-most widely collocated carrier has fiber-based collocations in 91% of such wire centers. (Because Verizon shares major portions of some MSAs with other carriers outside of its former Bell Atlantic region, we excluded those data from our calculations).

²⁷⁶ MCI Comments at 144 (stating that “[i]t is not unreasonable to expect that at least a subset of the four CLECs that have collocated on both ends of the route have or could overcome the remaining barriers to provide DS3 dedicated transport in most cases”). Although one commenter has argued that, particularly under BellSouth's proposed transport test and according to BellSouth's data and several key assumptions, there is a low probability that competitive LECs connect many wire centers in an area, our analysis of evidence provided by Verizon, *supra* note 275, indicates that competing carriers often are widely collocated throughout the major wire centers in an area. See Reply Declaration of Michael Pelcovitz and Chris Fentrup (MiCRA Pelcovitz/Fentrup Reply Decl.) at para. 41, in Letter from Thomas Cohen, Counsel for AT&T, Blackfoot Telecommunications Group, *et al.*, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 04-313, 01-338, 96-98, 98-147 (filed Oct. 19, 2004).

98. Accordingly, we reject MCI's proposal for a matched-pair test that requires that a certain number of competing carriers each have fiber-based collocations in both end-points of the route in order to find no impairment.²⁷⁷ While the test we adopt in this Order takes into account the presence of competitive fiber transport facilities on both ends of a route, it does not require verification that fiber on both ends is operated by the same carriers. While we agree that MCI's proposal provides a useful tool to assess existing competitive facilities, we find that it fails to account for areas of potential deployment, or to make any significant inferences. MCI argues that a matched-pair test accounts for potential deployment because, while a competitive LEC may have fiber facilities connected to each office, the competitive LEC's network may not be engineered to provide a direct connection between the two points.²⁷⁸ While this may be true, we find this claim to be in tension with our definition of impairment, which finds the high costs of fiber deployment rather than circuit manipulation and engineering to be significant factors in the impairment calculation.²⁷⁹ Thus, we find that MCI's test is nothing more than an accounting of existing competitive facilities – an exercise that is insufficient for identifying where competing carriers are impaired.²⁸⁰ MCI touts its proposal as being “relatively easy to administer,” using fiber-based collocation as a key indicator, as we do.²⁸¹ However, MCI's proposal would require the extra administrative burden of requiring both the identification and matching of each carrier on each end of a route, rather than simply providing a raw count, as our test advances. As we already have established, the same transport providers are likely to be collocated on both ends of multiple routes in a given metro area, making MCI's proposal for matched pairs unnecessary, while adding a significant element of complexity beyond the test that we adopt.²⁸²

99. Fiber-based collocation also stands out as one of the most objective indicia of competitive deployment available to us.²⁸³ Both incumbent LECs and competitive LECs agree that fiber-based collocation data are relatively simple to identify and collect.²⁸⁴ We are acutely aware of the need to base

²⁷⁷ MCI Comments at 141-51 (proposing that when four or more carriers each have fiber-based collocation at both ends of a route, then the Commission can find a lack of impairment for the route).

²⁷⁸ *Id.* at 142; *see also* Letter from Joshua M. Bobeck, Counsel for Alpheus Communications, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 3-4 (filed Dec. 2, 2004) (Alpheus Dec. 2, 2004 *Ex Parte* Letter) (making similar arguments to those of MCI).

²⁷⁹ *See supra* paras. 80, 91. Further, we have never found a lack of impairment for the ability to re-engineer a network. *See, e.g., Triennial Review Order*, 18 FCC Rcd at 17214, para. 382. Rather, the impairment we have identified for transport exists in the high fixed and sunk costs of deploying fiber, and is thus satisfied when a carrier has deployed its network (by definition, connected to its sub-parts) to both end-points of a route.

²⁸⁰ *See supra* para. 87 (explaining why we adopt a test including inferences).

²⁸¹ MCI Comments at 141.

²⁸² *See supra* para. 97 & note 275 (showing that multiple competitive transport networks typically connect most wire centers in a metro area that meet our collocation thresholds).

²⁸³ *See Pricing Flexibility Order*, 14 FCC Rcd at 14267-69, paras. 84-86 (concluding that “a collocation-based trigger provides an administratively simple and readily verifiable mechanism for determining whether competitive conditions” warrant regulatory relief).

²⁸⁴ Loop and Transport Coalition Comments at 85 (stating that fiber-based data are “easier to collect” than *Triennial Review Order* trigger data and suggesting that the Commission require competitive LECs to identify every office in which they maintain a fiber-based collocation).

any test we adopt here on the most objective criteria possible in order to avoid complex and lengthy proceedings that are administratively wasteful but add only marginal value to our unbundling analysis.²⁸⁵ Most parties seem to agree that long, extended proceedings add significant costs as well as uncertainty about the future state of the rules and an easily administrable test will avoid that uncertainty. Unlike our approach here, the data required to administer our previous transport test was complex and allowed significant latitude to decipher exactly what type of data counted toward the application of a trigger.²⁸⁶ Moreover, unlike information regarding fiber-based collocation, the information necessary to implement the previous self-deployment triggers was possessed entirely by a span of competitive LECs and was not easily verifiable.

100. Fiber-based collocation information, in contrast, is readily available. Many incumbent LECs have been reviewing and maintaining this data for years in order to demonstrate eligibility for special access pricing flexibility.²⁸⁷ Indeed, the BOCs all have submitted into this record data and arguments tied to fiber-based collocation.²⁸⁸ Moreover, because most competitive LECs purchase some facilities or services from incumbent LECs, such as interconnection, collocation, loops, and so forth, an incumbent LEC typically possesses significant aggregated information about competitors in its markets.²⁸⁹ Information regarding fiber-based collocation is readily identifiable by incumbent LECs, via review of billing records or physical inspection of central office premises.²⁹⁰ Moreover, incumbent LEC counts of

²⁸⁵ See *Pricing Flexibility Order*, 14 FCC Rcd at 14267-69, paras. 84-86; *WorldCom v. FCC*, 238 F.3d at 459 (holding that the Commission's "decision to make ease of administration and enforceability a consideration in setting its standard for regulatory relief" is not arbitrary or capricious).

²⁸⁶ Qwest Reply at 10; Qwest Reply, Attach. 1, Declaration of David L. Teitzel (Qwest Teitzel Reply Decl.) at paras. 4-10; SBC Reply at 33; BellSouth Reply at 29, 31-33.

²⁸⁷ See *Pricing Flexibility Order*, 14 FCC Rcd at 14268-69, para. 85 (concluding that a test relying on fiber-based collocation "is administratively simple because [among other reasons] several BOCs have provided data of this type").

²⁸⁸ See BellSouth Comments, Attach. 4, Affidavit of Shelley W. Padgett (BellSouth Padgett Aff.), Exh. SWP-1 and Exh. SWP-3; Letter from Brian J. Benison, Associate Director - Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313 (filed Nov. 1, 2004) (SBC Nov. 1, 2004 *Ex Parte* Letter); Letter from Edwin J. Shimizu, Director-Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Oct. 28, 2004) (Verizon Oct. 28, 2004 *Ex Parte* Letter); Letter from Craig J. Brown, Corporate Counsel, Qwest, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 1, 2004) (Qwest Nov. 1, 2004 *Ex Parte* Letter); Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

²⁸⁹ MCI Comments at 141 (advocating the use of a two end-point fiber-based collocation test because "it is relatively easy to administer" and "because the ILECs have access to all of the data needed to determine where such fiber-based collocators exist without the need for any discovery and without the need to rely on data from state proceedings").

²⁹⁰ *Id.* ("ILECs have all of the data needed to determine where fiber-based collocators exist without the need for discovery and without the need to rely on data from state proceedings"); Verizon Verses/Lataille/Jordan/Reney Decl. at paras. 9-14 (describing the processes Verizon employed to physically inspect its wire centers for competitive LEC fiber-based collocation). See, e.g., *Pricing Flexibility Order*, 14 FCC Rcd at 14269, para. 86 (describing billing records as a ready means for incumbent LECs to identify fiber-based collocators).

fiber-based collocations can be verified by competitive LECs, which will also be able to challenge the incumbent's estimates in the context of section 252 interconnection agreement disputes.

101. Additionally, we find that fiber-based collocation provides a reasonable proxy for where significant revenue opportunities exist for competitive LECs, regardless of the size, density, or geographic attributes of the wire center, because it identifies competition in both large and small incumbent LEC wire centers.²⁹¹ The record indicates that there are smaller wire centers to which competitors have deployed significant transport facilities. Because our thresholds are disjunctive, our test will capture these relatively smaller offices that, through fiber-based collocation, display signs of significant potential revenues.

102. We define fiber-based collocation simply. For purposes of our analysis, we define fiber-based collocation as a competitive carrier collocation arrangement, with active power supply, that has a non-incumbent LEC fiber-optic cable²⁹² that both terminates at the collocation facility and leaves the wire center.²⁹³ We find that the collocation arrangement may be obtained by the competing carrier either pursuant to contract, tariff or, where appropriate, section 251(c)(6) of the Act, including less traditional collocation arrangements such as Verizon's CATT fiber termination arrangements.²⁹⁴ Because fixed-wireless carriers' collocation arrangements may not literally be fiber-based, but nevertheless signal the ability to deploy transport facilities, we include fixed-wireless collocation arrangements at a wire center if the carrier's alternative transmission facilities both terminate in and leave the wire center.²⁹⁵ In tallying the number of fiber-based collocators for purposes of our transport impairment analysis, parties shall only count multiple collocations at a single wire center by the same or affiliated carriers as one fiber-based collocation.²⁹⁶ Finally, we find that a competing carrier's collocation facilities shall count

²⁹¹ See MCI Comments at 142 (stating that "the presence of [fiber-based] collocators is at least a reasonable surrogate for overall impairment with respect to DS3 transport"); see also Qwest Reply at 11-13 (discussing variations in costs between deployment in very dense areas versus deployment in less dense areas and stating that the Commission "must take into account the conditions at the relevant market level").

²⁹² We find that when a company has collocation facilities connected to fiber transmission facilities obtained on an indefeasible right of use (IRU) basis from another carrier, including the incumbent LEC, these facilities shall be counted for purposes of this analysis and shall be treated as non-incumbent LEC fiber facilities. *Triennial Review Order*, 18 FCC Rcd at 17231-32, para. 408 & nn.1263, 1265.

²⁹³ See Verizon Verses/Lataille/Jordan/Reney Decl. at para. 13 (using a similar standard for the physical inspection it performed to identify fiber-based collocation arrangements in its network). We expect this to identify cable company transport facilities to the extent the cable company has collocated with access to its own transmission facilities.

²⁹⁴ See *Triennial Review Order*, 18 FCC Rcd at 17230, para. 406 & n.1257.

²⁹⁵ For this reason, although we refer to our indicia as "fiber-based collocation," our test is actually agnostic as to the medium used to deploy an alternative transmission facility, because we find that a technologically neutral test better helps us to capture the actual and potential deployment in the marketplace than would a wireline-specific test.

²⁹⁶ See 47 U.S.C. § 153(1). BellSouth, for example, indicates that the wire center data it submitted, including counts of fiber-based collocation arrangements in each of its wire centers, "did not include multiple arrangements maintained by the same carrier . . . [t]hus, . . . the data presented by BellSouth in this proceeding reflect the number of fiber-based collocators in each office, not the number of fiber-based collocation arrangements." Letter from Bennett L. Ross, General Counsel-D.C., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 1 (filed Nov. 30, 2004); see also Letter from Joan Marsh, Director-Federal Government Affairs, (continued....)

toward the qualification of a wire center for a particular tier irrespective of the services that the competing carrier offers because the fiber-based collocation indicates an ability to deploy facilities and because it would exponentially complicate the process of counting such collocation arrangements.

103. *Business Line Density.* Business line density also is an administrable proxy for determining where significant revenues are available sufficient for competitors to deploy transport facilities, despite the fixed and sunk costs of deployment. Wire centers that possess a high level of demand for telecommunications services are most likely to attract and support competing carrier transmission facilities that duplicate the incumbent LEC's network.²⁹⁷ For example, Alpheus asserts that "business access lines have some value as a proxy for when competitors have in the past deployed fiber transport" because "above a certain level of business access line density, carriers have been able to obtain revenue sufficient to overcome the enormous barriers to entry."²⁹⁸ Further, business lines are a more accurate predictor than total lines because transport deployment largely has been driven by the high bandwidth and service demands of businesses, particularly in areas where business locations are highly concentrated.²⁹⁹

104. We find that there is typically a nexus between business line density and fiber-based collocation. Based on data provided by incumbent LECs, there is a strong correlation between business line counts and competitive facilities deployment in a given office, particularly above a certain threshold size. For all four BOCs, there is a clear trend showing that as the business line count in a wire center increases, so too does the number of fiber-based collocators.³⁰⁰ We describe in detail this relationship in our discussion supporting specific thresholds below. Despite this trend, we note that business line counts

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AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 19, 2004) (asserting that counting carriers with fiber-based collocation, rather than individual cage arrangements, provides a better sense of the number of alternative transport providers); Letter from Alan Buzacott, Senior Manager-Federal Regulatory, MCI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 at 2 (filed Nov. 10, 2004) (MCI Nov. 10, 2004 *Ex Parte* Letter) (asserting that counting carriers with fiber-based collocation, rather than individual cage arrangements, provides a better sense of the number of alternative transport providers), *in* Letter from A. Renée Callahan, Counsel for MCI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (Nov. 10, 2004).

²⁹⁷ See Loop and Transport Coalition Comments at 82-83 (explaining that large concentrations of business lines indicate sufficient market to support transport deployment); BellSouth Comments at 39-44; SBC Comments at 78-80.

²⁹⁸ Alpheus Comments at 20; *see also* ALTS *et al.* Comments at 82.

²⁹⁹ See, e.g., Alpheus Comments at 20-21; *see also* Sprint Reply at 38 (arguing that line count thresholds are improper, but noting that over 90% of business access lines are located in the small number of wire centers with greater than 5,000 business lines – the threshold that some BOCs propose).

³⁰⁰ Although we do not have wire center data for non-BOC incumbent LECs in our record, we note that over 98% of all UNEs nationwide are obtained from the four BOCs and at least 95% of all UNEs without switching are obtained from the four BOCs. See Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2003*, Table 4 (June 2004); Industry Analysis and Technology Division, Wireline Competition Bureau, *Selected RBOC Local Telephone Data as of December 31, 2003* (June 2004); *cf.* 47 U.S.C. § 251(f) (exempting certain "rural telephone companies" from the requirements of section 251(c)).

measure only those business lines provided over the incumbent LEC's network.³⁰¹ Thus, where full-facilities based competitors have captured a significant share of the business market, the incumbent LEC's business line counts are likely to under-represent the total revenues available in that wire center. Nevertheless, we find that this shortcoming can be accommodated by establishing business line density thresholds lower to account for incumbent LEC line loss due to facilities that bypass the incumbent's loop network altogether, including line loss from intermodal competition.

105. Moreover, as we define them, business line counts are an objective set of data that incumbent LECs already have created for other regulatory purposes.³⁰² The BOC wire center data that we analyze in this Order is based on ARMIS 43-08 business lines,³⁰³ plus business UNE-P, plus UNE-loops.³⁰⁴ We adopt this definition of business lines because it fairly represents the business opportunities in a wire center, including business opportunities already being captured by competing carriers through the use of UNEs. Although it may provide a more complete picture to measure the number of business lines served by competing carriers entirely over competitive loop facilities in particular wire centers, such information is extremely difficult to obtain and verify. Conversely, by basing our definition in an ARMIS filing required of incumbent LECs, and adding UNE figures, which must also be reported, we can be confident in the accuracy of the thresholds, and a simplified ability to obtain the necessary information.

106. We do not anticipate that "gaming" of the tiers by competitive LECs is likely such that competing carriers will be able to obtain unbundled transport completing routes that would otherwise not be unbundled. Specifically, in theory, a competitive LEC that seeks unbundled transport between, for example, a pair of Tier 1 wire centers (for which there is no unbundled transport requirement) could also collocate in a third wire center classified as Tier 3 to which it can obtain transport from each of the two Tier 1 wire centers, thus using the Tier 3 wire center as a hub. We do not expect that this type of gaming will result from our rules because our tests remove unbundling only where competing carriers have deployed or could deploy transport facilities. Nor do we expect that this type of gaming will result from our rules because of two primary costs constraints. First, the costs of adding a collocation arrangement

³⁰¹ We are constrained by the evidence in the record. Nevertheless, we use information that is provided by the BOCs in the record that we believe most readily informs our analysis.

³⁰² Because we have already adopted rules using ARMIS data for line counts we dismiss as moot the emergency request for a limited modification of interim protective order filed on September 8, 2004 by ALTS, which asks the Commission to modify the protective order in the Universal Service fund docket (*Federal-State Joint Board on Universal Service*, Interim Protective Order, 15 FCC Rcd 10183 (2000)) to allow access to line count data. See Association for Local Telecommunications Services Emergency Request for a Limited Modification of Interim Protective Order, CC Docket No. 01-338 (filed Sept. 8, 2004).

³⁰³ See Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, *FCC Report 43-08 – Report Definition* (Dec. 2004), available at: <http://www.fcc.gov/wcb/armis/documents/2004PDFs/4308c04.pdf>; see also *Automated Reporting Requirements for Certain Class A and Tier 1 Telephone Companies (Parts 31, 43, 67, and 69 of the FCC's Rules)*, CC Docket No. 86-182, Report and Order, 2 FCC Rcd 5770 (1987), modified on recon., 3 FCC Rcd 6375 (1988) (*ARMIS Order*) (annual updates omitted). For further information regarding the Commission's ARMIS filing requirements, please refer to the Commission's Internet *ARMIS Home Page*, available at: <http://www.fcc.gov/wcb/armis/>.

³⁰⁴ See *BellSouth Padgett Aff.* at para. 5 (defining business lines); see also *Qwest Dec. 7, 2004 Wire Center Data Ex Parte Letter*; *Verizon Dec. 7, 2004 Wire Center Data Ex Parte Letter*; *SBC Dec. 7, 2004 Wire Center Data Ex Parte Letter*; *BellSouth Dec. 7, 2004 Wire Center Data Ex Parte Letter*; *BellSouth Dec. 10, 2004 Reynolds Ex Parte Letter*; *SBC Dec. 10, 2004 Benison Ex Parte Letter*.

to serve as a hub are likely to be significant enough to prevent such gaming. Second, such a gaming practice requires an additional span of transport which typically includes distance-sensitive pricing component, likely making the additional transport leg significantly more costly than other direct connection alternatives, including special access services. These factors likely make the additional transport needed to perform this gaming significantly more costly than directly connecting the two Tier 1 wire centers directly through alternative carriers or services.

107. *Other Proposed Indicia of Actual and Potential Competition.* Although we adopt the general structure of our test from commenters including SBC, ALTS, Alpheus, ATX, and the Loop and Transport Coalition, we reject the specific details of these tests.³⁰⁵

108. We reject various commenters' proposals that we re-adopt the triggers the Commission adopted in the *Triennial Review Order* for identifying where carriers are impaired.³⁰⁶ Those triggers were designed primarily to identify where existing competitive transport facilities have been deployed, or are being offered on a wholesale basis.³⁰⁷ As explained in detail above, the D.C. Circuit rejected the notion that a lack of impairment is limited to the areas where multiple competing carriers already have deployed and, instead, reasoned that the Commission also must make inferences about where competing carriers can deploy as a part of its impairment analysis.³⁰⁸ The triggers adopted by the Commission in the *Triennial Review Order* are not particularly adaptable to meet the D.C. Circuit's mandate to make inferences about where competitive deployment is possible. Thus, as explained above, we adopt a proxy approach that, unlike the *Triennial Review Order* triggers, relies on objective criteria to which the incumbent LECs have full access, is readily confirmable by competitors, and makes appropriate inferences regarding potential deployment. This approach will significantly reduce the burdens of implementing the standard in comparison with the extensive and litigious proceedings that followed the issuance of the *Triennial Review Order*.³⁰⁹

109. AT&T disputes our conclusion that business lines are a useful proxy for the identification of impairment for transport.³¹⁰ AT&T initially attacks the use of business lines as a proxy for lack of correlation to the costs of deployment, asserting instead that distance is "the main driver of [a

³⁰⁵ See generally SBC Comments at 78-79; ALTS *et al.* Comments at 77-86; Alpheus Comments at 19-27; ATX, Blackfoot, *et al.* Comments at 28-34; Loop and Transport Coalition Comments at 82-86.

³⁰⁶ See, e.g., New York Department Comments at 13-16; ALTS *et al.* Comments at 84 (proposing the adoption of the *Triennial* triggers as a part of a larger proposal); Alpheus Comments at 50-56.

³⁰⁷ See *Triennial Review Order*, 18 FCC Rcd at 17229-36, paras. 405-16.

³⁰⁸ See *supra* Part IV.C.

³⁰⁹ See, e.g., Qwest Teitzel Reply Decl. at paras. 4-10; see also MCI Comments at 141 (touting fiber-based collocation as a measurement because "the ILECs have access to all of the data needed . . . without the need for any discovery and without the need to rely on data from state proceedings"); cf. Letter from David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338 (filed Nov. 10, 2004) (addressing BOC arguments that AT&T and other competitive LECs refused to provide relevant data in state proceedings).

³¹⁰ See, e.g., Letter from David L. Lawson, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 04-313, CC Docket No. 01-338, Attach. at 1-4 (filed Nov. 9, 2004).

competitor's] deployment cost.³¹¹ But AT&T goes on to explain that "[a] disproportionate number of the largest wire centers in BellSouth's territory are located in the handful of its largest cities."³¹² Indeed, we recognize that there are likely many complex factors that impact an individual carrier's decisions to deploy transport, not all of which can be entirely captured by a proxy test administered in a meaningful way at the federal level. However, our test, rather than referring to the absolute costs of deployment, is based on the inferences that can be drawn from actual competitive deployment. This approach therefore implicitly accounts for relevant costs and revenues and inherently captures those locations where carriers have found it economic to deploy transport facilities. We also note that our test addresses distance indirectly by minimizing unbundling on routes connecting relatively close together wire centers. The record indicates that most competitive transport facilities are deployed to the wire centers with the greatest business demand, typically located in the core of the densest cities. Distances between offices are likely to be short, particularly relative to connecting to wire centers in outlying areas.

110. We also reject various indicia that the BOCs assert as useful for identifying where competition for transport exists. While data such as the number of local route miles,³¹³ lists of fiber wholesalers (without route-based analysis),³¹⁴ and counts of "CLEC Networks"³¹⁵ may be useful as background to further support claims about the state of competition, we find such figures to be unreliable and unsuitable as triggers to be used in our impairment test. These data are not complete, not representative of the entire industry, not readily confirmable, and aggregated at too high a level to be informative of local market conditions.

d. Determinations of Appropriate Thresholds

111. As set forth above, we classify all incumbent LEC wire centers into three tiers based on indicia of the potential revenues and suitability for competitive transport deployment.³¹⁶ Tier 1 wire centers are those with the highest likelihood for actual and potential competitive deployment, including wholesale opportunities. Tier 2 wire centers also show a very significant but lesser likelihood of actual and potential competitive deployment. Finally, Tier 3 wire centers are those that show a generally low likelihood of supporting actual or potential competitive transport deployment. In determining these thresholds, we keep in mind that potential revenues for telecommunications services are highly concentrated in a relatively small proportion of wire centers.³¹⁷ Thus, the thresholds we choose are designed to capture areas that have or are likely to have significant competitive transport. We describe

³¹¹ *Id.* at 1.

³¹² *Id.* at 3 & Attach. 1. We also see similar deployment in Qwest's territory. Qwest Nov. 1, 2004 *Ex Parte* Letter (associating wire centers with MSAs).

³¹³ BOC UNE Fact Report 2004 at III-4, Table 1.

³¹⁴ *Id.* at III-5 through III-6, Tables 2 & 3.

³¹⁵ *Id.* at III-8, Figure 1; *id.* at Appendix H. *But see* ALTS *et al.* Reply at 23; NuVox Reply at 2-3.

³¹⁶ We note that SBC, ALTS *et al.*, Alpheus, ATX, Blackfoot *et al.*, and the Loop and Transport Coalition all agree on this general construct. *See generally* SBC Comments at 78-79; ALTS *et al.* Comments at 77-86; Alpheus Comments at 19-27; ATX, Blackfoot, *et al.* Comments at 28-34; Loop and Transport Coalition Comments at 82-86.

³¹⁷ *See supra* para. 70.

immediately below the thresholds we adopt to identify these three tiers and explain why these thresholds provide meaningful indicia of both actual and potential transport deployment.

112. *Tier 1 Wire Centers.* We define Tier 1 wire centers as those with four or more fiber-based collocations or with 38,000 or more business lines. We also include in Tier 1 all incumbent LEC switching locations that have no line-side facilities because these locations will not have any business lines, but nevertheless are points of traffic aggregation in the incumbent LECs' networks where competitive LECs are most able to access the revenues sufficient to justify transport deployment.³¹⁸ These thresholds signify that very extensive competitive LEC transport deployment exists, or is likely to exist at Tier 1 wire centers. Thus, not only is multiple competitive entry possible, but so too is the likelihood that competitors will provide transport services on a wholesale basis.

113. We select the fiber-based collocation threshold of four for Tier 1 because this threshold indicates that significant revenue potential and deployment exists in the wire center and that wholesale opportunities are likely to exist or develop. Indeed, this threshold is satisfied in the small number of wire centers where a disproportionately high number of business lines are located. It is in these areas that the greatest level of competitive facilities deployment exists. It is also between these wire centers that the greatest level of competitive transport exists or is likely to exist, including intermodal facilities and wholesale opportunities. While four fiber-based collocators indicates a very significant presence of competitive facilities, we find this to be an appropriate threshold, particularly for Tier 1 wire centers. Because routes connecting Tier 1 wire centers are those that show promise of wholesale opportunities, we find that such routes require a better prediction of actual competitive network facilities that are capable of connecting the two wire center end-points. Thus, while we can be confident that the same carriers are likely to be collocated with fiber in multiple incumbent LEC wire centers within a larger geographic area,³¹⁹ obviating the need to conduct a "matched-pair" test to confirm that the same carriers actually collocated on each end of a route,³²⁰ we find that setting the threshold at four provides a very reasonable assurance that at least one (and likely more than one) of the four carriers fiber-collocated at each has a network capable of connecting those two points, or could build such networks.³²¹ Thus, our Tier 1 thresholds provide a reasonable proxy both for the ability to self-provision, and for where wholesale opportunities are likely to exist or develop.

114. We select the business line threshold of 38,000 for Tier 1 because this threshold indicates a significant likelihood that multiple transport providers can serve that wire center. We choose 38,000 business lines because the record indicates³²² that over two-thirds of wire centers above this threshold

³¹⁸ See, e.g., Qwest Reply at 76 n.220 ("CLECs may collocate at a tandem, and provide service to customers that are served by the wire centers subtending that tandem."); Loop and Transport Coalition Comments at 82. If access tandem switches are located in the same building as line-side switching facilities, then we apply both the fiber-collocation and business line thresholds.

³¹⁹ See *supra* para. 97 & note 275.

³²⁰ See *supra* para. 98.

³²¹ See, e.g., MCI Comments at 144; Loop and Transport Coalition Comments at 84-85.

³²² The Commission solicited and analyzed data regarding the relationship between business access line counts and fiber-based collocations in the Bells' wire centers for purposes of establishing the tiers. See BellSouth Padgett Aff., Exh. SWP-1 and Exh. SWP-3; SBC Nov. 1, 2004 *Ex Parte* Letter; Verizon Oct. 28, 2004 *Ex Parte* Letter; Qwest Nov. 1, 2004 *Ex Parte* Letter. Because the initial record evidence on this point varied from one BOC to another and (continued....)

have four or more fiber-based collocators.³²³ Moreover, even for those wire centers above this business line threshold that do not contain four fiber-based collocators, 78 percent contain three or more fiber-based collocations, 86 percent contain two or more fiber-based collocations, and 95 percent have at least one fiber-based collocator.³²⁴ We find that if this percentage of wire centers can attract such substantial fiber-based collocation, then we believe it is possible that competitors can deploy transport facilities to the remainder of the wire centers above this business line threshold.³²⁵ Thus, this level of facilities deployment signals that significant revenue opportunities exist in wire centers of this size that justify multiple competitive deployment likely to result in facilities-based competition as well as wholesale opportunities.³²⁶

115. In combination, the fiber-based collocation test and the business line test define Tier 1 wire centers. According to the record, Tier 1 wire centers comprise approximately 5.4 percent of all 10,796 BOC wire centers.³²⁷ While such a figure is seemingly small, these Tier 1 wire centers represent

(Continued from previous page)

did not show evidence of wire centers below 5,000 business lines, the BOCs each filed revised data sets, all based on the same definition of business line, and including all wire centers. *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. We find that the second set of data provided by the BOCs is more reliable, enabling us to make better comparisons across all companies. Accordingly, we base our analysis in this Order on the BOC data received in December.

³²³ The data show that about 67% of wire centers with 38,000 business lines or greater have four or more fiber-based collocations—the associated number of fiber-based collocators established, in part, to identify Tier 1 wire centers. The *USTA II* court directed the Commission to draw inferences between similar markets. Therefore, we presume that if 67% of all wire centers that are “alike” in terms of business lines (and thus revenue opportunities) have a given number of fiber-based collocations, the remaining wire centers above this business line threshold could sustain that much competition as well. As explained below, due to the disjunctive application of both business line and fiber-based collocation thresholds, the percent of wire centers comprising Tier 1 that contain greater than four fiber-based collocations is significantly higher than 67%. *See infra* para. 115. At least one party advocates the use of two-thirds as an appropriate level of inference. XO Dec. 8, 2004 Augustino *Ex Parte* Letter at 4-5.

³²⁴ *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

³²⁵ Thus, as applied to specific types of transport, we find that it is possible for competing carriers to deploy or otherwise obtain DS1 transport from another such wire center, or, in the case of DS3 and dark fiber transport, that it is possible for competing carriers to deploy or obtain transport between these wire centers and any but the smallest wire centers (defined below as Tier 3 wire centers).

³²⁶ MCI Reply at 103 (“MCI’s four fiber-based collocator proposal . . . captures virtually all routes where multiple wholesalers (or even multiple retailers) have already deployed transport, as well as nearly all routes where such deployment is possible.”). We note that SBC’s proposed business line thresholds are supported by fiber-based collocation data. SBC Comments at 77.

³²⁷ *See* Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

approximately 34.2 percent of all business lines served out of all BOC wire centers.³²⁸ Thus, our test identifies the set of incumbent LEC wire centers with the greatest concentration of both competitive deployment and demand characteristics. Moreover, in Tier 1 wire centers, through the disjunctive application of both the fiber-based collocation and business line thresholds, over 90 percent of Tier 1 wire centers contain four or more fiber-based collocations and over 98 percent contain at least one fiber-based collocator.

116. We reject the alternative business line count thresholds proposed by various commenters. BellSouth, Verizon, and SBC propose a threshold of 5,000 business lines, above which they generally suggest the Commission find no impairment.³²⁹ We reject these proposed thresholds as too low to show a correlation to routes on which economic entry generally is possible and particularly where entrants are likely to provide wholesale opportunities.³³⁰ Because these thresholds are closer to our Tier 2 determinations, we address the specifics of these proposals below.

117. While we reject SBC's and BellSouth's proposed thresholds as too low, we reject the ALTS, Alpheus, and the Loop and Transport Coalition proposals as too high. ALTS and Alpheus propose a threshold of 40,000 business lines or more while the Loop and Transport Coalition proposes a threshold of 50,000 business lines or more to satisfy the Tier 1 threshold.³³¹ Similarly, XO proposes that a top tier be set at either 50,000 business lines or a combination of wire centers with 35,000 business lines *and* four or more fiber-based collocations.³³² At these levels, there is actual competitive entry in a very high percentage of wire centers; greater than 80 percent of wire centers with 50,000 or more business lines have four or more fiber-based collocators, and there is over a 97 percent chance of at least one fiber-

³²⁸ See Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

³²⁹ BellSouth Comments at 39-43; Verizon Comments at 82; SBC Comments at 78-79. BellSouth proposes that no impairment be found for all routes into or out of a wire center with greater than 5,000 business lines. We reject a significant aspect of BellSouth's and Verizon's proposal *supra* para. 84. SBC proposed three classes of wire centers: those with 10,000 or more business lines; those with 5,000 to 10,000 business lines, and; those with fewer than 5,000 business lines. SBC would find no impairment between two of the largest offices, or on routes connecting a large and a medium class office. SBC Comments at 78-79. Although we reject the specifics of these proposals, we note that we adopt the core concept of these proposals, particularly SBC's, in the test that we adopt.

³³⁰ However, we reject the idea that a wholesale market is required to identify a lack of impairment for DS3 and dark fiber transport, as noted below, because we find that self-provisioning is possible at these capacities.

³³¹ ALTS *et al.* Comments at 77-86; Alpheus Comments at 20; Loop and Transport Coalition Comments at 82. These proposed thresholds are supported only by vague representations of the carriers, rather than any specific support. For example, these parties characterize routes between such offices as "the very densest traffic routes" in "heavily concentrated [] urban areas" where there is "significant deployment" and "it is reasonable to assume that multiple non-ILECs have or could provide DS3 interoffice transport along routes connecting two [such] wire centers." Loop and Transport Coalition Comments at 82; Alpheus Comments at 19-21; ALTS *et al.* Comments at 81. Alpheus' Reply, however, provide significantly more justification for these numbers. Consistent with our conclusions, Alpheus demonstrates for the Dallas/Fort Worth and Houston areas that wire centers with fewer than 20,000 business lines show little sign of competitive deployment while wire centers with between 20,000 and 40,000 business lines show inconsistent competitive entry and wire centers with greater than 40,000 business lines show a high likelihood of competitive entry. Alpheus Galvan/Maella Reply Decl. at paras. 8-16.

³³² XO Dec. 8, 2004 Augustino *Ex Parte* Letter.

based collocator in such wire centers.³³³ While we agree that competitive entry is likely to be greater at these thresholds, we find that our 38,000 business line Tier 1 threshold, particularly when applied in concert with a fiber-based collocation threshold, sufficiently identifies the likelihood of the presence of multiple transport providers, and allows for appropriate inferences about where significant competitive entry is more likely than not. Indeed, as explained above, 90 percent of Tier 1 wire centers have four or more fiber-based collocators while over 98 percent have at least one.³³⁴ At these levels, we find that competitive transport is or can be self-provisioned, and likely obtained on a wholesale basis.

118. *Tier 2 Wire Centers.* We define Tier 2 wire centers as those with three or more fiber-based collocations or with 24,000 or greater business lines. A threshold of three fiber-based collocators establishes that multiple carriers have overcome the costs of deployment in a wire center, signifying that substantial revenues exist in the wire center to justify deployment.³³⁵ Accordingly, we establish a business line threshold of 24,000 business lines because over two-thirds of all wire centers above this threshold have three or more fiber-based collocators, signaling that sufficient revenue opportunities are very likely to exist in such wire centers to justify the provision of competitive transport.³³⁶

119. In combination, the disjunctive application of the fiber-based collocation threshold and the business line threshold define Tier 2 wire centers. Such wire centers comprise approximately 3.2 percent of the total BOC wire centers, but these wire centers serve approximately 12.6 percent of all BOC business lines.³³⁷ Thus, Tier 2 identifies the set of incumbent LEC wire centers with a very substantial concentration of both competitive deployment and demand characteristics. Further, we note that 66.7 percent of these Tier 2 wire centers have three or more fiber-based collocators, 77.8 percent have two or

³³³ See Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

³³⁴ See *supra* para. 115.

³³⁵ See, e.g., Alpheus Dec. 2, 2004 *Ex Parte* Letter at 3-4 (asserting that a fiber-based collocator threshold of two, particularly without requiring that the same carriers be collocated on each end of a route, would lead to an “unbalanced” test, weighted too heavily toward potential, rather than actual deployment).

³³⁶ The data show that over 67% of wire centers with 24,000 business lines or greater have three or more fiber-based collocators – the associated number of fiber-based collocators that combine to define Tier 2 wire centers. The *USTA II* court directed the Commission to draw inferences between similar markets. Therefore we find that if 67% of all wire centers that are “alike” in terms of business lines (and thus revenue opportunities) have a given number of fiber-based collocations, the remaining wire centers can potentially sustain similar levels of competition as well. Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter; see also XO Dec. 8, 2004 Augustino *Ex Parte* Letter at 4-5.

³³⁷ See Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. The numbers provided in the text of this Order indicate the characteristics of the discrete set of Tier 2 wire centers, *i.e.*, those wire centers that satisfy the Tier 2 requirements and also are not Tier 1 wire centers. We note, however, that the combination of Tier 1 and Tier 2 wire centers comprises approximately 8.5% of BOC wire centers, which serve approximately 46.9% of all BOC business lines. *Id.*

more, and at least one fiber-based collocator is present in 91.8 percent of these wire centers, indicating that competitive deployment is highly likely.³³⁸

120. We reject the alternative business line count thresholds proposed by various commenters. As noted above, BellSouth, Verizon, and SBC propose a threshold of 5,000 business lines, above which they generally suggest the Commission find no impairment.³³⁹ BellSouth asserts that approximately 72 percent of such offices in its region have one or more fiber-based collocators and that such offices are characterized by significant special access demand.³⁴⁰ However, our review of the BOC data reveals significant variability in the 5,000 to 24,000 business line range, with a more significant relationship between business lines and fiber-based collocation above the 24,000 business line threshold.³⁴¹ Similarly, SBC shows that for offices with 5,000 to 10,000 business lines, only 20 percent have one or more fiber-based collocators, and only five percent have more than two fiber-based collocators.³⁴² However, above 10,000 business lines, SBC demonstrates that 56 percent of such wire centers have one or more fiber-based collocators.³⁴³ While we find that a significant relationship exists between business line density and competitive transport deployment at higher business line thresholds, we find that this relationship is far less reliable between 5,000 business lines and our 24,000 business line threshold that,

³³⁸ See Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

³³⁹ BellSouth Comments at 39-43; Verizon Comments at 82; SBC Comments at 78-79. BellSouth and Verizon propose that no impairment be found for all routes in or out of a wire center with greater than 5,000 business lines. We reject a significant aspect of BellSouth's and Verizon's proposal *supra* para. 84. SBC proposed three classes of wire centers: those with 10,000 or more business lines; those with 5,000 to 10,000 business lines, and; those with fewer than 5,000 business lines. SBC would find no impairment between two of the largest offices, or between a large and a medium class office. SBC Comments at 78-79. Although we reject the specifics of these proposals, we note that we adopt principles from each proposal, particularly SBC's, in the test that we adopt.

³⁴⁰ BellSouth Padgett Aff. at Table 1. Based on further review due to the collection of the December 7 wire center data filing, BellSouth recognizes that the total number of BellSouth wire centers used to calculate this table varies slightly, but we note that this does not significantly change the reported percentages. *Cf.* BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter (showing a total of 1583 BellSouth wire centers, as opposed to the 1574 BellSouth wire centers upon which BellSouth calculated its earlier figures). Verizon asserts that 53% of its wire centers with greater than 5,000 business lines have one or more fiber-based collocators while SBC shows that over 41% of its wire centers with greater than 5,000 business lines have one or more fiber-based collocators. Verizon Comments at 82; SBC Comments at 78.

³⁴¹ See MCI Reply at 100-03 & n.297; MCI Nov. 10, 2004 *Ex Parte* Letter (asserting that, "in many instances," BellSouth's 5,000 business line threshold captures central offices "well outside" of the core areas where competitive fiber has been deployed).

³⁴² SBC Comments at 78. Based on the aggregated data from all four BOCs, for wire centers with 5,000 to 10,000 business lines, 20% of such wire centers have two or more fiber-based collocators while 44% have at least one. See Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter.

³⁴³ SBC Comments at 78.

in part, defines Tier 2 wire centers.³⁴⁴ Thus, to the extent that other commenters demonstrate that a 5,000 or 10,000 business line thresholds would result in a high error rate in predicting impairment, we agree.³⁴⁵ For these reasons, we find that the approach we adopt is appropriate, particularly given the disjunctive application of our two proxies, which allows, for example, wire centers with a low business line count, but with substantial fiber-based collocation, to qualify at Tier 1 and Tier 2 wire centers.

121. We reject the BOC proposals solely to reach conclusions of no impairment by wire center where there is evidence of only one fiber-based collocator.³⁴⁶ In the absence of other indicia that competitive entry is feasible, the presence of one fiber-based collocator constitutes insufficient evidence of competitors' non-impairment. Although our test does identify some offices as Tier 1 or Tier 2 that have only one, or even no, fiber-based collocators, those offices possess characteristics that allows us to infer that competitive entry is more likely than in other offices – namely a significant number of business lines indicating the presence of significant potential revenues. Similarly, we reject the assertions by various commenters that in wire centers with only one fiber-based collocator, or no fiber-based collocators, requesting carriers are always impaired without access to unbundled transport.³⁴⁷ As we just explained, by defining wire center tiers according to two indicia, we are able to identify those wire centers where competition is likely based on potential revenues, even if actual deployment is not evidenced through our fiber-collocation test. We find that this approach more properly accounts for potential competition in wire centers with very few or no fiber-based collocators.

122. We reject various competitive LEC proposals for identifying middle-tier wire centers. Both ALTS and Alpheus propose the application by the Commission of the triggers set forth in the *Triennial Review Order*, while the Loop and Transport Coalition proposes a similar, but slightly different standard.³⁴⁸ These proposals are focused too closely on actual deployment and actual wholesale availability, rather than the ability to self-deploy and the likelihood of wholesale alternatives. The Loop and Transport Coalition, for instance, proposes a standard that apparently is even more demanding than the test proposed by the Commission in the *Triennial Review Order* – that five carriers each must have fiber-based collocations on both ends of the route and at least two of the five must certify that they offer wholesale transport between the two points.³⁴⁹ Thus, we disagree in part with the general competitive

³⁴⁴ Our data show that only approximately 31% of these wire centers have two or more fiber-based collocators and less than 56% have one or more fiber-based collocators. See Qwest Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; Verizon Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; SBC Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 7, 2004 Wire Center Data *Ex Parte* Letter; BellSouth Dec. 10, 2004 Reynolds *Ex Parte* Letter; SBC Dec. 10, 2004 Benison *Ex Parte* Letter. Comments by MiCRA explain the variability at these low business line thresholds. MiCRA Reply at para. 41.

³⁴⁵ See, e.g., MiCRA Pelcovitz/Fentrup Reply Decl. at paras. 33-40.

³⁴⁶ See BellSouth Comments at 40; SBC Comments at 78; Verizon Comments at 82.

³⁴⁷ See, e.g., MCI Reply at 100-04.

³⁴⁸ ALTS *et al.* Comments at 84; Alpheus Comments at 25; Loop and Transport Coalition Comments at 84.

³⁴⁹ Loop and Transport Coalition Comments at 84.

LEC advocacy that would have us find that a market has or is likely to have a competitive wholesale market for transport before we may find a lack of impairment for DS3 and dark fiber transport.³⁵⁰

123. *Tier 3 Wire Centers.* We define Tier 3 wire centers as all those that are not Tier 1 or Tier 2 wire centers. These offices are characterized by very low potential revenues, as indicated by two or fewer fiber-based collocators *and* a low number of business lines. In these wire centers, there is little evidence that competitors could justify the high costs and barriers to deploy transport facilities to serve these offices. We recognize that this definition may be slightly over-inclusive, including wire centers where there is actual competition that is not dependent on fiber-based collocations and that survives even in the absence of significant general demand. Nevertheless, because our decisions and inferences are based on actual competitive deployment, we are confident that the thresholds that define the Tier 3 wire centers accurately measure where impairment is most likely to exist.

124. We reject the various competitive LEC proposed business line thresholds below which they suggest we find impairment without question. The Loop and Transport Coalition supports a finding of non-rebuttable impairment for all routes that have one end-point in a wire center serving fewer than 25,000 business lines.³⁵¹ Similarly, Alpheus proposes a non-rebuttable finding of impairment for routes between two wire centers with fewer than 20,000 business lines.³⁵² Meanwhile, ALTS proposes a non-rebuttable finding of impairment for routes connecting two wire centers with fewer than 10,000 business lines in the top 50 MSAs, or between any routes outside the top 50 MSAs.³⁵³ Unlike the approach we adopt here, these proposals fail entirely to account for offices that house a significant number of actual fiber-based collocators, notwithstanding a relatively low number of business lines. While we adopt a Tier 2 threshold of 24,000 business lines, which is not substantially different than some of these proposals, and is even higher than some, we find that our inquiry should not and does not stop there. That is why we also apply a fiber-based collocation test to identify wire centers below our 24,000 business line threshold that nevertheless show significant competitive fiber deployment and that we include in our definition of Tier 2.

3. Application to Record Evidence of Deployment

125. As discussed above, we continue to analyze transport facilities according to the capacity and type of transport at issue. Thus, we apply our proposed test differently according to capacity level and type of transport.

a. DS1 Transport

126. We find that requesting carriers are impaired without access to DS1-capacity transport on all routes except those connecting two Tier 1 wire centers. Thus, incumbent LECs are obligated to provide unbundled DS1 transport that originates or terminates in any Tier 2 or Tier 3 wire center, but are not obligated to provide unbundled DS1 transport on routes connecting two Tier 1 wire centers. In the

³⁵⁰ See, e.g., MicRA Pelcovitz/Fentrup Reply Decl. at para. 42; AT&T Reply at 48 (asserting that a test for DS3 transport must measure “actual wholesalers”) (emphasis in original).

³⁵¹ Loop and Transport Coalition Comments at 83.

³⁵² Alpheus Comments at 22.

³⁵³ ALTS *et al.* Comments at 81.