bridge taps."[73] Moreover, when purchasing the loop, the CLEC should be granted "exclusive use" of the features and/or functionalities that it selects.

Rhythms is not aware of any ILEC claiming that a wholesale market exists for xDSL capable loops. Indeed, no party could make such a claim, because there are no comparable alternatives to the ILECs' copper plant.[74] No other facility, including cable modems, fixed wireless or self-provisioned fiber to the end user, is able to provide a technologically sufficient alternative to xDSL capable loops.[75] Therefore, even if these alternatives were sufficiently available through a competitive wholesale market, which the record evidence demonstrates they are not, these options do not support all the services that competitors may seek to provide.[76] Because of the technological limitations of these features, they do not represent a viable alternative for xDSL carriers. Moreover, as NorthPoint correctly demonstrates, "no alternative providers are likely to emerge, since the incumbent LECs' existing copper loop infrastructure would be prohibitively expensive to replicate."[77] Indeed, if xDSL providers are denied access to clean copper loops, they would not only be impaired, they would be completely unable to provide their services.[78]

As part of their unbundling obligations, the Commission should specify that ILECs must "condition" the loop on the same terms and conditions that they do for their own services. That is, incumbents must, for example, remove load coils and bridge taps, so that a competitor may

[72] ALTS Comments at 41; AT&T Comments at 72-73; COMPTEL Comments at 31-35; Network Access Solutions Comments at 14-22; Qwest Comments at 61; NorthPoint Comments at 14; COVAD Comments at 33-34.
[73] Rhythms Comments at 14; ALTS Comments at 41; COMPTEL Comments at 33.
[74] NorthPoint Comments at 14.
[75] Rhythms Comments at 14.
[76] AT&T Comments at 70.
[77] NorthPoint Comments at 14.
[78] AT&T Comments at 76.

"provide the service that is seeks to offer."[79] ALTS is correct that "requiring ILECs to condition loops by removing bridge taps and loading coils at a competitor's request is consistent with the unbundling standards set forth in Section 251 and with the Commission's obligation to encourage the deployment of advanced services."[80] Moreover, in order to ensure that the provisioning of a conditioned loop does not "impair" a CLEC's ability to provide advanced services, the ILECs should be explicitly prohibited from imposing excessive "conditioning" charges for this service. Indeed, CLECs should not pay conditioning charges at all. For ADSL-capable loops (which must be loops under 18,000 feet), CLECs should not pay any conditioning charges. Bellcore resistance design standards indicate that loops under 18,000 feet should not contain such impediments, and thus competitors should not pay charges to correct the ILEC's network to comply with this standard. Moreover, in a forward-looking cost model already presumes that loops will be data ready. Accordingly, the price for an ADSL loop should be no different that the 2-wire loop rate.

3. The Commission's Loop Definition Should Include a DLC Solutions

The incumbent LECs either failed to address, or blatantly mischaracterize, the importance of a loop definition that addresses the problems CLECs face when they try to order xDSL-capable loops for customers served by digital loop carrier ("DLC") facilities. As described by numerous commenters, access to clean copper loops capable of delivering most xDSL services necessitates a *contiguous* copper path, not one interrupted by fiber facilities such as DLC.[81]

Several solutions to the DLC problem have been presented both to the ILECs and the Commission, including: (1) transfer of CLEC services onto existing copper plant that is either

[79] 47 U.S.C. § 252(d)(2)(B).
[80] ALTS Comments at 41. *See* AT&T Comments at 75-76 *citing First Report and Order* ¶ 260.

not currently active, or is currently serving a non-copper-dependant ILEC service; (2) collocation of DSLAMs at DLC remote terminals ("RTs") and controlled environment vaults ("CEVs") to allow CLEC access to the copper termination point of the loop; (3) requiring ILECs to deploy remote terminals and DSLAMs that accept different types of CLEC line cards; (4) allow the CLECs to construct and occupy a second, interconnected, remote terminal and (5) where no other means of reaching a customer exists, requiring unbundled access to any ILEC DSLAM equipment located in or near the remote terminal.[82] Ultimately, without a UNE definition that considers and addresses the ability of CLECs to provision xDSL services past DLC, the prospect of competitive entry and survival in the xDSL-based advanced services market is dim. Therefore, if CLECs are denied access to these solutions, they will be significantly impaired in their ability to provide advanced services.

USTA, Ameritech, US West, Bell Atlantic and BellSouth simply failed even to raise the impact of DLC facilities on CLEC access to unbundled loops.[83] This is remarkable considering the lengthy and repeated negotiations CLECs such as Rhythms have had, and are continuing to have, with all of these companies regarding the DLC issue and the solutions listed above. As long as there are CLECs interested in providing xDSL-based services, this is an issue that will not go away until the Commission explicitly resolves it. The attention paid to this issue in the ILECs' comments matches precisely their complete lack of any demonstrable effort to solve this problem at an implementation level for their CLEC customers.

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[81] *See* Rhythms Comments at 15-16; Covad Comments at 37-41; AT&T Comments at 78-82; MCI Comments at 43-51; BellSouth Comments at 35, n.32.

[82] Rhythms Comments at 15-16; NorthPoint Comments at 16-18; Covad Comments at 40-41; ALTS Comments at 46; NAS Comments at 32-36.

[83] USTA Comments at 35-36; Ameritech Comments at 100-106; US West Comments at 36-40; Bell Atlantic Comments at 36-46; BellSouth Comments at 62-75. Although these Commenters do address (and generally reject) the idea of unbundling advanced services technology, they do so ignoring the possibility of DSLAM unbundling as a regulatory solution to the DLC problem.

SBC and GTE, the only two ILECs that even bothered to address the DLC-related issues, did little if any better at addressing the problem and its potential resolutions. SBC, for instance, appears to be confused about its own position. SBC first states that, "[r]emote access at points such as feeder distribution interfaces (FDIs), remote terminals, and controlled environment vaults (CEVs) is not necessary for the CLEC to provide service, nor will such lack of access impair the CLEC's ability to provide service."[84] This statement, apparently directed at the RT collocation option for dealing with DLC, is clearly untrue on its face.[85] Simply put, on a regular basis, ILECs are either unable, or claims to be unable, to provide access to a continuos cooper loop from a customer premises to the ILEC central office because of DLC on the loop. At those times, the CLEC *must* gain access to the ILEC end of the copper portion of the loop, regardless of where that termination point is, or what service the CLEC proposes to offer over it. In those instances, the only means for accessing a copper loop may involve requiring the ILEC to provide access to its RTs and CEVs or one of the other solutions described above.

Confusingly, SBC appears to recognize its duty to provide such collocation alternatives when it states, in the very next footnote, that "CLECs, moreover, have the right to collocate in adjacent CEVs or similar structures, when space is legitimately exhausted in a particular LEC premises."[86] The very solution described in SBC footnote 50 is one of several that should routinely be made available by ILECs to address the DLC problem. Namely, ILECs must be required to allow the collocation of CLEC xDSL equipment wherever on a LEC's *premises*

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[84] SBC Comments at 30.

[85] This is particularly ironic given that several ILECs have recently announced imminent "solutions" that would allow them to provide DSL services to customers served by DLC. Bell Atlantic, ISP/SP Care Package for ADSL Service, Section 16 at 17. US West, US West Unveils Technology Enhancements That Nearly Double Number of Customers Who Can Receive Its Lightening Fast-ADSL Internet Service. <http://www.uswes.com/cgi-bin/excite/AT-comsearch.cgi?doc+d5597&>

[86] *Id.* at n. 50.

collocation is necessary to gain access to the termination point of the plain copper loops, not just at or near the ILEC's central office.

Although SBC admits that it is required to allow various collocation alternatives that are not necessarily limited to central offices, it proceeds to argue that "[s]ub-loop unbundling raises a host of technical, safety, security and maintenance issues" and should not be a part of the Commission's loop definition.[87] SBC concerns about sub-loop unbundling are spurious because the xDSL CLECs would prefer to lease a complete or "full" loop facility from the customer premises all the way back to the central office and are only prevented from doing so by the ILEC. Indeed, under the DLC solutions described above, while the DSL electronics would be placed at the midpoint in the loop, the DSL signal from that loop would be handed off to the CLEC collocation in the central office. Therefore, the real issue in solving the DLC is most often one of collocation of DSL equipment rather than of subloop unbundling. Likewise, GTE attacks the "sub-loop unbundling" issue without addressing any other solution to the DLC issue.[88] These arguments fail to recognize that in most cases, Rhythms will use ILEC facilities to carry that traffic back to its collocated equipment in the central office. Thus, Rhythms will be using ILEC facilities from the end user, bring that traffic through a DSLAM housed in an RT or CEV, and then continue to use the ILEC's facilities to take the traffic back to the central office.

Not surprisingly, all of the ILECs chose not to address the most basic and straight-forward method for them to meet their statutory obligation and provision xDSL-capable loops where requested. Where the loop initially requested by the CLEC is incompatible with xDSL (because it is "loaded" or runs behind DLC), the ILEC must make available any existing copper facility, whether it is in use or not, that is not currently carrying a service that is copper-sensitive.

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[87] *Id.* at 30.

That is, the ILEC must simply switch the ILECs POTS service onto the loaded or DLC-encumbered loop and simultaneously switch the CLEC xDSL-based service onto the copper facility. This can and should occur in a matter of minutes, not days, as would be the case were the incumbent needed the switch to occur for its own purposes. This "line and station" transfer is not only inexpensive and the most efficient use of the network, it is the day-to-day routine of the ILECs, and should be required by the Commission as part of any UNE definition of loops.

Thus, as if hoping that by ignoring the issue it might go away, the ILECs have largely left unaddressed the critical issue of how to define an unbundled local loop in such a way as to ensure that competitor xDSL service can be provisioned over it, even when the requested loop is served by DLC facilities. As Covad points out in its comments, the ILECs also face, and are addressing this same problem for themselves.[89]

Because the incidence of DLC in the incumbent's networks appears to be growing rather than shrinking, the Commission is left with no choice but to address this issue head-on. The simplest and most basic venue for resolving the advanced services loop requirements is through this proceeding. In order to avoid months or even years of delay to competition in advanced services, the Commission must craft its definition of the loop UNE to include some or all of the menu of DLC solutions mentioned above as well as those described by the CLECs in their comments. Without relief, the incumbents will have found a near-perfect barrier to entry that they are free to expand at will.

4. The Commission's Loop Definition Should Require Line Sharing

Several CLECs, including Rhythms, argued in their initial comments that the Commission should take this opportunity to include in the loop UNE definition a requirement

[88] GTE Comments at 87-89.

that ILECs allow requesting CLECs to provide data services over the same loop that the ILEC provides its own voice services (known as "line sharing" or "spectrum unbundling").[90]

In this case only one ILEC, BellSouth, bothered to address this issue in its comments.[91] BellSouth initially attempts to dismiss the issue of line sharing by claiming that "there are alternative facilities" to the local loop "that are being used to compete in the provision of advanced services."[92] This argument must be rejected for the same reason as for loops generally: all other alternatives for provisioning advanced services across the "last mile" are nascent and are not currently effective market substitutes for access to a clean copper loop.

BellSouth next argues that "[u]nbundling incumbent loop spectrum can have no consumer benefits because the advanced services market is already competitive."[93] This claim ignores the fact that although advanced services *may* be new enough to currently be free of the direct market power of any one provider,[94] the two most likely media for the provisioning of advanced services, the phone line and the cable wire, are currently controlled by longstanding incumbent monopolists. As a result, the services dependent on these media are subject to the market power of the media suppliers. Further, the services available over the two technologies are *not* necessarily economic substitutes.[95] Thus, even if a competitive market exists today, the future of competition depends upon *both* internal competition within technologies, and external or intermodal competition between technologies.

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[89] Covad Comments at 39.

[90] Rhythms Comments at 16-17; NorthPoint Comments at 14-15; NAS Comments at 28-31.

[91] BellSouth Comments at 45-47.

[92] *Id.* at 46.

[93] *Id.*

[94] There are certainly many consumers who currently can *only* be served advanced services by their incumbent LEC because of the incumbent LEC's success to date in delaying its CLEC competitors.

[95] For example, xDSL services provide customers with a dedicated line that is just for their use, while cable modem service requires customers to "share" bandwidth. Thus, the bandwidth available to a cable modem customer can vary significantly based upon how many other customers are sharing the bandwidth at a particular time. As

(Footnote Continued)

Moreover, BellSouth's comments completely ignore the fact that line sharing would allow CLECs and CLEC/ILEC combinations to offer their services for lower prices by eliminating the significant recurring costs associated with second and third phone lines. This unnecessary cost is the single most important economic barrier to wide deployment of xDSL services to residential consumers. Currently only the ILECs are able to achieve that savings, thus giving them a discriminatory price advantage based on their unwillingness to treat their competitors as they treat themselves.

More importantly, however, by refusing to allow line sharing, the ILECs are denying consumers what they want through the development of competition; namely technologically sophisticated services provided efficiently and economically. BellSouth refuses to allow a consumer to receive competitively provided data services over their existing BellSouth voice line. In other words, the incumbent is forcing the consumer to either purchase a second line to their premises to receive competitive data services, or continue to use a single line, and switch their voice service to the competitor providing their data services. Moreover, BellSouth's line sharing prohibition is unique in its application to advanced services. When competition in the long distance market developed, consumers were not forced to purchase a second line for their long distance service and use their existing line for their local service. Likewise, the Commission should not allow BellSouth or any other incumbent to restrict the consumers' choice in this way for advanced services.

Finally, BellSouth obscurely claims that line sharing would "create a significant disincentive to incumbent LEC and CLEC investment in advanced service" and that the "operational and regulatory costs to administer a spectrum unbundling scheme would be

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another example, cable line and telephone infrastructure do not allow for the same deployment footprint, as in some

(Footnote Continued)

extremely high."[96] These are, however, the same tired arguments that the incumbents have been making to the Commission for over a year regarding advanced services. They are, in reality, nothing more than pat responses by the ILECs to any attempt to introduce competition to a market they perceive as part of their dynasty. Despite their repeated claims that advanced services would not be built-out without deregulation of the ILECs, in fact dense DSL-based CLEC footprints exist today and continue to grow; these footprints are limited today only because of ILEC-imposed delays and increased costs.

Again, the ILECs appear to believe that by ignoring the issue of line sharing it might go away. Instead, the Commission should address this issue directly by defining an unbundled local loop to include line sharing. A failure to do so will result in the continuation of the existing price discrimination policies and a delay in full deployment of xDSL services to residential consumers.

5. The ILECs' Loop Unbundling Obligation Should Include Carrier Access to Specific Loop Information

In order for carriers to efficiently and effectively use unbundled loops for the provision of competitive advanced services, the Commission should ensure that they have access to specific loop information regarding both the physical make-up of the loops, as well as the availability of those loops. Because DSL services are technologically dependent on clean copper loops of a certain length, carriers must have access to information on the physical characteristics of the loop. Specifically, in order to know which service it is able to offer, DSL providers must have access to data regarding, for example, the length, gauge, whether it is provisioned over DLC, the existence of load coils or repeaters, as well as the presence and location of bridge taps.

areas phone lines are available and cable lines are not.

[96] *Id.* .at 47.

In addition, new entrants must have access to information on the availability of loops. That is competitors need to know the physical make-up information of: (i) the loops currently in service to a particular end user; (ii) the loops available or assigned to a particular end user, but not yet in service; and (iii) the loops generally available in a particular neighborhood. This information is important because a competitive provider of DSL service should be able to designate and select a specific copper loop in any of these categories of availability.

For example, if a consumer has two lines in service to their premises, one of which is provided on copper and is used as the primary voice line and the other is provided over fiber and is used for data and/or a second voice line, the CLEC should be able to identify, select and order the copper line as the UNE. The ILEC should then be required to make the copper line available to the CLEC by either transferring the primary voice line, including the telephone number, to the fiber facility or providing the CLEC with a copper loop that is not in service, but is available or assigned. This transfer of lines should happen seamlessly, in one fluid step, to avoid any interruption in the consumer's service. In other words, the consumer ordering DSL from a competitor should not be forced to disconnect its copper line, then wait and hope that the incumbent will provide the competitor with that same line for the provision of advanced services. Likewise, the CLEC should not have to order a loop blindly hoping that the ILEC will make available the loop that the consumer had disconnected. Such a result would be unfair to both the consumer and the competitor seeking to provide advanced services. Therefore, the DSL provider should have full and unfettered access to the loop information to identify, select and order a specific loop for its service and any necessary transfer of services should occur as one simultaneous process rather than several unrelated steps.

C. Access to Unbundled Transport is the Only Means By Which Competitors Can Obtain Wide-spread Availability of Transport on Timely, Cost-effective and Reasonable Terms

Interoffice transport consists of transport facilities both between two ILEC facilities or transport between ILEC and CLEC facilities. These transport facilities include high-capacity lines such as DS3s, OC3s, OC12s and OC48s, which are particularly key for advanced service providers like Rhythms.[97] Because transport facilities do not raise any proprietary concerns,[98] the "impair" standard is the benchmark for evaluating whether or not unbundled transport should be made available.

There is strong agreement among a wide variety of commenters that: (i) access to interoffice transport facilities is crucial to competitors' ability to offer services; (ii) there is no widespread availability of transport in urban, suburban or rural areas; and (iii) the ILEC's transport facilities are thus the only real means for competitors to gain access to transport.[99] However, a few ILECs argue that ILECs should not be required to provide unbundled access to these key facilities on the grounds that substitute transport facilities are available, collocation obviates the need for unbundled transport, competitors can obtain transport from special access tariffs and interconnection agreements, and the existence of sporadic self-provisioning.[100] For the reasons discussed below, the Commission should reject these arguments and establish one rule on transport—that it should be unbundled—rather than a fractionalized rule based on a variety of parameters. Establishing disjointed rules would be inefficient, encourage the

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[97] Covad Comments at 50-53; NorthPoint at 19.

[98] *First Report and Order* ¶ 446; ALTs Comments at 50; AT&T Comments at 111.

[99] Allegiance Comments at 18-19; Covad Comments at 43, 45-48; Competitive Policy Institute Comments at 27; Illinois Commerce Commission at 13; Qwest at 73; MGC Comments at 9, 21-24; NorthPoint Comments at 13, 19-20Texas Public Utility Commission Comments at 14; and Vermont Public Service Board Comments at 12.

[100] Ameritech Comments at 86-94; Bell Atlantic Comments at 26-32; BellSouth Comments at 47-62; SBC Comments at 45-46.

incumbents to game the process and delay competitors' deployment significantly as competitors had to defend constantly their right to unbundled transport.

1. There is No Transport Substitute That Rivals Unbundled ILEC Transport in Ubiquitous Access, Timeliness and Cost

ILECs have argued that competitors' services would not be impaired in the absence of unbundled ILEC transport based on the purported availability of comparable transport on the wholesale market.[101] In supporting their claim, the incumbent LECs point to certain urban centers where they claim that competitive LECs and Competitive Access Providers ("CAPs") provide a competing source for transport.[102] In addition, incumbents have also pointed to the ability of electric utilities and cable companies to provide fiber to competitors,[103] as well as the availability of transport equivalents, such wireless radio and microwave technologies.[104]

What the ILECs fail to recognize, however, is that for non-ILEC sources of transport to be a viable alternative for competitors, that transport must be available ubiquitously, in a comparable timeframe and at a comparable cost to that provided by the ILEC as a UNE. Anything less would disadvantage competitors. Specifically, as Qwest demonstrated, there needs to be "a sufficient number of wholesale providers of that network element, across a sufficiently large geographic area to constitute a commercial market, to produce a presumption that there is an effectively competitive wholesale market."[105] None of the proported transport "substitutes" proposed by the incumbents can approximate the ubiquitous availability, timeliness and cost of the ILEC transport.

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[101] BellSouth Comments at 47-50, 53; and Qwest at 28.

[102] For example, SBC notes that in Houston, competitors have deployed 831 known route-miles of fiber, and that within the top 50 MSAs, competitors have deployed "almost 30,000 miles of fiber," which equates to an average of 600 miles per MSA. SBC Comments at 46.

[103] SBC Comments at 48.

a. Alternative Transport is Not Available Ubiquitously

Incumbent LECs attempt to demonstrate that alternative transport is available by singling out a handful of competitors deploying fiber in discrete urban areas.[106] The reality is different. In contrast to the millions of miles of ubiquitous fiber routes installed by ILECs, a handful of firms have deployed a few hundred miles of fiber in a small number of select urban markets. For example, in the December 1998 Local Competition Report released by the FCC, incumbent LECs collectively enjoyed 14 million miles of fiber, while competitor deployed fiber only totaled 1.8 million miles.[107] The facts show that CLECs do not have access to comparable ILEC transport in terms of ubiquity because alternative transport is only available in discrete markets.

Unless competitors have access to ubiquitous forms of non-ILEC transport, they will be impaired if the are denied access to ILEC transport.

> It is hard to overstate the importance of this ubiquity and the competitive advantage that these ubiquitous interoffice transport networks give the incumbent LEC. The ability to connect *any* end user to *any other point* in the local network is a service that only incumbent LECs can provide—and it is dedicated interoffice transport that makes this service available.[108]

Currently, alternative transport is not ubiquitously available. In fact, contrary to the impression that incumbents have attempted to create, transport is not widely available in the competitive market and is only available in a limited number of discrete locations in the country, namely the most densely populated urban areas, and even then in insufficient quantity, and certainly not in most of the areas where Rhythms seeks to deploy its services. "Although new entrants are beginning to deploy alternative interoffice facilities, these facilities today remain highly

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[104] SBC Comments at 51; GTE Comments at 62.

[105] Qwest Comments at 27.

[106] Ameritech Comments at 88-94; Bell Atlantic Comments at 26-32; BellSouth Comments at 50-54; GTE Comments at 57-59; SBC Comments at 45-51; US West Comments at 48-53.

[107] Local Competition Report, Industry Analysis Division, Common Carrier Bureau (December 1998) at 11.

[108] Covad Comments at 43-44 (emphasis added).

concentrated and connection to only a few central offices in a state or region."[109] In fact, "[b]efore a wholesale dedicated transport *market* can be said to exist, these competitive networks must reach a critical mass of central offices to provide other entrants a viable alternative footprint to the ILEC."[110]

The record evidence demonstrates that several competitors, including Rhythms, are dependent upon the incumbent LECs' transport and in fact have faced numerous difficulties in accessing transport. Upon surveying four Covad deployment areas with the greatest number of competitive providers, Covad concluded that even in these markets with some competitive alternatives, it is "highly dependent on ILEC dedicated transport in those markets for well over 83% of [it's] demand for interoffice transport." Similarly, as indicated in its initial comments, Rhythms has had difficulty accessing transport in at least two dozen markets and has noticed no significant change in the availability of transport in those markets since this Commission issued its *Local Competition Order* in 1996.[111] "Even in the most promising of cities for interoffice transport competition, alternative providers rarely offer alternative facilities in all, or nearly all, of the central offices in which Rhythms plans to collocate."[112] This geographic availability of transport is hardly sufficient for companies such as Rhythms that do not intend to limit their service offerings only to a few discrete customers, but rather seek to serve a full-range of customers throughout the entire country.

As AT&T has stated, "[i]t is one thing to conclude that third parties provide dedicated transport in a particular area, and quite another to find that competitive alternatives are available

[109] Qwest Comments at 73-74
[110] Qwest Comments 73-74.
[111] Rhythms Comments at 19.
[112] Rhythms Comments at 19-20.

for specific dedicated transport routes that a CLEC requires."[113] The difficulty that Rhythms and other competitors face in acquiring transport is based on the simple fact that the ILEC has a lock on the majority of available transport. The record thus fully supports MCI's conclusion that "the vast majority of cases in which competitors might need dedicated transport, the ILEC is the only source for that transport."[114]

b. Alternative Transport is Not Available at a Cost Comparable to the ILEC's UNE Transport

Incumbents LECs have pointed to the fact that transport is available from competitive providers or that competitive LECs can deploy their own fiber.[115] This presumptive conclusion completely ignores the impact of cost on the decision to purchase fiber from a competing provider, if such fiber is available, or on the decision to self-provide by deploying fiber as needed. As the Vermont Public Service Board noted, "cost differentials can also be sufficiently significant to cause a substantial market barrier."[116] Indeed, significant cost differentials have diminished the ability of competitors to roll-out and provide their services.[117] Unbundled transport must be priced consistent with the Commission's mandated pricing methodology. CAPs and other providers, however, must recover their substantial sunk investment across a few competitive providers which leads to a higher transport price. "[O]btaining piece parts of dedicated transport is not likely to be anywhere near as cost-effective as obtaining all transport from the ILEC."[118]

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[113] AT&T Comments at 122.
[114] MCI Comments at 64.
[115] Ameritech Comments at 88-94; Bell Atlantic Comments at 26-32; BellSouth Comments at 50-54; GTE Comments at 57-59; SBC Comments at 45-51; US West Comments at 48-53.
[116] Vermont Board Comments at 12.
[117] Covad Comments at 47-48; Competitive Policy Institute Comments at 25.
[118] Qwest Comments at 77.

c. Provisioning Intervals for Alternative Transport is Not Comparable to ILEC UNE Transport

As an initial matter, the demand for transport by competitors outweighs the availability of that transport from alternative sources. Moreover, in those areas where alternative transport is available, competitors are not able to order transport and have the assurance that a sufficient supply of transport will be available for meeting transport needs. Moreover, if competitors attempted to deploy their own fiber each time they need transport, they would face insurmountable costs, as well as deployment delays. Thus, it is critical that competitors have the ability to access transport capacity that the incumbent LECs already have available in their systems.

2. Collocation is Not a Substitute for Transport

The incumbent LECs argue curiously that competitors do not need unbundled transport because of their ability to collocate in incumbent central offices and wire centers.[119] GTE claims that there is "an extremely strong correlation between collocation and the presence of transport alternatives."[120] Specifically, according to GTE once "a CLEC collocates, it may deploy its own fiber, purchase transport capacity from wholesale providers, or purchase transport capacity from the ILEC at competitive rates."[121] In support of this argument, GTE notes that only one competitor, who collocated its own equipment, requested unbundled transport in 141 GTE wire centers.[122] ILECs accordingly propose that competitors should not have unbundled access to

[119] Ameritech Comments at 88; Bell Atlantic Comments at 31; GTE Comments at 59-63; SBC Comments at 47, 51.

[120] GTE Comments at 59

[121] GTE Comments at 59.

[122] GTE Comments at 59. Bell Atlantic attempts to create a similar correlation between collocation and transport availability. Bell Atlantic states that "'[w]hen CLEC fiber or microwave connects to an ILEC central office, then interoffice transmission services to all other ILEC central office locations also connected to CLEC fiber or microwave have competitive alternatives."

transport "in any central office with collocation if competitive interoffice transmission facilities have actually been deployed in the wire center."[123]

ILECs never explain their logic for summarily asserting that collocation in certain central offices is directly linked to the availability of alternative transport. Rhythms can only postulate that the incumbents are attempting to argue that because a competitor is able to collocate its equipment, the market dynamics for transport somehow correspondingly change to make transport ubiquitously available at a reasonable cost and in a timely manner.

This argument is a shell game. The logic here is illusive. Gaining collocation space does not eliminate the need to purchase transport at a reasonable time and at a reasonable cost. As AT&T has noted, collocation imposes far more significant costs as well as time delays than ILEC unbundled transport, and thus cannot be a reasonable alternative.[124] In fact, as Covad argues, collocation increases rather than decreases the need for ILEC transport.[125]

Because there is no direct correlation between a competitor's ability to collocate and the availability of alternative transport at a reasonable time and at a reasonable cost, there is no justification for limiting competitor's ability to access transport based upon presumptive ILEC assessments regarding which central offices competitors are likely to collocate. Not only are those limitations unnecessary, but such best such limitations would provide the incumbents with an incentive to "cook" their line density numbers in COs, perhaps by including multiple unused lines to customers' homes. This in turn, would lead to unnecessary regulatory fights concerning whether a central office where competitors sought transport fell within the threshold parameters.

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[123] Ameritech Comments at 6 and 18.

[124] AT&T Comments at 119.

[125] "Covad's blanket collocation strategy will make it *ever-increasingly dependent* upon ILEC transport. The simple fact is that the physical collocation process—however bumbling the ILECs may make it—occurs much faster than CLEC fiber networks are built." Covad Comments at 44-45.

3. Special Access Tariffs and Expanded Interconnection Agreements Do Not Provide Comparable, Cost-Effective Alternatives to Unbundled Transport

Incumbent LECs have also argued that they should not be required to provide unbundled transport because competitors are able purchase transport out of special access tariffs or expanded interconnection agreements.[126] This argument misses entirely the Supreme Court's point in its directive to consider alternatives. Alternative means a source *other than the ILEC.* Thus, it is completely ludicrous that the incumbents would suggest that competitors have a transport alternative in the form of their special access tariffs and expanded interconnection agreements.

Furthermore, an aspect of both availability and impairment is cost. Because the incumbents monopolize transport, the prices of the transport in their special access tariffs and expanded interconnection agreements are much higher than those that would prevail in a competitive market, as benchmarked by TELRIC-based prices. Thus, the FCC adopted TELRIC to ensure that new entrants could buy elements like transport at a competitive market price. Competitors have no such price assurances for transport made available through access tariffs and expanded interconnection agreements.

Other carriers have also recognized that transport via special access tariff or expanded interconnection agreements is not comparable on a price level to unbundled ILEC transport.[127] For instance, AT&T noted in its comments that BellSouth's cost model indicated that special access is not a viable substitute for a UNE.[128] For Covad, a switch from unbundled transport to tariff transport would increase Covad's transport costs by 353%.[129] Unless competitors can

[126] GTE Comments at 61.
[127] Covad Comments at 45-48.
[128] AT&T Comments at 125.
[129] Covad Comments at 48.

access transport at a reasonable price, the fact that the ILEC would like to impose higher prices on competitors via special access tariffs and expanded interconnection agreements is irrelevant.

4. Sporadic Evidence of Competitor Use of Alternative Transport is Not Indicative of Widespread Availability

The Commission should also reject arguments that unbundled transport should be unavailable in central office where another competitor has managed to purchase transport from a competitive access provider.[130] The notion of pointing to one competitor's good fortune as an indication that all competitors will benefit similarly is just not rational. As Qwest has stated, "[i]t would defy reason and commercial reality for the Commission to rely upon the existence of competing facilities between two end offices as evidence that there is a wholesale market for the dedicated transport element between those two offices."[131] There is just not enough competitive transport to go around. Similarly, as Rhythms has already stated, "even where an alternative CAP does have facilities available, current demand often results in insufficient capacity and lengthy delays before facilities become available."[132]

D. Unbundled OSS is Central to Competitor's Ability to Offer Services, and Must be Made Available on an Unbundled Basis

OSS includes the databases or facilities used in the provision of a telecommunications service.[133] Generally, OSS encompasses five stages in competitors' efforts to offer services: (1)

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[130] Ameritech Comments at 6,88; Bell Atlantic Comments at 31; and BellSouth Comments at 53.

[131] Qwest Comments at 76.

[132] Rhythms Comments at 20. Ameritech argues that, as a technical matter, it is not possible to unbundle transport between ILEC switch facilities because transport cannot be separated from switching.[132] However, by arguing that some transport facilities are inseparable from switching facilities, incumbent LECs miss the key point. CLECs need access to transport to and from ILEC facilities, and this can occur either on existing transport facilities or on newly-created facilities. Thus, to the extent that incumbents argue that certain transport facilities cannot be separated from switching, then the incumbents should provide an alternative form of transport from the ILECs' facilities. Ameritech Comments at 95.

[133] *Local Competition Order* ¶ 517.

pre-ordering; (2) ordering; (3) provisioning; (4) maintenance and repair; and (5) billing. As such, OSS "is a precondition for access to all other UNEs."[134]

There is strong consensus that OSS is not proprietary and thus should be evaluated under the impair standard.[135] While the actual software code may well be proprietary, no CLEC requires access to the code to use the ILECs' OSS. Moreover, what the software does or contains is not proprietary. That is, the *use* of the ILECs' OSS does not involve anything that is proprietary, even if the code that creates the OSS *is* prorpietary. Even if OSS were proprietary, OSS is so wed to competitor's ability to offer services, that it would meet the necessity standard. As the California PUC stated, "[i]t is so essential to competition that if the Commission determines access to operations support systems is proprietary in nature, this network element would satisfy the 'necessary' standard as well."[136]

1. OSS Access is an Unquestionably Critical Component of Competitor's Operations

Many commenters have agreed with Rhythms that OSS access is of unquestionable importance to new entrants' ability to provide services.[137] "There appears to be no disagreement among regulators that nondiscriminatory access to incumbent LEC operations support systems is a near absolute prerequisite to competition in the local exchange service market."[138] In fact, as the California PUC states, "the availability of [OSS] is where the rubber meets the road in the development of a competitive telecommunications market. Nothing can 'impair' a competitor's

[134] ALTS Comments at 58.

[135] MCI Comments at 67-70 (advocate the impair standard); Qwest Comments at 86 (advocate the impair standard).

[136] Iowa Utilities Board Comments at 7.

[137] ALTs Comments at 59; California Public Utilities Commission Comments at 5; COMPTEL Comments at 45; Covad Comments at 53-54; Illinois Commerce Commission Comments at 16; Iowa Utilities Board Comments at 7; Qwest Comments at 84; Level 3 Communications Comments at 16-17; MCI Comments at 67-70; MGC Comments 27-28; NorthPoint Comments at 20; and Texas Public Utilities Commission at 19.

[138] Iowa Utilities Board Comments t 7.

successful entry into a market more effectively than slow, inefficient and inaccurate methods for processing customer orders and service requests."[139] In spite of the critical role that OSS plays in the provision of competitive services, ILECs have systematically refused to provide CLECs with nondiscriminatory access to their OSS. "In the three years since passage of the 1996 Act, one of the most pervasive and persistent problems has been competitor access to the manual and electronic systems used by the ILECs for pre-ordering, ordering, provisioning, maintenance and billing."[140] Simply put, without access to unbundled OSS, competitors would not be able to compete.

There are two primary reasons why ILEC OSS must be available on an unbundled basis. First, as Rhythms discussed previously, the information contained in the ILECs' systems and databases is one-of-a-kind information. There is no other source that a competitor can go to in order to determine the type of information that is contained within the ILECs' databases and systems. "[T]here is no substitute for the ILECs' information on their own unbundled network elements and retail services. Access to that information can only occur through the ILECs' own OSS."[141]

Second, the ability of competitors to utilize any of the other network facilities to offer services depends on access to OSS. For example, the right to buy a loop cannot be fully exercised unless a competitor can determine whether that loop is usable for the purposes it is intended, place an order for that loop in a reasonable period of time, and request timely repair of that loop in the event of failure. As AT&T has emphasized, "[a]ccess to OSS is complementary to all other unbundled network elements. Indeed, those elements will not truly be available to

[139] California PUC Comments at 5-6.
[140] California PUC Comments at 5.
[141] MCI Comments at 69. (citation omitted)

CLECs unless CLECs can access the incumbent's OSS ."[142] Third, because the ILEC relies heavily on its own unique OSS information (the data, which is not proprietary) to provide its services, parity of access to this information by competitors is required in order for competitors to have the opportunity to match the ILEC's services in quality and performance.

2. The OSS Access that Incumbents Provide to Competitors Falls Short of Placing Competitors on An Equal Footing With the Incumbent

Although most commentators have recognized the importance of OSS, some incumbent LECs have attempted to limit competitors' access to OSS in several ways, even while simultaneously appearing to be in support of including OSS as a UNE. SBC "agrees that ILECs should provide CLECs access to all the ILEC OSS functions that *our current systems are capable of providing*."[143] This position is flawed in two ways.

First, limiting OSS access to the ILECs' current capabilities is improper. This limitation neutralizes the very purpose of making OSS available to CLECs. OSS should be made available to allow competitors to compete on an equal footing with the incumbent and have access to, the same information, at the same time, and at the same level of quality as the incumbent. Currently the ILECs' systems do not sufficiently accommodate competitors. "Almost all ILEC OSS systems today are inadequate to handle basic CLEC needs."[144] One of the reasons why ILEC OSS is inadequate is that they do no provide competitors with the same information that the incumbent access nor is that information provided to competitors as quickly as the incumbent providers the information to itself. For instance, there is no means whereby DSL competitors can query the incumbents' systems electronically while interacting with potential customers in order to determine whether the customers' loops are capable of DSL services and to inform that

[142] AT&T Comments at 134.
[143] SBC Comments at 56 (emphasis added).

customer of service availability. In contrast, the competitors have provided this access to themselves.[145] Thus, the same systems that ILEC's use in order to access privy information needed to serve customers should be altered to allow competitors the same type of access.[146]

Second, if OSS access is limited to current capabilities, the ILECs will have an incentive to change their systems or remove certain information, such as loop make-up data, from their systems and then claim that competitors are not entitled to these additional systems. To avoid this type of discrimination, the Illinois Commission notes that, "OSS can also record the incumbent LEC's activities and be used as a means of comparison of service activities between the incumbent LEC and the CLEC to ensure that discrimination is not occurring."[147] Thus, in order to ensure that competitors have access to the same systems as the ILECs, and to ensure parity of access, it is critical that the Commission require the incumbents to unbundle their OSS.[148]

3. The Commission Should Reject ILEC Attempts to Undermine Competitors' OSS Access By Placing Limitations on Competitors Use of OSS

Incumbent LECs have argued that competitors should only access OSS subject to their purchase of a UNE or resale from the incumbent.[149] For example, GTE and US West contend that competitors should not be able to access the ILECs' OSS in order to provision their own loops or the loops of another CLEC.[150] One problem with this limitation is that it excludes other instances where it is also critical that competitors have access to OSS. One example of such an

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[144] MCI Comments at 69.
[145] Covad Comments at 53.
[146] Covad Comments at 54.
[147] Illinois Commerce Commission Comments at 14.
[148] Finally, the SBC position is also flawed because SBC does not even allow CLEC access to all of the information that its "current systems are capable of providing." Rather, SBC decides, for example, which data fields it will allow CLECs to see, and which it will not.
[149] GTE Comments at 71; SBC Comments at 56-57; US West at 41.

instance is interconnection. "CLECs need access to ILECs OSS, whether they are reselling ILEC products, leasing unbundled elements from the ILECs' network, or simply interconnecting to the ILECs' network."[151] Another inadequacy of limiting OSS to UNE or resale purchase is that this requirement does not reflect the reality of the role that OSS plays in competitors' decisions to order UNEs.

A significant part of OSS is the pre-ordering process, whereby competitors decide whether or not an ILEC facility is appropriate for serving a particular customer. For instance, it is necessary to assess whether or not the loops that serve a customer's premises contain of DSL interferes, such as load coils, bridged taps, DAMLs, repeaters, pairgains and DLC systems, *before* purchasing those loops. By utilizing the ILEC's OSS, Rhythms would be able to assess this data and determine whether it should purchase the facility in question. If after accessing OSS to review the make-up data, Rhythms discovered that a particular facility or group of facilities were not appropriate for certain DSL services, Rhythms would not want to order those facilities. Thus, this decision on whether to purchase cannot be made unless Rhythms has access information about the facilities via OSS.

4. DSL Providers Must Access ILEC OSS in Order to Review Key Loop Data

As Rhythms emphasized in its initial comments, the pre-ordering stage is particularly important for DSL providers.[152] The Commission has already recognized that, "[i]f new entrants are to have a meaningful opportunity to compete, they must be able to determine during the pre-ordering process as quickly and efficiently as the incumbent, whether a loop is capable of

[150] GTE Comments at 71-72; US West Comments at 41.
[151] MCI Comments at 68.
[152] Covad Comments at 53-54.

supporting xDSL-based services."[153] It is at the pre-ordering stage where DSL providers (both competitors and incumbents) determine whether or not the loop facilities that serve their potential customers are capable of carrying DSL services, and if so, what type. In reaching this determination, DSL providers must asses the characteristics of a loop, and in particular, whether or not the loop contains load coils, repeaters, bridged taps, DLC systems, DAMLs and pairgains. In addition, DSL providers must also consider the length and wire gauge of the loop.

All of this information is a part of OSS, and indeed lies currently in ILEC databases and systems. In fact, ILECs access this information in order to provide their DSL services. Moreover, without this information in a real-time electronic format, DSL providers cannot effectively react to their customers' needs at the same time the incumbent is able to react to its own customers. As the Commission well knows, the ability to match the incumbent's services in timely delivery is key. "If it takes longer to provision service to customers of a competitive carrier, the competitor will lose business to the LEC."[154] If competitors are not able to access information via OSS at the same time that the incumbents are able to access that information, competitors reaction to this information will be slower than that of the incumbent, and this delay will create the false impression to customers that competitors' services are inferior. Denial of OSS parity "introduces errors, causes delays and uncertainty that both discourage customers from choosing a CLEC and undermine CLEC marketing campaigns, and creates a negative image for customers, all of which inflate CLECs' customer acquisition costs."[155] Unquestionably, these are adverse effects that would result in lost sales and impair competitors' services.

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[153] *Memorandum Opinion and Order* ¶ 56
[154] California Public Utilities Commission Comments
[155] MCI Comments at 69.