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February 3, 2003

EX PARTE

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
Room TW-A325
445 12th Street, S.W.
Washington, D.C. 20554

Re: CC Docket Nos. 01-338; 96-98; 98-147

Dear Ms. Dortch:

In an *ex parte* letter recently filed in the above-referenced proceeding,¹ Allegiance Telecom, Inc. (“Allegiance”) proposed an impairment test for interoffice lit and dark fiber transport. Under the proposed test, lit interoffice transport would no longer be available as an unbundled network element on any point-to-point route on which a state commission finds that, subject to certain qualifications described in the letter, (1) two or more non-ILECs offer wholesale lit interoffice transport at the capacity level demanded by the requesting carrier, or (2) three or more non-ILECs have deployed lit interoffice transport at the capacity level demanded by the requesting carrier, regardless of whether the lit interoffice transport is made available at wholesale or is used as an input into a retail offering. Since the test for lit interoffice transport is intended to determine whether competitors are impaired in the absence of ILEC interoffice transport electronics (rather than ILEC interoffice fiber), a non-ILEC would count for purposes of the lit impairment test if it acquires dark fiber from the ILEC or a non-ILEC source and attaches its own electronics to that fiber. *See* Transport Letter at 2.

In response to the Allegiance proposal, some have suggested that, even where a requesting carrier would be eligible for interoffice lit transport under the test described above, the requesting carrier should only be allowed a defined number of DS3 equivalents of capacity on any point-to-point route. The justification for such a limitation would apparently be that the number of DS3s a requesting carrier orders on a particular point-to-point route is a reflection of how much revenue is associated

¹ See Letter from Thomas Jones, Counsel for Allegiance Telecom, Inc. to Ms. Marlene H. Dortch, CC Docket Nos. 01-338; 96-98; 98-147 (Jan. 30, 2003) (“Transport Letter”).

with that route. The assumption is that, once a requesting carrier reaches a certain number of DS3s on a route, it should be able to afford to deploy its own electronics. Competitors deploy their own transport almost exclusively as part of OCn SONET rings. It has been suggested that requesting carriers be limited to three DS3s on any point-to-point route, since an OC3 (which carries the equivalent of three DS3s of capacity on an interoffice network) is the lowest capacity-level of OCn SONET rings.

This reasoning is flawed for many reasons. Most importantly, the capacity of interoffice transport facilities is an unreliable measure of the revenues associated with a particular point-to-point route. This is because the dynamism of the telecommunications equipment market results in the production of equipment that delivers greater and greater capacity to end users at lower and lower costs per increment of capacity. For firms subject to competition, that are forced to pass through savings to end users, this dynamic means that a DS3 equivalent of capacity on a point-to-point interoffice route today is likely to represent much more revenue than a DS3 equivalent of traffic in the near future. Moreover, it is very difficult to predict the manner in which these changes will occur, since they are not just driven by supply, but unpredictable demand patterns. End user demand for increased bandwidth is likely to be "bursty," as a trickle of early adopters are followed by a bulge caused by widespread adoption after a "tipping point" is reached. When such a tipping point will come is very difficult to predict. It follows that any attempt by regulators to try to measure the revenues associated with a specific measure of capacity on an interoffice route is likely to be highly imprecise.

Moreover, a capacity limit designed to restrict access to lit interoffice transport to circumstances in which a competitor could not efficiently deploy its own electronics is unnecessary if the Commission adopts the standard proposed by Allegiance for lit interoffice transport. As mentioned, the second prong of that test eliminates lit interoffice transport as a UNE on any point-to-point route on which three or more competitive carriers have deployed their own lit interoffice transport, regardless of whether those competitors make the transport available at wholesale or use it solely as an input into their own retail offerings. A competitor experiences very significant benefits from deploying its own interoffice transport network in this manner. Those benefits include control over the design, maintenance and repair of the network, an ability to take advantage of cost savings in electronics that are not reflected in TELRIC-based prices, and the freedom from the threat that the ILEC will discriminate against the competitor in the provision of electronics. It should come as no surprise, therefore, that many competitors have deployed their own electronics where it is efficient to do so. For example, Allegiance has combined its own electronics with dark fiber obtained from non-ILEC wholesalers to deploy SONET rings in 24 of the 36 metropolitan areas in which it operates. Furthermore, if a competitor is reluctant (for some unlikely reason) to deploy its own electronics even where it would be efficient to do so, the Allegiance test would force the competitor's hand. This is because the availability of lit interoffice transport would be determined by whether *any* three competitors have deployed their own electronics on a particular route. No competitor would want to risk being forced to purchase interoffice transport at special access prices where it could have efficiently deployed its own lit interoffice transport network.

Nevertheless, if the Commission insists on adopting a limit on the number of unbundled interoffice lit DS3s a competitor may purchase on a particular point-to-point route, it should at least set

the limit based on some real world assessment of the cost savings experienced by competitors that deploy electronics in certain circumstances. Allegiance has attempted to explain how this should be done in the attached presentation. In the presentation, Allegiance has compared (1) the sum of the weighted average of the prices it pays for lit interoffice transport and an allocation of the cost of lit interoffice entrance facilities to connect to the Allegiance switch (which comes to \$1,100 for a single unbundled DS3) with (2) the sum of the weighted average cost of two pairs of unbundled interoffice dark fiber and the cost of capital needed for purchasing optical electronics on either end of the point-to-point route. Where a CLEC relies on unbundled lit interoffice transport, it must pay for each additional DS3 of capacity purchased from the ILEC. On the other hand, where the CLEC has purchased dark fiber and attached its own OCn electronics, the CLEC's costs do not increase until it reaches the maximum capacity of the electronics deployed. Thus, up to a point, the savings associated with deploying a competitor's own electronics for interoffice transport increase as the number of DS3s on a point-to-point route increases. For example, as mentioned, one interoffice DS3 costs Allegiance on average \$1,100 per month while the cost of unbundled dark fiber is on average \$1,280 per month and the relevant cost of capital is on average about \$1,375 per month (for a total cost of \$2,655). At this level of capacity, a CLEC would never see a return on its investment in electronics. In contrast, six interoffice DS3s cost on average \$6,600 per month while the cost of dark fiber and capital remains \$2,655. Approximately \$4,000 can thus be used per month in this second scenario to pay down the fixed cost of the OCn electronics on the point-to-point route.

The question for the Commission should be how long it should take for a CLEC to experience a return on its investment in interoffice electronics. The spreadsheet on page five of the attached presentation quantifies the time it would take for a CLEC to achieve a return on investment on routes that carry capacity ranging from one DS3 to 12 DS3s. As can be seen from the spreadsheet, the time period would be 216 months, or 18 years, on a route with just three DS3s of traffic. In the current market environment, investors insist on a return on investment in under 18 *months*. That can only be achieved on a route with 10 DS3s. It would therefore be appropriate for the Commission to establish a limit on the amount of interoffice lit transport a competitor could purchase at 10 DS3s.

There are several other crucial points to make about any limit on the number of unbundled interoffice lit DS3s a competitor may purchase. *First*, a carrier that is forced to purchase its own electronics as a result of such a test must be able to obtain access to interoffice fiber on the point-to-point route in question. This means that, if the relevant impairment test for interoffice dark fiber has not been met (if, in other words, dark fiber remains a UNE on the point-to-point route in question), the competitor must be able to gain access to unbundled dark fiber and attach its own electronics to that fiber. Specifically, dark fiber is not available in adequate quantities or it is not available on a long-term basis (for example, because of the possibility that the ILEC could take the fiber back to fulfill its carrier of last resort obligations), then the competitor must be able to continue to purchase lit interoffice transport as a UNE, regardless of the number of DS3s it purchases.

Second, as explained in the Transport Letter, competitors must be given a transition period to replace arrangements that rely on unbundled interoffice lit transport with other network arrangements.

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Allegiance has suggested six months as the transition² (which is extremely conservative), but states must (as Allegiance also explained in the Transport Letter³) be given the authority to extend the length of that transition where the ILEC has caused delays preventing the competitor from completing the transition during the six-month period.

Third, a competitor must be given the option of continuing to purchase DS3s as UNEs up to the limit set by the Commission and of obtaining additional DS3s on the point-to-point route as special access from the ILEC. This rule would serve as a safety net for circumstances in which the Commission's designated limit for the number of DS3s is set below the level at which electronics can be deployed efficiently on a particular point-to-point route. This would be the case, for example, where the cost of unbundled dark fiber is unusually high relative to the cost of unbundled lit interoffice transport in a particular state. To account for this possibility, competitors would continue to be able to pay TELRIC-based rates for the number of DS3s allowed and then purchase special access for additional DS3s (thus gradually increasing the average cost of lit DS3s on the route rather than immediately forcing the competitor to purchase all lit DS3s on the route at special access prices) until it becomes efficient for the competitor to deploy its own electronics.

In accordance with the Commission's rules, an electronic version of this letter is being filed in the record of the above-referenced dockets.

Sincerely,

/s/

Thomas Jones

Counsel for Allegiance Telecom, Inc.

² See *id* at 3.

³ See *id*.



Interoffice Transport Financial Analysis Lit Transport vs. Dark Fiber for a route

*Chris MacFarland
Chief Technology Officer*

February 3, 2003

Financial Analysis Assumptions

- The analysis compares costs to carry traffic between two ILEC central offices with CLEC collocated facilities.
- A CLEC utilizing UNE Dark Fiber would typically configure the network in a ring configuration in order to deliver network performance that is equal to the ILEC's network. The ring would consist of four ILEC central offices and one CLEC central office.
- For modeling purposes none of the CLEC central office electronics are contemplated.
- A typical CLEC today would be forced to achieve a return on incremental network infrastructure investment that is less than 18 months, preferably 12 months.

Financial Analysis Assumptions Costs

- Lit Transport
 - DS3 \$1100 monthly recurring cost (“MRC”) (rounded up from actual \$1077)
 - This number represents the weighted average price ALGX pays for a single UNE DS3 plus a proportionate share of the cost of entrance facilities, where needed in the ALGX network.
 - This MRC is also comparable to CAP provided facilities of DS3’s.
 - The entrance facility is a high capacity circuit, typically an OC-12 or OC-48, that aggregates traffic back to the ALGX central office. It is provided by a CAP, where available, or an ILEC.
- Dark Fiber
 - UNE Dark Fiber \$1280 MRC
 - The costs are derived from prices ALGX pays for UNE interoffice dark fiber in the two ALGX markets in which ALGX purchases unbundled dark fiber and from estimates from several other markets.
 - 2 pairs of fiber are necessary in order to ensure both physical and path diversity.
 - Capital Expenditures \$132,000
 - Collo A \$66,000
 - » Fujitsu optical carrier system capable of OC-48.
 - » NRC from ILEC for UNE Dark Fiber Costs.
 - » Installation of electronics and fiber jumpers.
 - » A smaller system like OC-12 could be used, but at a cost of \$46,000 it is not practical.
 - Collo Z \$66,000
 - » Same as Collo A
- Other operating expenses
 - Other items such as maintenance, software and hardware upkeep, and network systems were not included in order to keep the model simple.

Financial Analysis Assumptions Costs Cont.

- Cost of Capital
 - 12.5% Discount Rate

Financial Analysis – Net Present Value Matrix

- The horizontal numbers represent the number of DS3's provisioned from Collo A to Collo Z

Months	Number of DS3's provisioned from Collo A to Collo Z for IOF											
	1	2	3	4	5	6	7	8	9	10	11	12
0	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)	(\$132,000)
6	(\$141,330)	(\$134,730)	(\$128,130)	(\$121,530)	(\$114,930)	(\$108,330)	(\$101,730)	(\$95,130)	(\$88,530)	(\$81,930)	(\$75,330)	(\$68,730)
12	(\$150,660)	(\$137,460)	(\$124,260)	(\$111,060)	(\$97,860)	(\$84,660)	(\$71,460)	(\$58,260)	(\$45,060)	(\$31,860)	(\$18,660)	(\$5,460)
18	(\$159,990)	(\$140,190)	(\$120,390)	(\$100,590)	(\$80,790)	(\$60,990)	(\$41,190)	(\$21,390)	(\$1,590)	\$18,210	\$38,010	\$57,810
24	(\$169,320)	(\$142,920)	(\$116,520)	(\$90,120)	(\$63,720)	(\$37,320)	(\$10,920)	\$15,480	\$41,880	\$68,280	\$94,680	\$121,080
36	(\$187,980)	(\$148,380)	(\$108,780)	(\$69,180)	(\$29,580)	\$10,020	\$49,620	\$89,220	\$128,820	\$168,420	\$208,020	\$247,620
48	(\$206,640)	(\$153,840)	(\$101,040)	(\$48,240)	\$4,560	\$57,360	\$110,160	\$162,960	\$215,760	\$268,560	\$321,360	\$374,160
50	(\$209,750)	(\$154,750)	(\$99,750)	(\$44,750)	\$10,250	\$65,250	\$120,250	\$175,250	\$230,250	\$285,250	\$340,250	\$395,250
72	(\$243,960)	(\$164,760)	(\$85,560)	(\$6,360)	\$72,840	\$152,040	\$231,240	\$310,440	\$389,640	\$468,840	\$548,040	\$627,240
84	(\$262,620)	(\$170,220)	(\$77,820)	\$14,580	\$106,980	\$199,380	\$291,780	\$384,180	\$476,580	\$568,980	\$661,380	\$753,780
96	(\$281,280)	(\$175,680)	(\$70,080)	\$35,520	\$141,120	\$246,720	\$352,320	\$457,920	\$563,520	\$669,120	\$774,720	\$880,320
108	(\$299,940)	(\$181,140)	(\$62,340)	\$56,460	\$175,260	\$294,060	\$412,860	\$531,660	\$650,460	\$769,260	\$888,060	\$1,006,860
120	(\$318,600)	(\$186,600)	(\$54,600)	\$77,400	\$209,400	\$341,400	\$473,400	\$605,400	\$737,400	\$869,400	\$1,001,400	\$1,133,400
132	(\$337,260)	(\$192,060)	(\$46,860)	\$98,340	\$243,540	\$388,740	\$533,940	\$679,140	\$824,340	\$969,540	\$1,114,740	\$1,259,940
144	(\$355,920)	(\$197,520)	(\$39,120)	\$119,280	\$277,680	\$436,080	\$594,480	\$752,880	\$911,280	\$1,069,680	\$1,228,080	\$1,386,480
156	(\$374,580)	(\$202,980)	(\$31,380)	\$140,220	\$311,820	\$483,420	\$655,020	\$826,620	\$998,220	\$1,169,820	\$1,341,420	\$1,513,020
168	(\$393,240)	(\$208,440)	(\$23,640)	\$161,160	\$345,960	\$530,760	\$715,560	\$900,360	\$1,085,160	\$1,269,960	\$1,454,760	\$1,639,560
180	(\$411,900)	(\$213,900)	(\$15,900)	\$182,100	\$380,100	\$578,100	\$776,100	\$974,100	\$1,172,100	\$1,370,100	\$1,568,100	\$1,766,100
192	(\$430,560)	(\$219,360)	(\$8,160)	\$203,040	\$414,240	\$625,440	\$836,640	\$1,047,840	\$1,259,040	\$1,470,240	\$1,681,440	\$1,892,640
204	(\$449,220)	(\$224,820)	(\$420)	\$223,980	\$448,380	\$672,780	\$897,180	\$1,121,580	\$1,345,980	\$1,570,380	\$1,794,780	\$2,019,180
216	(\$467,880)	(\$230,280)	\$7,320	\$244,920	\$482,520	\$720,120	\$957,720	\$1,195,320	\$1,432,920	\$1,670,520	\$1,908,120	\$2,145,720

Financial Analysis Conclusions

- 12 DS3's of traffic
 - Return on investment (“ROI”) would be reasonable at somewhere between 1 year and 18 months.
- 10 DS3's of traffic
 - ROI would be reasonable at 18 months
- 3 DS3's of traffic
 - ROI would be unsustainable at 18 years

EXAMPLE OF A FIVE NODE FIBER RING

Dallas Fiber Ring #2

