APPENDIX A

Declaration of Rainer Gawlick on behalf of Lightship Telecom

(Gawlick Lightship Dec.)

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

DECLARATION OF RAINER GAWLICK
ON BEHALF OF LIGHTSHIP TELECOM

I, Rainer Gawlick, hereby declare under penalty of perjury, that the following is true and correct:

1. I am employed by Lightship Telecom ("Company") as its Executive Vice President of Marketing, Customer Relations and Regulatory Affairs. My business address is One Executive Office Park Drive, Bedford, New Hampshire 03110. My primary job responsibilities include managing the day-to-day operations of Marketing, Customer Relations and Regulatory Affairs.

2. Lightship Telecom is a facilities-based Competitive Local Exchange Carrier ("CLEC"). Lightship Telecom, with its operational headquarters in Bedford, New Hampshire, owns and operates switches and collocations across Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The company offers a complete set of telecommunications services including local and long distance voice, Internet access, Virtual Private Networking, Ethernet, Secure Collocation, Web Hosting, and Integrated voice and data services. Services are provided to more than 4,400 business customers by means of a

combination of the company's own facilities, unbundled network elements ("UNEs"), and services purchased from Incumbent Local Exchange Carriers ("ILECs"), and facilities and services purchased from other competitive telecommunications carriers.

I. PURPOSE AND SUMMARY

3. The purpose of this Declaration is to explain the critical importance to Lightship of high capacity interoffice transport UNEs. In Part II, I will show how it currently is not feasible for Lightship to construct its own wireline DS-1 and DS-3 UNE facilities. In Part III, I will explain why it is critical for Lightship to purchase unbundled DS-1 and DS-3 transport UNEs from the ILECs on most interoffice routes. Finally, in Part IV, I will explain why resale of ILEC Special Access services cannot sustain competitive entry.

II. LIGHTSHIP CANNOT DEPLOY ITS OWN TRANSPORT FACILITIES

4. Building backbone fiber optic or other traditional transport facilities is an incredibly expensive undertaking. The costs of self-deploying transport facilities include collocation costs, the cost of fiber (materials), the cost of physically deploying the fiber, the cost of optics necessary to light the fiber, and the cost of obtaining and maintaining rights-of-way for the transport deployment. The optics that must be placed in a collocation arrangement to provide interoffice transport including optical patch panels (to terminate and cross connect the fiber facility), optical multiplexers, and power distribution equipment (*e.g.*, power filtering and fuses). Although the aggregate cost of deploying fiber for use as interoffice transport can vary substantially based upon density and topography (*i.e.*, urban construction typically is more costly than rural deployment), Lightship's investigations have found that placing fiber underground can cost several $100,000 per mile while placing fiber on poles can cost $10,000 or more per mile.

Transport costs are sunk costs since the facility cannot be moved to another location should we decide to exit a market or reconfigure our network.

5. Given the extraordinary cost of constructing interoffice transport facilities, it simply is not economical to build unless we have accumulated a very large volume of traffic on a particular route. Specifically, Lightship has found that construction does not make economic sense until we accumulate many multiples more traffic than we have even on our highest trafficked routes today.

III. LIGHTSHIP DEPENDS UPON UNE INTEROFFICE TRANSPORT TO COMPLETE OUR NETWORK

6. Since we lack the traffic volumes required to construct our own interoffice facilities, Lightship must purchase interoffice transport facilities from other carriers. We are constantly looking for opportunities to purchase interoffice transport services from other network providers including other CLECs. Of course, less than a decade into the development of local competition, no CLEC has constructed facilities on most interoffice routes in the country. Given the enormous time, effort, and capital required, it will be many years before competitive carriers – even in the aggregate – replicate the coverage of ILEC networks. Nevertheless, even where CLECs have in fact self deployed interoffice transmission facilities, they do not necessarily offer access to their networks to competing CLECs. Often times CLECs that self deploy size their networks for their own anticipated needs and simply do not have capacity to sell to others. Other times, they may have extra capacity, but do not invest in the equipment or back office required to support a wholesale offering. Or, sometimes, they do not offer wholesale transport services since they wish to use their network as a competitive advantage over smaller CLECs who cannot afford to self deploy. When CLECs construct their backbone fiber networks, they initially

deploy and operate an optical interface at a range of different capacities. An OC-3 capacity circuit has the identical capacity as three DS-3 circuits, but the OC-3 and DS-3 circuits utilize differing technological interfaces to terminate. Thus, to offer a wholesale DS-3 service to other CLECs, a carrier must purchase, install, and operate the additional electronic equipment (i.e., multiplexers and de-multiplexers) required to channelize a DS-3 circuit within a larger optical circuit and deliver it on a DS-3 interface.

7. Even when another CLEC has a wholesale DS-3 transport offering available on a route, it must be recognized that we incur significant additional costs when we elect to use it. This is particularly true when the CLEC is the only competitor on a particular route. We generally have found that rates offered to Lightship by other CLECs are not economic unless they face competition from both the ILEC *and* other wholesale CLECs on the route. Examples of this have been seen in Vermont where Telecove, as Verizon's only competitor on the routes in question, has generally made transport available at rates equal to or 10% below the ILEC (Verizon) special access rates on some of its routes. At times, Telecove also restricts its use in competitive situations where they are pursuing the same customer. In Massachusetts, we have observed similar behavior from other carriers.

8. As I have explained, we do not have the scale needed to deploy our own interoffice facilities. But we do see competitive offerings in some circumstances. Prime examples are routes between two ILEC access tandems in the top MSAs. A second example would be a route between two ILEC central offices in the top MSAs where both offices serve very large concentrations of business lines (more than approximately 40,000 VGE business lines on each end). Or there may be some areas where some CLEC deployed facilities during the irrational overbuilding that was occurring in the late 90's even when the economics of that route

did not warrant that investment. By contrast, not surprisingly, competitive wholesale CLEC transport products almost never are available on low traffic density routes even in the top MSAs. Thus, where the ILEC central office on either end of the route serves relatively few business lines (approximately 10,000 VGE), competitive supply of interoffice transport facilities is rare.

9. In our entire network footprint, the availability of multiple alternative DS-3 transport providers is extremely rare. We estimate that there are multiple (i.e., more than one) alternate DS-3 transport providers on only approximately 10% of our routes. It is our belief that, in many circumstances, these alternative providers do not actually deploy their own fiber, but rather use Verizon dark fiber. We are not aware of any alternate providers that offer DS-1 transport in our service areas.

10. I cannot emphasize strongly enough that the availability of a competitive supply of interoffice facilities is inherently and exclusively a route-specific situation. Whether there is or will be a competitive supplier of interoffice facilities available is not a function of a metro area, a MSA, or even a density zone. In each of those cases, you are likely to find a mix of routes where competitive supply can exist and those where it cannot. Fiber in and between Boston MSAs is an example. The Cambridge COs have multiple providers (NStar, Level 3, Neon), while Framingham, Lowell, and others have a single provider (NStar).

11. Similarly, it is not sufficient to consider only the size of an ILEC end office on one end of a route. Carriers that deploy facilities must evaluate the density of traffic flowing in both directions, requiring that the offices on both ends of a route must generate substantial originating traffic to make self-deployment economic.

IV. ILEC SPECIAL ACCESS SERVICES ARE NOT AN ECONOMIC SUBSTITUTE FOR HIGH CAPACITY UNE TRANSPORT

12. CLECs are currently entitled to purchase DS-1- and DS-3-level Special Access services out of existing FCC and State ILEC tariffs. However, such DS-1 Special Access services commonly are priced much higher than comparable UNEs. That should not be a surprise since entirely different standards apply to how the prices for each are established. Most special access services are subject to pricing flexibility and as a practical matter can be priced however high the ILECs wish. By contrast, UNE prices are established by the state commissions and must be established in accordance with FCC-prescribed TELRIC costing principles. Accordingly, UNE prices are set at something approaching the cost (+ return) incurred by ILECs in providing the facilities, while a recent MICRA study demonstrated Special Access rates are now set sufficiently high to provide profit margins exceeding 40% on average.

13. The differential in the pricing of Special Access services as compared to UNEs is of critical importance. I have attached a chart, Attachment 1, which shows the price that Lightship currently pays to purchase DS-1- and DS-3-level Special Access (including the best negotiated volume and term arrangements currently available to us) for a representative set of interoffice transport lines in our states. The chart also states the amount that we currently pay for DS-1 and DS-3 loops and transport UNEs in the corresponding states. As the attachment shows, Lightship commonly must pay 184% to 1,576% more to purchase connections to buildings as DS-1 Special Access versus DS-1 or DS-3 UNEs. Indeed, the difference is as high as 1,576%. These kinds of cost increases will have a significant negative impact on our financial performance.

14. I must observe that there is no reason to believe that ILECs will reduce Special Access rates in the foreseeable future to be more closely aligned with cost-based UNE

prices. Lightship certainly has observed a significant reluctance by the major ILECs to negotiate meaningful volume Special Access discount plans, despite the fact that ILECs already are realizing incredible profit margins of 40% or more on average on the service.

15. The ILEC determination to drive high Special Access prices and thus high operating margins should not be surprising. They know what I discussed earlier in my Declaration; i.e. that Lightship and other CLECs rely upon the availability of ILEC DS-1 and DS-3 transport facilities to connect our collocation sites to our switching locations. Thus, if our only option is to purchase Special Access services, the ILECs can inflate our most critical incremental cost of service substantially -- and create a classic "cost/price squeeze." Whereas the availability of cost-based UNEs as an alternative previously provided CLECs an option to avoid being caught in the squeeze, the elimination of UNEs (or even the prospect of it) provides an incentive and an opportunity for ILECs to raise Special Access prices to uneconomic levels. One must recognize that the ILECs profit more by CLECs exiting the market than they do by CLECs purchasing their Special Access services.

Summary

16. The importance of cost-based ILEC high capacity UNE transport to Lightship cannot be overstated. It simply is not economically feasible for Lightship to build its own interoffice transport facilities. ILEC Special Access is not an economically feasible alternative because Special Access rates are priced far above cost. Importantly, these conditions hold true virtually universally across the nation, without regard to market or location. Thus, Lightship simply will not be able to provide competitive telecommunications services to small and medium business customers in most areas unless the FCC acts to insure that we are able to continue obtaining cost-based DS-1 and DS-3 UNE transport on an uninterrupted basis.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 4th day of October, 2004.

/s/ Rainer Gawlick
Rainer Gawlick

Attachment 1

Bandwidth	UNE Costs	Monthly Special Access Costs	7 Year Special Access costs
T1	$60.00	$575.03	$402.52
T1	$60.00	$575.03	$402.52
T1	$60.00	$575.03	$402.52
T1	$60.00	$575.03	$402.52
T1	$73.00	$775.58	$542.91
T1	$73.00	$775.58	$542.91
T1	$73.00	$775.58	$542.91
T1	$80.00	$1,067.69	$747.38
T1	$81.00	$1,067.69	$747.38
T1	$81.00	$1,067.69	$747.38
T1	$91.00	$1,314.02	$919.81
T1	$91.00	$1,314.02	$919.81
T1	$53.00	$410.81	$287.57
T1	$51.00	$356.07	$249.25
T1	$96.00	$1,396.13	$977.29
T1	$96.00	$1,396.13	$977.29
T1	$96.00	$1,396.13	$977.29
T1	$96.00	$1,396.13	$977.29
T1	$96.00	$1,396.13	$977.29
T1	$96.00	$1,396.13	$977.29
T1	$96.00	$1,396.13	$977.29
DS3	$602.00	$3,150.45	$2,205.32
DS3	$504.00	$2,220.27	$1,554.19
DS3	$964.00	$6,561.11	$3,936.67
DS3	$553.00	$2,530.33	$1,518.20
DS3	$947.00	$6,406.08	$3,843.65
DS3	$569.00	$2,840.39	$1,704.23

Lightship UNEs vs Special Access Pricing

Bandwidth	UNE Costs	Monthly Special Access Costs	7 Year Special Access costs
DS3	$1,161.00	$8,421.47	$5,052.88
Dark Fiber	$474.00	$6,990.00	$3,691.00
Dark Fiber	$474.00	$6,990.00	$3,691.00
OC3	$1,022.00	$6,020.00	$3,293.00
T1	$131.00	$764.02	$534.81
T1	$55.00	$465.55	$325.89
T1	$55.00	$465.55	$325.89
DS3	$1,046.00	$6,236.01	$4,365.21
DS3	$1,046.00	$6,236.01	$4,365.21
DS3	$602.00	$3,150.45	$1,890.27
DS3	$471.00	$1,910.21	$1,146.13
DS3	$471.00	$1,910.21	$1,146.13
T1	$87.00	$465.55	$325.89
T1	$87.00	$465.55	$325.89
T1	$87.00	$465.55	$325.89
T1	$93.00	$641.39	$448.97
T1	$93.00	$641.39	$448.97
T1	$93.00	$641.39	$448.97
T1	$84.00	$246.59	$172.61
T1	$83.00	$219.22	$153.45
T1	$108.00	$1,408.19	$985.73
DS3	$745.00	$1,910.21	$1,337.15

Lightship UNEs vs Special Access Pricing

Bandwidth	UNE Costs	Monthly Special Access Costs	7 Year Special Access costs
DS3	$735.00	$1,755.18	$1,228.63
DS3	$1,435.00	$10,057.63	$7,040.34
DS3	$1,112.00	$7,181.23	$5,026.86
T1	$72.00	$852.26	$596.58
T1	$72.00	$852.26	$596.58
T1	$72.00	$852.26	$596.58
T1	$72.00	$1,216.49	$851.54
T1	$72.00	$1,216.49	$851.54
T1	$72.00	$1,216.49	$851.54
T1	$72.00	$766.62	$536.63
DS3	$613.00	$8,739.83	$6,117.88
DS3	$584.00	$3,770.57	$2,639.40
DS3	$584.00	$2,530.33	$1,771.23
DS3	$584.00	$3,150.45	$2,205.32
DS3	$613.00	$2,530.33	$1,771.23
DS3	$613.00	$3,150.45	$2,205.32
DS3	$613.00	$5,940.99	$4,158.69
DS3	$613.00	$4,855.78	$3,399.05
DS3	$613.00	$4,855.78	$3,399.05
Dark Fiber	$589.00	$2,530.33	$1,771.23
Dark Fiber	$438.00	$2,220.27	$1,554.19
Dark Fiber	$431.00	$2,220.27	$1,554.19
T1	$104.00	$1,751.94	$1,051.16
T1	$94.00	$1,012.95	$607.77
T1	$94.00	$1,012.95	$607.77
T1	$94.00	$1,012.95	$607.77
T1	$89.00	$739.25	$443.55

Lightship UNEs vs Special Access Pricing

Bandwidth	UNE Costs	Monthly Special Access Costs	7 Year Special Access costs
T1	$96.00	$1,177.17	$706.30
T1	$89.00	$739.25	$443.55
T1	$89.00	$739.25	$443.55
T1	$89.00	$739.25	$443.55
T1	$89.00	$739.25	$443.55
T1	$89.00	$739.25	$443.55
T1	$96.00	$1,177.17	$706.30
T1	$96.00	$1,177.17	$706.30
T1	$96.00	$1,177.17	$706.30
T1	$96.00	$1,177.17	$706.30
T1	$96.00	$1,177.17	$706.30
T1	$125.00	$3,284.66	$1,970.80
T1	$125.00	$3,284.66	$1,970.80
T1	$125.00	$3,284.66	$1,970.80
T1	$125.00	$3,284.66	$1,970.80
T1	$108.00	$2,053.01	$1,231.81
T1	$125.00	$3,284.66	$1,970.80
DS3	$1,865.00	$19,118.54	$11,471.12
DS3	$695.00	$1,600.15	$960.09
DS3	$1,883.00	$19,118.54	$11,471.12
DS3	$1,883.00	$19,118.54	$11,471.12
DS3	$1,883.00	$19,118.54	$11,471.12
DS3	$1,003.00	$6,251.05	$3,750.63
DS3	$1,276.00	$10,436.86	$6,262.12
DS3	$687.00	$1,600.15	$960.09
DS3	$1,402.00	$12,142.19	$7,285.31
Dark Fiber	$244.00	$1,600.15	$1,120.11
OC3	$2,871.00	$5,050.00	$2,895.00

APPENDIX B

Declaration of Rainer Gawlick on behalf of Lightship Telecom

(Gawlick Dec.)

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

DECLARATION OF RAINER GAWLICK
ON BEHALF OF LIGHTSHIP TELECOM

I, Rainer Gawlick, hereby declare under penalty of perjury that the following is true and correct:

1. I am employed by Lightship Telecom ("Company") as its Executive Vice President of Marketing, Customer Relations and Regulatory Affairs. My business address is One Executive Office Park Drive, Bedford, New Hampshire 03110. My primary job responsibilities include managing the day-to-day operations of Marketing, Customer Relations and Regulatory Affairs.

2. Company is a facilities-based Competitive Local Exchange Carrier (“CLEC”). Lightship Telecom, with its operational headquarters in Bedford, New Hampshire, owns and operates switches and collocations across Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. The company offers a complete set of telecommunications services including local and long distance voice, Internet access, Virtual Private Networking, Ethernet, Secure Collocation, Web Hosting, and Integrated voice and data services. Services are provided to more than 4,400 business customers by means of a combination of the company's own facilities, unbundled network elements ("UNEs"), and services purchased from Incumbent Local

Exchange Carriers ("ILECs"), and facilities and services purchased from other competitive telecommunications carriers.

I. PURPOSE AND SUMMARY

3. The purpose of this Declaration is to explain the critical importance to Lightship of UNE-P. In Part II, I will show why it is important for a CLEC to offer service in a broad geographic area. In Part III, I will explain why it is uneconomical for Lightship to forward-invest in collocation in a broad geographic area. In Part IV, I discuss the line trigger for which Lightship could collocate without being impaired. Finally in Part V, I explain why UNE-P is an important mechanism for enabling facilities deployment.

II. SERVING BUSINESS CUSTOMERS REQUIRES THE ABILITY TO OFFER SERVICES IN A BROAD GEOGRAPHIC AREA

4. Lightship targets the small- to medium-sized enterprise ("SME") market in New England. Lightship does not just concentrate on customers that are located within the dense urban centers. Rather, Lightship seeks to serve SMEs across the states in which we do business. Lightship believes that SMEs that are not located in the major urban centers deserve the same benefits of competition that the enterprises located in the top MSAs have enjoyed. Lightship has found that the customers in this segment tend to be multi-location customers. Often the locations for these customers consist of one or several larger locations and many small satellite locations. The satellite locations in particular are often located in the smaller wire centers. Frequent examples of multi-location customers include: car dealership groups, retail and restaurant chains, cities and towns, school districts, etc.

5. In the case of Lightship approximately 40% of our customers are multi-location customers. These customers represent 50% of Lightship's revenue. Clearly these customers are an important part of the SME market.

6. For Lightship, 33% of all customers have locations across more than one wire center. Furthermore, approximately 17% of the locations for Lightship's multi-location customers are small locations that do not qualify for Lightship's on-net product. Lightship's customers have locations in over 500 of the 706 wire centers in Lightship's states.

7. The need for broad collocation is particularly acute for small locations. These locations often deliver very limited revenue. As a result, a DS-0 loop or a zero mile DS-1 is often the only cost effective means of servicing these customers. This implies the need for collocation in a broad set of wire centers. In contrast, larger customer locations can often deliver enough revenue to justify the use of multi-mile DS-1s.

8. In summary, in order to serve multi-location customers, particularly customers with smaller geographically dispersed locations, Lightship must be able to offer services to a broad set of geographically distributed wire centers.

III. LIGHTSHIP DEPENDS UPON UNE-P TO SERVE MULTILOCATION CUSTOMERS

9. Today, the economics involved require Lightship to serve these customers using UNE-P. Over time, as Lightship continues to expand its network deployment, we will be able to bring these customer locations on net.

10. However, deploying the collocation network needed to serve Lightship's multi-location customers is completely cost prohibitive from a capital cost perspective. The cost to collocate varies across our territory. Given that we already have a deployed switching infrastructure in each of our states, the primary costs of collocating are: a) the capital costs of

the equipment in the wire-center, b) the application fees to Verizon, c) some equipment cost in the switching center, and d) labor costs. In total, Lightship estimates that these costs are between $60-70K on average in our territories. Today, Lightship's five states have 706 wire centers in them. Thus, it would cost over $40 million for Lightship to collocate in all wire centers. Lightship, a company with a revenue range of $50 –70 million, does not have access to this kind of capital. Nor could Lightship create a valid business case for this capital investment. The conclusions would be the same even if we looked at a restricted set of wire centers. In order to serve all its existing customers on net, Lightship would have to co-locate new equipment in over 500 wire centers. This would cost over $30 million in new capital, an amount similarly unavailable to a company like Lightship.

11. Furthermore, deploying the collocation network needed to serve Lightship's multi-location customers is also cost prohibitive from an operating cost perspective. The operating cost of collocation varies across our territory. Given that we already have a deployed switching infrastructure in each of our states, the primary operating costs of collocating are: a) transport cost between the wire center and the switching center, b) the monthly collocation rental fees to Verizon, and c) on-going labor costs. In total, Lightship estimates that these operating costs are approximately $1-2K on average per month in our territories. (This number would be significantly higher if DS-1 UNE Transport were not available.) Today, Lightship's five states have 706 wire centers in them. Thus, it would mean approximately $650K - $1.3 million in additional monthly costs for Lightship to collocate in all wire centers. Lightship, a company with a revenue range of $50 –70 million annually, can never support these operating costs. It would take revenue growth of over 100% to cover these types of operating costs – growth that cannot be achieved organically in a reasonable amount of time. The conclusions would be the same even if we looked at a restricted set of wire centers. In order to serve all its existing customers

on net, Lightship would have to collocate in approximately 450 additional wire centers. This would cost almost $450-900K in additional monthly operating costs, an amount similarly impossible for a company like Lightship.

12. In theory, Lightship could use Verizon's resale offering to serve these multi-location customers. However, the costs of resale are prohibitively high, particularly when competing against Verizon. We have observed many instances where Verizon is offering its retail customer rates lower than its resale prices to CLECs. If Lightship's costs to serve these customers were based on Verizon's resale price, Lightship would never be price competitive. This is not surprising since Verizon's own cost for offering these services is the UNE-P price. Hence, the incumbent would have a significant cost advantage over Lightship due to the incumbent's history as a monopolist. Without UNE-P available for CLEC competitors, the multi-location SME customer would essentially be facing only a monopoly provider.

IV. LIGHTSHIP WOULD NOT BE IMPAIRED WITHOUT ACCESS TO UNE-P IN A PARTICULAR WIRE CENTER IF IT HAD A CUSTOMER BASE OF 1300 LINES.

13. If Lightship converts its lines from UNE-P to UNE-L, it will eliminate the UNE-P costs for ports and switching. These costs vary from state to state. We use $3 as an average number for this analysis. On the other hand, Lightship will need to add some cost. These include $60-70K capital costs (as discussed above) and $1-2K of monthly operating costs (as discussed above). The capital costs of $60-70K represent the smallest economically efficient deployment in a wire center and could serve between 500 and 1000 DSOs. The monthly operating costs of $1-2K represents the smallest economically efficient deployment in a wire center. (This number assumes the availability of UNE transport at the DS-1 level. If DS-1 transport were only available at special access pricing, the minimum monthly costs for collocating in a wire center would be significantly higher.)

14. The need to earn an adequate and timely return on the capital investment for collocating in a wire center imposes a $1.50 monthly cost per DSO. This number is based on the following analysis. We conservatively assume that a $60K capital investment can serve 1000 DSOs. In that case, a 30% cost of capital would imply a monthly capital cost of $1.50 per line. (The cost of capital for CLECs is so high since many CLECs are considered high risk businesses, particularly the many private CLECs like Lightship.) Alternatively, investors today seem to demand that a CLEC can fully pay for a capital investment within 24 months. This standard would actually impose a monthly capital cost of $2.50 per DSO. We will assume a monthly cost of $1.50 for the purpose of our analysis.

15. This leaves $1.50 from which the CLEC must cover the monthly operating costs for collocating in the wire center. As mentioned above, the operating expenses have a minimum monthly level of close to $2K. Hence, 1333 lines are needed to cover the minimum monthly operating cost of collocating in a wire center.

V. UNE-P IS AN IMPORTANT MARKET ENTRY MECHANISM FOR FACILITIES DEPLOYMENT

16. During the "irrational exuberance" of the telecom market in the 90's, it might have been possible for a CLEC to forward-invest at an accelerated rate in terms of capital costs and operating costs. However, today that is impossible. CLECs must show that they can achieve a return on their investment in less than three years. Thus, CLECs must build a customer base in a geographic area before they can make a significant investment in facilities. UNE-P is the perfect mechanism to build that customer base. Once a CLEC has used UNE-P to successfully enter the market and has enough customers in a given wire center, it will be able to justify the capital and operating costs to deploy its own facilities in that wire center. However, in the absence of UNE-P as a tool with which to build a business base in a wire center, the CLEC

will never create the business conditions needed to deploy facilities. The absence of UNE-P will slow facilities deployment by CLECs.

Summary

17. The importance of UNE-P to CLECs that are serving multi-location SME customers cannot be overstated. This is particularly true for SMEs that are located outside of the major urban areas. Lightship strongly believes that these customers also deserve the benefits of facilities-based competition. UNE-P is the key ingredient for fostering the development of faculties-based competition for these customers. Without access to UNE-P, facilities-based competition will not emerge for these customers – leaving them faced with a monopoly provider.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 4th day of October, 2004.

/s/ Rainer Gawlick
Rainer Gawlick

APPENDIX C

Declaration of Richard Batelaan on behalf of Cbeyond Communications LLC
(Batelaan Dec.)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
	)	
	)	
	)	
	)	

DECLARATION OF RICHARD BATELAAN

1. My name is Richard Batelaan. My business address is 320 interstate North Parkway, Suite 300, Atlanta, Georgia, 30339.

2. I am employed as the Chief Operating Officer (COO) by Cbeyond Communications, LLC ("Cbeyond"). In that capacity, I am responsible for all Network Operations, Field Operations, Provisioning, Service Activation, Network Planning, Customer Care and ILEC Relations for Cbeyond. Prior to joining Cbeyond, I served as COO at BroadRiver Communications where I led the Operations and Engineering teams in the launch of voice, internet, and virtual private network services. Before joining BroadRiver, I spent twelve years at BellSouth Corporation where I held various positions within BellSouth Telecommunications, BellSouth Business Systems, and BellSouth.net, including the positions of Chief Operations Officer and VP Operations for BellSouth.net, Director of Operations for Broadband Services deployment, and Director of Engineering for

BellSouth's Internet Services deployment. I have also worked at Cisco Systems as an engineer.

3. The purpose of my Declaration is to demonstrate that Cbeyond is impaired without access to stand-alone UNE DS-1 loops and UNE enhanced extended loops ("EELs") that consist of a DS-1 loops combined with either DS-1 transport or DS-3 transport. Cbeyond is entirely dependant on the ILEC for all of its DS-1 loop and transport facilities and for a large portion of its DS-3 transport facilities.

4. Cbeyond is a facilities-based competitive local exchange carrier (CLEC), serving over 13,000 small and medium-sized business customers. Cbeyond's business customers range in size from those with 4 to those with 100 employees and those that use from 5 to 48 phone lines. The average Cbeyond customer is on the smaller end of this range, with only 9 employees and 7 business lines. Cbeyond provides service in four metropolitan areas: Atlanta, Dallas-Fort Worth, Houston, and Denver. Cbeyond plans to enter a fifth market in early 2005. Cbeyond's customers typically demand an integrated package of high quality telecommunications and data access services at a DS-1 level of capacity.

5. Cbeyond is completely reliant on ILEC DS-1 loops to serve its customers in a cost-effective manner. There are no situations in which it is economically rational for Cbeyond to self-provision DS-1 loops. Fully 88 percent of Cbeyond's customers purchase the five line "base package," priced at $500 per month. Such a minimal monthly revenue stream comes nowhere close to covering the prohibitive cost of loop construction. Other substantial barriers to self-provisioning include 1) obtaining building access rights from often intransigent landlords who, when they do permit building access, commonly demand high fees or restrict the extent of fiber deployment within a building;

2) obtaining rights of way from municipalities that often impose surcharges and conditions to which the ILEC is not subject; and 3) obtaining spare conduit space from the ILEC that often does not present an accurate picture of available capacity. All of these issues increase the cost and delay of fiber deployment far beyond the point at which self-provisioning is feasible for a DS-1 loop.

6. The same cost and construction barriers faced by Cbeyond apply equally to any competitor. It is unsurprising therefore that Cbeyond has not been able to find a single non-ILEC wholesale provider of DS-1 loops in the four markets in which it operates.

7. Without access to unbundled DS-1 loops, Cbeyond would be forced to purchase ILEC special access. Because of its high price and its provisioning characteristics, special access does not serve as a viable means of entry. ILEC special access tariff rates are too high for Cbeyond to make a profit by either reselling bare DS-1 transmission or by using ILEC special access as an input into Cbeyond's own retail offerings. Moreover, these rates have been steadily increasing. For example, within the last several months, Qwest increased its month-to-month DS-1 channel termination rate in the densest "zone 1" by 24.75 percent and its 0-8 mile DS-1 transport mileage charge by 26.48 percent. These and similar increases from other ILECs only underscore that special access cannot be relied upon to serve the market profitably.

8. Although Cbeyond has been offered discounts off of these high tariff rates if it agrees to sign up for long-term/high volume contracts, the discounts are very modest and the terms are onerous and often discriminatory. In fact, Cbeyond and other small carriers often do not purchase special access in large enough volumes to qualify for significant volume discounts. With regard to Cbeyond specifically, my understanding is that even if

Cbeyond converted every UNE it currently purchases to special access we did not identify any plan that Cbeyond would qualify for any of the tariffed special access volume discounts.

9. In addition, even with discounts, Cbeyond would likely be placed in price squeeze situations. As noted previously, Cbeyond would use DS-1 special access circuits as an input into its integrated access service offerings. As special access prices increase, the costs Cbeyond would have to incur for these services also would increase, yet the incumbents generally have not made corresponding rate increases to their retail integrated access offerings. In fact, they have made retail rate *cuts* in many instances, thereby precluding competition from parties who rely on special access inputs. In many cases, certain value added capabilities are available only from the CLECs and may no longer be available to customers due to the upward price pressure that would be generated by use of special access inputs.

10. Any change from a UNE to special access environment would also involve large costs associated with the operations support systems needed to support special access. Specifically, Cbeyond's systems are not set up for the access service request ("ASR") ordering environment necessary to obtain ILEC special access. Cbeyond estimates that such a change to systems would cost approximately $250,000 to $500,000 in nonrecurring charges and $25,000 to $30,000 per month in additional recurring charges

11. Accordingly, without access to DS-1 UNEs, Cbeyond would be forced to exit the small business market it currently targets and move upstream to a small number of larger customers with higher revenue opportunities. These higher value customers would in some cases justify loop construction either by Cbeyond, or by another CLEC from which

Cbeyond could purchase capacity. With the exit from the market of smaller CLECs like Cbeyond, small and medium-sized businesses would have no choice but to turn to the ILEC for their integrated voice and data needs.

12. Similarly, Cbeyond needs access to DS-1 and DS-3 UNE dedicated interoffice transport, either on a stand-alone basis or combined as a UNE EEL. Cbeyond generally faces the same entry barriers when seeking to construct transport that it faces when seeking to construct its own loops (the only major exception being that there is no need to obtain building access for transport). Moreover, other CLECs face these same barriers when attempting to construct low-capacity transport. It is therefore unsurprising that Cbeyond has not been able to find a single non-ILEC provider of wholesale DS-1 interoffice transport in the markets in which it operates.

13. However, Cbeyond has found that, on certain point-to-point routes in its markets, competitors do offer wholesale DS-3 level interoffice transport. Cbeyond has determined that the PNR Associates business access line data (used by the Commission for the purpose of designing the forward-looking high-cost subsidy model for non-rural LECs) offers a fairly reliable proxy for identifying the interoffice routes on which multiple non-incumbent LEC sources of DS-3 transport are usually present and on which there are usually no non-incumbent LEC sources of DS-3s. Based on Cbeyond's survey, it is reasonable to assume that multiple non-ILECs offer DS-3 interoffice transport along routes connecting two wire centers with 40,000 business access lines (according to the PNR Associates estimates) and above. Similarly, it is reasonable to assume that no non-ILEC sources of supply are available or likely to become so on routes connecting two wire centers serving 10,000 business lines or less. On the other hand, no such

generalizations can be made for routes that do not fall within these two categories because the market evidence regarding the presence of even one non-incumbent supplier is simply too inconsistent on these routes to support firm determinations.

14. This concludes my Declaration.

15. *Pursuant to 47 C.F.R. § 1.16, I declare under penalty of perjury that the foregoing is true and correct. Executed on: October 4, 2004.*

Richard Batelaan, PE

APPENDIX D

Declaration of David A. Graham on behalf of Conversent Communications, LLC (Graham Dec.)

DECLARATION OF DAVID A. GRAHAM
ON BEHALF OF CONVERSENT COMMUNICATIONS, LLC.

I, DAVID A. GRAHAM, being duly sworn depose and state as follows:

1. My name is David A. Graham. I am a consultant for Conversent Communications, LLC ("Conversent" or the "Company").

2. I have over thirty (30) years of experience in the design, planning, engineering, installation, surveillance, and restoration of telecommunications networks. I began my career as an employee of New England Telephone Company in 1968 in its New Hampshire outside plant engineering department and held numerous technical and engineering management positions with New England Telephone Company, with New England Telephone, NYNEX, and NYNEX Corporate prior to my retirement from NYNEX in April 1997.

3. My more significant responsibilities while employed by NYNEX were the management and administration of a $50 million annual capital construction program for expansion and modernization of NYNEX's telecommunications infrastructure for the state of Rhode Island. This responsibility included not only the identification, funding, and scheduling, but also the engineering and construction of cable, loop electronics, poles, frame, conduit, and surveillance equipment to ensure overall service continuity in a cost-effective manner. From 1999 through 2002, I was employed by Conversent as Vice President of Engineering.

4. Conversent has found that it can efficiently provide voice and internet access services to small businesses by relying on its own switch and collocated transmission equipment and by leasing collocation space, unbundled loops (including two wire analogue loops, xDSL loops, DS-1 loops, and dark fiber loops) from the ILECs, and unbundled dark fiber fiber transport from the ILECs or third-party vendors, where available.

5. The availability of dark fiber interoffice transport is a key to Conversent's ability to reach customers in small cities and suburban areas and to be able to compete efficiently against Verizon. By connecting dark fiber transport facilities directly to its own collocated electronics, Conversent is able to control its network and reduce potential points of failure in a manner that would be impossible if it were forced to purchase lit special access from Verizon. The substantial cost increases and service quality degradation Conversent would experience if it were forced to purchase redundant incumbent LEC electronics as part of lit special access would likely force the company to exit many of the markets in which it competes.

6. An important limitation on Verizon's special access transport is that it is offered on a point-to-point basis only. This limitation means that reliance on special access would increase Conversent's cost because it would require (as explained more fully below) the introduction of three multiplexers ("MUXes") (two ILEC and one Conversent) at each collocation cage instead of the single MUX that is required if Conversent is allowed to use unbundled dark fiber.

7. It would simply not be possible for Conversent to use Verizon's lit special access service for its local networks in a manner which would allow Conversent to provide a level of service that is at parity with Verizon. As can be seen in the diagram attached to this affidavit as Attachment 1, establishing ring typography using Verizon's special access transport would require the deployment of two additional MUXes in each Conversent collocation arrangement--one terminating MUX to deliver the incoming link to Conversent and a second MUX to accept the outgoing link to Conversent to transport to the next node. Thus, in this configuration, a Conversent MUX must be placed between the two Verizon MUXes for interconnection to complete the handoff at each node.

8. Using Conversent's 12-node, 13-span network in Long Island and White Plains, New York, as an example, reliance on lit special access would require Verizon to install a total

of 24 unnecessary MUXes and introduce 24 additional points of potential failure in Conversent's network that would not exist in a network built with unbundled dark fiber transport.

9. A CLEC that relies on wholesale lit transport facilities cannot monitor its network from its Network Operations Center ("NOC"). As a result, if unbundled dark fiber transport were no longer available and Conversent was required to lease lit special access from Verizon, Conversent would lose the ability to monitor its network and to ensure timely repair and maintenance. Yet this control is absolutely critical to Conversent's ability to compete. Such control extends not only to the deployment and maintenance of its own optical equipment, but also to the ability to monitor the performance of that equipment 24 hours/day, 7 days/week. Reliance on lit special access would deprive Conversent of this level of control.

10. Conversent's experience is that it takes six to 12 months to procure fiber from third party vendors who actually have dark fiber transport available in locations where it is needed. It takes longer to self-provision, especially if conduit is not available.

11. It is rarely, if ever, economic for Conversent to self-provision dark fiber transport, because typically it only needs 4 fibers for each interoffice span. Based on my years of experience at Verizon, Verizon typically installed 96-144 fibers.

I, David A. Graham, hereby declare under penalty of perjury that the foregoing is true and correct. Executed on October 4, 2004.

____/s/ David A. Graham_____
David A. Graham

APPENDIX E

Declaration of Mark A. Jenn of TDS Metrocom, LLC (Jenn Dec.)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	

Declaration of Mark A. Jenn

I, Mark A. Jenn, pursuant to 28 U.S.C. Sec. 1746 do hereby declare, under penalty of perjury, that the following is true and correct:

1. I am employed as Manager - Federal Affairs by TDS Metrocom, LLC.

2. My business address is 525 Junction Road, Madison, WI 53717-2105.

3. TDS Metrocom is a competitive local exchange carrier currently providing service in Illinois, Michigan, and Wisconsin and as USLink d/b/a TDS Metrocom (USLink) in Minnesota and North Dakota (collectively, "TDS CLECs"). The TDS CLECs are wholly-owned subsidiaries of TDS Telecom. TDS Telecom also owns and operates rural, incumbent local exchange carriers in 28 states. TDS Telecom is itself a wholly owned subsidiary of Telephone & Data Systems, a publicly-owned holding company that trades on the American Stock Exchange under the symbol TDS. TDS Metrocom is a member of ALTS.

4. TDS Metrocom and USLink serve both residential and business customers in mostly small- to medium-sized markets with 10,000-100,000 residents as well as the suburban fringe of a number of major metropolitan areas. The TDS CLECs offer customers a full range of products including local and long distance voice, dial-up Internet access, custom calling features, voice mail, DSL, and other data products, among other things. Through the use of innovative pricing and bundling of products and services, the TDS CLECs have grown to nearly 400,000.

5. The TDS CLECs use a mix of their own facilities and UNEs to provide service to end-users. Facilities include Class 5 switches, collocation equipment, DSLAMs, fiber transport, and limited direct builds to customers. Due to how each of the TDS CLECs came into being after the 1996 Act, their provisioning models differ somewhat. USLink uses UNE-P to provide service to a portion of its customers while TDS Metrocom solely employs a UNE-L strategy. The purpose of this Affidavit is provide the Commission with information on why USLink continues to use UNE-P and how the determination is made as to when facilities will be deployed in order to use a UNE-L strategy. The historical expansion patterns of the TDS CLECs provide insight into the analysis behind facilities deployment.

6. USLink was originally a regional long distance carrier providing service in Minnesota and parts of North Dakota. Because of equal access and the ease of the PIC change process, USLink was able to broadly provide interexchange service throughout the entire state of Minnesota. After the 1996 Act, USLink entered the local service market initially via resale, which was soon found not to be a viable

long-term provisioning method. USLink began to deploy its own switching and collocation facilities and also transition most of its resale customers to UNE-P. Because USLink's initial customer base was spread out over the entire state, the only way it was possible to serve all of its customers was through a mix of facilities-based and non-facilities-based methods.

7. TDS Metrocom was created after the 1996 Act to be a facilities-based competitive carrier that would deploy switching and collocation facilities in targeted second and third tier markets. Market expansion was a tightly managed process whereby each market was individually selected for its desirability and potential to meet targeted returns.

8. Because of capital limitations, careful analysis was and continues to be used to determine deployment locations for both carriers – TDS Metrocom for market entry and USLink to transition from resale and UNE-P to a facilities-based strategy. This analysis is dependent on a number of factors including initial equipment costs, ongoing operational costs including trunking requirements, and potential revenues associated with customers located in the area under review.

9. While each market/wire center is unique, there are a number of high-level measures that are generally consistent across various markets. In general, the TDS CLECs have found that it costs between $350,000 and $450,000 to add a collocation site in an established market. This includes the equipment and labor costs of the collocation as well as the incremental costs of expanding switching and trunking facilities to serve the collocation site. This cost is significantly higher when the analysis is done for expanding into an entirely new market not

already served by a company switch. Additional variable expenses including UNE loops, interoffice transport, and operations are generally estimated to be in the range of $18-$22 per month. Taking into account revenue potential and reasonable churn rates in the range of 2-4% results in models that yield collocation deployment breakeven points in the range of approximately 1500-3000 lines in service.

10. The results of this type of analysis have guided USLink is its decision-making process as to where to transition from UNE-P to UNE-L and has led to the deployment of 21 collocations throughout Minnesota. However, USLink has not been able to justify collocating in all areas where it serves customers. These areas do not have enough of a current customer base to warrant deployment and forecasts do not show the potential for enough growth in the foreseeable future. In order to continue to serve these customers, a non-facilities-based method must be used. Overall, approximately 15% of the customers of the TDS CLECs are not "on-switch" with vast the majority of those being served via UNE-P.

11. The characteristics of the customers not "on switch" are fairly uniform. They are generally small businesses, many of which are multi-location businesses where some locations fall within USLink's network footprint while others lie outside. USLink would be impaired from serving this segment of the market without access to UNE-P. Without the ability to serve all of the locations of a business within a metropolitan area or connecting communities of interest, carriers are unable to convince businesses to switch carriers. Managing multiple telecommunications firms for local service takes much more time and effort than

most small- to medium-sized businesses are willing or able to spend. While larger businesses may have internal staff devoted specifically to telecommunications needs, small businesses do not have that luxury.

12. While USLink has used UNE-P to fill out its regional footprint, TDS Metrocom has not used such a strategy mainly because of ongoing concerns over the availability of UNE-P over the long-term. This has had a detrimental impact on the ability of TDS Metrocom to provide service to the small business market, especially in areas such as the Chicago and Detroit suburbs where deploying facilities throughout the entire metropolitan area is an impossible task. Whereas TDS Metrocom is able to use DS-1 EELs to reach larger businesses outside of the network footprint, that is not an economically efficient option for smaller businesses. Clarifying the long-term status of UNE-P to allow for limited use to serve certain markets would help expand competitive options to a broader number of communities and solidify competition where facilities are already deployed by opening an otherwise unaddressable market, multi-location small businesses, to competitive carriers.

13. This concludes my Affidavit.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 4th day of October, 2004

_____/s/__Mark A. Jenn_____
Mark A. Jenn

APPENDIX F

Declaration of Robert E. Pickens of Eschelon Telecom, Inc. (Pickens Dec.)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	

DECLARATION OF ROBERT E. PICKENS

1. I, Robert E. Pickens, certify that the following is my true testimony. I am the Executive Vice President of Marketing for Eschelon Telecom, Inc. ("Eschelon").

2. In addition to my marketing position at Eschelon, I have also served as General Manager of Local Services and Operations for Frontier Corp. and as Marketing Manager and Marketing Director for Enhanced TeleManagement, Inc.

3. Eschelon was founded in 1996. In 2001, Eschelon had approximately $100 million in revenues. Eschelon has raised $126 million in equity and $151 million in debt and has invested over $115 million in telecommunications facilities. The company offers a comprehensive line of integrated telecommunications products ranging from telephone systems to advanced voice and high-speed Internet services. Eschelon employs more than 900 telecommunications/Internet professionals and currently provides services in Arizona, Colorado, Minnesota, Nevada, Oregon, Utah, and Washington.

4. Eschelon owns and operates six voice and seven data switches and has 101 collocations. Eschelon provides network services to its customers in three ways. Eschelon: 1) leases

UNE-loops from Qwest in six of its states and from Verizon in one state; 2) connects the loops to our collocated equipment; 3) and then leases ILEC transport to connect the collocations to an Eschelon switch. Eschelon purchases a UNE platform product from Qwest.

5. Eschelon primarily serves small business customers in core and non-core urban and suburban settings. Eschelon serves over 35,000 business customers and provides them about 230,000 access lines. The typical Eschelon end user customer takes between five and ten lines of service from us.

6. For the most part, Eschelon's customers are geographically dispersed and located in small buildings, not in large downtown skyscrapers. Over a third of Eschelon's customers take service at multiple physical locations; often one or more of these locations is in Eschelon's "off-net" territory—territory not served by an Eschelon collocation.

7. Eschelon invests in collocations in wire centers where there are a sufficient number of small business customers to provide Eschelon with a reasonable opportunity of earning a return on the investment once we develop the customer base. Customers in other wire centers must be served using an "off-net" product. Without an "off-net" product to serve multi-location customers, Eschelon would not find it profitable to build as many collocations, because it would not be able to sell to many of these customers.

8. Eschelon has invested in switching facilities and collocations to serve all of its markets, except the Reno, Nevada market. In Reno, Eschelon has signed a lease for space in a building to install switching equipment. However, because of unfavorable conditions in the capital markets, we have postponed investment in switching and collocation equipment and facilities until conditions improve.

9. Eshchelon is able to serve many of its multi-location “on-net” customers because it has an “off-net” UNE platform product to provide them in their other locations. Today, roughly fifty percent of Eschelon’s access lines are provided by a UNE platform product. Without access to a UNE platform product, Eschelon would probably go out of business. The percentage of our customers served by UNE platform will drop dramatically over the next five to ten years as Eschelon further builds out its collocations and converts UNE platform customers to customers reached by UNE loops and served by our switches and collocations. However, although in the long run, Eschelon will not be as dependent upon UNE platform products as it is today, it will always require an “off-net” product.

10. Being able to provide services “off-net” as well as “on-net” permits Eschelon to realize economies of scale in its marketing, advertising, and sales efforts. For example, the most effective forms of advertising such as billboards, newspapers, and magazines are not wire center-specific. The availability of a UNE platform product allows Eschelon to serve customers in a wider area, increasing the efficiency of our advertising efforts.

11. Small businesses have much higher mortality rates than large businesses and move more often. I know of no carrier who has made a successful business of constructing a loop plant to serve small businesses. Given that CLECs have small market shares, it is unlikely that the new occupant of an office served by that CLEC’s own loop would also take that CLEC’s service. If the ILEC provides service to the new occupant, it will use its own loop. If another CLEC provides service, the CLEC will also use ILEC facilities, because ILECs provide both retail and wholesale loops.

12. Eschelon needs and uses UNEs to provide broadband services. There is a positive association between the use of UNEs and broadband development. In order to compete

with carriers such as Eschelon that provide broadband through the use of UNEs, ILECs must provide broadband as well. In Qwest territory, which is the territory where Eschelon provides most of it service, areas where competitors are not using UNEs are generally also areas where broadband is not available from the ILEC. Clearly, competitors' use of UNEs is helping the development of broadband.

13. Eschelon's business success depends upon the continued availability of UNEs, including UNE loops, transport, switching, and UNE-P.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 4th day of October, 2004.

/s/ Robert E. Pickens
Robert E. Pickens

APPENDIX G

Declaration of Paul Hanser of Eschelon Telecom, Inc. (Hanser Dec.)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

DECLARATION OF PAUL HANSER

1. I, Paul Hanser, certify that the following is my true testimony. I am Sr. Director of Switch Engineering for Network Operations for Eschelon Telecom, Inc. ("Eschelon"). Prior to joining Eschelon in 1999, I held the position of Sr. Manager Switch Systems Engineering, Planning and Implementation for MCI Metro. I have a B.S. in Business Administration (Operations Research) from the University of Texas, Dallas. At Eschelon, I am responsible for the planning, engineering, and installation of our switching and collocation facilities and for ordering interoffice transport as well as EELs.

2. Eschelon has installed and operates six voice switches and seven data switches. These switches serve ninety-nine collocations that Eschelon has built primarily in Qwest but also in Verizon central offices in Arizona, Colorado, Minnesota, Oregon, Utah, and Washington. Eschelon purchases UNE combinations from Qwest which include switching to serve customers in our markets who are not located in the wire centers in which Eschelon has its collocations. To my knowledge, there are no alternative suppliers of unbundled switching in our markets other than the ILEC.

3. Eschelon has never been approached by another CLEC to provide it with unbundled switching services to my knowledge. If Eschelon were to be asked to provide unbundled switching by another CLEC, it could not provide it. There are several reasons for

this. First, offering unbundled switching on a commercial basis would require Eschelon to develop a separate business unit. It would require a substantial volume of business to justify this expense, and the adequate volume does not exist. Eschelon would have to invest large sums of money to adequately conduct this business in terms of taking orders, providing the service, billing, and providing support. For example, Eschelon receives access records for billing IXCs for long distance calls from Qwest. Eschelon's own switch does not provide these records. Eschelon would have to develop or purchase a software program to identify access records associated with the unbundled switching and provide those records to the buyer of Eschelon switching. Second, it would not be economical for any CLEC to buy switching from Eschelon. CLECs who need unbundled switching also need the local loops to connect to their customers. Eschelon buys unbundled loops from Qwest and does not own its own outside local loop plant. A CLEC would have to buy a loop from Qwest and then pay for transport to the Eschelon switch. It would be more efficient and cheaper for the CLEC to buy the loop and switching from Qwest. Qwest's ubiquitous network makes it the low-cost provider of resale switching across the entire MSA.

4. It would not be cost effective for Eschelon to build an outside loop plant or transport for several reasons.[1] Eschelon serves small businesses, and for the most part, our customers are not clustered together in single buildings nor are they located adjacent to each other. Eschelon would never build an "overlay" of ILEC loop plant, because Eschelon does not serve all customers in an area. Eschelon does not know who will order service until the actual sale is made, so it would never make sense for Eschelon to build the ubiquitous distribution plant

[1] Nor would it be practical for Eschelon to a construct distribution plant to serve its customers. Eschelon's small business customers want service from Eschelon when they sign the order. Laying cabling to a customer can take months, because the circuit needs be engineered, right-of-way access must be negotiated, contractors to do the construction must be found, etc. It would not be worth Eschelon's effort to do so unless the customer agreed to a very long-term contract. I understand that small business customers do not want very long-term contracts and that such contracts are difficult and expensive to enforce.

that the ILECs have in place and ready for customers. But, assuming for the sake of argument that Eschelon did build outside plant, it would be prohibitively more expensive than the ILEC plant. Eschelon's distribution plant would have relatively longer cable runs per access line than the ILEC loop plant, because Eschelon would be required to run the cables from a customer location to its single central office switch. Eschelon's feeder plant would aggregate traffic from fewer access lines making it more costly to implement per access line. Even if it cost Eschelon the same to dig up a street to lay cable as it costs the ILEC (which it does not – see para. 5 below), the ILEC would lay larger cables and have lower unit costs than Eschelon. In addition, in each market, Eschelon has a single voice switch that serves digital loop carrier ("DLC") equipment that is located in ILEC central offices.

5. The relatively small numbers of small business customers that Eschelon serves only support a single switch in each market, whereas the ILEC's customer numbers justify multiple switches. The ILEC has a switch in each of those collocations where our DLC equipment is located, plus many other central offices. Eschelon's network would also have higher costs than the ILEC's network, because Eschelon would have to lay new cabling simply to connect its customers to its switch. Further, whereas the ILEC can augment distribution and feeder plant and take advantage of spare facilities in existing cabling and conduit, Eschelon would have to build everything from scratch.[2] The ILEC will always be able to build facilities to serve new locations in its existing wire centers less expensively than Eschelon. Eschelon could never compete with the ILEC in building outside plant on an efficient economic cost basis for these pure engineering reasons. But, there are other reasons Eschelon's costs would be higher as well.

---

[2] In theory, if Eschelon could connect its facility to the ILEC network, Eschelon could use parts of the ILEC's distribution and feeder plant and lower its costs. However, Eschelon does not have cost-effective access to the ILEC's engineering records so as to determine how to run the circuit to the Eschelon switch.

6. The scale of the ILEC's outside plant construction means that the ILEC can keep contractors busy building ILEC facilities full time. Eschelon's construction demands would be much smaller. This allows the ILEC to negotiate lower rates than Eschelon would pay. Volume purchases also allow the ILEC to negotiate lower unit prices for cabling and other materials than Eschelon could obtain.

7. Plant construction also requires internal resources from the CLEC such as engineering support, project managers, contract administrators, and real estate agents to locate and negotiate rights-of-way. Eschelon would not undertake the volume of construction necessary to justify having these internal resources. If Eschelon nonetheless assembled these internal resources, they would not operate as efficiently as the ILEC's existing staff, because the ILEC's staff would be well ahead on the learning curve. The ILEC has well-established methods and procedures that the CLEC would have to develop. Building outside plant would increase the time to turn up a customer on our network.

8. Eschelon does not prescribe to a build-out policy of "build it and they will come." Our philosophy is very conservative--build only when the economics justify it. Not knowing where our customer locations are until the sale, Eschelon could not build out local loops to customer locations within the short time period that customers are willing to wait for service.

9. In sum, the ILEC can construct local outside plant far more economically than Eschelon, because of its ability to build incrementally rather than deploy all at once; because it can aggregate traffic; because it builds to serve all customers in an area rather than a subset; because it enjoys volume discounts with contractors and for materials; and because it has been in the network construction business for decades and has the internal resources and engineering records to build efficiently. Unless a company set out to overbuild the ILEC network, which no company is attempting to do in Eschelon's markets, no one else could hope to match the ILEC's costs. CLECs that construct outside plant do so either to serve high-volume customers or in

some cases, they do an overbuild of a community. Eschelon does not do either of these. Eschelon would likely go out of business if it were required to build its own outside plant, because it could not do so cost effectively.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 4th day of October, 2004.

/s/ Paul Hanser

Paul Hanser
Sr. Director of Switch Engineering

APPENDIX H

Declaration of Robert J. Shanahan on behalf of Conversant Communcations, LLC (Shanahan Dec.)

(Persuant to the attached cover letter, this affidavit will be filed October 5 once the appropriate signatures have been obtained.)

APPENDIX I

Declaration of Brad A. Evans on behalf of Cavalier Telephone, LLC (Evans Dec.)

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

Declaration of Brad A. Evans on behalf of
Cavalier Telephone, LLC

I, Brad A. Evans, state as follows for my declaration:

A. Witness Qualifications

1. I have worked in the telecommunications industry for approximately 25 years. Currently, I am Chief Executive Officer of Cavalier Telephone, LLC.
2. Before starting Cavalier, I worked for ten years in various sales positions with GTE, where I won awards at the regional and local level.
3. In 1989, I became one of the founders and an Executive Vice President of City Signal, a competitive access provider that became a competitive local exchange carrier ("CLEC") in Grand Rapids, Michigan. In 1996, I became one of the founders and President of BRE Communications, a CLEC that did business in Flint, Michigan under the name Phone Michigan. Phone Michigan and City Signal installed over 1200 route miles of fiber and turned up over 80,000 business and residential access lines.
4. In 1995, I also became the founder and President of City Signal Fiber Services, Inc. ("CSFS"), a fiber-optic construction firm that was based in Wyoming,

Michigan. CSFS built networks in Memphis, Tennessee; southeast Michigan (linking Flint, Detroit, and other localities); Las Vegas, Nevada; Nashville, Tennessee; Grand Rapids and East Lansing, Michigan; and large areas of Iowa.

B. **Background on Cavalier**

5. Cavalier Telephone, LLC ("Cavalier Telephone") is a CLEC based in Richmond, Virginia. Cavalier Telephone provides retail and wholesale, residential and business, data and voice services in central, eastern, and northern Virginia. The company's investors and lenders include Bank of America, GE Capital, BB&T, CIT, Merrill Lynch, Lucent, and M/C Venture Partners.

6. A subsidiary of Cavalier Telephone, Cavalier Telephone Mid-Atlantic, LLC ("CTMA,"), provides those same services in southeastern Pennsylvania; the Baltimore, Maryland area; the District of Columbia and neighboring areas of Maryland; most of Delaware; and southern New Jersey. Together, Cavalier Telephone and CTMA serve approximately 164,000 business lines and 135,000 residential lines in their joint, six-state footprint. For convenience, I will refer to Cavalier Telephone and CTMA together as "Cavalier."

7. Cavalier's affiliate, Phonom LLC ("Phonom"), provides Voice over Internet Protocol ("VoIP") service to residential and business customers throughout the joint six-state footprint of Cavalier and CTMA. Phonom began operating in 2004 and does not yet serve a large number of customers.

8. In addition to its other operations, Cavalier manages the network and operations of Elantic Telecom, Inc. ("Elantic"), formerly known as Dominion Telecom, Inc., which does business up and down the East Coast of the United States, northward

into Canada, and westward out to Chicago, Illinois. Until May 2004, the company was an affiliate of Virginia Electric and Power Company, the largest electric utility in Virginia. Elantic provides long-haul, inter-city dark fiber segments and lit services to wireless providers, long-distance carriers, DSL and data firms, very large commercial customers, and CLECs. Elantic sought bankruptcy protection earlier this year in an effort to reduce costs that made it untenable to maintain the company's operations without restructuring.

9. Cavalier also manages the network and operations of City Signal Communications, Inc. ("City Signal"), the owner of metropolitan fiber networks in Philadelphia, Pennsylvania and Cleveland, Ohio. City Signal provides dark fiber to other carriers and to business customers in those areas.

C. Cavalier's Network Architecture

10. Cavalier provides service through its own Lucent and Nortel switches in each of its major markets, which are linked to collocation sites in central offices serving the residential and business customers where Cavalier provides service.

11. Cavalier's switches are linked to these various collocation sites by fiber built and owned—or leased—by Cavalier. Initially, Cavalier planned to build its own fiber in every area where it served customers, but we encountered various obstacles to that plan in many areas, as discussed below. As a result, Cavalier must obtain dark fiber from commercial providers in those areas where it is available. In many areas, however, dark fiber is only available as an unbundled network element from Verizon, and then only after a great deal of effort in ferreting out information from Verizon about the routes on which such fiber is available.

12. One of the business strategies made possible by Cavalier's use of dark fiber to link its collocation sites is Cavalier's provision of wholesale lit services to long-distance carriers, wireless providers, and other CLECs. Cavalier can provide such services only on certain portions of its network (on a limited number of routes) because sufficient capacity is unavailable along given segments, because restrictions by an underlying provider like Verizon prohibit it,[1] or because other commercial considerations preclude it as a matter of business judgment.
13. Cavalier's switches are linked to Cavalier's customers mainly through Cavalier's collocation sites in Verizon's central offices. Only in a very few cases, perhaps 1% or 2% of Cavalier's business customers, has it been economically justifiable to link Cavalier's own fiber directly to a customer. In all other cases, Cavalier must rely upon unbundled loops provided by Verizon, mainly at the DS0 and DS1 level, and in a few cases at the DS3 level.

D. DS1 and Other High-Capacity Loops

14. Cavalier relies heavily on DS1 loops provided by Verizon as unbundled network elements ("UNEs"). From a practical point of view, no real alternative exists.
15. The unavailability of any practical alternatives should be apparent from the many difficulties that Cavalier has experienced in trying to obtain UNE DS1 loops from Verizon. Cavalier described these difficulties in a 1999 complaint to the Virginia State Corporation Commission ("Virginia SCC") that was later withdrawn, in a letter seeking placement of its complaint on the accelerated docket of the FCC's

[1] My understanding is that, in FCC WC Docket No. 02-359, Cavalier and Verizon eventually agreed on language allowing Cavalier to use dark fiber for purposes lawful under the Telecommunications Act of 1996, but that Verizon's understanding of this language was that it prohibited Cavalier from in turn providing the use of that fiber, as dark fiber, to any customer of Cavalier.

Enforcement Bureau in July 2001, in a complaint at the Virginia SCC against Verizon's "FlexGrow" tariff filing in August 2001, in a federal antitrust complaint filed in November 2001, and in a formal complaint filed at the Virginia SCC in early 2002. Cavalier began that last proceeding after similar complaints by Alltel and Broadslate were dismissed when Alltel left the Virginia local market and Broadslate went out of business. NTLEOS, Covad, AT&T, MCI, and other CLECs joined in Cavalier's complaint, and the Commission eventually ruled against Verizon's restrictive provisioning practices for UNE DS1 loops, which had become known as the "no facilities" policy. The FCC reached a similar conclusion, which I understand was upheld by the D.C. Circuit Court of Appeals in that court's March 2, 2004 *USTA II* decision.

16. All of these difficulties in obtaining DS1 loops from Verizon should make it evident that no other source exists for these types of facilities.

17. First, alternative providers or alternative technologies do not provide an alternative. Cable television providers do not make their facilities available to CLECs like Cavalier. In fact, cable providers sometimes even refuse to carry advertisements for Cavalier's service, because it competes with the cable provider's own telephony service.

18. Cavalier has investigated a fixed-wireless technology as a potential alternative to unbundled local loops, but the fixed wireless loops do not offer the same capacity and reliability as a wireline DS1 loop. In addition, the regulatory issues involved with such fixed-wireless loops appeared to pose obstacles comparable to the level of difficulty experienced in ordering wireline DS1 loops from Verizon.

19. Second, where Verizon already has a legacy network in place, that network was already paid for, perhaps several times over, by AT&T, C&P Telephone, Bell Atlantic, or Verizon ratepayers. Given that advantage by Verizon, Cavalier cannot possibly offer retail services at a competitive price, because Cavalier must bury fiber in a new street cut or string fiber along a new aerial route. By contrast, Verizon can often merely add electronics to an existing loop (a task that Cavalier must also perform) to turn up service.
20. Trenching the street to bury fiber is the only practical way to add network within an urban area, and it is prohibitively expensive unless we have a very large customer who will commit to a three- to five-year contract that will require capacity equivalent to several DS3 circuits. Based on our past experience in Virginia, I expect that it would cost a minimum of $30,000 to $50,000 to extend even a very modest lateral segment of fiber off Cavalier's backbone network to an individual customer in Richmond, Tidewater, or northern Virginia. (A lateral copper segment of equivalent capacity would not even be considered.) That type of sunk cost simply cannot be recovered from a T1 customer who pays a retail price of several hundred dollars per month.
21. It would not be the end of the story even if Cavalier could find a cheap way to bury or string fiber, at a cost that was to allow Cavalier to offer retail services at prices competitive with those of Verizon's retail services offered over Verizon's legacy network. Cities and towns simply do not want their streets torn up every time a new DS1 customer needs service. For example, in Richmond, Virginia, Cavalier has not had an actual franchise agreement even though the City of

Richmond has been working on such an agreement since Cavalier started offering service in 1999. Without a franchise agreement, Cavalier must rely upon less streamlined permitting procedures under its revocable, non-exclusive license agreement with the City. While the City of Richmond has been pleasant and accommodating in almost every respect, its procedures simply would not be scalable to accommodate builds for all of Cavalier's retail customers at the T1 level or higher, much less for builds for all other CLEC retail customers at that level. Similar issues exist elsewhere, and Cavalier expects that the FCC and the courts can scarcely imagine the level of chaos that would ensue if individual CLECs were economically able to dig up the streets and plant new poles to reduplicate Verizon's legacy network throughout Verizon's footprint.

22. Third, "special access" service from Verizon is not a realistic alternative. Special access was designed to serve long-distance carriers, and it is not structured or priced in a way that makes it useful for providing local service. A Regional Bell Operating Company like Verizon has a great deal of flexibility in pricing special access, which would make it difficult if not impossible for competitors like Cavalier to use special-access circuits as substitutes for UNE DS1 or UNE DS3 circuits. As mentioned above, Cavalier has more than enough difficulty ordering these circuits as UNEs. Even after Verizon was ordered to perform "routine network modifications" for high-capacity loops, by both the Virginia SCC, in Case No. PUC-2002-00088, and the FCC, in the *Triennial Review Order*, Cavalier still sees rejection rates of about 23% for DS1 loops and about 79% for DS3 loops. Allowing Verizon control over the quality and pricing of such circuits

under a special access regime, and not just over "availability" as UNEs, would create an untenable situation.

23. The Telecommunications Act of 1996 seems to bear out this conclusion. If special access were sufficient, then Congress could have avoided the whole issue of creating UNEs, and simply allowed competitive access providers ("CAPs") to serve customers by pairing CAP fiber networks with resold special-access services.

24. Cavalier has long used UNE DS1 loops to bring better and more competitive services to customers. As but one example, Cavalier was among the first competitors to offer integrated voice and data service to business customers over a single DS1 circuit. That type of offering makes the retail market more competitive and efficient by lowering costs and providing better services for retail customers, and it also makes more efficient use of the legacy network by using fewer loops to provide the same level of services. That is why Cavalier has have fought Verizon on so many fronts to try to ensure that these loops remain available.

25. In addition, it makes no sense to force a shift from UNE DS1 loops to special access, while essential DS0 loops remain available on an unbundled basis. In many cases, UNE DS1 loops are provided in the legacy RBOC network over a single copper pair, with HDSL or other electronics added at either end. UNE DS0 loops are provisioned over those same copper pairs, although at 10% to 20% of the price because the same electronics are not involved.[2] As a result, we are

[2] The 10% to 20% figure is based on Virginia prices approved in Virginia SCC Docket No. PUC970005.

really talking about the same facilities in many ways. What we are really talking about is allowing RBOCs like Verizon to drive up wholesale costs to competitors for business customers, where retail profit margins are more substantial. Cavalier finds bitter irony in this situation, because it was only in January 2004 that Cavalier's claims of anticompetitive behavior against Verizon were conclusively rejected at the U.S. Supreme Court—because of the very unbundling regulations that are now endangered because of the *USTA II* decision handed down two months later.

26. Finally, while Cavalier would like to see UNE DS3 and UNE dark fiber loops remain available, Cavalier has not been able to utilize either UNE in anything more than a minimal fashion. As mentioned above, UNE DS3s are "available" from Verizon only about 21% of the time. The five-year minimum term for special-access DS3 circuits almost always makes special access unworkable, so Cavalier is able to provide retail DS3 circuits over UNEs to only about one in five customers. UNE dark fiber loops are even more elusive. Cavalier has typically been unable to confirm even the existence or availability of such circuits, much less order them. In one case, Cavalier inquired about a dark fiber loop, was told that it was available from the central office to the pedestal, but not from the pedestal to the customer; then inquired further and was told the reverse; and then requested a joint vendor meeting but was told that Cavalier was not allowed to be present at a field inspection, even though Cavalier would have to pay for the inspection. As a result, I regrettably have little practical experience to draw upon regarding UNE DS3 loops and UNE dark fiber loops from Verizon.

E. Dark Fiber Transport

27. Like DS1 loops, Cavalier relies heavily upon Verizon's UNE dark fiber transport because of the lack of any viable alternative. Severe limitations constrained our construction of our own network in some locations, and no alternatives were available in others.

28. First, Cavalier's own fiber builds in northern, central, and eastern Virginia were the subject of epic struggles between 1999 and 2001. The company encountered difficulties with both pole owners and government entities. Cavalier's difficulties with pole owners is typified by its experience with Virginia Electric and Power Company, doing business as Dominion Virginia Power ("DVP"). To challenge high make-ready costs for poles, delays in permitting for poles and conduit, and high pole rental fees, Cavalier eventually became involved in multiple proceedings at the Virginia SCC, a pole attachment case at the FCC, an injunctive proceeding in federal district court, a private mediation, a later case in state court, an appeal to the U.S. Fourth Circuit, a private arbitration, and a second pole attachment case at the FCC. Cavalier eventually reached a global settlement with DVP, but it encountered virtually all of the same problems with Verizon and never did resolve them.

29. Even armed with a temporary restraining order from the federal district court, Cavalier was unable to overcome permitting issues with the Virginia Department of Transportation ("VDOT") in northern Virginia. Eventually, in those areas of northern Virginia where Cavalier managed to overcome obstacles to its fiber construction, costs soared to several hundred thousand dollars per mile.

30. In Maryland, Cavalier anticipated similar problems with the local power utilities who were major pole owners, partly because of intensive litigation between those utilities and the local cable television providers. However, in Maryland, Cavalier faced the added obstacle of municipal franchise agreements that imposed various fees and required concessions in the form of free conduit or free fiber pairs. The courts there had allowed municipalities to impose such requirements on competitors, but not on the incumbent, Verizon.
31. Cavalier eventually found no other alternative in northern Virginia and Maryland (in LATAs 236 and 238), except for Verizon dark fiber. Even that alternative was identified only after another struggle to obtain information about where dark fiber transport was available, a dilemma resolved only by importing from Pennsylvania the dark fiber maps "voluntarily" provided by Verizon to overcome a Cavalier objection to 271 approval at the Pennsylvania PUC.
32. In the Philadelphia area, Cavalier likewise encountered difficulties reminiscent of those in Virginia, when it sought to negotiate a pole attachment agreement with the local power utility. In addition, political pressures brought to bear by labor made the acquisition of a municipal franchise challenging, difficult, and time-consuming.
33. In Delaware and New Jersey, Cavalier was able to skirt some of these problems only by acquiring the assets of Conectiv Communications Inc., an affiliate of one of the local power companies, which was a major pole owner. Similarly, Cavalier made progress with its Philadelphia network only after it struck deals with

affiliates or former affiliates of the local power utility—again, a major pole owner.

34. The bottom line is that pole owners and government entities frequently, if not invariably, make it difficult or impossible for Cavalier to build out its fiber network any further in the areas where Cavalier operates.

35. Second, alternative dark fiber providers simply do not seem to exist outside of a few isolated pockets. Many fiber networks, like the Elantic network managed by Cavalier, are long-haul networks that are not adequately interconnected with the infrastructure of RBOCs like Verizon. For example, instead of tying into Verizon's central offices, Elantic's network ties into substations and other points of presence that made operational sense for its former affiliate, a power utility. Other networks, like the City Signal network that Cavalier also manages, are limited to a few localities—for City Signal, Cleveland and Philadelphia. If, like City Signal, another such provider holds a certificate to provide local services as a CLEC, that provider may not even be willing to provide widespread access to numerous fiber segments (within its network or networks) to another CLEC.

36. As with DS1 circuits, Cavalier's problems in ordering dark fiber from Verizon led Cavalier to investigate alternatives to UNE dark fiber transport from Verizon. However, as already mentioned, many providers have only long-haul networks or one or two local networks. Other providers do not support collocation arrangements, respond that they simply cannot help in providing an alternative to UNE dark fiber, report lack of capacity central-office collocation sites, or deliberately avoid such collocation sites.

37. If we find a provider that can provide any sort of alternative transport at all, then dark fiber itself is unavailable, or it is available on only a handful of routes. If another carrier cannot provide dark fiber, but only lit capacity, then Cavalier is faced with limiting the options that it can offer to its customers and managing its transport routes in a different fashion than with dark fiber.

38. Third, even if an alternative dark fiber provider could provide a ubiquitous solution, such a provider would not necessarily offer a stable deal for dark fiber. In its work with Elantic, Cavalier has encountered several situations in which dark-fiber providers sought bankruptcy protection and then demanded additional up-front payments or additional recurring payments, when the initial IRU—negotiated several years before—was structured as a single, up-front payment in exchange for a 10-year or 20-year IRU. Despite the incessant threat of its extinction through ceaseless litigation, UNE dark fiber transport does not involve that type of risk.

39. Fourth, lit capacity, in the form of special access circuits from Verizon, is an inadequate substitute for UNE dark fiber transport. As is apparent from their very names, dark fiber and lit capacity are different services. When it buys dark fiber, Cavalier can choose the electronics that it uses and make other decisions about how to deploy the capacity. By contrast, those decisions have already been made for lit capacity, and the services that Cavalier can offer may be limited because of that fact. Further, while Verizon and other RBOCs have emphasized the availability of discount plans for special access, the best discount plans require exacting network management that is not required with dark fiber, and the types

of special access circuits that are available do not allow for business growth as flexibly as dark fiber does.

40. Fifth, lit service is a problematic alternative because it is susceptible to more variation in quality than dark fiber. Upon testing, dark fiber either meets certain transmission criteria or does not meet them. By contrast, lit capacity is subject to certain performance parameters, but such parameters, especially if they involve state or federal performance "metrics," are more complex than the virtually binary standard applied to dark fiber. Similarly, when lit circuits go "down," they require the other carrier's assistance to restore service. Continued service over dark fiber, by contrast, is within Cavalier's control, except for very limited situations like cable cuts, to which lit circuits are equally susceptible.

I declare under penalty of perjury that the statements above are true and correct to the best of my knowledge.

Dated: October 4, 2004.

Brad A. Evans