

BEFORE THE RHODE ISLAND PUBLIC UTILITIES COMMISSION

)	
Verizon Rhode Island)	Docket No.: 3445
Alternative Regulation Plan)	
)	

DIRECT TESTIMONY OF

DR. AUGUST H. ANKUM

On behalf of

CONVERSENT COMMUNICATIONS OF RHODE ISLAND, LLC

September 20, 2002



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1 2	INT	RODUCTION
3	Q.	PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS
4		ADDRESS.
5	A.	My name is Dr. August H. Ankum. I am a Senior Vice President at QSI
6		Consulting, Inc., a consulting firm specializing in economics and
7		telecommunications issues. My business address is 1261 North Paulina, Suite #8,
8		Chicago, IL 60622.
9		
10	Q.	PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
11		WORK EXPERIENCE.
12	A.	I received a Ph.D. in Economics from the University of Texas at Austin in 1992,
13		an M.A. in Economics from the University of Texas at Austin in 1987, and a B.A.
14		in Economics from Quincy College, Illinois, in 1982.
15		
16		My professional background covers work experiences in private industry and at
17		state regulatory agencies. As a consultant, I have worked with large companies,
18		such as AT&T, AT&T Wireless and MCI WorldCom ("MCIW"), as well as with
19		smaller carriers, including a variety of competitive local exchange carriers
20		("CLECs") and wireless carriers. I have worked on many of the arbitration
21		proceedings between new entrants and incumbent local exchange carriers
22		("ILECs"). Specifically, I have been involved in arbitrations between new



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entrants and NYNEX, Bell Atlantic, US West, BellSouth, Ameritech, SBC, GTE and Puerto Rico Telephone. Prior to practicing as a telecommunications consultant, I worked for MCI Telecommunications Corporation ("MCI") as a senior economist. At MCI, I provided expert witness testimony and conducted economic analyses for internal purposes. Before I joined MCI in early 1995, I worked for Teleport Communications Group, Inc. ("TCG"), as a Manager in the Regulatory and External Affairs Division. In this capacity, I testified on behalf of TCG in proceedings concerning local exchange competition issues, such as Ameritech's Customer First proceeding in Illinois. From 1986 until early 1994, I was employed as an economist by the Public Utility Commission of Texas ("PUCT") where I worked on a variety of electric power and telecommunications issues. During my last year at the PUCT I held the position of chief economist. Prior to joining the PUCT, I taught undergraduate courses in economics as an Assistant Instructor at the University of Texas from 1984 to 1986. A list of proceedings in which I have filed testimony is attached hereto as Exhibit



1 2 **PURPOSE** A. 3 4 5 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY? 6 A. My testimony will address Verizon's request for pricing flexibility, its Alternative 7 Regulation Plan and the testimony of some of the witnesses filed in this proceeding. I 8 will discuss the shortcomings of VZ's proposal and suggest modifications necessary to 9 ensure that the plan is in the public interest. 10 11 B. SUMMARY AND RECOMMENDATIONS 12 13 14 PLEASE SUMMARIZE YOUR TESTIMONY. Q. 15 A. All of Verizon's testimony focuses on (a) the need for Verizon to obtain pricing 16 flexibility and (b) the claim that Verizon's customers in Rhode Island will be 17 protected against undue price increases by the presence of competition. I will take 18 issue with both assertions. 19 20 First, I will address Verizon's claim that it requires pricing flexibility in the face of 21 growing competition. I will argue that while it is true that in competitive markets 22 companies price flexibly to respond to competition, no company will need flexibility 23 to systematically price its products below costs. 24



Second, I will argue that Verizon's request for pricing flexibility is tantamount to a request to receive full control over the profitability of its dependent competitors. As such, Verizon's request -- while couched in innocuous terms -- is *equivalent* from a policy perspective and economic perspective to a request for pricing flexibility for UNE prices.

In simple terms, most CLECs live or die by the margins between the wholesale rates for unbundled network elements ("UNEs") and retail rates. The larger the margin between the wholesale rates CLECs pay to Verizon and the retail rates they can charge in the market place, the larger will be their profits -- if any - or the smaller will be their losses. If that margin shrinks, so will the CLECs' ability to operate in Rhode Island. Thus, if Verizon is granted the nearly unrestricted downward retail flexibility it is asking for, Verizon will be able -- at will -- to increase or decrease the margin available to its dependent competitors. As such, Verizon is largely in control of the strength and viability of its competitors, which -- coming full circle -- are the very companies that Verizon claims will protect customers from Verizon. Whatever may be the merit of Verizon's arguments and testimony, the construct underlying the proposed Alternative Regulation Plan is deeply flawed: *to be sure, if granted as proposed, it will "place the fox in charge of the hen house."*

¹ A possible exception may be CLECs that are affiliated with a cable company, such as Cox Communications. Such a CLEC may be able to obtain access to the outside plant of its cable affiliate and therefore not be dependent on the ILEC to the same degree as CLECs that are not affiliated with a cable franchise.



Last, in order to place Verizon's request for pricing flexibility in the larger context
of the state of the competitive telecommunications industry, I present the results of a
financial analysis of the major CLECs, including the larger IXCs. This analysis
shows that the CLEC industry is in no shape to withstand possible efforts of Verizon
at anti-competitive pricing practices -- which Verizon will be able to *fruitfully*

A.

Q. WHAT ARE YOUR RECOMMENDATIONS?

engage in under its Alternative Regulation Plan.

Given the dependent nature of the CLEC industry, I believe that it is premature to grant Verizon the nearly unrestricted pricing flexibility it is asking for under its Alternative Regulation Plan. Most dangerous is the unrestricted pricing flexibility that would allow Verizon to selectively approach customers in wire centers and geographic areas served by CLECs -- and regain its lost customers by offering them excessively² attractive packages that CLECs cannot match. Such a policy would under the current market conditions be rational for Verizon but harmful to the public interest.

In view of these concerns, I make the following recommendations to provide some measure of protection for dependent CLECs:

² As will be discussed, companies such as VZ have an incentive in competitive situations to set prices as low as their short run marginal costs, which in many instances will be lower than TELRIC based prices.



1 2		VZ should not be allowed to price-discriminate among similarly situated retail customers. Any pricing proposal that VZ offers to one set of retail
3		customers, it should be required to offer to similarly situated customers.
4		This prevents VZ from selectively targeting just CLEC customers with
5		excessively inexpensive product offerings that CLECs cannot match.
6		
7		VZ should not be allowed to lower any retail price for which it is seeking
8		pricing flexibility below a price floor set no lower than the imputed cost of
9		providing the service. (An appropriate imputation test is discussed below.)
10		This provision would limit VZ's ability to place dependent CLECs in an
11		anti-competitive price squeeze.
12		To promote facilities based competition, the Commission should order V7 to
13 14		To promote facilities based competition, the Commission should order VZ to
15		cap its hot-cut non-recurring charge (the "hot-cut NRC") at a rate of no more than \$35the rate at which VZ is offering hot-cuts in New York. ³
16		than \$33the rate at which VZ is offering not-cuts in New Tork.
17		VZ should commit to continue to offer the set of UNEs it is currently
18		offering.
19		onemig.
20		VZ should commit itself to introduce upon the request of CLECs in
21		Rhode Island the outcome of the NYPSC Task Force regarding the
22		promotion of competition in NY.
23		promotion of competition in 141.
24	Furthe	er, I recommend that the imputed costs used to establish a price floor below
25	which	VZ would not be allowed to set retail rates includes, at a minimum, the
26	follow	ving two cost components:
27		(1) Imputed costs of all the UNEs used to provide the service.
28		This should be calculated by multiplying the quantity of the UNEs
29		used to provide the service times the UNE TELRIC prices. Also
30		included should be some recognition of the non-recurring charges to
31		order UNEs.
32		
33		(2) A measure of minimum retail related costs.
34		An appropriate proxy for these retail costs could be established by
35		using the Commission approved percentage for resale discounts. The
36		Commission should recall that the resale discount is calculated based

³ In docket 2681, VZ is proposing in its standard filing to increase the hot cut NRC in Rhode Island from the existing tariffed rate of about \$42 to \$156.58 for the first loop and \$90.72 for additional loops.



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1 on VZ's retail related expenses. 2 3 4 Further, the Commission should recognize that VZ's request for pricing flexibility is 5 premature in the sense that it is precedes the Commission's TELRIC proceeding --6 the outcome of which determines how viable competition will be in the future. 7 Optimally, VZ's Alternative Regulation Plan would not be considered until the 8 TELRIC docket has been completed. If, however, the Commission decides to 9 proceed with this docket before the TELRIC docket has been completed, VZ should 10 be required to commit itself to a number of additional provisions. They are the 11 following: 12 VZ should commit itself to a good faith effort to establish UNE prices that 13 permit efficient local competition. At a minimum, there should be a 14 rebuttable presumption that updated UNE prices be lower rather than higher 15 than current UNE prices. 16 17 The terms and conditions under which unbundled network elements and 18 interconnection services are available in New York are presumptively just 19 and reasonable in Rhode Island if conditions are reasonably comparable. 20 This means that in those situations VZ should commit itself to charge rates 21 no higher than those charged in New York. (For example, if certain non-22 recurring charges are based on activities that involve the same OSS facilities 23 as used for CLECs in New York, then rates no higher than those charged by 24 VZ in New York should apply in Rhode Island.) In the TELRIC proceeding, 25 when CLECs recommend adoption of certain rates that prevail in New York 26 (Gus, is that what we are going to do in the TELRIC proceeding), VZ should 27 have the burden of proof to show that situations in Rhode Island are not comparable to those in New York and demonstrate with specificity why 28 29 costs and rates should be higher in Rhode Island.



1 2 3 4	II.	VZ'S PROPOSAL PROVIDES NO PROTECTION FOR THE DEVELOPING COMPETITIVE LOCAL EXCHANGE MARKET
5 6 7		A. THE STANDARD FOR PRICING FLEXIBILITY SHOULD BE STRICTER THAN FOR 271 APPROVAL
8 9	Q.	IN DETERMINING WHETHER MARKETS ARE SUFFICIENTLY
10		COMPETITIVE TO GRANT VERIZON PRICING FLEXIBILITY SHOULD
11		THE COMMISSION USE THE SAME STANDARD AS 271 FILLING?
12	A.	No. The issues before the Commission in the current proceeding are different than
13		those in a 271 filling.
14		
15		In a 271 filling, the focus of the Commission should be on the question of whether
16		Verizon has met the requirements of the Telecommunications Act of 1996 and
17		irreversibly opened its local exchange markets in Rhode Island to competition. The
18		Commission and the FCC found this was indeed the case. By contrast, in the current
19		proceeding, the focus is, among others, on the question of whether the level of
20		competition is sufficient to curtail Verizon's market power as a dominant provider of
21		local telecommunications services in Rhode Island. As will be discussed shortly,
22		there should be a significantly higher threshold to answer this question affirmatively.
23		



1 2 3		B. VZ'S ABILITY TO APPLY A PRICE-SQUEEZE COULD SERIOUSLY IMPAIR THE DEVELOPMENT OF LOCAL COMPETITION
4		
5	Q.	IN GENERAL, GIVEN VERIZON'S POSITION AS THE DOMINANT
6		PROVIDER, WHICH ARE THE TWO FORMS OF PRICING STRATEGIES
7		THE COMMISSION SHOULD BE CONCERNED ABOUT?
8	A.	In general, given Verizon's dominant position, there are two forms of pricing
9		strategies that should concern the Commission in granting Verizon pricing
10		flexibility. Unless appropriate rules are in place, Verizon could do either one or both
11		of the following:
12 13		(1) <i>Increase</i> its retail rates and earn supra normal profits at the expense of ratepayers; and/or,
14 15 16 17		(2) Lower its retail rates below a relevant price floor in select circumstances to defeat competitors. ⁴
18		It is important to note that these two pricing strategies are not mutually exclusive.
19		To the contrary, the two strategies are most effective for Verizon if they are executed
20		simultaneously. In that manner, Verizon would be able to fend off competitors by
21		selectively lowering rates for certain services in certain regions where it faces some
22		competition and/or it knows that CLECs have facilities, while remaining optimally
23		profitable by raising rates for customers not subject to competition.
24		



1	Q.	HAVE YOU READ VERIZON'S PROPOSALS FOR PRICING
2		FLEXIBILITY?
3	A.	Yes. I have read the testimonies and reviewed the Verizon Rhode Island Alternative
4		Regulation Plan. Verizon is asking the Commission for a broad grant of pricing
5		flexibility. The plan provides for important price caps and other restrictions on some
6		residential services. For business services, however, Verizon requests nearly
7		unregulated pricing flexibility; or as the Verizon puts it: "Pricing for these services
8		will be at the discretion of the Company." ⁵
9		
10	Q.	IS THE CURRENT LEVEL OF COMPETITION SUFFICIENT TO
11		CURTAIL VERIZON'S MARKET POWER?
12	A.	No. While clearly, competition in Rhode Island is developing, it is important to note
13		that Verizon itself recognizes that, in general, the level and scope of competition is
14		still insufficient to curtail Verizon's market power. Most notably, Verizon itself
15		proposes price caps and other restrictions on its ability to change the rates for certain
16		residential services; presumably, because market forces are not strong enough to
17		keep the company from raising such rates to increase profits.
18		
19	Q.	IS MUCH OF THE COMPETITION THAT VZ POINTS TO IN ITS
20		TESTIMONY IN FACT COMPETITION THAT IS DEPENDENT ON VZ?

⁴ Once VZ has defeated its competitors through anticompetitive pricing, it will be able to raise its retail rates to the detriment of ratepayers.



1	A.	Yes. VZ witness A. Silvia discusses the competitive landscape in Rhode Island and
2		in doing so underscores the critical dependence of CLECs on VZ's facilities. He
3		notes:
4 5 6 7 8 9 10		Through February 2002, there were 88 collocation arrangements in effect for 13 CLECs in 17 central offices. CLECs have access, via their collocation arrangements, to 88% of VZ RI's residential access lines and 94% of VZ RI's business access lines, and 89% overall. He then goes on to note the following:
11 12 13 14 15 16		Through May 2001, there were approximately 4,000 loops provided as part of UNE-P combinations that include switching and transport elements. By February 2002, use of UNE-P facilities had grown to nearly 4,800 circuits, an increase of about 20 percent over nine months.
17		There are many more sections in VZ's testimony that discuss CLECs being
18		dependent on VZ facilities and services.
19		
20	Q.	DOES VZ'S TESTIMONY IN FACT SHOW HOW FEEBLE
21		COMPETITION IS?
22	A.	Yes. If UNE prices are set correctly, UNE-P should be the quickest and low cost
23		entry strategy for CLECs. ⁶ Yet, by February 2002, only 4800 customers were
24		served with UNE-P in Rhode Island. Considering that in New York approximately
25		55 percent of the over 3 million customers served by CLECs are now served with

⁵ Verizon's Rhode Island Alternative Regulation Plan, paragraph D.



UNE-P,⁷ it is clear that in Rhode Island UNE-P is not yet an economically viable strategy that the Commission can rely on to keep VZ in check. Judged by the VZ filing in the TELRIC proceeding, VZ is making no efforts to relieve this problem -- to the contrary, unless the Commission makes significant adjustments to VZ's proposed UNE prices, facilities-based competition too will experience an important setback.⁸

Q. SHOULD VZ'S MARKET ANALYSIS -- WHICH RELIES HEAVILY ON

911 DATA -- BE TREATED WITH SKEPTICISM?

A. Yes. VZ's analysis relies heavily on 911 data. The company uses the 911 data to establish a total number of customers served by CLECs and then subtracts certain known quantities (such as customers served through resale and UNE-P) to arrive on an "estimated" number for how customers are served by CLECs that use "their own facilities." This method is troublesome.

The 911 data are proprietary and cannot be validated by intervenors. Further, it is my understanding that in Massachusetts the use of the 911 data encountered significant opposition from intervenors for precisely that reason. Further, it is not

⁶ Nevertheless, CLECs will follow different entry strategies based on their relative resources, strengths and expertise. For example, UNE-P for residential customers may be more attractive to carriers with significant name recognition.

⁷ NYPSC Case 00-C-1945, Staff Panel Testimony, p. 15.

⁸ For example, in docket 2681, VZ is proposing in its standard filing to increase the hot cut NRC in Rhode Island from the existing tariffed rate of about \$42 to \$156.58 for the first loop and \$90.72 for additional loops.



1 clear that the data list in the 911 database necessarily represent customers that are 2 served by CLECs over their own facilities. In any event, the Commission should 3 take great care not to rely on data that cannot be validated by intervenors and to 4 which only VZ has access. 5 Q. THE CURRENT LEVEL OF COMPETITION SUFFICIENT TO 6 7 CURTAIL VERIZON'S ABILITY TO ENGAGE IN ANTICOMPETITIVE 8 PRICING STRATEGIES? 9 A. Definitely not. Again, under anticompetitive pricing, Verizon would selectively 10 lower certain rates for retail services, such as business services, below a relevant 11 price floor in order to defeat competitors. Under the proposed Rhode Island 12 Alternative Regulation Plan, Verizon can engage in this type of pricing for business 13 services on a per customer and per location basis. It is precisely this request for 14 unrestricted pricing flexibility that will allow Verizon to control the strength and 15 viability of its competitors and thus the strength of the competitive market forces it 16 points to as protection for ratepayers in Rhode Island. 17 18 Q. IS ANTICOMPETITIVE PRICING MOST HARMFUL TO COMPETITORS 19 THAT ARE DEPENDENT ON VERIZON'S UNBUNDLED NETWORK 20 **ELEMENTS?** 21 While all competitors could potentially be harmed if Verizon engaged in A. Yes.



1 anticompetitive pricing strategies, most vulnerable are carriers such as Conversent 2 (and Choice One) that use Verizon's unbundled network elements. 3 4 Carriers that use Verizon's unbundled network elements have only a limited ability 5 to lower their prices in response to Verizon. Specifically, if Verizon lowers it prices 6 to select customers below the imputed costs of serving those customers with 7 unbundled network elements, then the dependent competitor can no longer compete profitably: given its own costs for retailing and overhead, the competitor would pay 8 9 more for the unbundled network elements than it could recoup from the customer. 10 11 PLEASE EXPLAIN IN MORE DETAIL WHY THE CURRENT LEVEL OF Q. 12 COMPETITION MAY TO SOME EXTENT CURTAIL VERIZON'S ABILITY TO RAISE RATES BUT NOT VERIZON'S ABILITY TO 13 14 **ENGAGE IN ANTICOMPETITIVE PRICING?** 15 A. As demonstrated by the testimony of Verizon itself, much of the competition in 16 Rhode Island remains critically dependent on Verizon's network and operations. Except for resale,9 this type of competition may be effective to some extent in 17 18 curtailing Verizon's ability to raise prices in certain locations. If Verizon raises rates 19 for certain customers, then competitors that are suitably located may offer those 20 customers service - by means of unbundled network elements or over their own

⁹ As discussed presently, resellers do not pose serious competition since their ability to under-price Verizon is restricted to Verizon's resale discount.



1 facilities -- at lower prices. 2 3 These same market dynamics are useless in curtailing Verizon's ability to engage in 4 anticompetitive pricing practices. To be sure, competitors that use Verizon's 5 unbundled network elements are unable to apply the type of competitive pressures 6 needed to prevent Verizon from selectively lowering prices below certain price 7 floors. 8 9 Q. IS THE ANTI-COMPETITIVE PRICING STRATEGY YOU ARE 10 REFERRING TO TYPICALLY CALLED "PRICE-SQUEEZE"? 11 A. Yes. 12 PLEASE DEFINE AND DISCUSS THE CONCEPT OF A PRICE 13 Q. **SQUEEZE?** 14 15 A. A price squeeze concerns a situation in which a vertically integrated firm (such as 16 VZ) competes against companies (such as CLECs) in retail markets while 17 controlling prices in wholesale markets for critical inputs that its competitors are 18 dependent upon. In this situation, the vertically integrated firm can use the price 19 squeeze as an anticompetitive device by raising the prices for the monopoly inputs (i.e., the port, loop, local switching and shared transport 10) thus squeezing the 20 21 dependent competitors' margins between retail rates and wholesale rates reducing



1		their ability to recover their costs. This strategy is called a price squeeze and can
2		more formally be defined as follows:
3 4 5 6 7 8 9		Considering a situation in which a monopoly supplier is integrated downstream, a price squeeze [is] the situation in which "the monopoly input supplier charges a price for the input to its downstream competitors that is so high they cannot profitably sell the downstream product in competition with the integrated firm [Emphasis added.]
10		The FCC discusses the price-squeeze strategy and notes that it occurs when a
11		dominant firm with downstream competitors that rely on facilities and services from
12		the dominant firm is "charging prices for inputs that preclude[] competition from
13		firms relying on those inputs. 12,7
14		
15	Q.	WHAT LEVEL OF COMPETITION IS REQUIRED BEFORE VERIZON
16		WILL NO LONGER BE ABLE TO ENGAGE IN ANTICOMPETITIVE
17		PRICING?
18	A.	As long as Verizon is a dominant firm, it will always be in a position to increase
19		rates for some customers and to lower rates for other customers in order to defeat
20		competitors without endangering its own profitability. Competition is present
21		only for select customers in select regions of the state. Indeed, not even Verizon
22		is arguing at this point that the company is no longer dominant in local exchange

The rates for these UNEs are currently under investigation by the Commission in Docket No. 2681.

11 Jean Tirole, "The Theory of Industrial Organization," The MIT Press, Cambridge, Massachusetts, 1988, page 186. Tirole quotes from Joskow, P. 1985. Mixing Regulatory and Antitrust Policies in the Electric



1		markets in Rhode Island. In view of this, it is simply premature to grant the
2		company the broad pricing flexibility it seeks.
3		
4	Q.	WHAT IS THE MOST INSIDIOUS ASPECT OF VZ'S PRICING
5		FLEXIBILITY REQUEST?
6	A.	Most insidious in perhaps Verizon requests for nearly unregulated pricing
7		flexibility for business services: as VZ puts it: "Pricing for these services will be
8		at the discretion of the Company."13
9		
10	Q.	WHY IS THIS TYPE OF UNRESTRICTED PRICING FLEXIBILITY SO
11		INSIDIOUS?
12	A.	This type of pricing flexibility will allow VZ to selectively target the customers it
13		lost to CLECs. VZ, of course, knows the identity and location of the customers
14		that it loses to CLECs. Moreover, the Commission should recognize that to the
15		extent that CLECs serve their customers by collocating in VZ central offices and
16		leasing UNE loops from VZ, VZ knows the general location and nature (small
17		business, large business or residential) of the CLEC customers. While there are
18		restrictions on VZ's ability to use information obtained as part of providing UNEs
19		to CLECs for competitive purposes, simple visual observation of a floor with

Power Industry: The Price Squeeze and Retail Market Competition. In "Antitrust and Regulation: Essays in Memory of John J. McGowan," ed. F. Fisher. City: Publisher.

12 Sprint v. FCC 274 F.3d 549, 551 (2001).

13 Verizon's Rhode Island Alternative Regulation Plan, paragraph D.



collocation spaces will speak volumes to experienced telecommunications experts. Also, VZ's personnel, that has worked for the company sometimes for decades, will have impressive accumulated institutional knowledge about VZ's service area. They know what customers reside in what buildings and which other carriers operate in those buildings. That is, there is simply no way to insulate valuable competitive information in a large organization that is motivated by a common interest and purpose. In any event, VZ will be able to compose, one way or another, the necessary information to approach select CLEC customers and put together just for these customers service packages that are more attractive than those offered by the CLEC. Indeed, VZ will be able to offer service packages at prices that CLECs simply cannot match.

A.

Q. PLEASE EXPLAIN WHY CLECS WILL NOT BE ABLE TO MATCH VZ IF IT OFFERS AGGRESSIVELY PRICED SERVICE PACKAGES TO SELECT CLEC CUSTOMERS.

Given the scope of VZ's rate-base and network, the company will be able to engage in short-run marginal cost pricing for these select customers and still remain profitable as a company overall. By contrast, most CLECs are already in a precarious financial position and will be unable to match VZ in such pricing practices.



This is particularly true if VZ does a full-scale assault on a CLEC's customers in a particular location, such as customers served from a central office in which a CLEC is collocated. Where it concerns a full-scale assault, the CLEC will simply not be able to (a) match VZ's short term marginal cost pricing and (b) recover its overhead and other non-incremental costs. Thus, while VZ may have to offer low prices (which may not recover overhead costs) to certain customers, these customers will represent only a small percentage of VZ's total customers. By contrast, these customers will represent a large and significant percentage of the CLEC's customer base. This fundamental asymmetry allows VZ to engage in aggressive types of marginal cost pricing that may not recover overhead costs but prohibits CLECs from following suit and retaining their customers.

Further, given the large sunk costs at stake, CLECs will be seriously hurt if they have to retreat from a wire-center where they have invested large sums of money to build out collocation cages. Moreover, if VZ is successful in forcing CLECs to retreat in certain wire-centers and relinquish their collocation spaces, CLECs will think twice before they commit to new investments in Rhode Island. That is, the further development of local competition will be seriously impaired. Clearly, the Commission should not grant VZ's request for unrestricted pricing flexibility.

Q. IN GENERAL, DO COMPANIES SUCH AS VZ HAVE AN INCENTIVE IN COMPETITIVE SITUATIONS TO REDUCE PRICES AS LOW AS



2 BE LOWER THAN TELRIC-BASED RATES? 3 A. Yes. The Commission should recognize that, in competitive situations, VZ will 4 have an incentive to reduce prices as low as short run marginal costs if such price 5 reductions are necessary to win back customers. This strategy of lowering prices 6 for select customers is entirely rational to pursue for the company and consistent 7 with profit maximizing behavior. 8 9 The Commission should also recognize, however, that short run marginal costs 10 are often considerably below TELRIC based prices. For example, if VZ's loop 11 facilities on a particular route have been constructed 30 to 40 years ago and are 12 fully depreciated, then the short run marginal costs of using these facilities is near 13 zero. Thus in a competitive situation, VZ will be able to reduce its prices to a 14 level significantly below the TELRIC of the loop facilities, which assumes that 15 facilities are *newly* constructed. It is clear, therefore, that in many instances VZ

SHORT RUN MARGINAL COST, WHICH IN MANY INSTANCES WILL

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Q. BUT, ISN'T COMPETITION SUPPOSED TO DRIVE DOWN PRICES?

the most competitive offerings of the CLECs.

Yes, competition is supposed to bring lower prices and/or higher quality of service to ratepayers in Rhode Island. However, the strategy that I just describe will not bring lower prices to most of the ratepayers in Rhode Island. Rather,

will be able to offer customers packages that are prices significantly below even



1 price reductions will benefit only select customers: the ones that VZ has decided 2 it wants to win back from CLECs. 3 4 Further, it is important for the Commission to recognize that any possible price 5 reductions for select customers will only confer short-term benefits. VZ will 6 reduce prices is not just to win back certain customers but to generally curtail and undermine competition. Thus, as over time VZ's anti-competitive¹⁴ pricing 7 8 practices would certainly ease competitive pressures, VZ is free to raise rates, 9 erasing whatever short-term benefits select customers might have experienced. 10 These dynamics can hardly be argued to be in the public interest: as a public 11 policy, it would "penny wise, pound foolish." 12 13 14 C. VZ'S PROPOSALS HAVE BEEN MODIFIED IN OTHER JURISDICTIONS TO PROTECT COMPETITION 15 16 17 Q. ARE YOU FAMILIAR WITH VZ'S ALTERNATIVE REGULATION 18 PROPOSAL AND TESTIMONY FILED IN OTHER JURISDICTIONS, 19 **SUCH AS NEW YORK?** 20 Yes. I am generally familiar with VZ's Alternative Regulation filing in New A. 21 York. Before reaching a settlement with the Staff and other parties in New York,



1 VZ's proposal in that jurisdiction was very much the same as the proposal the 2 company is presenting here in Rhode Island. The Alternative Regulation 3 ultimately approved in New York, however, was modified significantly. 4 5 Q. **WHAT PROMPTED** THE **NEW** YORK **COMMISSION** AND 6 INTERVENORS TO SIGNIFICANTLY MODIFY VZ'S PROPOSAL IN 7 **NEW YORK?** 8 The New York Commission recognized if it is going to rely on competition to A. 9 protect the ratepayers of New York, then it has to ensure that competition itself is 10 vibrant and protected. In view of this, the Staff recommended and the 11 Commission adopted certain provisions that would further strengthen and protect 12 competitive developments in New York. 13 14 WHAT PROVISIONS DID THE NEW YORK COMMISSION ADOPT TO Q. 15 STRENGTHEN AND PROTECT? 16 A. The New York Commission Staff recommended and the Commission adopted a 17 large number of provisions to guarantee the further development of competition in 18 New York. They are worth discussing in some detail. 19

¹⁴ As discussed previously, for VZ to reduce prices below comparable TELRIC based prices is tantamount to an anti-competitive price squeeze.



1 First, the Staff recommended restrictions on downward pricing flexibility to limit 2 VZ's ability to engage in anti-competitive pricing strategies. For example, on 3 page 54 of the Staff Panel Testimony, Staff discusses that VZ's downward pricing 4 flexibility should be restricted by a price floor (equal to the company's 5 incremental costs) and an imputation test: 6 7 The company will have the option to increase, decrease, or 8 maintain current rate levels during the term of the plan as 9 long as rates at least cover their relevant incremental costs 10 and comply with several other conditions. Downward 11 pricing flexibility is limited only to a rate equal to the 12 company's incremental cost and usage-based offerings 13 must pass an imputation standard. Overall revenue increases associated with pricing flexibility are capped at 14 3% on an annualized basis each Plan year.¹⁵ 15 16 17 Again, the restriction to set prices below a relevant price floor limits VZ's ability 18 to engage in anti-competitive pricing strategies at the expense of competition. 19 20 The New York Staff went on to describe a number of other provisions that would strengthen and protect competition in New York:¹⁶ 21 22 In the Joint Proposal Verizon agrees to 23 participate in a series of industry task forces 24 to deal with issues identified by CLECs as 25 roadblocks to more permanent and vibrant 26 competition. The task forces will be charged 27 with identifying major issues and seeking 28 solutions for the following issue areas:

¹⁵ NYPSC Case 00-C-1945, Staff Panel Testimony, p. 53.

¹⁶ Id., pp. 23 - 24.



1	1. Eliminating bottlenecks to migrating
2 3	customers from UNE-P to competing carriers'
	facilities.
4	2. Establishing procedures to facilitate
5	provisioning of service when a UNE order is
6	rejected by Verizon due to lack of
7	facilities.
8	3. Establishing procedures and/or products that
9	enhance competitors' ability to provide
10	service in locations otherwise barred to
11	them.
12 13	4. Establishing reasonable and reciprocal
13	billing and collection terms and procedures
14	between Verizon and its competitors.
15	
16	The Staff then went on to discuss a number of other important provisions to
17	protect competitors: ¹⁷
18	In addition to the task force issues and the stability on UNE prices, the
19	Joint Proposal provides the following competitive enhancements:
20	1. A non-recurring charge of \$35.00 for UNE hot
20 21 22 23 24 25 26 27 28	cuts as opposed to the approximate \$185.00
22	charge contained in the Commission's UNE
23	decision.
24	2. Availability of UNE-P to competitors to
25	serve small business customers
26	notwithstanding the restrictions permitted
27	by the Pre-Filing Statement and FCC rules.
28	3. Elimination of potential charges to
29	competitors associated with exogenous cost
30	claims by Verizon.
31	·
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33	Last, in an effort to create more stable and secure conditions for CLECs, Staff
34	noted that VZ had agreed to not challenge certain important NYPSC decisions:18
35	
_	

¹⁷ Id., p.24. ¹⁸ Id., p.24.



1 It is also worth noting that the Joint Proposal 2 provides CLECs added stability in that the key 3 UNE prices are as specified in the Plan and 4 Verizon has agreed not to challenge the 5 Commission's UNE rate decision. This should enhance CLECs' ability to plan. 6

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It is clear from this discussion that the NYPSC has serious concerns about VZ's request for unfettered pricing flexibility and that it put in place a number of important provisions to protect and strengthen competition. It is also important to note that VZ was willing to agree to these provisions.

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IS THE REQUIREMENT THAT VZ OFFERS HOT CUTS AT \$35 AN Q.

IMPORTANT COMPONENT OF THE OVERALL PLAN?

A. While the telecommunications Act of 1996 provides for a number of market-entry strategies (facilities based, UNEs and resale), the long-term survivability of local competition requires that facilities based competition is possible and viable. To this purpose, it is essential that facilities based CLECs are able to migrate VZ customers onto their own switch facilities at terms and conditions that are efficient and economical. In New York, the Commission had raised a serious barrier-to-entry by setting a rate of \$185 for Hot Cuts. This barrier-to-entry was effectively reduced by lowering the rate to \$35, as suggested by Staff. In the words of the NYPSC Staff: 19

¹⁹ Id., p. 10.



The Commission had, in its UNE decision, increased this charge from about \$24 to more than \$185. This increase would have created a serious barrier to those CLECs trying to migrate their customer bases away from Verizon's switches. By reducing the charge in the Plan from the \$185 level to \$35, we successfully removed this barrier.



1 2 3 4	III.	THE RHODE ISLAND PUC SHOULD ADOPT PROVISIONS TO PROTECT COMPETITION
5 6		A. COMPETITION IN RHODE ISLAND REQUIRES AS MUCH PROTECTION AS IT DOES IN NEW YORK
7 8	Q.	SHOULD THE COMMISSION MODIFY VZ'S PROPOSAL AND PUT IN
9		PLACE PROVISIONS TO PROTECT AND STRENGTHEN
10		COMPETITION IN RHODE ISLAND?
11	A.	Yes. It is clear from VZ's testimony that its Alternative Regulation Plan will only
12		generate positive results for society at large if and only if there is competition in
13		Rhode Island strong enough to discipline all market participants, including and
14		most importantly VZ. It is also clear that as proposed VZ's Alternative
15		Regulation Plan leaves competitors dangerously exposed to the whims of and
16		possible anti-competitive pricing by VZ, thus undermining the very premise that
17		motivates and justifies any alternative regulation proposal. As discussed, the
18		NYPSC recognized this flaw in VZ's proposals and so should this Commission.
19		
20	Q.	IF COMPETITION IN NEW YORK REQUIRES PROTECTION FROM
21		VZ WOULD COMPETITION IN RHODE ISLAND REQUIRE AT LEAST
22		AS MUCH PROTECTION?
23	A.	Yes. By virtue of its size, population density and high concentration of business
24		customers, New York is possibly the most attractive, important and vibrant



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telecommunications market in the country. Yet, even in New York, competition remains critically dependent on VZ and if left unprotected could be harmed and even fatally impaired. (After all, virtually all competitors -- no matter how large -- require interconnection with and use of VZ's facilities.) The Commission should recognize that if competitors continue to require regulatory protection from VZ in New York -- where now millions of customers are served by CLECs -- then they certainly require an equal degree of protection in Rhode Island. B. RECOMMENDED MODIFICATIONS TO VZ'S ALTERNATIVE **REGULATION PLAN** DO YOU RECOMMEND THAT VZ PROPOSAL BE MODIFIED TO PROTECT AND STRENGTHEN COMPETITION? Yes. In view of the above discussion, I recommend a number of provisions that will protect and strengthen competition in Rhode Island. As the Commission may note, my recommendations follow in large part the provisions agreed to by VZ in New York. The reasons for this are twofold. First, I generally agree with the approach taken by the parties in New York and believe that the modifications made to VZ's proposals were appropriate.



1		Further, VZ is a party to the Joint Proposal in New York, and as such, agrees with
2		the provisions in the Joint Proposal that protect competition in New York.
3		Presumably, if VZ agreed to these provisions in New York, it ought to agree to
4		them here in Rhode Island as well.
5		
6	Q.	PLEASE STATE YOUR SPECIFIC RECOMMENDATIONS.
7	A.	The modifications I recommend are the following:
8 9 10 11 12		VZ should not be allowed to price-discriminate among similarly situated retail customers. Any pricing proposal that VZ offers to one set of retail customers, it should be required to offer to similarly situated customers. This prevents VZ from selectively targeting just CLEC customers with excessively inexpensive product offerings that CLECs cannot match.
13 14 15 16 17 18		VZ should not be allowed to lower any retail price for which it is seeking pricing flexibility below a price floor set no lower than the imputed cost of providing the service. (An appropriate imputation test is discussed below.) This provision would limit VZ's ability to place dependent CLECs in an anti-competitive price squeeze.
19 20 21 22		To promote facilities based competition, the Commission should order VZ to offer a hot-cut NRC at a rate of no more than \$35 the rate at which VZ is offering hot-cuts in New York.
23 24 25 26		VZ should commit to continue to offer the set of UNEs it is currently offering.
27 28 29 30		VZ should commit itself to introduce upon the request of CLECs in Rhode Island the outcome of the NYPSC Task Force regarding the promotion of competition in NY.
31 32		Further, the Commission should recognize that VZ's request for pricing flexibility is
33		premature in the sense that it is predicated on the further development of competition
34		even though the Commission's TELRIC proceeding the outcome of which



1		determines how viable competition will be in the future has not yet been
2		completed. That is, VZ's petition here is "placing the card before the horse." In
3		view of this, VZ should be required to commit itself to a number of provisions.
4		They are the following:
5 6 7 8 9		VZ should commit itself to a good faith effort to establish UNE prices that permit efficient local competition. At a minimum, there should be a rebuttal presumption that updated UNE prices be lower rather than higher than current UNE prices.
10 11 12 13 14 15 16 17 18 19 20 21 22 23		The terms and conditions under which unbundled network elements and interconnection services are available in New York are presumptively just and reasonable in Rhode Island <i>if conditions are reasonably comparable</i> . This means that <i>in those situations</i> VZ should commit itself to charge rates no higher than those charged in New York. (For example, if certain non-recurring charges are based on activities that involve the same OSS facilities as used for CLECs in New York, then rates no higher than those charged by VZ in New York should apply.) In the TELRIC proceeding, when CLECs recommend adoption of certain rates that prevail in New York, VZ should have the burden of proof to show that situations in Rhode Island are not comparable to those in New York and demonstrate why costs and rates should be higher in Rhode Island.
24	Q.	PLEASE DISCUSS YOUR RECOMMENDATION FOR HOW AN
25		IMPUTATION TEST SHOULD BE PERFORMED.
26	A.	I recommend that the imputed costs used to establish a price floor below which VZ
27		would not be allowed to set retail rates includes at a minimum the following two cost
28		components:
29 30 31 32 33		(a) Imputed costs of all the UNEs used to provide the service. This should be calculated by multiplying the quantity of the UNEs used to provide the service <i>times</i> the UNE TELRIC prices. Also included should be some recognition of the non-recurring charges to order UNEs.



1	(b) A measure of minimum efficiently incurred retail related costs.
2	An appropriate proxy for these retail costs could be established by using the
3	Commission approved percentage for resale discounts. The Commission
4	should recall that the resale discount is calculated based on VZ's retail
5	related expenses.
6	•



1 2 3 4	IV.	COMPETITIVE MARKET FORCES ARE DETERIORATING AND MAY NOT BE SUFFICIENT TO CURTAIL VERIZON'S MARKET POWER
5	Q.	WOULD VZ HAVE THE COMMISSION BELIEVE THAT LOCAL
6		COMPETITION IS FLOURISHING IN RHODE ISLAND?
7	A.	Yes. The testimonies of VZ witnesses Mr. Silvia, Mr. O'Brien and Dr. Taylor, all
8		repeat the assertion that competition is strong and flourishing in Rhode Island.
9		Testimonies have been filed by VZ witnesses in other jurisdictions (New York and
10		Massachusetts) that similarly assert that CLECs are gaining ground and that
11		competition is strong and vibrant. These assertions, however, are at odds with reports
12		in media and financial papers that describe a very different picture. I believe that
13		VZ's representations are unwarranted and, in fact, dangerous. As my analysis will
14		demonstrate, the CLEC industry is in not nearly as a good a shape as VZ is suggesting.
15		
16	Q.	HAVE YOU PERFORMED A FINANCIAL ANALYSIS THAT MAY
17		ILLUSTRATE THAT THE COMPETITIVE INDUSTRY IS NOT NEARLY
18		AS VIBRANT AS VZ WOULD HAVE THE COMMISSION BELIEVE?
19	A.	Yes. Attached to this testimony is an analysis that calculates the dramatic change in
20		market value of the CLEC industry over the period of December 31, 1999 through
21		August 28, 2002 based on the value of the common shares held by investors. For the
22		IXC and CLEC industries, the total decline in market capitalization over this period is



a staggering 88 percent.²⁰ By contrast, VZ experienced a decline in market capitalization over the same period of *only 44 percent*, a percentage roughly comparable to the decline in the S&P 500 Index.

Q. PLEASE DESCRIBE IN MORE DETAIL HOW YOU CALCULATED THE

CHANGE IN MARKET CAPITALIZATION.

A. As noted, this change in value was determined from December 31, 1999 to August 28, 2002.

QSI created an analysis of 44 companies which comprise the vast majority of publicly traded CLECs and the four RBOCs to demonstrate the disparate financial strength of new entrants versus incumbent carriers. Market capitalization as of December 31, 1999 was used as the baseline value in this analysis for two primary reasons: (1) this point in time was still within the bull market period before the first significant market correction took place in the first quarter of 2000; and (2) the components necessary to calculate market capitalization, common shares outstanding and market price, were both readily available from publicly available sources such as websites that provide current and historical price quotes and Securities Exchange Commission ("SEC") filings.

²⁰ Attachment II lists the companies for which the change in market capitalization has been calculated.



1 The companies included in the analysis were classified into three categories: 2 3 CLECs & Wholesale Suppliers **(1)** 4 This category includes CLECs and wholesale suppliers. Not included are the 5 CLEC divisions of the major IXCs – they are included in the third category described below. (The companies included in this category are identified in 6 7 Attachment 1.) 8 9 *(2)* **RBOCs** 10 This category includes the four RBOCs: Owest, SBC, BellSouth, and Verizon. 11 12 *(3)* Major IXCs – CLECs and Carrier's Carriers 13 This category includes the major IXCs: Williams Communications, Level 3 14 Communications, Global Crossing, Sprint, WorldCom, and AT&T. 15 16 17 The Debt to Equity ratio was also determined for each company over the same 18 time period to measure changes in relative financial strength based on the amount 19 of debt used to fund operations versus stockholder's equity. Large ratios or ratios 20 that increase over time indicate declining financial strength as debt becomes a 21 larger component of the firm's capital structure. This can be attributed to a 22 greater use of debt as equity markets dry up, declining stockholder's equity as a 23 result of accumulated operating deficits, or a combination of both. 24 25 Q. PLEASE DISCUSS THE RESULTS OF YOUR ANALYSIS. 26 A. The analysis demonstrates that the competitive carriers have suffered serious financial 27 setbacks over the last two and one-half years. The decline in market capitalization for 28 VZ relative to CLECs and IXCs is summarized as follows:



TABLE 1

	DECLINE IN	% DECLINE IN						
	MARKET	MARKET						
	CAPITALIZATION	CAPITALIZATION						
CLECs & Wholesale Providers	\$ (157.6) Billion	- 91%						
VZ	\$ (67.2) Billion	- 44%						
Major IXC - CLEC / Carrier's	\$ (396.1) Billion	- 87%						
Carrier								

2 3

A more detailed breakdown of the decline in market capitalization for these three categories of carriers is found in Attachment 1.

Further, of the 40 companies comprising the CLEC and IXC categories (Categories 1 and 3), 18 have filed for bankruptcy protection since December 31, 1999 with seven of these filings occurring in the last six months.²¹ A few of the carriers that initially filed for protection have since closed down their operations and sold off their assets to competitors. The number of CLECs and IXCs that have reported negative stockholders' equity due to accumulated operating deficits increased to 28 as of August 28, 2002 compared to eight as of December 31, 1999.²²

See detailed listing of bankruptcy filing dates on Attachment II.

The 28 carriers with Stockholder's Deficits as of August 28, 2002 include carriers that have filed for bankruptcy since December 31, 1999.



1	Q.	IN VIEW	OF T	HE NATI	IONAL DI	ECLINE IN THE	E CL	EC INDUSTI	RY,
2		SHOULD	THE	RHODE	ISLAND	COMMISSION	BE	CAUTIOUS	IN

GRANTING VZ EXCESSIVE PRICING FLEXIBILITY?

Yes. Contrary to VZ's claims, all is not well in the CLEC industry. This means that the Commission cannot generally rely on the CLEC industry to protect the ratepayers from VZ's efforts to raise prices. Further, the Commission should recognize that carriers operating in Rhode Island are not insulated from the financial difficulties of the CLEC industry and that for the foreseeable future most CLECs will remain dependent on VZ for unbundled network elements and interconnection services. As discussed, this dependency makes the CLECs extremely vulnerable to anti-competitive pricing strategies that VZ could employ under its Alternative Regulation Plan. To be sure, if the Commission approves VZ's proposal, then the long-term viability of CLECs that use VZ's UNEs is

A.

V. CONCLUSION

seriously impaired.

18 Q. WHAT ARE YOUR RECOMMENDATIONS

19 A. Verizon is still the dominant firm in local exchange markets in Rhode Island.
20 Further, as demonstrated, the CLEC industry remains extremely vulnerable to
21 anticompetitive pricing strategies but VZ's proposal includes no protections.



1		I recommend that the Commission modify VZ's proposal as outlined in this
2		testimony (see, section Summary of Recommendations.)
3		
4	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
5	A.	Yes, it does. A summary of my testimony was provided in the introduction to this
6		testimony.
7		
8 9		
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Curriculum Vitae August H. Ankum, Ph.D. Senior Vice-President QUANTITATIVE SOLUTIONS, INC

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I am an economist and consultant, specializing in public utility regulation. In this capacity, I have provided consulting services in the major telecommunications markets of the United States, such as New York, Texas, Illinois, Michigan, Tennessee, Georgia, and in a variety of smaller states. My consulting activities focus mostly on telecommunications regulation. Specifically, I work with large corporate clients, such as MCIWorldCom, AT&T, AT&T Wireless, and a variety of smaller competitive local exchange carriers and PCS providers. I have represented these clients before state and federal regulatory agencies in various proceedings concerning the introduction of competition in telecommunications markets. Recently, these proceedings focus largely on the implementation of the pro-competition provisions of Telecommunications Act of 1996.

Professional experience:

My professional background includes work experiences in private industry and state government. I have worked for MCI Telecommunications Corporation (AMCI@) as a senior economist. At MCI, I provided expert witness testimony and conducted economic analyses for internal purposes. Prior to joining MCI in early 1995, I worked for Teleport Communications Group, Inc. (ATCG@), as a Manager in the Regulatory and External Affairs Division. In this capacity, I testified on behalf of TCG in proceedings concerning local exchange competition issues. From 1986 until early 1994, I was employed as an economist by the Public Utility Commission of Texas (APUCT@) where I worked on a variety of electric power and telecommunications issues. During my last year at the PUCT I held the position of chief economist. Prior to joining the PUCT, I taught undergraduate courses in economics as an Assistant Instructor at the University of Texas from 1984 to 1986.

Education:

I received a Ph.D. in Economics from the University of Texas at Austin in 1992, an M.A. in Economics from the University of Texas at Austin in 1987, and a B.A. in Economics from Quincy College, Illinois, in 1982.



PROCEEDINGS IN WHICH DR. ANKUM HAS FILED EXPERT WITNESS TESTIMONY:

New York

Commission Investigation into Resale, Universal Service and Link and Port Pricing, New York Public Service Commission, Case Nos. 95-C-0657, 94-C-0095, and 91-C-1174, July 4, 1996. On behalf of MCI Telecommunications Corporation.

In the Matter of Proceeding on Motion of the Commission To Reexamine Reciprocal Compensation, New York Public Service Commission, Case 99-C-0529. Direct Testimony, July 1999. On Behalf Of Cablevision LightPath, Inc.

Proceeding on the Motion of the Commission To Examine New York Telephone Company's Rates for Unbundled Network Elements, New York Public Service Commission, Case 98-C-1357. Direct Testimony, October 1999. On behalf of Corecomm New York, Inc.

Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements, New York Public Service Commission Case 98-C-1357, Direct Testimony, June 2000, on behalf of MCIWorldCom.

New Jersey

Petition of Focal Communications Corporation of New Jersey For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic – New Jersey Board of Public Utilities, May 2000. On behalf of Focal Communications Corporation of New Jersey.

I/M/O the Board's Review of Unbundled Network Elements Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc. New Jersey Board of Public Utilities, Docket No. TO00060356. 2000. On behalf of WorldCom, Inc.

Delaware

Petition of Focal Communications Corporation of Pennsylvania For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic – Delaware, Inc. Delaware Public Service Commission, PSC Docket No. 00-025. Direct Testimony, May 2000. On behalf of Focal Communications Corporation of Pennsylvania.

Texas



Petition of The General Counsel for an Evidentiary Proceeding to Determine Market Dominance, PUC of Texas, Docket No. 7790, Direct Testimony, June 1988. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company for Revisions to the Customer Specific Pricing Plan Tariff, PUC of Texas, Docket No. 8665, Direct Testimony, July 1989. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company to Amend its Existing Customer Specific Pricing Plan Tariff: As it Relates to Local Exchange Access through Integrated Voice/Data Multiplexers, PUC of Texas, Docket No. 8478, Direct Testimony, August 1989. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company to Provide Custom Service to Specific Customers, PUC of Texas, Docket No. 8672, Direct Testimony, September 1989. On behalf of the Public Utility Commission of Texas.

Inquiry of the General Counsel into the Reasonableness of the Rates and Services of Southwestern Bell Telephone Company, PUC of Texas, Docket No. 8585, Direct Testimony, November 1989. On behalf of the Public Utility Commission of Texas.

Southwestern Bell Telephone Company Application to Declare the Service Market for CO LAN Service to be Subject to Significant Competition, PUC of Texas, Docket No. 9301, Direct Testimony, June 1990. On behalf of the Public Utility Commission of Texas.

Petition of Southwestern Bell Telephone Company for Authority to Change Rates, PUC of Texas, Docket No. 10382, Direct Testimony, September 1991. On behalf of the Public Utility Commission of Texas.

Application of Southwestern Bell Telephone Company, GTE Southwest, Inc., and Contel of Texas, Inc. For Approval of Flat-rated Local Exchange Resale Tariffs Pursuant to PURA 1995 Section 3.2532, Public Utility Commission of Texas, Docket No. 14658, January 24, 1996. On behalf of Office of Public Utility Counsel of Texas.



Application of Southwestern Bell Telephone Company, GTE Southwest, Inc., and Contel of Texas, Inc. For Interim Number Portability Pursuant to Section 3.455 of the Public Utility Regulatory Act, Public Utility Commission of Texas, Docket No. 14658, March 22, 1996. On behalf of Office of Public Utility Counsel of Texas.

Application of AT&T Communications for Compulsory Arbitration to Establish an Interconnection Agreement Between AT&T and Southwestern Bell Telephone Company, and Petition of MCI for Arbitration under the FTA96, Public Utility Commission of Texas, Consl. Docket Nos. 16226 and 16285. September 15, 1997. On behalf of AT&T and MCI.

Proceeding to examine reciprocal compensation pursuant to section 252 of the Federal Telecommunications of 1996, Public Utility Commission of Texas, Docket No. 21982. May 2000. On behalf of Taylor Communications.

Iowa

US West Communications, Inc., Iowa Department of Commerce – Utilities Board, Docket No: RPU – 00 – 01. Direct Testimony, July 2000. On behalf of McLeodUSA.

Illinois

Adoption of Rules on Line-Side Interconnection and Reciprocal Interconnection, Illinois Commerce Commission, Docket No. 94-0048. September 30, 1994. On behalf of Teleport Communications Group, Inc.

Proposed Introduction of a Trial of Ameritech's Customer First Plan in Illinois, Illinois Commerce Commission, Docket No. 94-0096. September 30, 1994. On behalf of Teleport Communications Group, Inc.

Addendum to Proposed Introduction of a Trial of Ameritech's Customer First Plan in Illinois, Illinois Commerce Commission, Docket No. 94-0117. September 30, 1994. On behalf of Teleport Communications Group, Inc.

AT&T's Petition for an Investigation and Order Establishing Conditions Necessary to Permit Effective Exchange Competition to the Extent Feasible in Areas Served by Illinois Bell Telephone Company, Illinois Commerce Commission, Docket No. 94-0146. September 30, 1994. On behalf of Teleport Communications Group, Inc.

Proposed Reclassification of Bands B and C Business Usage and Business Operator Assistance/Credit Surcharges to Competitive Status, Illinois Commerce Commission, Docket No.



95-0315, May 19, 1995. On behalf of MCI Telecommunications Corporation.

Investigation Into Amending the Physical Collocation Requirements of 83 Ill. Adm. Code 790, Illinois Commerce Commission, Docket 94-480, July 13, 1995. On behalf of MCI Telecommunications Corporation.

Petition for a Total Local Exchange Wholesale Tariff from Illinois Bell Telephone Company d/b/a Ameritech Illinois and Central Telephone Company Pursuant to Section 13-505.5 of the Illinois Public Utilities Act, Illinois Commerce Commission, Docket No. 95-0458, December 1995. On behalf of MCI Telecommunications Corporation.

Citation to Investigate Illinois Bell Telephone Company=s Rates, Rules and regulations For its Unbundled Network Component Elements, Local Transport Facilities, and End office Integration Services, Illinois Commerce Commission, Docket No. 95-0296, January 4, 1996. On behalf of MCI Telecommunications Corporation.

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois, Illinois Commerce Commission, Docket No. 96-AB-006, October, 1996. On behalf of MCI Telecommunications Corporation.

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Central Telephone Company of Illinois (ASprint@), Illinois Commerce Commission, Docket No. 96-AB-007, January, 1997. On behalf of MCI Telecommunications Corporation.

Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic. Illinois Commerce Commission, Docket No. 96-0486, February, 1997. On behalf of MCI Telecommunications Corporation.

Phase II of Ameritech Illinois TELRIC proceeding. Illinois Commerce Commission Docket No. 98-0396, May 2000. On behalf of MCIWorldCom.

Illinois Commerce Commission On its Motion vs Illinois Bell Telephone Company Investigation into Tariff Providing Unbundled Local Switching with Shared Transport, Illinois Commerce Commission, Docket No. 00- 0700. October 2001. On behalf of AT&T Communications of Illinois, Inc. and WorldCom, Inc.

Massachusetts

NYNEX/MCI Arbitration, Common Wealth of Massachusetts, Department of Public Utilities,



D.P.U. 96-83, October 1996. On behalf of MCI Telecommunications Corporation.

Investigation into Pricing based on TELRIC for Unbundled Network Elements and Combinations of Unbundled Networks Elements and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services. Massachusetts Department of Energy and Transportation, Docket 01-20. On behalf Allegiance, Network Plus, Inc., El Paso Networks, LLC, and Covad Communications Company. July 2001.

Investigation by the Department of Telecommunications and Energy on its own Motion into the Appropriate Regulatory Plan to succeed Price Cap Regulation for Verizon New England, Inc. d/b/a Verizon Massachusetts' intrastate retail telecommunications services in the Commonwealth of Massachusetts. Massachusetts Department of Energy and Transportation, Docket 01-03. On behalf of Network Plus, Inc., August 2001.

New Mexico

Brooks Fiber Communications of New Mexico, Inc. Petition for Arbitration, New Mexico State Corporation Commission, Docket No. 96-307-TC, December, 1996. On behalf of Brooks Fiber Communications of New Mexico, Inc.

Michigan

In the Matter of the Application of City Signal, Inc. for an Order Establishing and Approving Interconnection Arrangements with Michigan Bell Telephone Company, Michigan Public Service Commission, Case No. U-10647, October 12, 1994. On behalf of Teleport Communications Group, Inc.

In the Matter, on the Commission=s Own Motion, to Establish Permanent Interconnection Arrangements Between Basic Local Exchange Providers, Michigan Public Service Commission, Case No. U-10860, July 24, 1995. On behalf of MCI Telecommunications Corporation.

In the Matter, on the Commission=s Own Motion, to consider the total service long run incremental costs and to determine the prices for unbundled network elements, interconnection services, resold services, and basic local exchange services for Ameritech Michigan, Michigan Public Service Commission, Case No. U-11280, March 31, 1997. On behalf of MCI Telecommunications Corporation.

In the matter of the application under Section 310(2) and 204, and the complaint under Section 205(2) and 203, of MCI Telecommunications Corporation against AMERITECH requesting a reduction in intrastate switched access charges, Case No. U-11366. April, 1997. On behalf of MCI Telecommunications Corporation.



Ohio

In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Ameritech Ohio, The Public Utilities Commission of Ohio, Case No. 96-888-TP-ARB, October, 1996. On behalf of MCI Telecommunications Corporation.

In the matter of the review of Ameritech Ohio=s economic costs for interconnection, unbundled network elements, and reciprocal compensation for transport and termination of local telecommunications traffic, The Public Utilities Commission of Ohio, Case No. 96-922-TP-UNC, Jan 17, 1997. On behalf of MCI Telecommunications Corporation.

In the Matter of the Review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic. Case No. 96-922-TP-UNC and In the Matter of the Application of Ameritech Ohio for Approval of Carrier to Carrier Tariff. Case No. 00-1368-TP-ATA. Ohio Public Utilities Commission. Direct Testimony, October 2000. On behalf of MCIWorldCom and ATT of the Central Region.

Indiana

In the matter of the Petition of MCI Telecommunications Corporation for the Commission to Modify its Existing Certificate of Public Convenience and Necessity and to Authorize the Petitioner to Provide certain Centrex-like Intra-Exchange Services in the Indianapolis LATA Pursuant to I.C. 8-1-2-88, and to Decline the Exercise in Part of its Jurisdiction over Petitioner=s Provision of such Service, Pursuant to I.C. 8-1-2.6., Indiana Regulatory Commission, Cause No. 39948, March 20, 1995. On behalf of MCI Telecommunications Corporation.

In the matter of the Petition of Indiana Bell Telephone company, Inc. For Authorization to Apply a Customer Specific Offering Tariff to Provide the Business Exchange Services Portion of Centrex and PBX Trunking Services and for the Commission to Decline to Exercise in Part Jurisdiction over the Petitioner=s Provision of such Services, Pursuant to I.C. 8-1-2.6, Indiana regulatory Commission, Cause No. 40178, October 1995. On behalf of MCI Telecommunications Corporation.

MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish and Interconnection Agreement with Indiana Bell Telephone Company d/b/a Ameritech Indiana, Indiana Public Utility Regulatory Commission, Cause No. 40603-INT-01, October 1996. On behalf of MCI Telecommunications Corporation.



In the matter of the Commission Investigation and Generic Proceeding on Ameritech Indiana=s Rates for Interconnection Service, Unbundled Elements and Transport and Termination under the Telecommunications Act of 1996 and Related Indiana Statutes, Indiana Public Utility Regulatory Commission, Cause No. 40611. April 18, 1997. On behalf of MCI Telecommunications Corporation.

In the Matter of the Commission Investigation and Generic Proceeding on GTE=s Rates for Interconnection, Service, Unbundled Elements, and Transport under the FTA 96 and related Indiana Statutes, Indiana Public Utility Regulatory Commission, Cause No. 40618. October 10, 1997. On behalf of MCI Telecommunication Corporation.

In the matter of the Commission Investigation and Generic proceeding on the Ameritech Indiana's rates for Interconnection, Unbundled Elements, and Transport and Termination Under the Telecommunications Act of 1996 and Related Indiana Statutes, Indiana Utility Regulatory Commission, Cause No. 40611-S1. October 2001. On behalf of WorldCom, Inc., AT&T Communications of Indiana, G.P.

Rhode Island

Comprehensive Review of Intrastate Telecommunications Competition, State of Rhode Island and Providence Plantations Public Utilities Commission, Docket No. 2252, November, 1995. On behalf of MCI Telecommunications Corporation.

Vermont

Investigation into NET=s tariff filing re: Open Network Architecture, including the Unbundling of NET=s Network, Expanded Interconnection, and Intelligent Networks, Vermont Public Service Board, Docket No. 5713, June 8, 1995. On behalf of MCI Telecommunications Corporation.

Wisconsin

Investigation of the Appropriate Standards to Promote Effective Competition in the Local Exchange Telecommunications Market in Wisconsin, Public Service Commission of Wisconsin, Cause No. 05-TI-138, November, 1995. On behalf of MCI Telecommunications Corporation.

Matters relating to the satisfaction of conditions for offering interLATA services (Wisconsin Bell, Inc. d/b/a Ameritech Wisconsin) Wisconsin Public Service Commission, 670-TI-120, March 25, 1997. On behalf of MCI Telecommunications Corporation.



In the Matter of MCI Telecommunications Corporation Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Wisconsin Bell, Inc. d/b/a Ameritech Wisconsin, Wisconsin Public Service Commission, Docket Nos. 6720-MA-104 and 3258-MA-101. On behalf of MCI Telecommunications Corporation.

Investigation Into The Establishment of Cost-Related Zones For Unbundled Network Elements, Docket No. 05-TI-349. Rebuttal Testimony, September 2000. On behalf of AT&T Communications of Wisconsin, McLEODUSA Telecommunications Services, Inc., TDS MetroCom, Inc., and Time Warner Telecom.

Pennsylvania

In Re: Formal Investigation to Examine Updated Universal Service Principles and Policies for telecommunications Services in the Commonwealth Interlocutory order, Initiation of Oral Hearing Phase, Pennsylvania Public Utility Commission, Docket No. I-00940035, February 28, 1996. On behalf of MCI Telecommunications Corporation.

Structural Separation of Verizon, Pennsylvania Public Utility Commission - Docket No. M-0001352. Direct Testimony, October, 2000. On behalf of MCI WorldCom.

Georgia

AT&T Petition for the Commission to Establish Resale Rules, Rates and terms and Conditions and the Initial Unbundling of Services, Georgia Public Service Commission, Docket No. 6352-U, March 22, 1996.On behalf of MCI Telecommunications Corporation.

Tennessee

Avoidable Costs of Providing Bundled Services for Resale by Local Exchange Telephone Companies, Tennessee Public Service Commission, Docket No. 96-00067, May 31, 1996. On behalf of MCI Telecommunications Corporation.

Commonwealth of Puerto Rico

Petition for Arbitration Pursuant to 47 U.S.C. & (b) and the Puerto Rico Telecommunications Act of 1996, regarding Interconnection Rates Terms and Conditions with Puerto Rico Telephone Company, Puerto Rico Telecommunications Regulatory Board, Docket No. 97-0034-AR, April 15, 1997. On behalf of Cellular Communications of Puerto Rico, Inc.







TECHNICAL DOCUMENTATION

REPORT ON DECLINE IN CLEC MARKET CAPITALIZATION

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ATTACHMENTS

Attachment 1: Comparison of Market Capitalization

EXECUTIVE SUMMARY

The relative financial strength of the key companies in the telecommunications industry has changed dramatically over the last 30 months, from December 31, 1999 to August 28, 2002. Once high-flying new entrants are either bankrupt or a mere shell of their operations during the high growth period of the competitive local exchange segment of the telecommunications industry.

INTRODUCTION

This Technical Document is provided by QSI Consulting ("QSI") to highlight the tremendous decline in the market value of the competitive telecommunications industry since the end of 1999. This market capitalization analysis calculates the dramatic change in market value of the CLEC industry over the period of December 31, 1999 through August 28, 2002, based on the value of the common shares held by investors. For the IXC, CLEC and carrier's carrier segments, the total decline in market capitalization over this period is a staggering \$554 billion, or 88%. The data for just CLECs, excluding IXCs and carrier's carriers, is \$158 billion, or 91%.

I. DESCRIPTION OF ANALYSIS

QSI created an analysis of 44 companies which comprise the vast majority of publicly traded CLECs and the four RBOCs to demonstrate the disparate financial strength of new entrants versus incumbent carriers. Market capitalization as of December 31, 1999 was used as the baseline value in this analysis for two primary reasons: (1) this point in time was still within the bull market period before the first significant market correction took place in the first quarter of 2000; and (2) the components necessary to calculate market capitalization, common shares outstanding and market price, were both readily available from publicly available sources such as websites that provide current and historical price quotes and Securities Exchange Commission ("SEC") filings.

The companies included in the analysis were classified into three categories:

(1) CLECs & Wholesale Suppliers

This category includes CLECs and wholesale suppliers. Not included are the CLEC divisions of the major IXCs – they are included in the third category described below. (The companies included in this category are identified in Attachment 1.)

(2) RBOCs

This category includes the four RBOCs: Qwest, SBC, BellSouth, and Verizon.

(3) Major IXCs – CLECs and Carrier's Carriers

Table 1 summarizes the change in market capitalization for CLECs, RBOCs and IXCs. Attachment 1 provides a detailed calculation for each company included in the analysis.

This category includes the major IXCs: Williams Communications, Level 3 Communications, Global Crossing, Sprint, WorldCom, and AT&T.

These categories mirror the groups of companies that are compared and contrasted within the Kellogg-Huber Report of April 5, 2001, *Competition for Special Access Service, High Capacity Loops, and Interoffice Transport*, attached to the petition filed by Verizon, SBC and BellSouth before the FCC to be relieved of their obligations to provide unbundled access to high-capacity facilities.² Major IXCs such as AT&T, WorldCom, Sprint, Level 3, Williams and Global Crossing that also operate as CLECs and carrier's carriers were separated from the CLECs & Wholesale Suppliers category because the nature and scope of their operations are quite different from the other CLECs.

The Debt to Equity ratio was also determined for each company over the same time period to measure changes in relative financial strength based on the amount of debt used to fund operations versus stockholder's equity. Large ratios or ratios that increase over time indicate declining financial strength as debt becomes a larger component of the firm's capital structure. This can be attributed to a greater use of debt as equity markets dry up, declining stockholder's equity as a result of accumulated operating deficits, or a combination of both.

II. DISCUSSION OF ANALYSIS

The analysis demonstrates that the competitive carriers have suffered serious financial setbacks over the last two and one-half years. The decline in market capitalization for the three categories, CLECs & Wholesale providers, RBOCs and Major IXCs, is summarized as follows:

TABLE 1

CATEGORY	DECLINE IN	% DECLINE IN		
	MARKET	MARKET		
	CAPITALIZATION	CAPITALIZATION		
Category 1:	\$ (157.6) Billion	- 91%		
CLECs & Wholesale Providers				
Category 2:	\$ (271.3) Billion	- 55%		
RBOCs				
Category 3:	\$ (396.1) Billion	- 87%		
Major IXC - CLEC / Carrier's				
Carrier				

A more detailed breakdown of the decline in market capitalization for these three categories of carriers is found in Attachment 1. The summary results are illustrated in Charts 1-4 below. Charts 1 and 2 compare the decline in market capitalization among the three company categories on both a dollar and percentage basis. Charts 3 and 4 depict the

See Joint Petition of BellSouth, SBC, and Verizon for Elimination of Mandatory Unbundling of High-Capacity Loops and Dedicated Transport, CC Docket No. 96- 98, DA 01-911, April, 2001.

increasing dominance of the RBOCs as their market capitalization accounts for a greater share of the overall competitive telecommunications industry market capitalization.

CHART 1

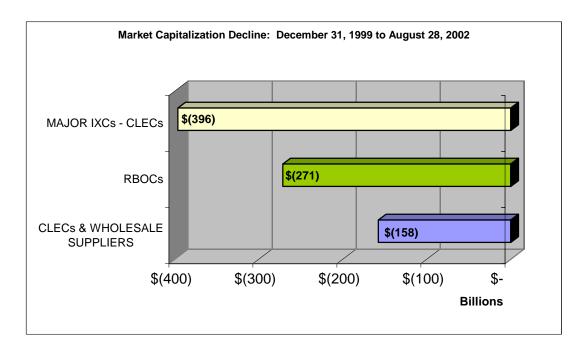
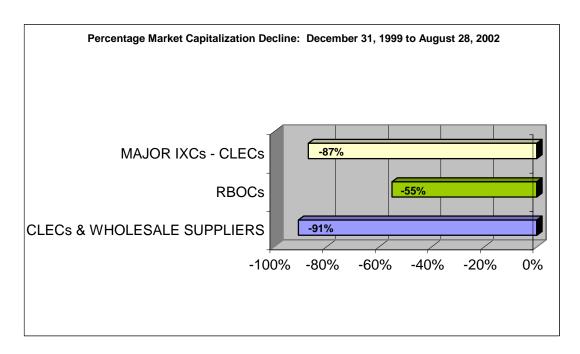


CHART 2



Since the market capitalization decline of the CLECs and IXCs is significantly greater than for the RBOCs, the relative value of each group to the total of the three groups combined has also changed dramatically. The following pie charts illustrate the increasing relative financial strength of the RBOCs over the last 32 months:

CHART 3

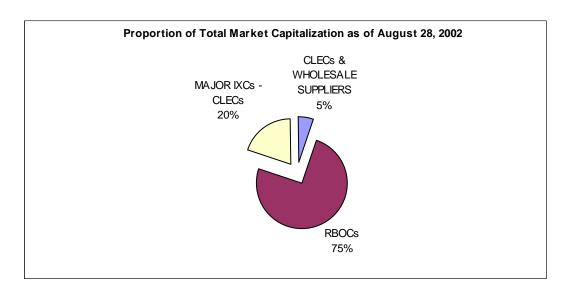
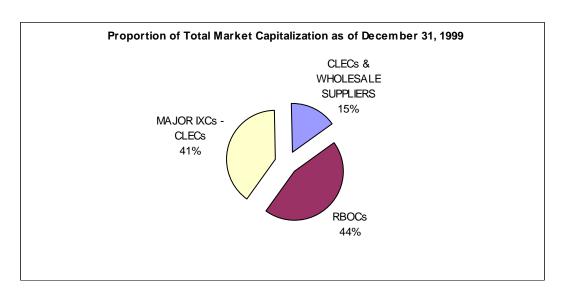


CHART 4



It is clear from Charts 3 and 4 that the financial strength of the remaining four RBOCs is increasingly dominating the telecommunications industry as their share of total market capitalization has nearly doubled.

III. IMPACT OF BANKRUPTCY FILINGS

Of the 40 companies comprising the CLEC and IXC categories (Categories 1 and 3), 18 have filed for bankruptcy protection since December 31, 1999 with seven of these filings occurring in the last six months.³ A few of the carriers that initially filed for protection have since closed down their operations and sold off their assets to competitors. The number of CLECs and IXCs that have reported negative stockholders' equity due to accumulated operating deficits increased to 28 as of August 28, 2002 compared to eight as of December 31, 1999.⁴

Some of the reasons for the numerous bankruptcy filings include decline in demand, over-investment, large debt burdens, aggressive business expansion, and questionable accounting practices. However, one cannot overlook the impact that RBOC anti-competitive behavior has had on CLEC cash flow and profitability. CLECs have (1) spent a tremendous amount of time and money on litigating provisions of the Telecommunications Act of 1996 and subsequent FCC orders, (2) faced excessive prices for the critical network elements and central office space required to provide local exchange service, and (3) experienced significant delays in achieving the critical mass necessary to pay for the investment required to operate a telecommunications network due to inadequate RBOC operational support systems and RBOC claims of facility exhaust.

While it is conceivable that a company filing for protection under Chapter 11 of the bankruptcy code will improve its balance sheet after shedding debt and restructuring its operations, the equity investment community may no longer support this company after losing their previous investment in the bankruptcy filing. Two CLECs that have emerged from bankruptcy protection, McLeod and Covad, have yet to see any significant rebound in their stock price. Both are trading at less than 2% of their closing price on December 31, 1999.⁵

IV. VIEWS OF THE FINANCIAL MEDIA

The collapse in market value of the competitive telecommunications industry, including long distance, which is apparent from the financial data, has been duly noted by the financial community and the press. Not a day goes by without some pundit or another commenting on the dismal state of telecommunications competition. As one analyst concludes:

See detailed listing of bankruptcy filing dates on Attachment 1.

The 28 carriers with Stockholder's Deficits as of August 28, 2002 include carriers that have filed for bankruptcy since December 31, 1999.

See Attachment 1 to this Technical Document. McLeodUSA closed at \$0.39 per share for a market capitalization of \$63.4 million as of August 28, 2002 compared to a share price of \$58.88 and market capitalization of \$27.8 billion as of December 31, 1999. Covad closed at \$1.06 per share for a market capitalization of \$233.6 million as of August 28, 2002 versus a share price of \$55.94 and market capitalization of \$5.3 billion as of December 31, 1999.

In telecommunications, we are rolling back the competitive progress made over the last ten years – disabling the enabling industry of economic growth when we need it most.⁶

Other articles go so far as to declare the entire competitive effort to be a failure and note that the RBOCs have slowly but steadily out-maneuvered their would be competitors. A 2001 article in The New York Times declared that the battle is over:

Of the Baby Bell local phone carriers, once seven in number, three [sic] remain — Qwest Communications, SBC Communications and Verizon Communications — and they are by far the most powerful and important communications companies in the nation. The corporations once known as long-distance carriers, like AT&T, are shells of their former selves. ... The Bells — the race's tortoises — have won.⁷

The potential danger to the nation's economy cannot be overstated. As is well recognized, the telecommunications industry is a critical component in the "high-tech engine" that has propelled our economy forward over a period longer than any other in modern times. That "engine" is now at risk of being usurped -- as a natural result of the corporate quest for profit maximization -- by a small group of very powerful companies: the RBOCs. As Wired magazine notes in yet another article on the demise of the competitive telecommunications industry:

The Bells own 88 percent of the local lines in the US and upgrade on their own terms – conveniently, after most of their competitors have died off.⁸

V. NEED FOR REGULATORY OVERSIGHT

Whatever may be the merit of these somber prognoses, the fact remains that the competitive telecommunications industry is struggling to survive. In the war of attrition waged by the RBOCs against their competitors in the market place, in the U.S. Congress, the courts, and before regulators, it has not gone well for the CLEC industry and the financial community knows it. Regulatory policies are a critical component of the overall landscape, and it is most important that regulators stand firm -- now more than ever -- against all attempts on the part of the ILECs to raise barriers to entry any further. Unfettered access to the critical network elements required to provision competitive local exchange service is required at just and reasonable cost-based rates if the CLEC industry is to survive and present consumers with a sustainable alternative to the incumbent LEC.

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⁶ Brian Adamik, Yankee Group, *The Death of Competitive Telecom?* CBS MarketWatch, May 3, 2001.

Seth Schiesel, Sitting Pretty: How Baby Bells May Conquer Their World. The New York Times, Money&Business, Section 3, page 1. Sunday, April 22, 2001.

Frank Rose, Telechasm: Can we get to the future from here? First we have to get telecom out of the Stone Age. Wired, May 2001, page 131.

ATTACHMENT 1

COMPARISON OF MARKET CAPITALIZATION



COMPARISON OF MARKET CAPITALIZATION SORTED IN DESCENDING ORDER OF VALUATION DECLINE

		AS OF 08/28/2002			AS OF 12/31/1999								
				MARKET		CLOS		SHARES		MARKET			
Ticker	G	CLOSING PRICE *	SHARES OUTSTANDING *	(price X shares)	DEBT / EQUITY RATIO **	PRI **		OUTSTANDING **		PITALIZATION price X shares)	DEBT / EQUITY RATIO **	CHANGE IN MARKET CAP	% CHANGE
пскег	Company	CLOSING PRICE *	OUISTANDING *	(price A snares)	KATIO ***				Η'	price A snares)	RATIO ***	MARKEI CAP	CHANGE
1 MCLD	McLeodUSA	\$ 0.390	162,500,000	\$ 63,375,000	143.7%	\$ 58	3.875	472,761,000	\$	27,833,803,875	189.0%	\$ (27,770,428,875)	-100%
2 MFNXA	Metromedia Fiber Network	Bankruptcy (5/20/02)	671,572,000	N/A	Stockholders' Deficit	\$ 47	7.938	478,655,000	\$	22,945,524,063	115.8%	\$ (22,945,524,063)	-100%
3 XOXO	XO Communications, Inc.	Bankruptcy (6/17/02)	337,792,000	N/A	Stockholders' Deficit		3.063	267,940,000	\$	22,255,766,250	Stockholders' Deficit	\$ (22,255,766,250)	-100%
4 COX	Cox Communications, Inc.	\$ 24.960	573,753,000	\$ 14,320,874,880	150.3%	\$ 51		603,767,000	\$		119.0%	\$ (16,773,125,620)	-54%
5 CVC	Cablevision	\$ 8.910	133,331,000	\$ 1,187,979,210	Stockholders' Deficit	\$ 75		173,211,000	\$	13,077,430,500	Stockholders' Deficit	\$ (11,889,451,290)	-91%
6 ALGX	Allegiance	\$ 0.650	123,419,000	\$ 80,222,350	506.3%	\$ 92		97,384,000	\$	8,983,674,000	133.1%	\$ (8,903,451,650)	-99%
7 WCIEQ 8 TWTC	WinStar	Bankruptcy (4/18/01)	N/A	N/A \$ 53,291,190	Stockholders' Deficit 160.8%	\$ 75 \$ 49		83,640,000	\$	6,293,910,000	Stockholders' Deficit	\$ (6,293,910,000)	-100% -99%
9 COVD	Time Warner Telecom, Inc.	\$ 1.090 \$ 1.060	48,891,000	\$ 53,291,190 \$ 233,621,880	160.8% 228.6%			104,760,000	\$	5,231,452,500	146.6%	\$ (5,178,161,310) \$ (5,058,065,620)	-96%
10 RCNC	Covad RCN Corp.	\$ 0.850	220,398,000 110,476,000	\$ 233,021,880	Stockholders' Deficit	\$ 55 \$ 48		94,600,000 77,160,000	\$	5,291,687,500 3,742,260,000	66.2% 649.1%	\$ (3,648,355,400)	-96% -97%
11 ABIZO	Adelphia Business Solutions	Bankruptcy (3/27/02)	47,767,000	3 93,904,000 N/A	Stockholders' Deficit	\$ 48		69,438,000	\$	3,333,024,000	365.4%	\$ (3,333,024,000)	-100%
12 TGNTQ	Teligent	Bankruptcy (5/21/01)	42,583,000	N/A	Stockholders' Deficit	\$ 61		52,633,000	\$	3,250,087,750	Stockholders' Deficit	\$ (3,250,087,750)	-100%
13 RTHM	Rhythms	Bankruptcy (8/1/01)	77,769,000	N/A	Stockholders' Deficit	\$ 31		77,270,000	\$	2,395,370,000	489.4%	\$ (2,395,370,000)	-100%
10 1111111	ATX Communications (formerly	Damarapies (0/1/01)	77,703,000		Stockholders Benefit	Ψ 5.		77,270,000	Ψ.	2,373,370,000	103.170	ψ (2,000,000)	10070
14 COMM	CoreComm)	\$ 0.440	A 30,000,000	\$ 13,200,000	Stockholders' Deficit	\$ 59	0.375	38,556,000	\$	2,289,262,500	208.9%	\$ (2,276,062,500)	-99%
15 MPWRQ	Mpower	Bankruptcy (4/8/02)	59,465,000	N/A	Stockholders' Deficit	\$ 50	0.750	34,866,492	\$	1,769,474,469	205.9%	\$ (1,769,474,469)	-100%
16 ITCDQ	ITC^DeltaCom	Bankruptcy (6/25/02)	62,365,000	N/A	Stockholders' Deficit	\$ 27	7.625	59,557,000	\$	1,645,262,125	270.2%	\$ (1,645,262,125)	-100%
17 NASC	Network Access	Bankruptcy	53,637,000	N/A	Stockholders' Deficit	\$ 33	3.000	45,280,000	\$	1,494,240,000	53.8%	\$ (1,494,240,000)	-100%
18 ZTEL	Z-tel	\$ 1.250	35,192,000	\$ 43,990,000	Stockholders' Deficit	\$ 40		31,600,000	\$	1,275,850,000	20.4%	\$ (1,231,860,000)	-97%
19 NPLS	NetworkPlus	Bankruptcy (2/7/02)	67,140,000	N/A	Stockholders' Deficit	\$ 21		54,795,000	\$	1,150,695,000	108.3%	\$ (1,150,695,000)	-100%
20 CPTL	CTC Comm.	\$ 0.170	27,368,000	\$ 4,652,560	Stockholders' Deficit		1.000 B		B \$	1,134,056,000	Stockholders' Deficit	\$ (1,129,403,440)	-100%
21 PACW	Pac-West	\$ 0.310	36,399,000	\$ 11,283,690	240.5%	\$ 26		35,393,000	\$	937,914,500	173.0%	\$ (926,630,810)	-99%
22 ICGXQ	ICG Communications, Inc.	Bankruptcy (11/14/00)	N/A	N/A	Stockholders' Deficit	\$ 18		47,761,000	\$	895,518,750	Stockholders' Deficit	\$ (895,518,750)	-100%
23 NTKKQ	Net2000	Bankruptcy (11/16/01)	40,336,000	N/A	Stockholders' Deficit	\$ 23			C \$	894,923,750	52.7%	\$ (894,923,750)	-100%
24 CLEC	US LEC	\$ 2.400	26,698,000	\$ 64,075,200	Stockholders' Deficit	\$ 32		27,501,000	\$	886,907,250	130.5%	\$ (822,832,050)	-93%
25 DSLN	DSL.net, Inc.	\$ 0.320 \$ 0.600	64,879,000	\$ 20,761,280	48.5%	\$ 14		58,382,200	\$	842,893,013	16.8%	\$ (822,131,733)	-98%
26 CWON	Choice One		41,527,000	\$ 24,916,200	Stockholders' Deficit		5.500 D		D \$	781,781,000	12.5%	\$ (756,864,800)	-97% -100%
27 ARTT 28 NPNTQ	Advanced Radio Telecom Corp.	Bankruptcy (4/2/01)	29,249,000	N/A	Stockholders' Deficit	\$ 24 \$ 24		27,968,000	\$	671,232,000	Stockholders' Deficit 55.5%	\$ (671,232,000)	-100%
29 CONV	NorthPoint	Bankruptcy (1/16/01) Bankruptcy (4/19/01)	N/A	N/A N/A	Stockholders' Deficit Stockholders' Deficit	\$ 15		24,593,000 28,642,000	\$	590,232,000	706.2%	\$ (590,232,000) \$ (454,601,750)	-100%
30 FTGX	Convergent FiberNet Telecom Group	\$ 0.120	29,910,000 64,332,000	\$ 7,719,840	686.9%	\$ 15		25,933,000	\$	454,691,750 392,236,625	13.7%	\$ (454,691,750) \$ (384,516,785)	-100%
31 ESPI	E.spire Communications, Inc.	Bankruptcy (3/22/01)	54,929,000	3 /,/19,840 N/A	Stockholders' Deficit	\$ 5		51,149,800	\$	297,308,213	Stockholders' Deficit	\$ (384,310,783) \$ (297,308,213)	-100%
32 FCOM	Focal Comm.	\$ 1.050	4,936,000	\$ 5.182,800	3370.4%	\$ 24		1,735,685	\$	41,873,401	195.5%	\$ (36,690,601)	-88%
22 100	r ocar comm.	1.030	1,750,000	5,102,000	3370.170	Ψ 2.	25	1,755,005	Ψ.	11,075,101	1,5.570	ψ (50,030,001)	0070
		Acquired by Citizens											
33 ELIX	Electric Lightwave	Communications (6/18/02)	N/A	N/A	Stockholders' Deficit		N/A	N/A		0	N/A	\$ -	0%
34 OPTC	Optelecom	\$ 3.146	2,848,000	\$ 8,959,808	126.4%	\$ 4	1.125	1,994,000	\$	8,225,250	197.4%	\$ 734,558	9%
	CLECs & WHOLESALE SUPPLIERS			\$ 16,223,867,880					\$	173,835,161,669		\$ (157,611,293,789)	-91%
	CELCO & WHOLESHEE SCIT EIGHS			ψ 10,220,007,000					-	170,000,101,005		ψ (107,011,250,705)	7170
35 SBC	SBC	\$ 25.810	3.325,084,000	\$ 85,820,418,040	204.5%	\$ 48	3.750	3,433,125,000	s	167,364,843,750	207.6%	\$ (81,544,425,710)	-49%
36 Q	Owest	\$ 3.010	1,676,906,000	\$ 5,047,487,060	106.5%	\$ 51				85,646,250,000		D \$ (80,598,762,940)	-94%
37 VZ	Verizon	\$ 30.960	2,728,422,000	\$ 84,471,945,120	452.5%	\$ 55				151,693,857,000		E \$ (67,221,911,880)	-44%
38 BLS	BellSouth	\$ 24.440	1,871,706,000	\$ 45,744,494,640	181.9%	\$ 46	5.813	1,872,000,000	\$	87,633,000,000	201.1%	\$ (41,888,505,360)	-48%
	RBOCs			\$ 221,084,344,860					4	492,337,950,750		\$ (271,253,605,890)	-55%
	RBOCS			\$ 221,084,344,860					Э	492,337,950,750		\$ (2/1,253,605,890)	-55%
39 WCOEQ	WorldCom (Bankruptcy - 7/21/02)	\$ 0.113	2,962,645,000	\$ 334,778,885	Stockholders' Deficit	\$ 53	063	2,842,980,000		150,855,626,250	71.1%	\$ (150,520,847,365)	-100%
40 T	AT&T	\$ 12.070	3,845,514,000	\$ 46,415,353,980	198.1%	\$ 50		3,196,437,000		162,418,955,063	105.7%	\$ (116,003,601,083)	-71%
40 1 41 FON	Sprint	\$ 12.010	892,787,000	\$ 10,722,371,870	260.0%	\$ 67		874,200,000		58,844,587,500	189.5%	\$ (48,122,215,630)	-71 % -82%
42 GBLXQ	Global Crossing Ltd.	Bankruptcy (1/28/02)	887,106,000	N/A	Stockholders' Deficit	\$ 50		799,137,000	\$	39,956,850,000	82.8%	\$ (39,956,850,000)	-100%
43 LVLT	Level 3 Communications	\$ 5.610	406,425,000	\$ 2.280.044.250	Stockholders' Deficit	\$ 81		371,397,000			161.6%	\$ (28,081,660,500)	-92%
44 WCGR	Williams Communications	Bankruptcy (4/22/02)	491,979,000	N/A	Stockholders' Deficit	\$ 28		463,600,000	\$	13,415,425,000	183.0%	\$ (13.415.425.000)	-100%
	MAJOR IXC - CLEC / CARRIER'S		, , , , , , , , , , , , , , , , , , , ,					,,	É	, ., ., .,		. (1/ 1/ 3/400)	
	CARRIER			\$ 59,752,548,985				1	ø	455,853,148,563		\$ (396,100,599,578)	-87%
	C. MILLER			9 39,134,340,983					ф	+55,055,140,505		φ (390,100,399,578)	-0170
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^{*} Nasdaq Info Quotes, Fundamentals (http://www.nasdaq.com)

^{**} Debt and stockholder's equity per the individual company's most recent 10Q report for 2002 and 10K report for 1999. Debt to Equity ratio is result of dividing Total Liabilities by Stockholder's Equity. 12/31/1999 Common shares outstanding per 10K report.

*** Per BigCharts.com, Historical Quotes (http://www.bigcharts.com/historical)

A Effective 7/1/02, CoreComm Limited completed its recapitalization; all shares are now owned by CoreComm Holdco, Inc. Business will be renamed ATX Communications.

B Price, shares and financial information as of 3/31/00 because the company went public on 3/10/00.

C Price, shares and financial information as of 3/31/00 because it was the company's year-end at that time.

D Price, shares and financial information as of 3/31/00 because company went public on 2/16/00.

E Price as of 7/3/00 since it is the first trading day after merging with U S WEST. Shares and financial information as of 6/30/00 from 2nd Quarter 10Q.

F Price as of 7/3/00 since it is the first trading day after Bell Atlantic merged with GTE. Shares and financial information as of 6/30/00 per 2nd Quarter 10Q.



