

ATTACHMENT A

DECLARATION OF ROBERT W. CRANDALL

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)
)
Deployment of Wireline Services Offering) CC Docket No. 98-147
Advanced Telecommunications Capability)

Declaration of Robert W. Crandall

Qualifications

1. I am a Senior Fellow in Economic Studies at the Brookings Institution in Washington, DC, a position that I have held since 1978.¹ Prior to that I was Acting Director, Deputy Director, and Assistant Director of the Council on Wage and Price Stability in the Executive Office of the President, and in 1974-75 I was an adviser to Commissioner Glen Robinson of the Federal Communications Commission. I was an Assistant Professor and Associate Professor of Economics at MIT between 1966 and 1974. I have written widely on telecommunications policy, the economics of broadcasting, and the economics of cable television. I am author or co-author of four books on communications policy published by the Brookings Institution since 1989: Changing the Rules: Technological Change, International Competition, and Regulation in Communications (with Kenneth Flamm), 1989; After the Breakup: U.S. Telecommunications in

¹The views expressed herein are solely my own and should not be taken to represent the views of the Brookings Institution, its other staff members, or its Trustees.

a more Competitive Era, 1991; Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications (with Leonard Waverman), 1996; and Cable TV: Regulation or Competition? (with Harold Furchtgott-Roth), 1996. A new book on universal-service policy, co-authored with Leonard Waverman, will be published by Brookings at the end of this year. A copy of my curriculum vitae is attached.

2. I have been asked by Bell Atlantic to respond to Comments submitted by other parties in this proceeding, particularly those submitted by Covad Communications Company (hereafter, "Covad") and NorthPoint Communications, Inc. To do so, I draw upon the economic analysis that I provided in my Declaration that was submitted with Bell Atlantic's Comments in this proceeding as well as my knowledge of the effects of economic regulation in telecommunications and other industries.

Summary of Conclusions

3. A decision by the Commission to mandate line sharing would have adverse effects on incumbent local-exchange carrier (ILEC) investment, on competition in new, advanced services, and on competition in local voice services.

4. Any decision to mandate line sharing would also involve the Commission deeply in regulating technological choices by ILECs, cost allocations among jointly-provided services, and wholesale and retail prices of ILEC advanced services. The result of such a decision, therefore,

would be an enveloping regulatory quagmire that would severely impinge on ILEC network development while each of these issues is debated through various rounds of rulemakings and court appeals.

5. Rather than risking a new set of innovation-deadening regulatory exercises, the Commission should proceed towards a policy of regulatory forbearance in all new, advanced services, allowing competitive local exchange carriers (CLECs) the opportunity to compete in the market for all local services, including voice services and advanced services, using -- where necessary -- the unbundled loops provided by ILECs.

The Covad Proposal

6. In its Comments in this proceeding, Covad provides the Commission with a new, intensely regulatory road map for advanced services that it claims will enhance the prospects for competition and investment.² Its proposal would require the Commission to:

- Require ILECs to provide CLECs access to a portion of the spectrum on their local loops at a zero price;

² Many of the Covad proposals are also advanced by NorthPoint Communications, Inc., but the Covad Comments are much more detailed. Therefore, I focus most of my attention on the Covad Comments.

- Prescribe the technology that ILECs may use on the remaining portion of these loops so that Covad's evolving business and technology could be optimally accommodated;
- Regulate the retail and wholesale prices of the ILECs' new advanced services so as to assure "fair" competition and the absence of "price squeezes."

7. The Covad proposals flow from its desire to compete only in the new, highly-competitive advanced services marketplace while avoiding the traditional voice services that it decries as monopolistic. It would therefore have the Commission bias its regulatory approach towards assisting entrants who are focusing solely on a new market that may be quite competitive, given cable-television,³ new hybrid-coaxial cable services,⁴ and wireless services.⁵ At the same time, Covad dismisses as burdensome any proposal that it lease the entire loop at cost because it would then be required to compete in traditional voice services, which it asserts are "monopoly" services. Thus, under Covad's scheme, the Commission should give Covad and

³ AT&T's recent expenditure of approximately \$100 billion to acquire MediaOne and TCI is predicated on its plan to deliver traditional and advanced telecommunications services through exiting coaxial-cable lines to the household.

⁴ CLECs, such as RCN, are building their own fiber-coax networks.

⁵ CLECs, such as Teligent and WinStar, are deploying fixed wireless technologies, and others are preparing to use the recently-auctioned LMDS spectrum to deliver advanced services.

other CLECs a pass on competing in the monopoly markets while subsidizing its entry into new markets that have the appearance of being quite competitive with or without Covad.

8. In furtherance of its scheme, Covad argues that it should be charged " ... the same incremental costs that ILECs impute to their own DSL service."⁶ Moreover "...ILECs currently price their DSL services by imputing zero outside plant cost to their DSL service."⁷ Therefore, Covad and other CLECs should obtain all of the spectrum that they need on the loop at a zero price, according to this logic! It then describes this as a "simple pricing mechanism"⁸ -- a description with which I cannot quarrel because setting prices at zero is surely the "simplest" approach that one can imagine. This mechanism has been used with disastrous effects in a variety of socialist economies.

9. Of course, Covad allows that it may be charged something for other ILEC services required for connecting them with the ILECs' facilities, such as technician time and OSS revisions, which are presumably software changes, but only after a regulatory proceeding determines their costs on the basis of "forward-looking" costs. But Covad's proposal would leave the ILEC with the need to recover the full cost of the loop while denying the ILEC the ability to offer advanced services or any other service over a large portion of the line leased to the CLEC.

⁶ Covad Comments at 39.

⁷ Id. This point is also made repetitively in NorthPoint's Comments in this proceeding.

⁸ Covad Comments at 40.

Given that regulated voice-services rates are often below the full cost of providing a residential line, the Covad proposal would in essence deny the ILEC the ability to cover its full costs on many loops.

10. Not only is Covad willing to pay only zero for the lion's share of the local loop, but it advocates a new "spectrum management" policy that would constrain the ILECs in developing their own traditional and advanced services. Even though the ILECs own the loop, they would be forced to submit to detailed regulation of the technology they employ in delivering their services with all lessees and would-be lessees of their networks participating.

11. Since it will be immeasurably helped by these proposals, Covad argues that they are, ipso facto, beneficial to competition, consumers, and the country. But Covad fails to provide a complete analysis of the effects of its proposal on investment in the nation's telecommunications infrastructure, the provision of traditional voice-data services, and the cost of regulation.

Analysis of the Covad Proposal

12. Covad's proposal for line sharing at a zero wholesale price is based on the proposition that such a policy is necessary to prevent anti-competitive "price squeezes" in advanced services by the ILECs. Covad and NorthPoint both argue that the ILECs allocate no loop costs to their advanced services (DSL) offerings; therefore, in their view, this portion of the loop must also be made available to competitors at a zero price. But ILECs are not currently subject to cost-based

regulation at the federal level. Their costs are not "allocated" to one service or another in the setting of tariffs. Rather, in proposing new services, they simply justify their tariff offerings as not placing a burden on other services by comparing incremental revenues with the incremental cost of the service. As long as the incremental revenues of a new service exceed its incremental costs, the new service will contribute to covering the ILEC's joint and common costs and provide a profit incentive for the ILEC to pursue these innovative and more risky new services. Because cost-based retail price regulation inevitably reduces the incentives for carriers to engage in such innovation, the Commission has abandoned such regulation. Implicit in the Covad proposal is a strong plea for a return to such regulation.

13. Line sharing is vigorously defended by Covad because it earnestly desires to avoid having to compete in the pedestrian ordinary voice services now offered by the ILECs over their own lines. It is for this reason that Covad dismisses as burdensome the requirement that it lease an entire loop from the ILEC. Even though it derides the "monopoly" service that has "fully paid for" the loop, it does not wish to compete in this purported monopoly service because it is so unprofitable. Its economic analysis of the fact that the loops are "fully paid for" is fallacious and seriously misleading because the traditional voice-service retail rates do not cover the cost of the loop for many, if not most, residential subscribers, as even the Commission's own Hybrid Cost Proxy Model demonstrates. There is an enormous amount of cross-subsidy in the ILECs' regulated retail pricing of services that is directed to paying the deficit on the lines that Covad wishes to avoid having to lease in toto.

14. Covad complains that ILECs are "discriminating" against CLECs because CLECs must purchase a "second" loop to the customer's premises to offer DSL services -- the "first" loop is the one that the ILEC uses to provide its services. This assertion is simply incorrect. The CLEC may lease a loop from the ILEC at a price that is generally below the ILEC's embedded cost. How is this policy an example of discrimination against the CLEC? It is true that if the CLEC chooses to offer only DSL services, it will not obtain the full value from the loop. Nor would it do so if it simply tries to offer only directory or operator services over the loop.⁹

15. Why are Covad and other CLECs so reluctant to lease loops to offer customers an entire array of telecommunications services? The answer is quite obvious: traditional local voice services are offered by ILECs at regulated rates that generally fail to cover the cost of providing the service. In its Comments in this proceeding, Covad provides a table that compares the monthly UNE rate for conditioned loops in Bell Atlantic's region with Bell Atlantic rates for DSL service. This is a thoroughly misleading comparison. Had Covad provided the Commission with a comparison of the UNE loop rates with Bell Atlantic's residential flat-rate tariffs for local voice service -- the primary service offered on every one of these loops -- it would have exposed its reason for wanting to avoid offering ordinary voice service to residential customers. Bell Atlantic must recover the resulting deficits from innovative services -- such as DSL. Covad understandably desires to avoid these underpriced services by simply offering DSL service over a

⁹ It is ironic that the CLECs seek preferential access to the loop for the provision of DSL services alone given that the Commission has already ruled that CLECs may not purchase a loop solely for the provision of long-distance service.

part of the incumbents' loops that is already used by the ILECs to provide these underpriced services.

16. Were the Commission to begin partitioning the loop to allow different services to be delivered over it by various lessees on different frequencies or even different times of the day, it would then be faced with major new problems of cost allocation in establishing the rules for wholesale price determinations at the state level or, possibly, retail price determinations at the federal level.¹⁰ The Commission would therefore be forced into a very difficult set of decisions involving the allocation of joint costs that required decades of inquiry in previous decades.¹¹ Establishing the cost of the loop itself is difficult enough; attempting to allocate this cost across multiple services is incalculably more difficult. For this reason and other reasons, the Commission has long since abandoned the attempt to regulate individual retail interstate rates on the basis of estimates of relative costs. It would be a mistake to reverse a decade's progress now.

17. It is simply not true that line sharing, as advocated by Covad and other CLECs in this proceeding, is similar to other "access services" offered by ILECs. When ILECs provide switched or special access, they interconnect with other carriers and handle their traffic. The ILECs maintain complete control of their local loops in this process. Other carriers deliver to or

¹⁰ This direct responsibility for retail price regulation is implicit in the Covad proposal for "nondiscriminatory" federal access tariffs involving the higher frequencies used for DSL.

¹¹ I refer to the inconclusive, lengthy process involved in attempting to regulate AT&T's private line tariffs from the middle 1960s to the early 1980s. See my original Declaration.

accept traffic from the ILEC. There is no uncertainty about technology; no dispute about interference. The ILEC maintains full and complete control of its facilities. Under the antitrust decree that divested the RBOCs from AT&T, the RBOCs were required to convert their switches to provide equal access to all interexchange carriers, but this change did not involve an open-ended regulatory process to determine how the RBOCs would deploy technology. It was a straightforward one-time adjustment to their end-office switches. Competitors were not provided with the opportunity to press regulators for further changes in these switches, nor were they given access to them so as to modify the technical details of the communications passing through them.

18. Covad also argues that its proposal for line sharing is consistent with recent developments in antitrust law. Invoking Eastman Kodak v. Image Technical Services, it argues that a requirement that CLECs lease the entire loop is a tying arrangement that ties the provision of voice-services portion of the loop to that required to offer advanced, DSL services. As a result, requiring CLECs to purchase the whole loop would run afoul of the spirit of current antitrust law. This is quite simply a fallacious argument. In Kodak, the courts disallowed the tying of service contracts to the sale of photocopying equipment.¹² In this proceeding, Covad and other CLECs are asking for the right to use only a portion of a piece of equipment -- and then at a zero price.

¹² For some reason, Covad's Comments suggest that Eastman Kodak v. Image Technical Services, 504 US 451 (1992), involved "independent film developers." (See fn. 57 at 35.) Earlier antitrust actions against Kodak did involve photographic film and film developing, but this case was brought by independent service organizations who complained that Kodak violated the antitrust laws through its tying of service contracts to the sale of photocopiers.

The apt analogy for line-sharing in the Kodak context would be a demand from users of Kodak photocopiers that they have the right to lease only certain functionalities of the photocopier or perhaps all functionalities, but only for 12 hours per day. Surely, the courts would be unlikely to conclude that Kodak's insistence that a buyer purchase the entire photocopier (or lease the entire photocopier for a fixed number of years) is a "tying" agreement.

Line Sharing, Competition and Innovation

19. Covad argues that line sharing is essential to the development of competition in advanced services. It contends that if it and other CLECs can obtain access to a portion of the loop at a zero price, they will be able to offer DSL services in competition with the ILECs immediately. But surely the Commission understands that this proposal to allow CLECs access to only a portion of the loop, particularly at Covad's proposed zero price, is an unjustifiable and risky approach to inducing entry by some competitors into just one telecommunications market. It is -- quite clearly -- a proposal to have the ILECs subsidize their rivals' DSL services. There is simply no other description for such a proposed policy. Even under the Commission's forward-looking approach to costs, surely there is no UNE that can be produced for nothing!

20. The Covad proposal is unjustifiable because it is far from obvious that such a subsidy is required to promote competition in DSL services. Other CLECs are entering without the use of ILEC loops, and cable television companies are already potent competitors of the ILECs. The need for such a radical step as defining line sharing as a "federal access service" to bypass state

regulatory proceedings and to allow CLECs to share loops at a zero rental rate has surely not been demonstrated.

21. The Commission should not abandon the hope that Covad and other CLECs might enter as competitors for the full panoply of local access/exchange services. Once Covad and other like-minded CLECs are provided with line sharing, there will be little interest among CLECs in offering the rest of the local package -- the basic voice services. At present, fewer than one-fourth of all households are regular Internet users, and only a fraction of them are likely to be interested in DSL or other high-speed services. Does the Commission wish to concede the opportunity to allow innovative CLECs to lease the entire loop to enter as full local service providers and thereby compete for the overwhelming share of subscribers not likely to be interested in DSL services any time soon?

22. Nor is line sharing conducive to innovation in telecommunications although the Covad proposal is an innovative example of regulatory rent seeking. To ask for the opportunity to lease a scarce resource at a zero price is surely innovative, but if the proposal is adopted it could lead to lower rates of innovation in the telecommunications network. DSL technology exists. The CLECs and ILECs are deploying it. But it may not be the only or even the best approach for delivering high-speed services to dispersed subscribers. The Commission does not promote innovation by responding to one set of competitors' requests to define and subsidize one input to just one of many potential technologies for delivering high-speed services. The Commission's mandate is broader than that -- it must be concerned about creating a regulatory

environment that is conducive to innovation in all telecommunications services.

23. Clearly, the ILECs are a large part of the current telecommunications sector, and their facilities are important in delivering existing and innovative new services. Line sharing should be evaluated in terms of the incentives it creates for innovation among these ILECs as well as among the newer CLECs. Line sharing is an intensively regulatory proposal. It would launch the Commission into detailed proceedings involving the cost allocation of the loop, technical standards for ILECs and CLECs who share the loops, and the dividing line between federal access services and unbundled network elements. Through each of these proceedings, the ILECs would be subject to new constraints that would limit their ability to deploy new facilities or new services. CLECs would be able to oppose any network change on the grounds that it impaired or otherwise reduced the value of the services they are delivering over the loop that they share with the ILEC. Competing firms sharing the same loop is not the same as a single ILEC -- or a single CLEC -- using the loop to deliver both conventional and advanced services. An ILEC does not and would not face conflict over technical issues if it offers both services. Thus, Covad's contention that line sharing is already in practice is demonstrably incorrect.

24. Both Covad and NorthPoint provide detailed suggestions on how the Commission should regulate the spectrum available on ILEC loops. Their proposals reflect all of the problems that I described in my earlier Declaration in this proceeding. It would be difficult to imagine a regulatory mechanism that would be more open to blatant rent seeking. CLECs could delay and frustrate any change in the ILECs' networks that would improve the ILECs' own service

offerings through complaints lodged at the Commission or with state regulators while they pursue any technology they choose through non-ILEC facilities. Similar, but much less detailed regulation of airline and railroad "technology" by the Civil Aeronautics Board and the Interstate Commerce Commission earlier this century postponed the introduction of large, efficient box cars and larger "commuter" aircraft for decades.

25. In an industry with such rapid technical change, constraining an ILEC's ability to deploy new technologies or services through detailed regulation of how it uses its own loops and whether its proposed changes interfere with its CLEC rivals' services can not only postpone innovation, it can deal it a mortal blow. The one to three years of a typical regulatory proceeding not only creates uncertainty, it is likely to destroy the business case for deploying new facilities or services.

Conclusion

26. The Commission's expansive original network unbundling rules are already the source of considerable controversy and have surely created sufficient uncertainty among market participants to slow innovation. To add to the complexity of these rules through line sharing, will simply add further uncertainty and unnecessary regulation. If it approves line sharing in the dimensions currently proposed -- namely, dividing the unbundled loop into separate frequency bands -- the Commission will not only create new regulatory mazes, but it will invite further proposals, designed to favor one specific entrant or group of entrants. For example, why not

unbundle by time of day? At some point, the Commission must decide that increasingly complex regulation is not the path to a competitive, unregulated marketplace, but that regulatory forbearance -- which initially motivated this proceeding -- surely is the better policy.

I declare, under the penalty of perjury, that the foregoing is true and correct to the best of my knowledge and belief.

 7/15/99
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