

## **ATTACHMENT 2**

**REPLY DECLARATION OF ROBERT W. CRANDALL AND  
HAL J. SINGER**

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

In the Matter of )  
Verizon Communications Inc. and )  
MCI, Inc. ) WC Docket No. 05-75  
Applications for Approval of )  
Transfer of Control )

**REPLY DECLARATION OF ROBERT W. CRANDALL AND HAL J. SINGER**

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### INTRODUCTION

1. My name is Robert W. Crandall. I am the chairman of Criterion Economics and Senior Fellow in Economic Studies at the Brookings Institution in Washington.

2. My name is Hal J. Singer. I am co-founder and President of Criterion Economics.

3. We file this declaration in our individual capacities and not on behalf of the Brookings Institution, which does not take institutional positions with respect to specific legislation, litigation, or regulatory proceedings.

4. We have been asked by Verizon and MCI to respond to the comments filed by Dr. Simon Wilkie on behalf of Cbeyond Communications, Eschelon Telecom, NuVox Communications, and XO Communications (“Joint Petitioners”) in opposition to the proposed transaction between Verizon and MCI.<sup>1</sup> With respect to the mass market, Dr. Wilkie makes two arguments. First, he claims that the relevant product market consists of service packages for “bundled” all-distance calling over wireline networks and that the transaction will be a “classic three to two” merger in this market. Second, he claims that this transaction will harm competition for long distance services. In both cases, however, his analysis is fundamentally incorrect, particularly in its dismissal of intermodal competition. The market facts alone refute his narrow market definitions.

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1. Declaration of Simon Wilkie on behalf of Cbeyond Communications, Eschelon Telecom, NuVox Communications, and XO Communications, WC Docket No. 05-75, May 9, 2005 [hereinafter *Wilkie Declaration*].

**I. THE TRANSACTION WILL NOT HARM COMPETITION IN THE PURPORTED MARKET FOR “BUNDLED ALL-DISTANCE CALLING OVER WIRELINE NETWORKS”**

5. Dr. Wilkie produces a gloomy prognosis of the effect of the merger in the purported market for “bundled unlimited calling (local and long distance) wireline products.”<sup>2</sup> According to Dr. Wilkie, the merger “is a classic three to two merger, with the further complication that AT&T may effectively exit the market if purchased by SBC.”<sup>3</sup> But Dr. Wilkie does not define the market correctly. He downplays the constraining effects of wireless and cable-based VoIP unlimited calling products. He also fails to execute the standard test for product market definition correctly. Finally, his implementation of a merger simulation model is equally uninformative.

**A. Intermodal Offerings Compete with and Are Part of the Same Product Market as Wireline Offerings**

6. The market facts demonstrate that consumers unquestionably view intermodal providers such as cable companies, wireless carriers, and independent VoIP providers as alternatives to wireline for voice service and that intermodal alternatives constrain wireline pricing.

**1. Cable Operators**

7. The market facts demonstrate that cable telephony is (a) widely available and (b) competitively priced. Further, the take rates for cable telephony where it is available are high and the number of cable telephony subscribers is rapidly increasing. Dr. Wilkie fails to consider those facts when dismissing the price-constraining effect of cable telephony. For example:

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2. *Id.* at 21 ¶ 39.

3. *Id.*

- Cable operators already consider themselves to be in direct competition with ILECs for voice service customers.<sup>4</sup> Analysts expect all the major cable companies to offer local telephone service to nearly 100 percent of their cable homes passed over the next two to three years.<sup>5</sup>
- Once cable operators upgrade their networks for cable telephony, cable providers quickly acquire a substantial share of the market for telephony services. Bernstein Research raised its cable telephony subscriber forecasts to account for “cable operators’ accelerated telephony rollout plans.”<sup>6</sup> Cable-company VoIP subscribers are projected to overtake their circuit switched subscribers in 2006. Bernstein projects that cable voice services will reach 16.4 percent penetration of total U.S. households by 2010 (equal to roughly 18 percent of addressable homes),<sup>7</sup> with 19.5 million cable telephony subscribers by 2010 (including both circuit-switched and IP-based lines), from a base of only 2.8 million at the end of 2003 (nearly all circuit-switched).<sup>8</sup>
- This growth is evident in individual companies’ take rates. For example, in Portland, Maine, Time Warner “got to 10% [penetration] pretty quickly” (within 10 months of introduction),<sup>9</sup> and now serves 18 percent of homes with access to its voice service.<sup>10</sup> More broadly, in the first quarter of 2005, Time Warner added over 150,000 net new customers, about 30 percent more than in the fourth quarter of last year, and it is now adding more than 15,000 net new subscribers per week.<sup>11</sup>
- In early 2005, Cox’s penetration rate of homes passed averaged 21 percent and reached as high as 40 percent in some markets.<sup>12</sup> Comcast reports a penetration rate of nearly 13 percent of homes where telephone service is available as of June 2004 and expects a

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4. See, e.g., COX COMMUNICATIONS, 2003 SEC FORM 10-K, Feb. 27, 2004, at 11-12.

5. See C. Moffett, *et al.*, BERNSTEIN RESEARCH CALL, *Cable and Telecom: VoIP Deployment and Share Gains Accelerating; Will Re-Shape Competitive Landscape in 2005* at 3 (Dec. 7, 2004).

6. Bernstein Research, *U.S. Telecom and Cable: Faster Rollout of Cable Telephony Means More Risk for RBOCs*, *Faster Growth for Cable*, Dec. 17, 2003, at 1-3.

7. *Id.* at Exhibit 1 (projecting that 92 percent of total U.S. households will be passed by either VoIP or circuit-switched systems by 2010).

8. Craig Moffett, *et al.*, BERNSTEIN RESEARCH CALL, *Cable and Telecom: VoIP Deployment and Share Gains Accelerating; Will Re-Shape Competitive Landscape in 2005*, at 2 (Dec. 7, 2004).

9. Matt Stump, *Technology’s Creative Master*, MULTICHANNEL NEWS, Sept. 27, 2004 (quoting Time Warner Cable chief technology officer Mike LaJoie).

10. *Time Warner Inc. Banc of America Securities Media, Telecommunications and Entertainment Conference – Final*, FD (Fair Disclosure) Wire, Transcript 033005ac.759 (Mar. 30, 2005) (quoting Time Warner Cable Chairman & CEO Glenn Britt).

11. Thomson StreetEvents, *TWX – Q1 2005 Time Warner Inc. Earnings Conference Call*, Conference Call Transcript at 3 (May 4, 2005).

12. *Id.*; C. Moffett, *et al.*, BERNSTEIN RESEARCH CALL, *Cable and Telecom: Bernstein Study Finds Consumers Ready and Willing To Switch to Cable Telephony*, Dec. 9, 2003 (in Cox’s most mature circuit-switched markets, share is now approaching 35 percent of homes passed); Matt Richtel, *Time Warner To Use Cable Lines To Add Phone to Internet Service*, N.Y. TIMES, Dec. 9, 2003 (“In Omaha, 45 percent of Cox’s cable customers now subscribe to its telephone service, and in Orange County, Calif., that figure is 55 percent.”).

penetration rate of 20 percent in five years.<sup>13</sup> As of December 2003, Comcast had acquired 30 percent of primary lines in certain markets.<sup>14</sup>

These market developments, which are described further in other portions of Verizon-MCI's filing,<sup>15</sup> conclusively refute Dr. Wilkie's claim that cable is not a competitive alternative to wireline because "there are *only* 3.5 million cable telephony subscribers."<sup>16</sup>

## 2. Wireless Operators

8. Wireless voice service also constrains the price of wireline voice service. As we showed in our opening declaration (which Dr. Wilkie does not refute), the facts show that wireless service is displacing an increasing number of lines and minutes of use and therefore acts as a competitive constraint.<sup>17</sup> And that is even truer for younger households.

- In February 2004, the Current Population Survey of the Census Bureau included a special supplement that addressed the topic of wireless phone usage. From this survey, the Census Bureau estimated that about 6 percent of all *households* rely on wireless phones as their only telephone service, a substantial increase from its previous estimate in November 2001 of slightly over 1 percent.<sup>18</sup>
- And the rate at which wireless phones are displacing wireline phones appears to be increasing.<sup>19</sup> The displacement of wireline phones by wireless phones is significantly

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13. See Comcast Press Release, *Comcast Reports Second Quarter 2004 Results*, July 28, 2004, at Table 5; See *Q4 2004 Comcast Corporation Earnings Conference Call – Final*, FD (Fair Disclosure) Wire (Feb. 3, 2005) (Comcast COO & President Steve Burke: "[W]hen you look at what Cox, and more recently Cablevision, and others have done in this business, we think the 20 percent penetration is very reasonable within a five-year time period.").

14. See Bernstein Research, *U.S. Telecom and Cable: Faster Rollout of Cable Telephony Means More Risk for RBOCs*, Faster Growth for Cable, Dec. 17, 2003, at 5.

15. See, e.g., Hassett et al. Reply Declaration.

16. *Wilkie Declaration* at 26 ¶ 45 (emphasis added).

17. *Crandall-Singer Declaration* at Part I.A.

18. The survey was administered to roughly 32,000 households during February 2004. The survey asked about purchases and bills including spending on cellular phone and landline. In particular, the surveys asked whether (1) the household had a bill for local or long distance calls in the past three months and (2) the household had a bill for a cellular phone in the past three months. See Clyde Tucker, Brian Meekins, J. Michael Brick, & David Morganstein, *Household Telephone Service and Usage Patterns in the United States in 2004*, presented at the 2004 Annual Meeting of the American Association for Public Opinion Research.

19. C. Cosentino, Standard & Poor's, FCC Data Supports Standard & Poor's View of Local Telephony Competition, Feb. 4, 2005, at 1-2.

higher for younger households, which suggests the displacement rate will grow as the younger generation gets older. For households headed by someone under 24 years of age, 18.0 percent had a cellular telephone only; and 9.6 percent of households headed by someone between 25 and 34 years of age had cellular telephones only.<sup>20</sup>

- In its *Seventh Annual CMRS Report*, the FCC reported that by the end of 2001, wireless connections “had displaced 10 million access lines, primarily by consumers choosing wireless over installing additional access lines.”<sup>21</sup> In its *Sixth Annual CRMS Report*, the FCC reported that in January 2000, 12 percent of respondents to an IDC survey said they purchased a wireless phone instead of installing an additional wireline phone.<sup>22</sup>
- By 2003, wireless minutes of use had risen to 900.8 billion, an increase of 30.6 percent from 2002 and more than 200 percent since 2000. Average minutes of use per subscriber have doubled since 2000.<sup>23</sup> One analyst estimates that, for 2004, “wireless could make up approximately 29% of voice minutes in the US.”<sup>24</sup> According to another report, 60 percent of long distance calls in households with cellular phones are now made on wireless phones.<sup>25</sup>

These facts suggest that wireless voice service constrains the pricing of wireline voice service.

9. Contrary to Dr. Wilkie’s claim, the academic studies lead to the same conclusion.

Dr. Wilkie discards any empirical evidence that undermines his narrow wireline-only market definition: “Every credible academic economic study of which I am aware has shown that wireless does not induce sufficient substitution from primary wireline service to be counted in

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20. Household Telephone Service and Usage Patterns in the United States at 23.

21. *Seventh CMRS Report* at 33 (citing *It’s a Wireless Boom as More People Cut the Cord*, News Release, IDC, Jan. 8, 2002).

22. *Sixth CMRS Report* at 33 (citing Callie Nelson, *Replacing Landline with Wireless: How Far Can It Go?*, IDC, Dec. 2000).

23. CTIA’s Semi-Annual Wireless Industry Survey; Ninth Report, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, 19 FCC Rcd 20597 (2004) (“*Ninth CMRS Report*”)

24. David Janazzo, *et al.*, Merrill Lynch, *The Next Generation VIII: The Final Frontier?* at 5 (Mar. 15, 2004); Eighth Report, *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993*, 18 FCC Rcd 14783, ¶ 102 (2003) (“*Eighth CMRS Report*”) (“One analyst estimates that wireless has now displaced about 30 percent of total wireline minutes.”); *Ninth CMRS Report* ¶ 213 (“One analyst estimated . . . that 23 percent of voice minutes in 2003 were wireless, up from 7 percent in 2000.”).

25. See Philip Marshall, *et al.*, The Yankee Group, *Divergent Approach to Fixed/Mobile Convergence* at 7 & Exh. 4 (Nov. 2004).

the same relevant product market.”<sup>26</sup> Dr. Wilkie cites only a single study, the findings of Rodini, Ward, and Woroch (2002), which he mischaracterizes as implying that wireless services constrain the pricing of second wireline voice lines only.<sup>27</sup> Although this is not an accurate assessment of their findings, even if it were, the threat of losing second wireline voice lines might be sufficient to constrain the price of all mass-market lines offered by wireline operators. Moreover, Rodini, Ward, and Woroch acknowledge that they cannot say anything about the cross-price elasticity of demand for the first wireline voice line given a change in the price of wireless: “Our data are not rich enough to estimate the cross-elastic effect from wireless price changes on the decision to subscribe to any fixed line.”<sup>28</sup> Hence, one cannot make *any* inference about wireless-wireline substitution for the first fixed line based on their paper.

10. Fortunately, there are many studies on the topic of wireless-wireline displacement, none of which Dr. Wilkie mentions.

- In a December 2004 paper in *Information Economics and Policy*, Gary Madden and Grant Coble-Neal (MC-N) examined the interchangeability between fixed-line and mobile telephony using a global telecommunications panel dataset comprised of 58 countries from 1995 to 2000.<sup>29</sup> The authors concluded that mobile and fixed-line telephone subscription are competitive alternatives, with a one percent increase in the fixed price yielding a 0.12 percent mobile subscription growth increase.
- Réka Horváth and Dan Maldoom analyzed survey data on over 7,000 British telephone users to measure the relationship between mobile phone ownership and fixed telephone usage.<sup>30</sup> Using 2001 survey data, they compute the predicted spending of mobile users on

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26. *Wilkie Declaration* at 22 ¶ 41 (citing Mark Rodini, Michael R. Ward, & Glenn A. Woroch (Dec. 2002), “Going Mobile: Substitutability Between Fixed and Mobile Access,” Haas School of Business, University of California at Berkeley, Center for Research on Telecommunications Policy Working Paper CRTP-58, reproduced.).

27. *Id.* at 22 ¶ 41 note 25 (emphasis added).

28. Mark Rodini, Michael R. Ward & Glenn A. Woroch, *Going Mobile: Substitutability Between Fixed and Mobile Access*, 27 TELECOMMUNICATIONS POLICY 457-76 (2003).

29. Gary Madden & Grant Coble-Neal, *Economic Determinants of Global Mobile Telephony Growth* 16 INFORMATION ECONOMICS AND POLICY 519-34 (2004).

30. Réka Horváth & Dan Maldoom, Fixed-mobile substitution: a simultaneous equation model with qualitative and limited dependent variables, DotEcon Discussion Paper, Aug. 2002.



fixed service if they did not have a mobile phone as well as the predicted expenditure of non-mobile users if they decided to use a mobile phone. They find that for both groups the effect of (actual or potential) mobile phone ownership is a similar reduction in the size of the fixed bill—the expected reduction in the fixed bill as a result of getting a mobile for the whole sample is around £74 per quarter as of the third quarter 2001.<sup>31</sup>

- Crandall and Singer estimated that by 2002, the actual number of long distance switched access minutes was more than 400 billion below what would be expected based on previous trends and other relevant variables.<sup>32</sup> At the same time, the number of interstate minutes on wireless networks increased from 16 percent to 26 percent of the total from 2000 through 2002,<sup>33</sup> reaching 179.3 billion minutes in 2002. Hence, nearly 45 percent of the unexplained decrease in interstate switched access minutes over fixed networks (equal to 179.3 billion divided by 400 billion) was lost to wireless networks.<sup>34</sup>
- Using semi-annual macro-level U.S. data from 1984 to 2003, Steven Pociask finds that a one percent increase in wireline prices results in a 1.84 to 1.95 percent increase in wireless demand.<sup>35</sup> In particular, he regresses the number of wireless subscribers (a proxy for wireless demand) on the average wireless revenue per minute, a variable that controls for the mix of wireless subscribers, a Producer Price Index series for wireline services (local telephone services, toll and long distance service, and subscriber line charges), and variables to control for income and seasonal effects.

11. Dr. Wilkie also is wrong to claim that the Commission has found that wireless does not competitively constrain wireline prices.<sup>36</sup> Even if the Commission was correct in the earlier order cited by Dr. Wilkie that there is a separate wireless market, under the basic antitrust approach for defining product markets, such a finding does not mean wireless cannot also be in a broader product market for voice calling. It is possible that a hypothetical monopoly producer of wireless service could increase its profit by raising the price of wireless service, but a

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31. *Id.* at 16.

32. *Crandall-Singer Declaration* at 8-11.

33. FCC Trends in Telephone Service, May 2004, at tbl. 11.4 (citing survey data from TNS Telecoms ReQuest Market Monitor).

34. Robert W. Crandall, *COMPETITION IN CHAOS: U.S. TELECOMMUNICATIONS SINCE THE 1996 TELECOM ACT* (Brookings Institution Press 2005).

35. Stephen B. Pociask, *Wireless Substitution and Competition Different Technology but Similar Service—Redefining the Role of Telecommunications Regulation*, Competitive Enterprise Institute Issue Paper (Dec. 15, 2004).

36. *Id.* at 22-23 ¶ 41 (emphasis added) (citing Memorandum Opinion and Order, *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation for Consent to Transfer Control of Licenses and Authorizations*, 19 F.C.C. Rcd 21522 (Oct. 26, 2004), at ¶ 74).

hypothetical monopoly producer of wireline service would require the control of wireless service before it could raise its prices profitably. Such an outcome is possible when the price-constraining effects of wireless and wireline are not symmetric. In summary, one cannot make inferences about the existence of a market for wireline-only services based solely on the existence of a market for wireless services.

### 3. VoIP

12. Even aside from cable companies, VoIP is available from multiple independent providers to anyone that has or can obtain broadband service—more than 90 percent of all U.S. households.<sup>37</sup> And VoIP is competitively priced and growing rapidly. Dr. Wilkie fails to consider the following market facts:

- VoIP providers typically offer consumers unlimited local and long distance calling plans that are commonly \$15 per month less than similar unlimited plans offered for fixed-wire service.<sup>38</sup>
- Many in the investment community note the strong influence that VoIP will have in the coming years.<sup>39</sup> John Hodulik, an analyst for UBS Investment Services, explains that VoIP is a “deflationary factor” that “is going to put substantial pressure on pricing [for phone services] over the next five years.”<sup>40</sup>
- In September 2004, for example, AT&T lowered the price of VoIP service—its second reduction in four months—from \$35 to \$30.<sup>41</sup> Vonage lowered the price of its unlimited plan from \$35 to \$30 in May 2004,<sup>42</sup> then again to \$25 in reaction to an AT&T price

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37. See Hassett et al. Decl. ¶ 58.

38. See Reinhardt Krause, *Internet Phone Calls Could Squeeze Prices*, INVESTOR’S BUSINESS DAILY, Dec. 12, 2003.

39. *Id.* at 2 (projecting that by 2008 to 2010, the Bell companies will have lost 20 to 30 percent of their current share of voice consumers); Legg Mason, *Three Trends and a Train Wreck: Consolidation, Broadband/VoIP, and Bundling are Driving Market But on Collision Course with Telecom and Media Regulation System*, Nov. 17, 2003, at 9.

40. Reinhardt Krause, *Internet Phone Calls Could Squeeze Prices*, INVESTOR’S BUSINESS DAILY, Dec. 12, 2003 (quoting John Hodulik).

41. AT&T News Release, *AT&T Lowers Price of Its Residential VoIP Service*, Sept. 30, 2004; AT&T News Release, *AT&T CallVantage Service Expands To Serve 10 Major Markets in Florida*, June 14, 2004.

42. Vonage Press Release, *Vonage Drops Residential Premium Unlimited Plan by \$5 to \$29.99*, May 17, 2004.

cut.<sup>43</sup> In October 2004, AT&T introduced a new CallVantage plan offering unlimited local service for \$19.99 per month, with local toll and long distance calling to the U.S. and Canada billed at \$0.04 per minute.<sup>44</sup>

- As a result, VoIP competition is rapidly increasing. Vonage, for example, provides service to 600,000 customers and continues to add 15,000 customers per week.<sup>45</sup> And other significant competitors, such as AOL, are also now providing VoIP service.<sup>46</sup>

Thus, the market facts show that VoIP has the potential to constrain the prices of wireline operators.

**B. Dr. Wilkie's Analysis Is Based on the Flawed Claim that Intermodal Competition, Particularly from Cable and VoIP, Is Insignificant Because the Number of Subscribers Is Allegedly Very Small**

13. As explained above, the assertion that intermodal competition is insignificant is factually wrong. To the contrary, the number of subscribers to alternative platforms such as wireless and cable is significant and growing rapidly.

14. In any case, the relevant question is not the actual number of subscribers today, but the degree to which customers could switch to these alternative services in response to a hypothetical price increase and therefore operate as a competitive constraint. In particular, to test whether "bundled unlimited calling wireline products" represents a distinct product market, one has to consider whether a hypothetical monopoly provider of "bundled unlimited calling wireline products" could profitably sustain a price increase. Dr. Wilkie suggests that a large share of wireline customers would be required to cut the cord to render that hypothetical price increase unprofitable, implying (incorrectly) that "bundled unlimited calling wireline products" represent

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43. See Justin Hyde, *AT&T, Vonage Cut Prices on Internet Calling*, Reuters, Sept. 30, 2004; Vonage Press Release, *Vonage Upgrades Local Unlimited Calling Plan to Premium Unlimited Plan*, Oct. 1, 2004.

44. See AT&T News Release, *AT&T Introduces New Residential VoIP Plan*, Oct. 14, 2004.

45. Vonage Press Release, *Vonage Contracts with Verizon for Nomadic Voip E9-1-1 Service* (May 4, 2005).

46. See AOL Press Release, *America Online Introduces AOL® Internet Phone Service* (Apr. 7, 2005).

a discrete product market. To suggest that such massive substitution would not occur in response to a hypothetical price increase, Dr. Wilkie points out that “only six million households have cut the cord” to switch to wireless, and “only 3.5 million cable telephony subscribers, including VoIP.”<sup>47</sup> But what has happened in the past (in response to a *price decrease in wireless service* as opposed to the hypothesized *price increase in wireline service*) is not informative. In fact, it is likely that consumers have limited their migration to wireless, cable telephony, and VoIP at least in part because wireline carriers have begun to offer their own low-priced all-distance offerings. The relevant question is how many wireline customers would switch *today* in response to a hypothetical price *increase* by wireline carriers.

15. Given the high fixed costs of the telecommunications industry (and the consequent fact that marginal cost is relatively small compared to price), it turns out that only a small defection by wireline customers to wireless or cable-based VoIP networks is required to defeat any hypothetical price increase by incumbent wireline providers. Given the extant displacement to these rival networks *and the potential for even greater substitution in the future* given the broad availability of these intermodal alternatives on competitive terms, it is reasonable to infer that a hypothetical monopoly provider of “bundled unlimited calling wireline products” would not be able to increase prices profitably—that is, “bundled unlimited calling wireline products” does not represent a discrete antitrust product market.

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47. *Wilkie Declaration* at 24 ¶48.

**C. The Transaction Will Not Weaken Competition in the Mass Market for Voice Services, and It Will Not Reduce Intermodal Competition**

16. The relevant market for the analysis of this transaction at a minimum includes mass market voice services over all competing platforms; indeed, as we discussed in our opening declaration, non-traditional services such as e-mail and instant messaging also compete for what otherwise would be revenue-producing voice minutes. MCI is no longer a significant market participant with respect to mass market customers, a fact which Dr. Wilkie simply ignores. As we explained in our previous report, technological developments, regulatory changes and market evolution caused MCI to scale back its mass-market operations substantially.<sup>48</sup> Because MCI's wireline mass-market operation is irreversibly declining, the Verizon-MCI transaction would not eliminate a significant competitor for mass-market voice service.

17. Moreover, Dr. Wilkie's attempted "merger simulation" does not come close to proving otherwise.<sup>49</sup> He appears to claim that because many customers that MCI loses currently churn to Verizon, after the merger, the combined company could profitably increase prices because the MCI customers would then just select Verizon service. But this is not the relevant question. Because consumers face many more options for telephone service than in the past, the critical question is whether the combined company would be able to sustain a price increase to its customers (whether they were originally Verizon customers or MCI customers), without losing so many customers as to make the price increase unprofitable. Dr. Wilkie's simulation cannot answer that question. But, given the market facts described above, such a price increase would result in lost customers to intermodal competitors.

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48. *See* Declaration of Wayne Huyard at 3 ¶ 4, 5-6 ¶¶ 10, 11.

49. *Wilkie Declaration* at 24 ¶ 43.

18. In any event, Dr. Wilkie’s analysis is flawed even on its own terms. He concedes that reliable estimates of the own- and cross-price elasticities for the purported three firms (Verizon, AT&T, and MCI) in the purported market (“bundled unlimited wireline services”) are needed to estimate unilateral price effects.<sup>50</sup> But Dr. Wilkie fails to provide any reliable estimates for the matrix of own- and cross-price elasticities. With respect to the own-price elasticities, Dr. Wilkie suggests that “[o]ne number frequently used as an approximation for markup factor is the EBITDA to revenue ratio.”<sup>51</sup> First, Dr. Wilkie fails to provide a citation in support of that claim. Second, as empirical economists who have worked on over 20 merger cases combined, we cannot recall observing this approximation used in practice. In Bertrand equilibrium, the markup factor for each firm, defined as the ratio of price less *marginal cost* to price, is equal to the inverse of that firm’s own-price elasticity of demand. The EBITDA to revenue ratio, which simplifies to price less *average total cost* (before interest, taxes, and depreciation) to price,<sup>52</sup> does not always serve as good proxy for a direct estimate of the own-price elasticity of demand, especially in network industries where average total costs significantly exceed marginal costs. Finally, Dr. Wilkie provides this ratio for only *one* firm (“MCI’s wireline services”) as a proxy for the own-price elasticity, but the merger simulation model requires estimates of the own-price elasticity of demand for *all* firms in the purported market.

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50. *Wilkie Declaration* at 24 ¶ 43.

51. *Id.*

52. Earnings can be written as total revenues less total costs. Dividing both sides by quantity yields price less average total costs.

19. With respect to the cross-price elasticities, Dr. Wilkie presents an estimate of the diversion ratio for MCI customers who substitute to Verizon.<sup>53</sup> Again, Dr. Wilkie fails to provide a citation for his estimate. Dr. Wilkie also fails to provide estimates for the diversion ratio of (1) MCI customers who substitute to AT&T (as opposed to churning to some substitute such as wireless or cable-based VoIP), (2) AT&T customers who substitute to Verizon, (3) AT&T customers who substitute to MCI, (4) Verizon customers who substitute to MCI, and (5) Verizon customers who substitute to AT&T. He also fails to provide the formula that would convert diversion ratios into cross-price elasticities. More importantly, Dr. Wilkie fails to provide estimates of churn to carriers other than AT&T, Verizon, and MCI. Without these critical inputs, it is impossible to rely on his “merger simulation” model.

## **II. THE TRANSACTION WILL NOT HARM COMPETITION FOR MASS MARKET LONG DISTANCE SERVICE**

20. Dr. Wilkie argues that the proposed transaction between Verizon and MCI will lead to higher prices in the purported long distance market because the merger can be thought of as the reverse of BOC entry, which clearly decreased long distance prices.<sup>54</sup> As a result, he predicts that “the removal [of the RBOC] as an independent competitor would significantly raise prices.”<sup>55</sup> His dire prediction is wrong on several counts. In particular, he ignores the

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53. *Wilkie* at 25 ¶ 43.

54. *Id.* at 19 ¶ 41 (citing Jerry A. Hausman, Gregory K. Leonard, & J. Gregory Sidak, *Does Bell Company Entry Into Long-Distance Telecommunications Benefit Consumers?*, 70 ANTITRUST L. J. 463-484 (2002)).

55. *Id.* Dr. Wilkie’s two reports are nearly identical, the major difference being that Conversent Communications, TDS Metrocom, and Xspedius Communications did not sponsor his second report.

constraining effect of wireless and cable-based VoIP offerings, which have become much more important in the years since RBOC entry into long distance services.

**A. Long Distance Services Are Unlikely To Represent a Distinct Product Market**

21. It is not obvious that a standalone provider of long distance service could operate at a profit. Much in the way paging services have been incorporated into cellular telephone services, long distance service has now been bundled into wireless, cable-based VoIP, and wireline all-distance voice offerings. If consumers prefer such bundles to the purchase of these services separately, standalone long distance providers would have to offer their services at prices that induce consumers to overcome this preference and that may not cover their costs. Therefore, long distance services probably do not represent a distinct antitrust product market.

**B. The Market Facts Demonstrate that Intermodal Competition for Long Distance Calls Is Particularly Fierce and that the Transaction Therefore Will Not Adversely Affect Long Distance Competition.**

22. Dr. Wilkie ignores the constraining effect of wireless and VoIP offerings on wireline mass-market long distance service. Unlike local service, where the provider's profits are not very sensitive to minutes of use, competition for long distance occurs for the marginal minutes, as well as for the marginal user. Hence, the shift of long distance minutes from wireline networks to wireless and cable-based and other VoIP providers imposes significant constraints on the pricing of long distance service over wireline networks.

23. As we demonstrated in our original declaration in this proceeding, by 2002, the actual number of long distance switched access minutes was more than *400 billion* below what



would be expected based on previous trends and other relevant variables.<sup>56</sup> At the same time, the number of interstate minutes on wireless networks increased from 16 percent to 26 percent of the total from 2000 through 2002,<sup>57</sup> reaching 179.3 billion minutes in 2002. Hence, nearly 45 percent of the unexplained decrease in interstate switched access minutes over wireline networks (equal to 179.3 billion divided by 400 billion) was lost to wireless networks. This displacement of long distance minutes from wireline to wireless networks significantly constrains the prices for wireline long distance service.

24. Finally, cable and VoIP provide consumers with alternatives for copper-wire long distance service. As we explained in our original report, whereas a circuit-switched network maintains a constant connection between two parties for the duration of a telephone call, a packet-switched network handles a call as digital data, thereby minimizing the connection time between two parties during a call and making less extensive use of network capacity.<sup>58</sup> VoIP systems thus can lower the provisioning cost of long distance service relative to traditional telephone networks. These lower costs are reflected in lower prices. VoIP providers typically offer consumers unlimited local and long distance calling plans that are commonly \$15 per month less than similar unlimited plans offered for wireline service.<sup>59</sup> For example, using VoIP, in late 2004, Cablevision offered unlimited local and long distance calling to all 4.4 million homes passed by its network in the greater New York City area (the vast majority of whom live

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56. *Crandall-Singer Declaration* at 8-11.

57. FCC Trends in Telephone Service, May 2004, at tbl. 11.4 (citing survey data from TNS Telecoms ReQuest Market Monitor).

58. See Jeff Tyson, *How IP Telephony Works*, HOWSTUFFWORKS.COM, available at <http://computer.howstuffworks.com/ip-telephony1.htm>.

59. See Reinhardt Krause, *Internet Phone Calls Could Squeeze Prices*, INVESTOR'S BUSINESS DAILY, Dec. 12, 2003.

in Verizon territory) for \$34.95, inclusive of taxes and surcharges.<sup>60</sup> VoIP startup Vonage offers a “Residential Basic Plan,” which provides a 500-minute bundle of local, toll, and long distance to the U.S. and Canada for \$14.99, and an unlimited bundled plan for \$24.99.<sup>61</sup> The pricing plans of these competitors will continue to constrain the long distance pricing of the merged Verizon-MCI.

25. Given that a very large share of long distance minutes have already shifted away from traditional wireline services, it is inconceivable that any combination of the remaining wireline players could profitably raise prices to end-users of long distance service. Moreover, because the combined Verizon-MCI would not have market power in the purported long distance market—indeed, the merged firm would lack market power in the relevant (larger) mass market for voice services—the transaction also would not increase the merged firm’s incentive to deny access to resellers of long distance service (that is, to wholesale customers). Indeed, with ample network capacity, the combined Verizon-MCI will prefer to collect *some* wholesale revenue on its own network over *no* retail revenue for long distance traffic that ends up on alternative facilities. Presumably this is why, when the long distance business was opened for competition, AT&T developed a wholesale offering for other long distance providers.

26. Standalone long distance companies’ mass-market revenues are declining at annual rates of 15 percent per year. When considering the combined effect of remaining wireline long distance offerings, wireless services, cable-based VoIP and circuit-switched services, and

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60. See Cablevision Press Release, *Direct-Dial International Calling Now Available with Cablevision’s Optimum Voice*, Sept. 13, 2004; Optimum Voice, *Pricing*, available at <http://www.optimumvoice.com/index.jhtml?pageType=pricing> (downloaded Oct. 12, 2004).

61. See Vonage Press Release, *Vonage Upgrades Local Unlimited Calling Plan to Premium Unlimited Plan*, October 1, 2004.

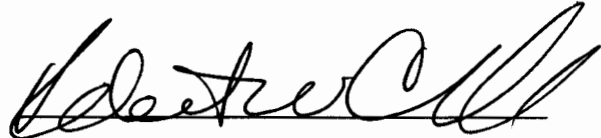
other VoIP offerings, the merged firm will not have the market power to increase its price of long distance services.

### CONCLUSION

27. We reject Dr. Wilkie's assertion that the relevant product market consists of service packages for bundled all-distance calling over wireline networks and that the transaction will be a "classic three to two" merger in this market. The relevant product market for mass market customers is voice services, regardless of (1) the type of platform over which the services are delivered, (2) whether those services are purchased as a bundle or on an *a la carte* basis, and (3) whether those services are priced on an incremental basis or on an unlimited basis. By defining the relevant market so narrowly, Dr. Wilkie denies the inter-modal competition among fixed line, wireless, cable, and VoIP operators for mass market customers. We also reject Dr. Wilkie's claims that this transaction will harm competition for long distance services. Within this segment, consumers have already demonstrated the willingness to substitute to alternative networks for all, or substantial portions, of their long distance minutes.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.


Executed on May 23, 2005

A handwritten signature in black ink, appearing to read "Robert W. Crandall", written in a cursive style.

Robert W. Crandall

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on May 20, 2005

  
Hal J. Singer