Exhibit No. ____ (WET-1T)
Docket No. UT-050814

BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Joint Application of	)	
Verizon Communications Inc. and MCI, Inc.	)	**Docket No. UT-050814**
for Approval of Agreement and Plan of Merger.	)	

TESTIMONY OF
DR. WILLIAM E. TAYLOR
ON BEHALF OF
VERIZON COMMUNICATIONS INC. AND
MCI, INC.

CONFIDENTIAL PER WAC 480-07-160

[Redacted Version]

June 28, 2005

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I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND ADDRESS AND BRIEFLY SUMMARIZE YOUR QUALIFICATIONS.

A. My name is William E. Taylor. I am Senior Vice President of NERA Economic Consulting ("NERA"), head of its Communications Practice, and head of its Boston office located at 200 Clarendon Street, Boston, Massachusetts 02116. I have been an economist for over thirty years. I earned a Bachelor of Arts degree from Harvard College in 1968, a Master of Arts degree in Statistics from the University of California at Berkeley in 1970, and a Ph.D. from Berkeley in 1974, specializing in Industrial Organization and Econometrics. For the past thirty years, I have taught and published research in the areas of microeconomics, theoretical and applied econometrics, which is the study of statistical methods applied to economic data, and telecommunications policy at academic and research institutions. Specifically, I have taught at the Economics Departments of Cornell University, the Catholic University of Louvain in Belgium, and the Massachusetts Institute of Technology. I have also conducted research at Bell Laboratories and Bell Communications Research, Inc.

I have testified on telecommunications economics before numerous state regulatory authorities, the Federal Communications Commission, the Canadian Radio-Television and Telecommunications Commission, the New Zealand Commerce Commission, the Commission Federal de Telecomunicaciones de México, U.S. federal and state congressional committees and courts. I have twice been chosen by the Commission Federal de Telecomunicaciones de México and

Telefonos de Mexico ("Telmex") to arbitrate renewals of the Telmex price cap plan in Mexico.

I have testified before Washington Utilities and Transportation Commission on a variety of economic issues, including local competition, rate rebalancing, and price regulation.

A copy of my curriculum vitae is included with this testimony as Exhibit WET-2.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Verizon Communications Inc. ("Verizon") and MCI, Inc. ("MCI") asked me to assess the economic effect of Verizon's planned merger with MCI. Specifically, I was asked to examine the transaction in light of economic principles and the rapidly evolving trends in the communications industry, as well as against the standard articulated by the Washington Utilities and Transportation Commission (the "Commission") in the Scottish Power, case,[1] -- *i.e.*, that the transaction not harm the public interest. In my testimony, I focus principally on the competitive effects of the transaction, by which I mean the effect on customer choice and alternatives. Verizon's policy witness, Carl Danner, and MCI's policy witness, Michael Beach, focus primarily on the benefits of the transaction.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

[1] Docket No. UE-981627, *In the Matter of the Application of Pacific Corp. and Scottish Power*, PLC (3d Supp. Ord., April 1999) ("The standard in our rule does not require the Applicants to show that customers, or the public generally, will be made better off if the transaction is approved and goes forward. In our view, Applicants' initial burden is satisfied if they at least demonstrate no harm to the public interest.")

A. My testimony consists of three sections. In this section, I summarize my testimony and my principal findings and conclusions. In Section II, I discuss general industry trends and developments, including the convergence of technologies and intermodal competition. I then explain how those industry trends and developments provide the business rationale for the transaction and ensure that competition will not be harmed as a result of the transaction. In Section III, I focus on how the transaction will not harm competition in Washington. I explain that: Verizon[2] and MCI[3] provide complementary services; there is little overlap of the companies' services in Washington; and, there are multiple competitors in those areas of the state in which the two companies have overlapping local facilities; thus, the transaction will not harm competition. I also explain that the intermodal competition occurring nationally is strong in Washington, and provides further assurance that competition will not be harmed as a result of the transaction. In particular, I discuss how the transaction will not harm competition for mass market customers or enterprise customers.

Q. WHAT ARE YOUR PRINCIPAL OBSERVATIONS AND CONCLUSIONS CONCERNING THE TRANSACTION?

[2] I understand that Verizon Communications, Inc., the parent company acquiring MCI, Inc., is a Delaware holding company that itself provides no services. For ease of reference, however, I will use the term "Verizon" to refer to any Verizon entities or subsidiaries that do provide services.

[3] I understand that MCI, Inc. is a Delaware holding company that itself provides no services. For ease of reference, however, I will use the term "MCI" to refer to any MCI entities or subsidiaries that do provide services.

A. As I discuss in greater detail below, my factual and economic analyses show that the transaction will not harm competition in Washington. More specifically, I show that:

- Verizon and MCI bring complementary assets and strengths to the transaction:
  - MCI brings a solid base of large enterprise customers (which includes Fortune 1000 companies, the federal government, large state governments and large institutions) on a national and international basis. It also has an IP-based national and international network; and
  - Verizon brings a robust local network in key parts of the country, a solid regional base of residential and small to medium business customers, and a strong wireless investment. Thus, Verizon has the incentive and the ability to invest in MCI's network facilities.
- The companies' decision to bring these complementary assets together through this transaction is an economically appropriate response to the rapid transformation of the communications industry that has been brought about by: (1) the emergence and tremendous growth of competition from cable broadband and telephony, wireless carriers, Internet service providers and voice over Internet protocol ("VoIP") providers for customers of all types; (2) the convergence of voice, data, Internet and video services on each of the major platforms – *i.e.*, wireline, cable, wireless and IP networks; and (3) customers' growing reliance on diverse sets of communications platforms, including traditional and broadband wireline services platforms (providing voice, DSL, Internet, instant messaging, and VoIP), cable platforms (providing video, voice, and broadband Internet and other data services) and wireless mobile platforms (providing voice, data, Internet, VoIP, short text messaging, and soon video).
- These industry developments have put substantial competitive pressure on both companies' wireline voice services. Verizon and MCI have each seen significant and continuous reductions in wireline volumes (lines and minutes of use) and revenues. Indeed, MCI has described its consumer business as in a state of "continuing and irreversible decline." Consequently, MCI has decided, independent of the merger, to focus its marketing

efforts on the enterprise and commercial markets and manage the decline of its mass market business. Verizon has attempted to offset its declining revenues from its traditional wireline business by investing in broadband, long-distance, and wireless services.

- The post-transaction company will bring increased investment to critical infrastructure and will be in a better position to provide a wider array of competitively priced, facilities-based services than either company would have been able to provide alone. Thus, the transaction will enhance Verizon's transformation into a national broadband and wireless services provider.

- Although I do not believe a formal relevant market analysis is needed, it is useful, for expository purposes, to consider two customer segments:

  - "Mass market customers," which for purposes of this testimony include residential and small business customers; and

  - "Enterprise customers," which for purposes of this testimony include large and medium-sized business customers.[4]

- The transaction will not harm competition for mass market customers in Washington since MCI's mass market business is in a continuing and irreversible decline, and, as a result, MCI has *already* begun to increase its rates for mass market services and sharply decrease its marketing activities to these customers. Accordingly, MCI would not be a significant competitor to Verizon in serving mass market customers if the transaction did not take place. Moreover, this transaction will not in any way impair the intermodal competition that is occurring nationwide and in the state today. The transaction will not displace the numerous other service choices — including cable, wireless, broadband, VoIP, and traditional

[4] As I explain below, there is a continuum of medium-sized business customers that runs from sophisticated medium-sized customers that are served using the same types of products and sales methods as the enterprise customers to those that are served using the same types of products and sales methods as mass market customers. For the most part, I consider medium-sized business customers as part of the enterprise segment. To the extent that some medium-sized business customers act more like small business customers, the competitive impact of the transaction on them (which is insignificant) is effectively covered by my discussion of the impacts on the mass market customers.

wireline services — currently available to, and used by, mass market customers in the state.

- The transaction will facilitate the post-transaction company's ability to meet the demands of large enterprise customers. At the same time, competition for such customers will not be harmed since these customers are sophisticated businesses that use a variety of means to purchase communications services and that rely on an array of communications platforms and a diverse group of competitive suppliers, including: (1) inter-exchange carriers ("IXCs"); (2) network service providers, such as AT&T, BT and Equant; (3) systems integrators, such as IBM; (4) equipment providers, such as Cisco and Avaya that provide and manage deployment of private network and VoIP equipment for virtual private network ("VPN") services; (5) competitive local exchange carriers ("CLECs");[5] (6) data local exchange carriers ("DLECs"); and (7) IP applications providers.

II. THE TRANSACTION IS AN ECONOMICALLY APPROPRIATE RESPONSE TO INDUSTRY DEVELOPMENTS

A. Overview of the Companies

1. MCI

Q. PLEASE PROVIDE AN OVERVIEW OF MCI'S BUSINESS.

A. MCI's subsidiaries[6] offer communications services through three business segments defined by their customer bases: "Enterprise Markets;" "U.S. Sales and Service;" and "International and Wholesale Markets."[7] The Enterprise segment includes the largest and most complex business customers, including the Fortune 1000, as well as similarly complex government and institutional accounts. MCI's

[5] CLEC means competitive local exchange carrier, which is a new entrant that competes with the ILEC.

[6] The MCI subsidiaries operating in Washington that are registered with the Commission are listed in paragraph 8 of the Joint Application.

[7] MCI Announces Fourth Quarter and Full-Year 2004 Results, MCI Press Release, Feb. 25, 2005.

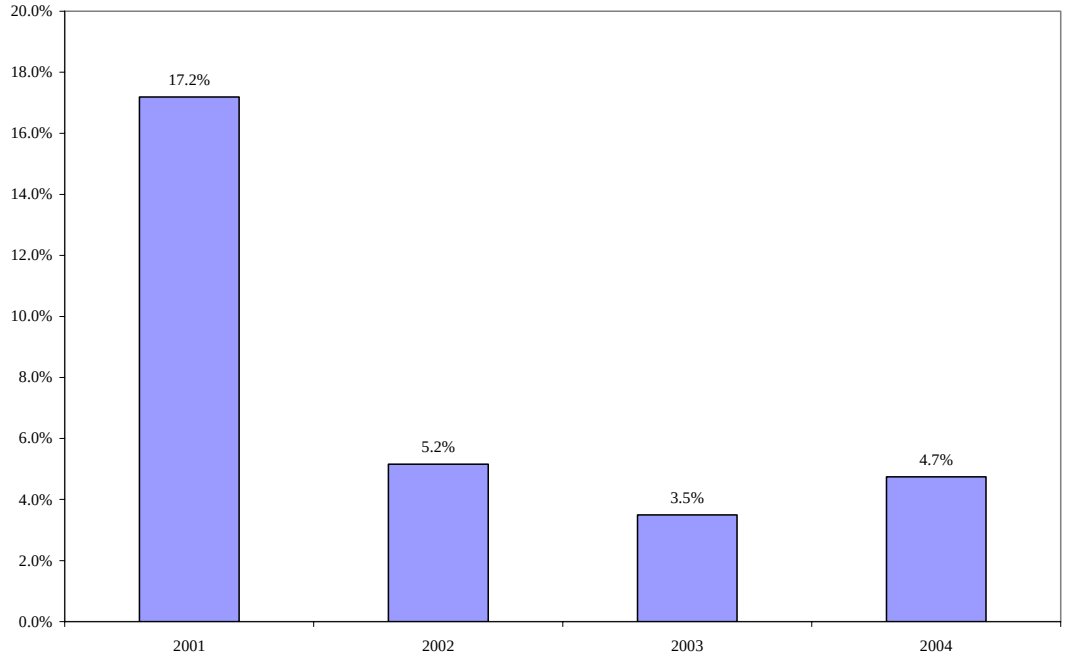
enterprise segment primarily serves large enterprise customers, including 75 federal government agencies. MCI's enterprise services include a comprehensive portfolio of local-to-global data, Internet and voice services, including IP network technology, VPN services, SONET private line, frame relay, ATM and a full range of dedicated, dial-up, and value-added Internet services.

The U.S. Sales and Service segment encompasses both commercial and mass market segments. The commercial market segment includes other large and medium businesses, while the mass market segment sells to residential customers and small businesses. The international and wholesale market segment provides services to foreign entities and wholesale customers.

MCI has a strong and successful interstate and international enterprise segment sales organization and network assets. MCI's extensive long-haul fiber network is particularly well equipped to handle Internet protocol and data traffic, and its extensive international network is capable of providing transport both across countries and in cities outside the United States.

Between 2001 and 2004, MCI's capital expenditures fell from about $6.5 billion to $1 billion per year. Expressed as a percentage of its revenues, MCI's capital expenditures for this period are set forth in Figure 1 below.

Figure 1
MCI Wireline Capital Expenditures as a Percentage of Wireline Revenue[8]



Source: MCI 10Ks

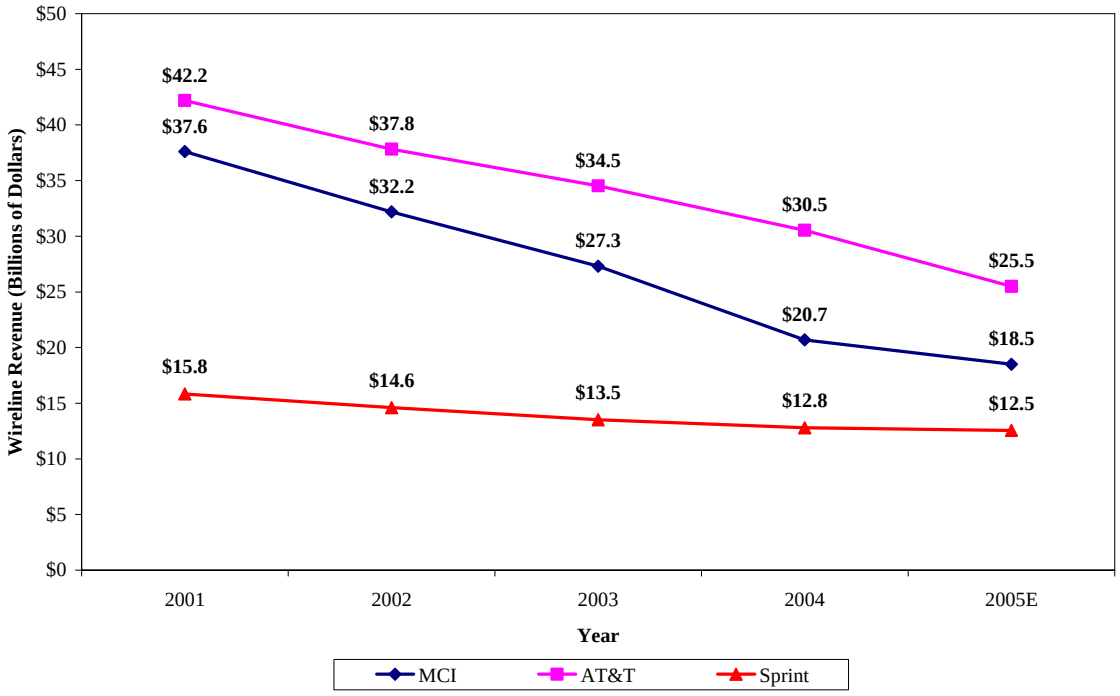
Q. HAVE EVOLVING TECHNOLOGICAL AND MARKET TRENDS AFFECTED MCI'S WIRELINE REVENUES?

A. Yes. Like other wireline toll carriers, MCI has recently experienced a substantial and continuing decline in wireline revenues. As MCI's policy witness, Michael Beach**,** explains in greater detail in his testimony, factors leading to this decline include: the surge in the growth of wireless competition; restrictions on marketing resulting from "Do Not Call" legislation; and competitors' adoption of new, unregulated technologies and applications that make possible such services

[8] Note that the 4.7 percent shown for 2004 is from MCI's 2004 SEC Form 10 K. It differs slightly from the corresponding estimate of 4.9 percent from the January 14, 2005 UBS *Wireline Telecom Play Book* reported in the declaration of Bamberger, Carlton, and Shampine, Figure 2, filed on behalf of Verizon with the FCC on March 11, 2005. But regardless of which figure is used, the evidence of declining investment is clear.

as messaging on-the-go, high speed data connections, cable telephony, VoIP, e-mail and instant messaging. Figure 2 below depicts the trends in the major IXCs' wireline revenues, including MCI's wireline revenues:

Figure 2
Wireline Revenue of MCI, AT&T and Sprint
2001 through 2005



Sources: Company Form 10-Ks and Hodulik, John C., et. al, "Wireline Telecom Play Book," UBS Investment Research, January 14, 2005.

As shown in Figure 2, MCI's wireline revenues have declined by an average of 18 percent per year from 2001 through 2004.

Moreover, as Mr. Beach explains, MCI's mass market revenues fell by 20 percent from 2003 to 2004. And analysts predict "accelerating revenue declines in the

consumer, international, and wholesale segments with some improvements in the enterprise segment"[9] in 2005.

Q. HOW HAS MCI DECIDED TO MANAGE ITS DECLINING REVENUES?

A. As Mr. Beach explains, MCI's declining wireline revenues and sales volumes informed that company's decision to reduce dramatically its marketing efforts to mass market customers, including very significant reductions in mass market advertising, reductions in force among its mass markets sales force, as well as closing several call centers.

2. Verizon

Q. PLEASE PROVIDE AN OVERVIEW OF VERIZON'S BUSINESS.

A. Verizon subsidiaries[10] provide wireless communications throughout the United States and provide wireline services in 28 states (including Washington), and the District of Columbia. Verizon's operations include four business segments: domestic, wireless, information services, and international.[11] Verizon's domestic communications services include voice and data services, Centrex services, as well as exchange access services, including switched access and special access services.

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[9] *Wireline Telecom Play Book,* UBS INVESTMENT RESEARCH, Jan. 14, 2005, at 58.

[10] The Verizon companies that are registered with the Commission are listed in paragraph 5 of the Joint Application filed in this docket. Other Verizon firms do business in the state, including Verizon Wireless, Verizon Online, and Verizon Information Services Company.

[11] *Verizon Fourth Quarter 2004,* Investor Quarterly, Jan. 27, 2005.

Verizon owns 55 percent of Verizon Wireless through a joint venture agreement with Vodafone Group Plc ("Vodafone"). Verizon Wireless offers wireless voice and data services as well as wireless equipment. In addition to providing communications services, Verizon's domestic subsidiaries provide information services including directory publishing and electronic commerce. Verizon's international subsidiaries provide wireline and wireless communications operations and investments.

Q. WHAT ARE THE RELATIVE STRENGTHS OF VERIZON'S BUSINESS SEGMENTS?

A. As noted, Verizon has an extensive wireless mobile network through its joint venture with Vodafone in Verizon Wireless. The strength of this business has helped to counterbalance the decline in Verizon's traditional local wireline business.

Verizon also has a strong presence in the local mass market segment within its local exchange operating territory. Verizon currently has a limited role in serving large enterprise customers. To the extent it serves these customers, it does so primarily on a regional basis.

Q. HOW HAVE TECHNOLOGICAL AND MARKET PLACE TRENDS AFFECTED VERIZON'S TRADITIONAL WIRELINE BUSINESS?

A. Verizon's wireline business has declined substantially, with dramatic reductions in the number of retail lines served and minutes of use of its switched access services. Total Verizon retail lines in service fell by 18 percent between

December 2001 and December 2004.[12] Verizon's retail lines declined in each customer category, including residential and all business customers.[13] Between the first quarter of 2002 and the fourth quarter of 2004, demand for Verizon-provided carrier switched access service (measured by switched access minutes of use ("MOUs")) fell from **[BEGIN VERIZON PROPRIETARY]** ********** **********[END VERIZON PROPRIETARY]**.[14]

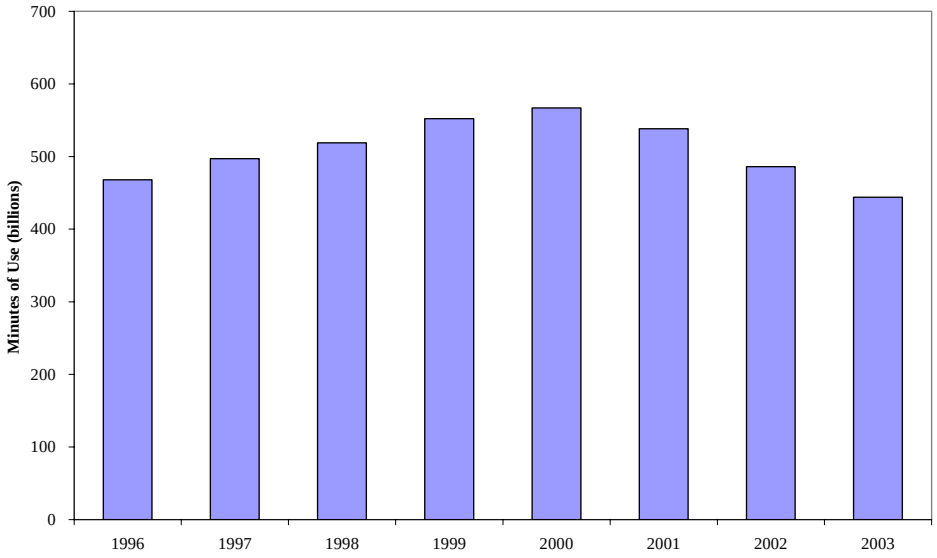
Verizon's decline in switched access MOUs is consistent with declines in national wireline toll traffic. As illustrated in Figure 3 below, national wireline toll traffic has been steadily declining since 2000:

[12] Derived from data provided by Verizon, *see* "Verizon-Total (excl. HI), Retail Quarterly Data for December 2001-December 2004, Located-Systems Basis."

[13] *Id.*

[14] Demand was measured by switched access minutes of use ("MOUs") and was derived from data provided by Verizon, *see* "Quarterly Total Switched Access Carrier Demand, Local Switching Usage."

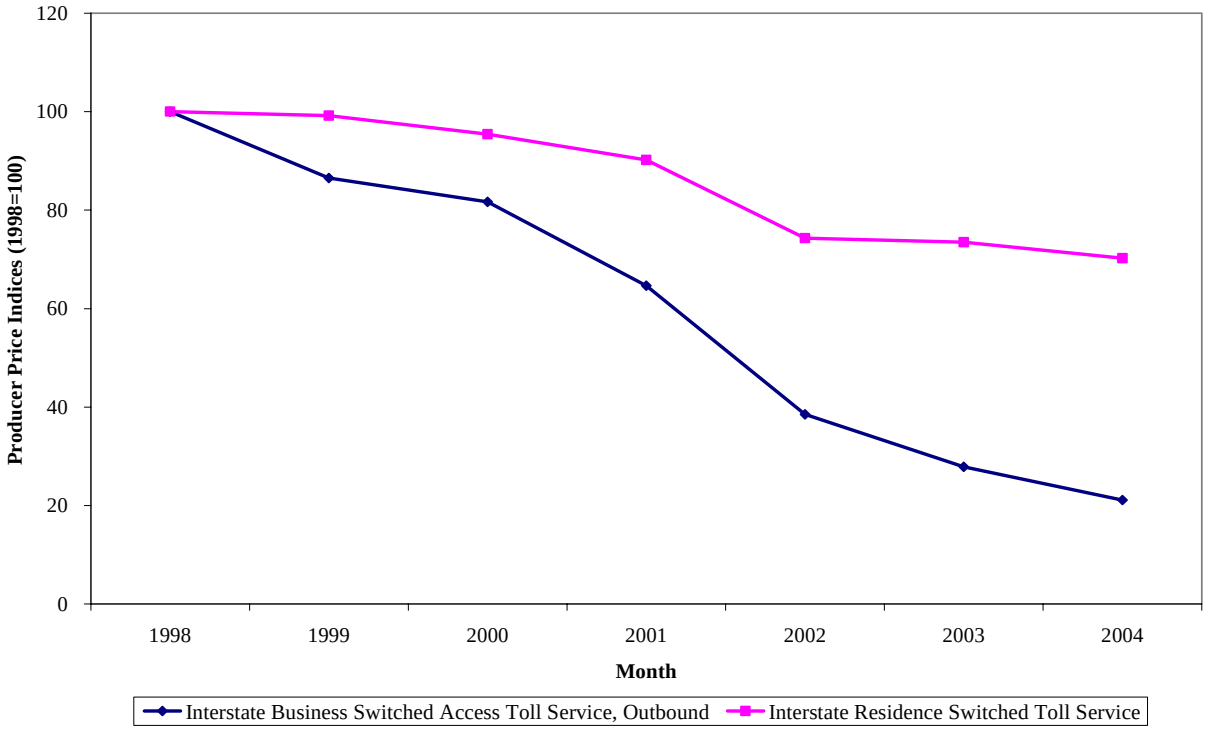
Figure 3
Interstate Switched Access Minutes
1996 through 2003



Source: Federal Communications Commission Report, Trends in Telephone Service, May 2004.

Significantly, these declines occurred in spite of dramatically lower pricing by long distance carriers. As depicted in Figure 4 below, Bureau of Labor Statistics data show that IXC prices for long distance service to residential and small business customers fell 30 percent for residential customers and 76 percent for business customers from 1999 to 2004.

Figure 4
Long Distance Producer Price Indices
1998 - 2004



Source: U.S. Department of Labor, Bureau of Labor Statistics.

Although Verizon's long distance and DSL[15] revenues have increased from 2002 to 2004, its overall wireline operating revenues fell by almost 6 percent, driven mainly by a more than 8 percent decline in local exchange revenues.[16] Industry analysts forecast that Verizon's U.S. wireline revenues will continue to fall over the next three years. UBS forecasts a decline averaging 2 percent per year, for a total 8 percent decline between 2004 and 2008.[17]

[15] "DSL" (or digital subscriber line) is a technology/service that provides high speed (*i.e.*, broadband) Internet access over copper telephone lines. Also, "ADSL" (or asynchronous DSL) refers to the fact that the upstream and downstream speeds differ.

[16] "Verizon Communications-Domestic Telecom, Analysis of Total Operating Revenue."

[17] *Wireline Telecom Play Book*, UBS Investment Research, Jan. 14, 2005, at 15.

Q. HOW ARE VERIZON'S AND MCI'S BUSINESS PROFILES AND DECREASING WIRELINE REVENUES RELEVANT TO THIS TRANSACTION?

A. From a business perspective, the proposed transaction takes advantage of the complementary nature of Verizon's and MCI's businesses and assets in a way that enables both companies to respond to the increasing intermodal competition that is driving the decline in each company's wireline revenues. As Verizon's policy witness, Carl Danner, explains in his testimony, and as MCI's policy witness, Michael Beach, explains in his, the transaction is a rational solution to the business challenges each company currently faces, and will continue to face, as a result of new technological and competitive developments in the industry.

From a regulatory and economic perspective, the complementary nature of the companies' businesses means there is little overlap of the companies' services, and where there is overlap there are plenty of other competitors providing those services; accordingly, there will be no harm to competition for any group of customers. Whereas Verizon provides wireless services across the nation, MCI provides no wireless services at all. Whereas MCI's primary advantage is in serving large enterprise customers nationally and internationally (and it has been refocusing its business on that customer segment regardless of this transaction), Verizon serves a relatively small part of that segment, chiefly within its own region. And whereas Verizon has an extensive local network and is thus a strong local service provider to mass market customers, MCI has been forced to confront and is managing the decline of its mass market business, in particular its services to the consumer segment. While there are some areas of the state where Verizon

and MCI have each deployed facilities, I will explain later that numerous other competitors have also deployed facilities in those areas such that there will be no harm to competition there.

B. Industry Developments Have Contributed To Declining Wireline Revenues and Set the Stage for the Transaction

Q. YOU PREVIOUSLY DISCUSSED DECLINES IN WIRELINE USAGE AND LINES. WHAT DO THESE DECLINES REVEAL ABOUT COMPETITION FOR WIRELINE SERVICE?

A. They prove that all wireline carriers face increasing competition for traditional voice services. More generally, convergence of communications technologies has arrived and has greatly expanded customer alternatives for traditional voice services by enabling intermodal competition from cable, wireless services, Internet communication, and broadband services and VoIP. Simply stated, convergence has transformed the communications market well beyond the traditional wireline arena and has all but obliterated the distinction between local and long distance services.

Q. WHAT IS CONVERGENCE IN THE COMMUNICATIONS INDUSTRY?

A. Historically, different networks were designed and deployed to carry different types of traffic. The wireline public-switched telephone network and mobile telephone networks were optimized to transport basic voice communications, while television broadcast and cable networks were optimized to transport video, and the Internet was designed to transport packet-based data traffic. Today, these

technologies are "converging" so that providers can use their networks to offer a wider array of services.

The FCC has defined convergence as the "evolution of communication into a core network which links multiple spaces, including automobiles, offices, homes, and individuals, in order to make them… more connected, and interconnected."[18] Convergence can also be thought of as "the successful application of rich multimedia products and integrated services that previously did not exist, or were provided separately, from organizations across Technology, Media and Telecoms sectors."[19]

These definitions correctly imply that, with convergence, the same services are provided (and marketed) over both fixed and mobile networks, and over traditional "telephone" networks, as well as cable television systems. In short, convergence refers to the provisioning of voice, data, Internet services, TV, and other communications and entertainment services over the same network. VoIP exemplifies telecommunications and IP convergence by allowing data networks to carry voice traffic.

Q. WHAT FACTORS HAVE DRIVEN THE TREND TOWARDS CONVERGENCE?

[18] *OET Tutorial: The Impact of Convergence*, FCC PUBLIC NOTICE, Feb. 4, 2000 (http://ftp.fcc.gov/Bureaus/Engineering_Technology/Public_Notices/2000/pnet0003.html, accessed December 8, 2004).

[19] Jolyon Barker, Ed Shedd, Tony Cooper and Richard Punt, *United Kingdom: Convergence is dead: long live convergence. The continuing evolution of the TMT industries*, DELOITTE, June 11, 2004 (http://www.mondaq.com/article.asp?articleid=26621&searchresults=1, accessed December 8, 2004).

A. Three fundamental factors have driven convergence: (1) technological change (such as the advent of two-way, digital, broadband networks and IP technology) which has allowed all kinds of wired and wireless networks to be used for any kind of service; (2) consumer demand for bundled services; and (3) competition among providers seeking gains from improved efficiency (economies of scale and scope), and the promise of increased revenues and lower churn rates.

Q. HOW HAS CONVERGENCE STIMULATED INTERMODAL COMPETITION?

A. As I mentioned earlier, convergence allows different types of platforms to provide increasingly similar bundles of services. As a result, traditional wireline voice carriers must compete with: (i) cable companies that have made substantial investments in their networks to provide video, data and voice services; (ii) wireless services providers that provide both voice and data services over their networks; (iii) Internet and broadband services providers that provide e-mail and instant messaging, and that enable the delivery of voice services; (iv) VoIP providers that provide their voice products over their own or others' broadband networks; and (v) other providers that are using emerging technologies to serve customers of all types and sizes in many geographic areas.

1. Cable Companies Have Emerged As Major Competitors By Bundling Broadband And Voice With Traditional Video Services.

Q. HOW DO CABLE COMPANIES COMPETE WITH WIRELINE CARRIERS?

A. Cable companies are now competing for the provision of voice and broadband services because they have already made substantial investments in upgrading their infrastructure to provide two way digital services. These upgrades have in turn enabled them to provide voice telephony and broadband services that compete directly with local exchange carrier ("LEC") broadband services and dial-up connections. This competition has stimulated lower prices for broadband services, especially to residential and small business customers, and has provided a transmission medium on which both the cable companies and VoIP providers are able to offer their voice services. Finally, cable companies have also diversified into the provision of CLEC services to larger business customers by deploying fiber networks designed to meet their needs.

Q. PLEASE DESCRIBE THE CABLE INDUSTRY INVESTMENTS THAT YOU JUST MENTIONED.

A. The National Cable Television Association ("NCTA") reports that cable companies have spent nearly $95 billion since 1996 in rebuilding and upgrading their networks, including $9.5 billion in 2004 alone.[20] The NCTA states that the upgrades have

> turn[ed] cable's hybrid fiber-coaxial infrastructure into a powerhouse capable of delivering advanced services such as Video-On-Demand, digital cable, Voice over Internet Protocol (VoIP) phone service, high-speed Internet access, and more.[21]

[20] 2004 Year-End Industry Overview, NCTA, Undated**,** at 4.

[21] *Id.* at 2.

As systems are upgraded, cable companies have aggressively deployed these new services.

Q. HOW WIDESPREAD ARE THESE DEPLOYMENTS?

A. Kagan Research estimated that by the end of 2004, cable high speed data service would be available to 104 million homes nationwide (which translates to over 86 percent of total cable homes passed) and cable telephony (both through traditional circuit switched technology and VoIP) would be available to 68 million homes nationwide (or about 56 percent of total cable homes passed). Kagan estimated that, nationally, there would be approximately 21 million actual high-speed data subscribers and 3.5 million actual cable telephony subscribers by year-end 2004. These figures translate into current penetration rates of 20 percent of high speed Internet cable homes passed for cable Internet service and 5 percent of cable telephony homes passed for cable telephony. Cable telephony subscribership is forecasted to increase to 21.3 million subscribers by the end of 2009. This converts into a penetration rate of cable telephony homes passed of 16 percent.[22] Similarly, Bernstein Research estimates cable telephony penetration rates will be about 17 percent of cable telephony homes passed in 2009,[23] by which time about

[22] Kagan Research, *Broadband Financial Databook 2004*, at 11-12 and Kagan Research, *Broadband Technology*, February 18, 2005, at 1-3.

[23] Quarterly VoIP Monitor: How High is Up for Cable VoIP? BERNSTEIN RESEARCH, March 24, 2005, at 8-9.

90 percent of total US households will be passed by cable systems offering telephony.[24]

Q. HAVE THESE DEPLOYMENTS ENABLED CABLE COMPANIES TO COMPETE WITH WIRELINE CARRIERS TO DATE?

A. Yes. Competition from advanced services provided by the cable companies has already affected traditional wireline companies. Bernstein Research estimates that incumbent LECs ("ILECs") lost about 3.5 million lines to cable and will lose about 19.5 million by 2010.[25]

2. Wireless Service Is Thriving.

Q. PLEASE DESCRIBE THE GROWTH OF WIRELESS SERVICES.

A. From December 1999 to December 2004, the number of wireless subscribers in the United States grew from 79.7 million to over 182 million.[26] According to the FCC, 23 percent of voice minutes in the U.S. in 2003 were wireless, up from 7 percent in 2000,[27] and from 1999 to 2003 the monthly minutes of use per subscriber increased from 185 to 507.[28] As shown in Figure 5 below, total

[24] *Id*. at 8.

[25] Bernstein Research, *Cable and Telecom: VoIP Will Reshape Competitive Landscape in 2005*, December 17, 2004, p. 4. Note also that this report implies that every line gained by cable is lost by LECs; *see* Exhibits 3 and 4.

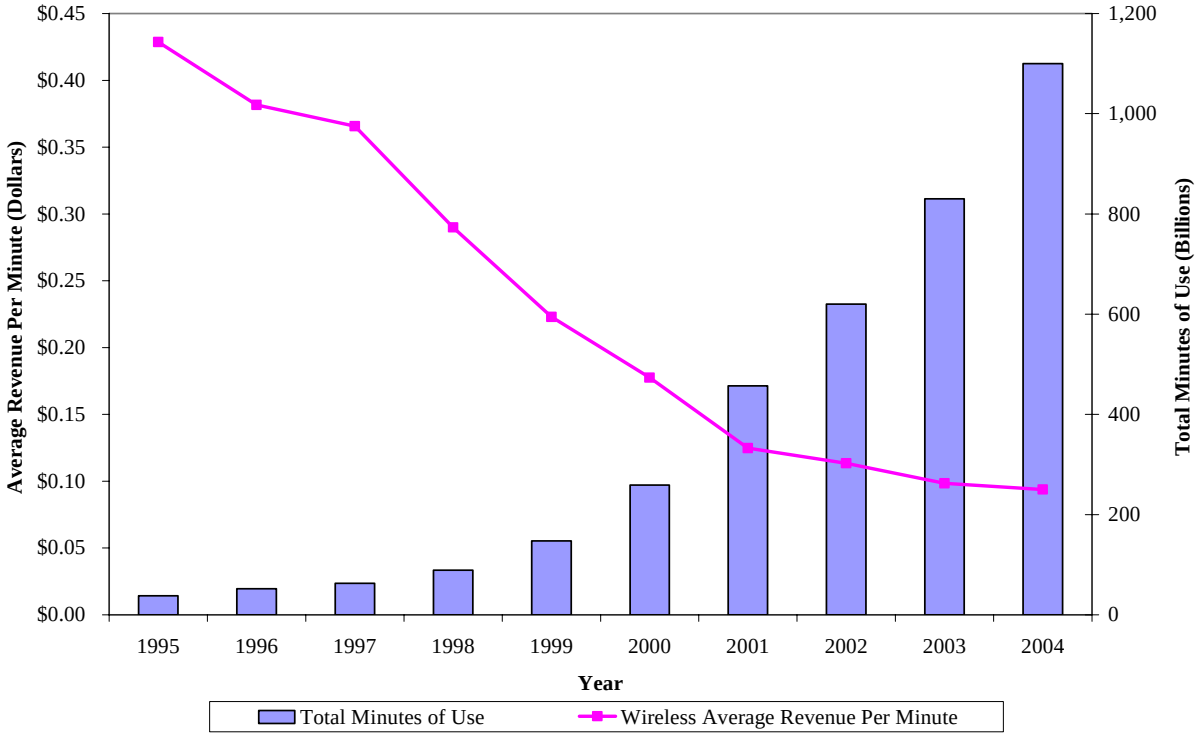
[26] FCC Report, Local Telephone Competition: Status as of June 30, 2004, Table 13; and, http://files.ctia.org/img/survey/2004_endyear/slides/EstSubscribers_4.jpg

[27] *See* In the Matter of Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Ninth Report ("Ninth CMRS Report"), FCC 04-216, released September 28, 2004, at ¶ 213.

[28] Ninth CMRS Report, Table 9.

minutes of use of wireless services increased from 38 billion in 1995 to about 1.1 trillion in 2004, a 29-fold increase in nine years. This growth has come as a result of, and has contributed to, the declining average charges for wireless usage depicted below.[29]

Figure 5
Wireless Average Revenue Per Minute and Total MOUs



Notes and Source: Federal Communications Commission Ninth Annual CMRS Competition Report, Table 9 at A-11. CTIA survey.

Q. HOW DO YOU EXPLAIN THE WIRELESS SECTOR'S SUCCESS?

A. Major technological advances and cost reductions have enabled wireless carriers to improve service quality, diversify their service offerings, and make them price-

[29] Note that BLS wireless services price indices decreased significantly from the late 1990s through 2001; leveled off and then declined slightly more through the end of 2004. Price indices for wireline services stayed relatively constant over this period as declines in toll service prices offset the local price increases. Overall, wireless prices have clearly come down by a substantial amount relative to wireline services.

competitive with competing services.[30] All wireless providers now typically offer free long-distance, large bundles (or "buckets") of usage (particularly free night and weekend minutes), and large local calling areas. T-Mobile and Sprint both offer wireless services with a price per minute as low as 5 cents.[31] And some providers now offer free "in-network" calling. Taken together, inherent mobility, low per-minute prices, "free-minute" allowances, flat-rated pricing, no long distance or roaming charges, and nationwide coverage have positioned wireless carriers to capture a significant portion of demand that was traditionally met by wireline service providers.

Wireless services have also become more attractive as providers have modified their networks and manufacturers have improved customer equipment to incorporate features such as enhanced data capability, text messaging, color screens, PDAs, greater availability of push-to-talk capability, voice activated speed dialing, speaker phones and cameras.

These advantages are demonstrated by the differences in growth between wireless and wireline services – *e.g.*, from June 30, 2001 to June 30, 2004, mobile

[30] There are two ways in which customers can use wireless services in lieu of fixed wireline services: (1) existing traffic shifts from fixed to mobile networks or when traffic growth occurs on mobile networks instead of fixed networks; or (2) when customers "cut the cord" (*i.e.*, discontinue fixed-line services) and use only mobile phone service.

[31] For carrier plans, *see*, *e.g.*, http://www.T-Mobile.com/plans/ and http://www.sprint.com/business/products/products/sprintPcsFairAndFlexible.jsp (accessed December 7, 2004). For instance, T-Mobile offers a wireless plan at $59.99 per month with 1,000 "Whenever Minutes." This translates to a least cost per minute of approximately 6 cents.

subscribership ***grew*** by an average of about 17 percent per year, while wireline subscribership ***fell*** by average by 1.5 percent per year.[32]

Q. IS THERE EVIDENCE THAT THE SUBSCRIBER GAINS AND INCREASED MOBILE USAGE THAT YOU HAVE DISCUSSED HAVE COME AT THE EXPENSE OF WIRELINE CARRIERS?

A. Yes. According to the Yankee Group, 60 percent of long distance calls in households with cellular phones are now made on wireless phones.[33] Last year, the FCC concluded that much of the decline in the wireline sector is due to increased competition from wireless providers:

> In the *Eighth [FCC CMRS] Report*, we discussed the effects of mobile telephone service on the operational and financial results of companies that offer wireline services. Such effects included a decrease in the number of residential access lines, a drop in long distance revenues, and a decline in payphone profits. In 2003 these trends continued, with the four largest LECs losing 4 percent of their access lines, and wireline long distance voice revenues declining further. One analyst stated, "wireless cannibalization remains a key driver of access line erosion."[34]

The FCC noted further:

> As we discussed in the Eighth Report, a number of analysts have argued that wireless service is cheaper than wireline, particularly if one is making a long distance call or when traveling. More recently, one analyst said, "we believe that a wireless customer is now indifferent as to whether he makes a call from a fixed line or from a wireless phone, given the prevalence of big buckets of cheap minutes."[35]

[32] FCC Report, Local Telephone Competition: Status as of June 30, 2004, Tables 1 and 13.

[33] Yankee Group, "The Success of Wireline/Wireless Strategies Hinges on Delivering Consumer Value," October 2004, p. 7.

[34] Ninth CMRS Report at ¶ 213.

[35] *Id.* at ¶ 214.

A modest but growing number of wireline customers have already abandoned their wireline phones altogether. According to the Cellular Telecommunications and Internet Association ("CTIA"), by May 2004, "163 million Americans [were using] wireless telephones in addition to their home landlines and 7.5 million to 8 million consumers [were using] wireless telephones only."[36] By June 2005 there were almost 191 million[37] US wireless subscribers, and published estimates imply that from 11 to 20 million homes may now be using wireless telephones only.[38] Furthermore, research conducted by In-Stat/MDR reveals that as of February 2004, 14.4 percent of consumers in the United States use wireless phones as their primary phone.[39] Among those consumers still using a landline phone, 26.4 percent would consider replacing it with a wireless phone.[40]

Q. IS WIRELESS DISPLACEMENT OF WIRELINE SERVICE EXPECTED TO INCREASE?

[36] Peter Brownfield, FoxNews.com, *Cell Phone Directory Raises Concerns*, May 13, 2004.

[37] http://ctia.org reports "190,827,848 Current US Wireless Subscribers," as of June 16, 2005.

[38] *See* cnet, news.com, "FCC unplugs states' rules on "naked" DSL, March 25, 2005, reports that "'cord-cutters,' [include] a group of about 20 million U.S. residents who don't have local phone lines and go solo instead with their cell phones." http://ecoustics-cnet.com.com/2102-1034_3-5637790.html?tag=st.util.print, accessed June 16, 2005. WIRELESS WEEKLY reports that "nearly 10 percent of Americans are without a landline telephone at home, a number that some analysts believe will continue to grow in the coming years. Many of those cord-cutters will use wireless phones exclusively." This estimate translates to approximately 11 million cord-cutting homes. (*see Making A Wireless Alternative Possible*, WIRELESS WEEKLY, January 15, 2005, http://www.wirelessweek.com/index.asp?layout=articlePrint&articleID=CA496823, accessed June 16, 2005.

[39] In-Stat MDR, Cutting the Cord: Consumer Profiles and Carrier Strategies for Wireless Substitution, (February 2004) ("February In-Stat/MDR Report") at 1.

[40] *Id.* at 2.

A. Yes. There are three compelling reasons to believe that increased displacement will occur: (1) the proliferation of wireless services has expanded substantially in every one of the last 20 years and shows no sign of abating; (2) a growing number of young people, especially those on college campuses, are using wireless phones in preference to wireline phones, and are likely to continue using them after graduation;[41] and (3) as more consumers become accustomed to the characteristics of wireless services — *e.g.*, slightly lower voice quality offset by greater convenience, portability and more features — they will become even more willing to give up wireline.[42]

Q. IS WIRELESS COMPETITION CONFINED TO DENSELY POPULATED AREAS?

A. No. The wireless carriers' footprints now cover extensive stretches of rural areas. According to a 2002 survey of Rural Cellular Association ("RCA") members, there is: (1) an "average of 5.1 wireless competitors in survey participants' markets, having increased steadily from 3.0 competitors in 1998;" (2) "robust and effective competition, increasing year-to-year, in the markets served by RCA members;" and (3) evidence of increasing customer usage and declining per-

[41] S. Ellison, IDC, U.S. Wireless Displacement of Wireline Access Lines Forecast and Analysis, 2003-2007 at 4 (August, 2003) ("[c]ultural awareness and acceptance of wireless as an acceptable/preferred communication medium is growing.")

[42] *See, e.g.*, R. Talbot, RBC Markets, Battle for the Broadband Home at 7 (Jan. 27, 2004) (Wireless "has gained a general level of acceptance among consumers. Consumers appear to be more willing to accept a modest reduction in the level of reliability in return for other benefits (especially low price, and improved convenience)."); *see also* Testimony of Frank Louthan, Vice President, Equity Research, Raymond James, before the Subcommittee on Telecommunications and the Internet of the House Energy and Commerce Committee, Washington, DC (Feb. 4, 2004) ("A key change in consumer preference would include acceptance of less than '5-9's' reliability for phone coverage, which I believe is already to emerge, as evidenced by the significant numbers of consumers that already view wireless as an acceptable alternative to a landline phone.").

minute pricing in rural areas, similar to trends that have been seen nationally.[43] Based on this and other evidence, the FCC concluded "that CMRS providers are competing effectively in rural areas."[44]

3. Internet and Broadband Communication Services Are Also Fundamentally Altering the Communications Industry.

Q. WHAT ROLES DO INTERNET AND BROADBAND TECHNOLOGIES PLAY IN INTERMODAL COMPETITION?

A. These technologies have spurred a fundamental change in the industry that is accelerating and that will not reverse itself. Broadband competes with wireline service by replacing dial-up connections to the Internet and by providing the medium for VoIP services. The improving speeds and reliability of broadband and the competition between cable and DSL providers has led to lower prices and higher demand for broadband services. These pricing and demand developments have, in turn, stimulated even greater use of the Internet as a substitute for voice services. E-mail and "instant messaging" ("IM") services have become more widespread and broadband has become a medium for voice traffic.

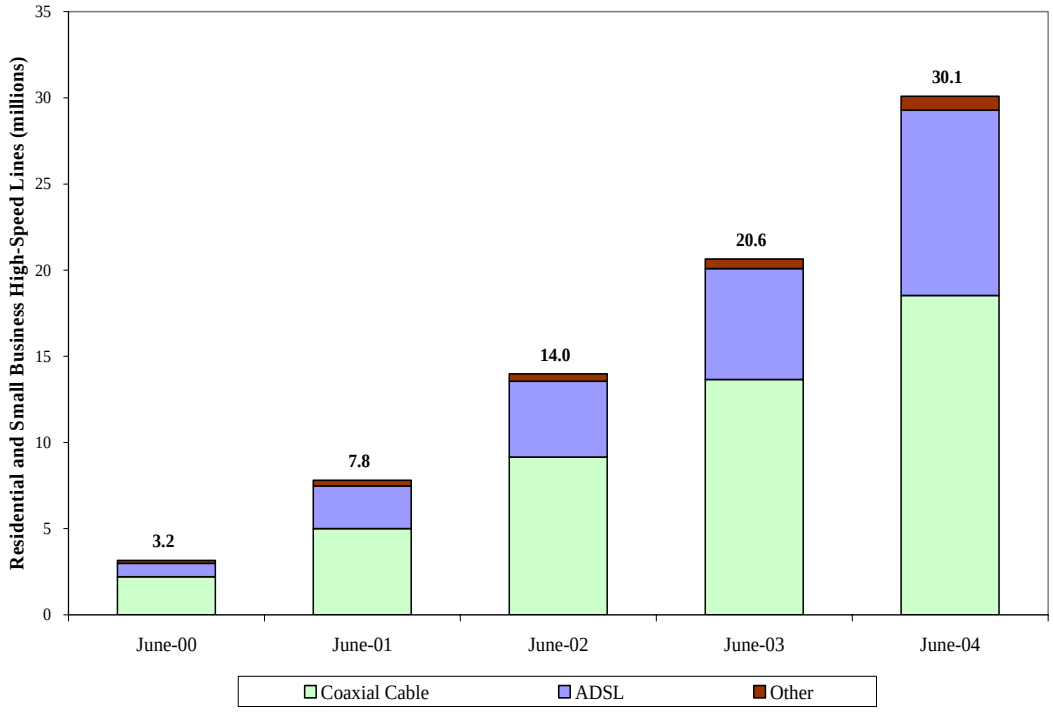
Q. HOW EXTENSIVELY ARE BROADBAND AND INTERNET SERVICES USED TODAY?

A. As shown in Figure 6 below, the number of residential and small business high speed lines has grown from less than 4 million lines in 2000 to over 30 million lines in mid-2004.

[43] Ninth CMRS Report at ¶ 110.

[44] *Id.* at ¶ 111.

Figure 6
Residential and Small Business High-Speed Lines
2000 through 2004



Source: Federal Communications Commission Report, High Speed Services for Internet Access: Status of June 30, 2004

Because DSL and cable modems are used for data services, they substitute for dial-up Internet access (which is typically obtained through the use of a second phone line) or other data services. Moreover, as noted, DSL and cable modem can be used with VoIP, making them platforms that can compete for voice calls.

E-mail and IM have changed the manner in which many people live and communicate. For instance, a recent survey found that the average American Internet user spends three hours a day online, with much of that time devoted to work and more than half of it to communications.[45] According to the Pew Internet & American Life Project, in a typical day 58 million Americans, or 83%

[45] *Survey Details U.S. Internet Use*, San Jose Mercury News, Dec. 30, 2004.

of online adults, use email.[46] Likewise, nearly 80% of Internet users use the Internet to "communicate with friends and family."[47]

E-mail and IM are undoubtedly substituting for a substantial amount of voice traffic that would have otherwise gone over the traditional telephone network. One source estimates that there are about nine billion e-mails per day in the United States alone.[48] Another source reports that 80 million people use IM in the United States, and about seven billion IMs are sent each day worldwide.[49] It is difficult to determine exactly how much voice traffic has been displaced by these Internet technologies, but they clearly substitute for a substantial number of wireline phone calls. In-Stat/MDR confirms that "[c]onsumers are using e-mail and instant messaging in place of a phone call."[50] Furthermore, an analysis presented to the FCC in the Triennial Review Order proceedings indicates that "if just 5 percent of [e-mail and IM messages] substitute for a 90 second voice call, this data traffic has displaced more than 10 percent of the voice traffic that would

[46] According to the Pew Internet & American Life Project approximately 128 million Americans 18 years of age or older use the Internet. *See Source:* "Internet The Mainstreaming of Online Life," *Pew Internet & American Life Project,* Jan. 25, 2005, p. 58.

[47] Deborah Fallows, Internet and Daily Life: Many Americans use the Internet in everyday activities but traditional offline habits still dominate, Pew Internet & American Life Project, Aug. 11, 2004, p. ii.

[48] *E-Mail and Records Management in the Legal Environment*, Legal Tech Newsletter, Nov. 14, 2003, cited in UNE Fact Report 2004, Oct. 2004, p. I-6.40.

[49] *AOL Announces That Instant Messaging Is More Popular Than Ever*, WEBPRONEWS, Aug. , 2004, available at http://www.webpronews.com/news/ebusinessnews/wpn-45-20040824AOLAnnouncesthatInstantMessagingisMorePopularthanEver.html.

[50] *State of the U.S. Carrier Market*, In-Stat/MDR, Oct. 2003, p. 6.

otherwise have been handled by the incumbents' networks."[51] As broadband grows, so does the use of these communication alternatives.

An increasing number of wireless devices enable e-mailing and IM by Washington residents. BlackBerries, "smartphones," text messaging on mobile phones, and the newly arriving "3G" wireless services are blurring the boundaries between mobile voice and data services. According to data from the Pew Internet & American Life Project, 17 percent of Internet users, and 28 percent of Internet users between the ages of 18 and 27, have logged on using a wireless device.[52] The statistics are similar for wireless instant messaging, where Pew data reveal that 15 percent of IM users have instant messaged using a wireless device, such as a cell phone, PDA or wirelessly enabled laptop.[53] Individuals are becoming increasingly comfortable with using their wireless handhelds for data services, which can substitute for voice services. By mid-2004, more than 25 percent of US wireless subscribers were wireless data users, a 58 percent increase from the same period the previous year, with the average wireless user spending $2 per month on wireless data services.[54]

[51] UNE Fact Report (2004), p. I-6.

[52] *Latest Internet tracking data, Pew Internet Project Data Memo*, Pew Internet & American Life Project, Apr. 13, 2004. http://www.pewinternet.org/pdfs/PIP_April2004_Data_Memo.pdf, accessed June 16, 2005.

[53] Eulynn Shiu and Amanda Lenhart, *How Americans Use Instant Messaging*, Pew Internet & American Life Project, Sept. 1, 2004, p. V, http://www.pewinternet.org/pdfs/PIP_Instantmessage_Report.pdf, accessed June 16, 2005.

[54] Citing results from the Yankee Group's 2004 Mobile User Survey. *See* Rob McGann, *Wireless Data Revenues Top $4 Billion in 2004* , December 29, 2004, http://www.clickz.com/stats/sectors/wireless/print.php/3452871, accessed June 16, 2005.

4. VoIP Providers Are Emerging As Significant Competitors By Offering Voice Services At Discounted Prices And By Offering Features Beyond Traditional Telephony.

Q. PLEASE DESCRIBE VOIP TECHNOLOGY.

A. VoIP technology allows customers to make and receive local and long distance calls using adapters with ordinary telephone equipment and ordinary dialing patterns. VoIP technology can be used in at least three basic ways: (1) cable companies use VoIP technology over their own networks to provide "cable telephony" without requiring customers to subscribe to broadband service;[55] (2) VoIP service can be provided as a software application over customers' existing broadband (DSL or cable) connections and uses the public Internet to transport calls; and (3) businesses use VoIP equipment on their private networks and switching systems in place of traditional telephone services.

Q. HOW DO VOIP OFFERINGS COMPARE TO ILEC OR CLEC OFFERINGS?

A. VoIP services include many of the basic features that wireline circuit switched telephony offers, as well as advanced features not available from ILEC services.

VoIP offerings are typically priced lower than ILEC wireline unlimited local and long distance calling packages. They also offer features not available from traditional wireline services, such as the ability to choose any area code in the nation, the ability to access voice mails on the Internet that were sent via sound

[55] *See, e.g.*, Cox Communications FAQs "*Will My House Need to be Rewired*?" and "*Will My Current Telephones Work*?" at http://www.cox.com/Telephone/FAQs.asp#P25_5970 accessed March 29, 2005. Typically, the customer is not required to buy specific equipment to use the VoIP service and can use her existing telephones with adapters provided by the cable company.

attachments by e-mail, telemarketer blocking that rejects calls from automated dialing computers, and call filtering that offers control over who can call at what hours.[56]

VoIP providers' services have grown extremely fast in the last year or so. For example, Vonage offers Premium Unlimited services for $24.99 per month and Small Business Unlimited services for $49.99 per month.[57] Vonage had exceeded 400,000 subscribers as of January 2005, after adding over 300,000 new subscribers in 2004 alone.[58] And, according to a recent article in BUSINESS WEEK: *"Vonage subscriptions have jumped 63% this year, to 700,000. Some 15,000 more jump on board every week."*[59]

Q. WHICH PROVIDERS USE VOIP TO COMPETE WITH LECS?

A. Cable companies are already offering voice services using circuit switched and VoIP technology but are now moving quickly to expand their use of VoIP to provide voice services.

New firms such as Vonage, BroadVox, and Lingo, established carriers like AT&T (with its Call Vantage offering) and ISPs can and do provide VoIP services with

[56] Pogue, David, "*Cut-Rate Calling, By Way of the Net*," The New York Times, April 8, 2004.

[57] Vonage, *Products and Services*, accessed March 29, 2005, http://www.vonage.com/products.php, accessed April 8, 2005.

[58] Vonage Press Release, "Vonage Crosses 400,000 Line Mark," January 5, 2005, accessed March 29, 2005, http://www.vonage.com/media/pdf/pr_01_05_05.pdf, accessed April 8, 2005.

[59] *See* BUSINESSWEEK ONLINE June 20, 2005, ***The Future Of Tech–Telecommunications***, *Vonage: Spending As Fast As It Can*," emphasis added. http://www.businessweek.com/magazine/content/05_25/b3938626.htm, accessed June 15, 2005.

relative ease through a wholesale VoIP service provider. For example, Level 3 Communications provides retailers with the essential building blocks — such as networking trunking, local numbers, local number portability, operator assistance and directory assistance — required to offer residential customers local and long distance VoIP phone service via any broadband connection.[60]

Cisco and Avaya are the two leading vendors providing installed IP telephony equipment.[61] As described in Section III below, these firms have facilitated deployment of VoIP in corporate networks for enterprise customers. They also offer VoIP solutions to smaller companies.[62]

A more diverse group of businesses is also entering the market. For example, America Online ("AOL") has partnered with Level 3 Communications to sell VoIP over its AOL Instant Messenger (AIM) service, called AOL Internet Phone Service, and started offering this service on April 7, 2005.[63] AOL's phone service

[60] *See* http://www.level3.com/3184.html, VoIP Enhanced Local Service Overview Brochure & Level 3 E-911 Fact Sheet. Among companies that selected Level 3 as its wholesale VoIP service provider are Adelphia Communications, American Online, 8x8 Networks, Net2Phone, NuCall Communications, Champion Communications, Ontus Telecommunications, New Global Telecom.

[61] In a survey conducted by IDC, Cisco leads in terms of installed IP telephones with 45 percent of surveyed respondents using its equipment. Avaya is second with 28.2 percent. Cisco leads again with 53.6 percent of surveyed respondents in terms of IP telephone being considered for purchase within the next 12 months. Avaya again is second with 41.6 percent. Strauss, Paul, Key Trends in Enterprise VoIP: Use of IP Telephones Surprisingly Strong. IDC, November 2004, Tables 7 and 8.

[62] Strauss, Paul. Key Trends in Enterprise VoIP: Use of IP Telephones Surprisingly Strong, IDC, November 2004, Tables 7 & 8.

[63] AOL Introduces AOL Internet Phone Service," April 7, 2005, http://media.timewarner.com/media/newmedia/cb_press_view.cfm?release_num=55254366, accessed April 8, 2005.

is currently available in major consumer markets around the country and "AOL plans to expand its service nationwide soon."[64]

Yahoo! and MSN also have client software that delivers VoIP, video conferencing and instant messaging services. And recent press reports indicate that Google is preparing to launch a VoIP service that would reportedly be delivered using downloaded software.[65]

In order to keep pace with these industry dynamics, the wireline carriers have begun offering VoIP services as well. Verizon's VoIP product, offered by Verizon Long Distance, is called VoiceWing service and is now available throughout the United States (including Washington), over cable modem or DSL broadband connections.

Q. IS VOIP EXPECTED TO GROW IN THE NEAR FUTURE?

A. Yes. Analysts agree that VoIP use will grow significantly over the next four to five years. For instance, Jupiter Research predicts that by 2009, 10 percent of all U.S. households will be using VoIP telephony.[66] Figure 7 below shows the projected growth of household subscription to VoIP for households with DSL, cable modem service, ordinary cable television service and others.

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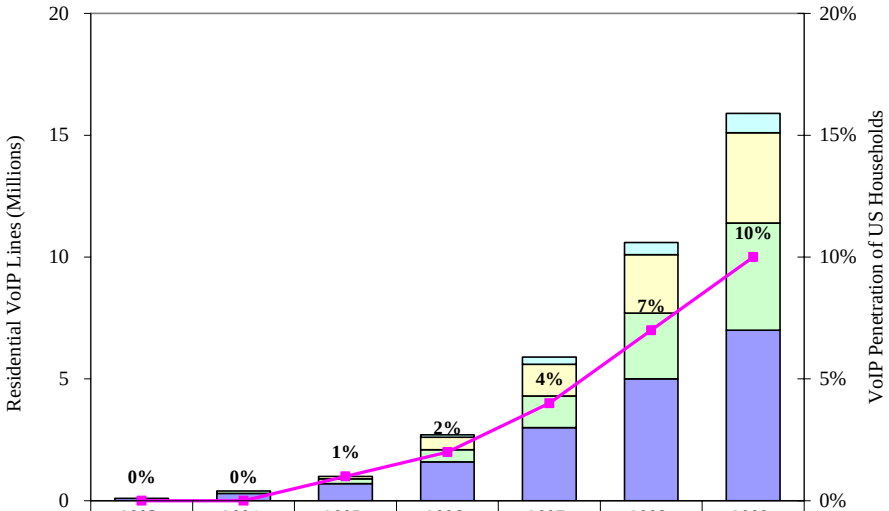
[64] *See* Sanford Nowlin, "AOL, Verizon call on VoIP: America Online and Verizon Communication launched phone service over the Internet, luring mainstream customers to the new technology," San Antonio Express-News, April 9, 2005, http://www.miami.com/mld/miamiherald/business/national/11340514.htm., accessed April 8, 2005.

[65] Charney, Ben. "Google VoIP Rumors Fueled" CNET News.com, March 09, 2005, accessed March 21, 2005 at http://news.zdnet.co.uk/communications/networks/0,39020345,39190637,00.htm

[66] Laszlo, Joseph *et al*., "Broadband Telephony Leverage Voice Over IP to Facilitate Competitive Voice Services," Jupiter Research, Volume 2, 2004, Figure 6.

Figure 7
Forecast of US Residential VoIP Lines and Household Penetration, 2003 through 2009



	2003	2004	2005	2006	2007	2008	2009
Residential VoIP Lines	0.1	0.4	1.0	2.7	5.9	10.6	15.9
Other US	0.0	0.0	0.0	0.1	0.3	0.5	0.8
Other Cable	0.0	0.0	0.1	0.5	1.3	2.4	3.7
DSL	0.0	0.1	0.2	0.5	1.3	2.7	4.4
Cable Modem	0.1	0.3	0.7	1.6	3.0	5.0	7.0
Percent of Households with VoIP	0%	0%	1%	2%	4%	7%	10%

Source: Lazlo, Joseph, et. al., "Broadband Telephony: Leveraging Voip Over IP to Facilitate Competitive Voice Services," Jupiter Research, Vol. 2, 2004.

Parks Associates forecasts that nearly 13 percent of households will subscribe to VoIP in 2009, while their "conservative forecast" predicts nearly 10 percent penetration by 2009.[67] In-Stat/MDR estimates that by 2008, 41 percent of US Businesses will use VoIP services.[68] Others also estimate much wider VoIP usage:

- Lehman Brothers estimates that there will be 31.9 million consumer VoIP subscribers by the end of 2010 – a penetration rate of approximately 27.6

[67] Parks Associates, *Residential Voice-over-IP: Analysis and Forecasts* (Second Edition), published 1Q 2005, p. 24-25.

[68] In-Stat MDR, Business VoIP: An End-User's Perspective, 2004, November 2004, p. 1.

percent of households with telephones. Of these subscribers, 17.4 million will be served over cable broadband service, and 14.5 million will be served over DSL service;[69]

- IDC estimates that there will be 27.5 million consumer VoIP subscribers by the end of 2009;[70] and

- Banc of America estimates that cable and other VoIP providers will serve 18.9 million lines by the end of 2010 – approximately 20.7 percent of 91.3 million households with wireline service.[71]

5. Emerging Technologies Show Tremendous Growth Potential.

Q. WHAT OTHER TECHNOLOGIES PROVIDE INTERMODAL COMPETITION WITH WIRELINE?

A. Emerging technologies such as Wi-Fi, WiMAX and Broadband Over Powerlines ("BPL") have emerged to present further challenges to the incumbent wireline carriers. Although they are in use today, it is expected that these technologies will be deployed even more widely in the future.

a. Wi-Fi

Q. WHAT IS WI-FI?

A. Wi-Fi, short for wireless fidelity, is a wireless broadband network technology that allows users within range of the network to connect to the Internet via a wireless device such as a laptop. A single wireless network, dubbed a Wi-Fi hot spot, has a range of up to 1,000 feet in an optimal open environment and speeds of up to

[69] B. Bath, Lehman Brothers, *1Q05 Preview – Wireless Driving Growth* at Figure 5 (Apr. 7, 2005).

[70] W. Stofega, *et al.*, IDC, *U.S. Residential VoIP Services 2005-2009 Forecast and Analysis: Miles To Go before We Sleep* at Table 17 (Mar. 2005).

[71] D. Barden, *et al.*, Banc of America Securities, *Setting the Bar: Establishing a Baseline for Bell Consumer Market Share* at 4 (June 14, 2005).

11Mbps. Wi-Fi hot spots give travelers in busy public places like coffee shops, hotels, airport lounges and other crowded locations, access to broadband services, including VoIP.[72]

Wi-Fi is also used in homes to connect multiple family members' computers to each other and to broadband Internet modems, in small businesses to connect employees in different departments, and in large corporations to connect office buildings across campuses. Such home and private network usage is significant because it tends to make the technology more widely available and greater diffusion drives down costs. Furthermore, as computer makers add Wi-Fi capabilities to laptops, it will likely stimulate further proliferation of Wi-Fi hot spots.

A June 15 article in the WALL STREET JOURNAL discussed how EarthLink is seeking to enter into agreements with municipalities to provide Internet access over government owned Wi-Fi.[73] According to the article:

> EarthLink says it bid to both build, run and serve users of the network, and has lined up partners to help. The company has 5.4 million Internet-access subscribers, including 1.5 million broadband subscribers, but to date hasn't operated a network. If EarthLink builds this one, other ISPs will be able to offer services on it as well, says Kevin Brand, vice president of product management. EarthLink doesn't intend to be a "monopolistic carrier," he says.
>
> Mr. Brand … said the network [Earthlink] envisions "can be cost competitive, affordable, robust, reliable, supportable." He expects the cost of acquiring subscribers to be low because of the publicity the project is apt to attract and the nature of wireless networks. Users

[72] *See* the Wi-Fi Alliance at http://www.Wi-Fi.org, accessed April 8, 2005.

[73] WALL STREET JOURNAL ONLINE, *EarthLink Sees Municipal Opportunity*, June 15, 2005, www.wsj.com.

will register themselves when their computers detect the network and they try to sign on.[74]

Q. WHAT ROLE DOES WI-FI PLAY IN INTERMODAL COMPETITION?

A. As I mentioned before, Wi-Fi technology is emerging as another potent form of intermodal competition. One integrated network application of Wi-Fi technology is wireless VoIP or VoIP over Wi-Fi, which is the routing of telephone calls for mobile users over the Internet.[75] The service is particularly useful for business travelers because it provides them with the ability to make and receive phone calls from a laptop computer or PDA devices.

Q. HOW EXTENSIVELY ARE WI-FI SERVICES DEPLOYED AND USED?

A. Wayport, the leader in providing Wi-Fi networks, owns 6,300 Wi-Fi hot spots nationwide and claims to add as many as 150 new hot spots per week.[76] Other major Wi-Fi network providers include T-Mobile, SBC, Boingo Wireless and Sprint. In-Stat/MDR estimates that there are 4.9 million hot spot users in North America in 2005, and that number will grow almost fivefold to 23.9 million by 2007.[77] Home Wi-Fi networks were in use by 8.7 million households in 2004 and the number of these networks was expected to climb to 28 million by 2008,

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[74] *Id.*

[75] *See* In-Stat Demand for Wireless VoIP Applications and Services in the Business Environment, In-Stat. January 2005, p. 6 (In-Stat Wireless VoIP).

[76] Wayport Press Release. *Wayport Becomes the Nation's Largest Wi-Fi Hot Spot Provider*, January 4, 2005, accessed March 21, 2005 at http://www.wayport.net/press/179 .

[77] Cravens, Amy, *Hotspots: Who's Using Them, When, Where and How Often*? In-Stat\MDR, December, 2003 at Table 23.

according to a Jupiter Research/Ipsos-Insight Entertainment Technologies survey.[78]

Q. DO YOU EXPECT THAT WI-FI WILL BOOST THE DISPLACEMENT OF WIRELINE SERVICE?

A. Yes. Wireless phone suppliers have begun to integrate wireless VoIP technology into their handsets. Recently announced dual mode devices allow wireless mobile users to access both their wireless networks and Wi-Fi networks.[79] Users of these dual mode devices will be able to conserve their mobile minutes by using a Wi-Fi connection to place VoIP calls. By enabling connection to both VoIP and wireless networks, these dual mode phones will provide enhanced coverage, thus allowing the user to stay connected in more locations.

In addition, "smart phones" with dual mode capabilities will become more widely available as VoIP becomes more widely deployed.[80] Vonage and Net2Phone recently announced wireless VoIP phones that will allow users to make calls anywhere a wireless Wi-Fi broadband connection is available.[81] Net2Phone announced, in October 2004, the availability of a Wi-Fi handset that "enables

[78] Ask, Julie and Sebastian, Ina, *Profile of the Home Wi-Fi User*, Jupiter Research, September 27, 2004.

[79] Examples of dual phones include the HP iPAQ h6315 with T-Mobile service, T-Mobile's MDA III and MDA IV (available in coming summer), O2 XDA IIs, Vodafone VPA III, and Orange SPV M2000.

[80] Cheek, William, Residential Voice-over-IP: Analysis and Forecasts (Second Edition), Parks Associates, 1Q 2005 at 12.

[81] Vonage Press Release, "*Vonage and UTStarcom Partner to Introduce Portable Wi-Fi Handset*," January 4, 2005, http://www.vonage.com/corporate/press_ces.php?PR=2005_01_04_6, accessed April 8, 2005, Net2Phone Press Release, "Net2Phone Announces Availability of Wi-Fi VoIP Service," October 18, 2004, http://web.net2phone.com/about/press/releases/20041018.asp, accessed March 18, 2005.

users in corporate, residential and public Wi-Fi network environments to benefit from VoIP calling." Vonage plans to launch its Wi-Fi handset nationwide by summer 2005.

According to a recent survey by In-Stat, 23 percent of decision-makers in medium-sized companies and large enterprises said that they had already deployed wireless VoIP in some manner and another 30 percent said they were planning or evaluating the implementation of the technology within the next six to twelve months.[82] In-Stat forecasts that by 2008, there will be close to 40,000,000 cellular voice devices w/WLAN subscribers, with non-business consumers beginning to dominate the subscriber market.[83]

Q. CAN CABLE COMPANIES USE WI-FI OR OTHER WIRELESS TECHNOLOGIES TO BETTER COMPETE WITH WIRELINE SERVICES?

A. Yes. Cable providers are already using wireless technologies to extend services beyond the limits of their wired plant. For example, Charter, Time Warner and Cox all use Wi-Fi technology to extend the reach of their cable routes. Comcast, Charter and Cox have either utilized or tested wireless line extensions to serve customers previously out of reach.[84]

[82] In-Stat Wireless VoIP at 1.

[83] In-Stat Wireless VoIP at 25, table 5 and at 1.

[84] *See, e.g.*, "Cable's Quiet Growth Pump; Commercial Sales: $1 Billion a Year and Growing Fast," *Multichannel News*, August 23, 2004.

In addition, cable companies are exploring various means of adding wireless services to their bundle to provide all four of the major communications services — video, telephony, broadband, and now wireless services. Among the possibilities being discussed are reselling or purchasing wireless capacity,[85] and forming ventures with wireless companies to give cable broadband subscribers access to Wi-Fi hotspots. The largest such agreement is a deal between Comcast and T-Mobile, the largest hotspot provider.[86]

b. WiMAX

Q. WHAT IS WiMAX?

A. WiMAX, like Wi-Fi, is a wireless network technology that allows users to access broadband connections. WiMAX, however, has a much wider range enabling transfer of data up to 30 miles from the central base station and has higher speeds of up to 75 Mbps.[87]

Q. DOES WiMAX PROMISE TO COMPLEMENT Wi-FI AND PLAY A ROLE IN INTERMODAL COMPETITION?

A. Yes. A single WiMAX network or hot-zone, with a much wider range than Wi-Fi, can extend broadband access to blanket an entire city. WiMAX can even extend service to rural and remote areas. WiMAX can complement Wi-Fi. The

[85] One article describes possible cable provider purchases of the facilities of an existing wireless provider, such as Sprint or Nextel that would enable the cable companies to sell wireless voice and data services to their subscribers. Cable Digital News, *Major MSOs Explore Joint Wireless Venture*, December 2004.

[86] Cable Digital News, "MSOs Explore Data Connections Outside the Home," March 2004.

[87] Shim, Richard. "WiMAX in the Wings," CNET News.com, June 25, 2004, accessed March 21, 2005 at http://news.com.com/Wi-Max+in+the+wings/2100-1039_3-5247984.html.

combination of Wi-Fi and WiMAX technologies may allow broadband connections almost anywhere. According to a WiMAX analyst:

> [e]arly WiMax deployments will start by connecting fixed or stationary subscriber stations, but then will evolve to support nomadic/portable applications and eventually completely mobile services and devices. WiMax will also enable the "access anywhere" triple play revolution: high-speed wireless delivery of data, voice and video applications at home, in the office and on the go.[88]

Like Wi-Fi, WiMAX will complement VoIP by providing wireless broadband internet access anywhere in a metropolitan area. As demand for broadband access continues to grow, WiMAX could also challenge wireline broadband services including Verizon's DSL services. Cable and other providers may take advantage of WiMAX to provide wireless broadband and undercut the appeal of Verizon's DSL.[89] WiMAX technology could also serve as the backhaul for Wi-Fi hot spots.[90]

Q. IS WiMAX TECHNOLOGY UNDER DEVELOPMENT BY MAJOR COMPETITORS?

A. Yes. AT&T, Intel, Sprint and Fujitsu Microelectronics are all currently developing WiMAX technology for deployment in 2006.[91] Airspan Networks

[88] Antonello, Gordon. *Just the Wi-Max Facts, Ma'am*, Electronic News, March 16, 2005.

[89] Wireless Business Forecast, *Why Cheaper And Faster Wi-MAX Will Force Convergence*, Vol. 12, Issue 25, December 16, 2004.

[90] For example, according to the Yankee Group, "Building off a hotspot backhaul strategy, technologies like WiMAX will coexist with Wi-Fi and enable carriers to provided extended coverage in cities more economically and provide broader hotzone access to users." From *Demystifying Next-Generation Broadband Wireless and the Role of Wi-Max*, September 2004 at 14.

[91] AT&T plans to test trial WiMAX on two corporate customers in New Jersey in May and plans for full deployment in 2006. Wireless Watch, *AT&T to Deploy Wi-Max in 2006*, October 18, 2004. Intel's

Inc. has launched "self-installable" WiMAX products for indoor use for residential or small businesses, and for outdoor professional use for larger enterprises. Airspan will commence trials of its "AS.MAX" products with service providers the second quarter of 2005, and expects commercial WiMAX network rollouts to begin in third quarter.[92]

c. Broadband Over Powerline

Q. WHAT IS BROADBAND OVER POWERLINE?

A. Broadband Over Powerline, or BPL, is a technology that has been developed to allow transmission of broadband signals over existing power line facilities. FCC Commissioner Abernathy described how it works:

> Access BPL Systems are telecommunications networks that allow high-speed communications signals to be carried through overhead and underground power lines. The communications signals transmitted and received from these systems are then distributed from the power grid to homes or offices via low voltage power lines or Wi-Fi links. Once the communication enters the residence or office, it can be further supplemented with either an in-home or in-office BPL system or a Wi-Fi system.[93]

Q. WHAT IS THE SIGNIFICANCE OF BPL?

A. Because it uses the existing utility infrastructure, BPL provides electric utilities a low cost means of entry into the communications markets and allows them to take advantage of economies of scope. According to FCC Commissioner Abernathy:

Broadband Wireless Group plans to integrate WiMAX into laptops by 2006 and into handsets by 2007. Goodwins, Rupert. *Intel Plots Path of Wi-Max,* CNET News.com September 7, 2004.

[92] Airspan Press Release, *Airspan Unveils Wi-Max Portfolio*, March 9, 2005.

[93] FCC Commission Kathleen Q. Abernathy, *Broadband Over Power Line*, Focus on Consumer Concerns May-June 2004. http://ftp.fcc.gov/commissioners/abernathy/news/bpl.html, accessed 3-29-05.

> Access BPL may play an important role as a new competitor in offering broadband access to homes and businesses because power lines are available in almost every community. This means that the traditional providers of broadband communications, DSL and cable modem services will face a new competitor. In addition, Access BPL may serve as a broadband solution in geographic areas where DSL and cable modem services are not yet offered.[94]

Q. WHO PROVIDES BPL?

A. Electric utilities partnering with technology companies have been developing BPL. For example, Con Edison has expanded its BPL trial in January of this year in conjunction with Earthlink[95] and Ambient, a company focused on development of technology to deliver broadband Internet and telephony over power lines.[96]

d. Satellite Broadband

Q. PLEASE EXPLAIN HOW SATELLITE BROADBAND PROVIDERS ARE ADDRESSING COMMUNICATIONS NEEDS.

A. Satellite broadband is currently available to serve just about any rural location. Although speeds have been slower and pricing higher than cable modem service or consumer DSL, the only requirement for service is clear line-of-sight to the southern sky.[97] Satellite broadband service provider WildBlue recently launched

[94] FCC Commission Kathleen Q. Abernathy, *Broadband Over Power Line*, Focus on Consumer Concerns May-June 2004. http://ftp.fcc.gov/commissioners/abernathy/news/bpl.html, accessed 3-29-05.

[95] Janik, Art, E-lectric Avenue: To Log On, New Yorkers May Soon Plug In, New York Post, January 2, 2005.

[96] For Ambient profile, *see* Company Background at http://www.ambientcorp.com/company.html

[97] DirecWay's consumer satellite broadband service offers download speeds of up to 500 Kbps and upload speeds up to 50 Kbps at $59.99/month plus $599.98 for installation and equipment with a term commitment of 15 months. StarBand offers several options for residential satellite broadband service. The plans offer download speeds of up to 500 Kbps and upload speeds ranging from 50 to 100 Kbps. Equipment prices range from $99.99 to 599.99, and monthly service prices range from $49.99 to $99.99

its Ka-band two-way service, offering better pricing and speeds more closely comparable to cable modem and DSL (in both directions). WildBlue's website states that its broadband service: "Reaches virtually everywhere in the continental U.S." and is "Now Available!"[98]

6. Implications of Industry Dynamics for Verizon and MCI

Q. HOW DO THESE INDUSTRY DEVELOPMENTS BEAR ON THE VERIZON/MCI TRANSACTION?

A. The intermodal competition that I have just described has important business and regulatory implications that must be considered when evaluating the proposed transaction between Verizon and MCI. It must first be recognized that intermodal competition for the provision of communication services is already occurring in Washington, and can be expected to grow rapidly. As I will describe in greater detail in the sections that follow, intermodal competition is thriving in the state.

Moreover, these industry developments explain why Verizon's decision to acquire MCI makes good business and economic sense. The transaction responds to the continuing evolution of the industry as driven by customer demand and by changing technology. The industry is rapidly restructuring to deal with the reality of intermodal competition and convergence. As a recent report starkly observed, traditional landline carriers face major challenges: "The underlying business model for landline telephony has formally ceased to exist and the stock markets

based on service commitment. *See,* DirecWay website at http://hns.getdway.com and StarBand website at http://www.starband.com.

[98] *See* WildBlue company website at www.wildblue.com.

no longer have faith in this sector."[99] The competitive need for firms to offer products and services that respond to telecommunications convergence is further supported by Gartner Research, which found that "operators that fail to recognize this need [for unified services] will struggle to stay relevant in the market."[100]

Indeed, scarcely a day goes by without more news of how competitors are responding to increasing competition across the spectrum of the communications business. A recent WALL STREET JOURNAL article, for instance, detailed an announcement by AT&T and Microsoft that they have formed a five-year partnership to develop and market new messaging, conferencing and document-management services for large businesses. According to the article, "The companies say the arrangement will help phone giant AT&T cement its role as the largest communications-service provider to businesses while it advances Microsoft's presence in telecommunications."[101] Another article in that paper discussed EarthLink's announcement that it plans to expand its phone service with a new Internet-based technology that allows customers to use traditional phone equipment to make calls.[102] EarthLink plans to offer the new service as part of a package with a broadband plan starting in October to customers in

[99] PR Leap, "Probe Group Releases First Schnee-Tumollilo Report: The End Of The Landline Business, Can Service Providers Adapt?" April 21, 2004

[100] Gartner Media Relations, "Gartner Says Three Major Shifts to Transform Fixed Telecommunications Operator Business in Europe," 2004 Press Releases, November 3, 2004, http://www4.gartner.com/5_about/press_releases/asset_113416_11.jsp, accessed December 6, 2004.

[101] WALL STREET JOURNAL, AT&T, Microsoft to Form Alliance Developing Services for Businesses, June 6, 2005, Page B6.

[102] WALL STREET JOURNAL, EarthLink to Offer Internet Calling on Regular Phones, June 6, 2005, Page B7.

Seattle, San Francisco, San Jose, CA, and Dallas, at a later point, the service may be offered to customers nationwide. Discussing Sprint's pending transaction with Nextel, a recent article in the WASHINGTON POST said that Sprint is about to redefine and reinvent what it means to be a telephone company by cutting itself free of the phone-line business and focusing on its prospering wireless division.[103] The new strategy means Sprint, along with cable companies, would market what the article calls a "megabundle" of entertainment and communications services, which would include Internet-based phone service, high-speed Internet connections, and television, music and entertainments viewable on a cellular phone.

For its part, Verizon is responding to the changing competitive landscape by accelerating its expansion into broadband and wireless services. The planned transaction with MCI will facilitate Verizon's ability to complete those plans. MCI's facilities and customer base will complement Verizon's continuing transformation into a premier wireless and broadband provider. The combination of Verizon's fiber deployment with MCI's IP backbone and IP applications will enable the development of an advanced broadband platform, one that is capable of delivering next-generation communication services to a wide range of customers. From the perspective of MCI's existing enterprise customers, the transaction adds a widespread local network and the ability to obtain wireless services and wireline services from a single source. Thus, the post-transaction company will be able to

[103] WASHINGTON POST, *Sprint Prepares to Cut the Cord - With Nextel as Merger Partner, Focus Is Shifting to Wireless*, http://www.washingtonpost.com/wp-dyn/content/article/2005/06/05/AR2005060501059.html, accessed June 16, 2005

provide one-stop shopping for consumer, small business, and enterprise customers.

The proposed transaction will enable the new firm to meet the challenges of convergence and changing industry dynamics far better than each could on its own. The post-transaction entity will be a stronger competitor that is able to meet customers' new expectations for services and pricing, and to better match the offerings of the cable companies and their suite of advanced services. In short, the post-transaction company will be better positioned to develop and to offer innovative services, providing valuable benefits to customers without harming competition.

From a regulatory perspective, the substantial intermodal competition that exists today has blurred and rendered irrelevant the traditional regulatory distinction between local and long distance services. This distinction should be replaced by a broader view of the competitive landscape in which transactions like this one are taking place. The current view of the competitive landscape should account for all forms of communications and technologies, without regard to regulatory classification or wireline service legacies. Because the competitive landscape has been transformed from a set of separate industries individually providing local and long distance services into converged providers that are competing to offer a wide range of services, the post-transaction company will compete not in individual, historical markets such as local voice services, but for overall services provided to residential, small business, and enterprise customers.

In sum, the most significant competitive threats faced by Verizon and MCI no longer come from the CLECs or IXCs that provided local or long distance services alone or in combination, but from cable companies, wireless providers (many of which are providing an array of communications services to an ever growing number of residential and business customers) and from ISPs and VoIP providers that are able to offer voice and other services via a variety of broadband connections. In the section below, I analyze the competitive landscape and the competitive effects of the transaction in Washington; this analysis supports my conclusion that the transaction will not harm competition in the state.

III. THE TRANSACTION WILL NOT HARM COMPETITION FOR ANY CUSTOMERS IN WASHINGTON

A. The Proper Analytical Framework

Q. FROM AN ECONOMIC PERSPECTIVE, HOW SHOULD THE COMMISSION EVALUATE THE TRANSACTION'S EFFECT ON COMPETITION?

A. The Commission should analyze the competitive effects of the transaction using a forward-looking comparison of market structure with and without the transaction. More specifically, it should analyze the transaction in light of the following factors, which I described above: (1) convergence among technologies has stimulated intermodal competition; (2) competition has been expanded well beyond traditional wireline boundaries; and (3) MCI's mass market business is already in decline and will continue to decline regardless of the transaction. As a result of these developments, and for other reasons concerning the inherent

shortcomings of market share analyses, historical and current market data for traditional services such as local and toll voice services should not be relied upon to evaluate the transaction's effect on competition.

Rather, the market affected by this transaction should be defined more broadly than has traditionally been the case. The Commission should define the market the way customers do — with consideration of all forms of communications and technologies and without limitation by geography, regulatory classification, or wireline service legacies. The supply considerations described below show that historical boundaries and regulatory distinctions (such as, for example, the distinction between local and long distance services) are no longer relevant.

Although the transaction does not call for the elimination of any Verizon or MCI operating subsidiary from the marketplace, to be very conservative in the analysis I have developed for this Commission I look at the possible effects should one firm cease to do business in areas where Verizon and MCI operations currently overlap. As I explain, even under this approach, the impact on competition in Washington would be negligible.

Q. YOU TESTIFIED THAT IT IS NO LONGER ECONOMICALLY APPROPRIATE TO REGARD LOCAL AND LONG DISTANCE SERVICES AS PART OF STAND-ALONE MARKETS TO BE ANALYZED INDENDENTLY. PLEASE EXPLAIN FURTHER WHY THAT IS SO.

A. Economists view a service market as the set of offerings with which the service in question competes – *i.e*., the services that consumers would substitute if the price of the service in question were increased. Communications firms now compete

for two sets of services: mass-market telecommunications services (consisting of services sold to residence and small business customers) and enterprise services (consisting of services sold to large business customers). Because individual services (such as call-waiting or calling packages, and local and toll services) are generally bought and sold together with basic exchange service, there is no need to examine the service market for each service individually. Competition takes place for the end-user customer, and whatever set of services that customer requires will generally be supplied as part of a bundle along with basic exchange service.[104]

Mass-market and enterprise services differ mainly in the way they are bought and sold. Mass-market customers buy prepackaged services out of tariffs or "off the shelf" packages on a month-to-month basis. They are generally served by a business office, and marketing to them takes the form of bill inserts or mass-market advertising, mailing or call center campaigns. In contrast, enterprise customers receive attention from individual account managers. They frequently specify service packages and characteristics in the form of requests for proposal and solicit multiple bids. Services are generally sold by multi-year contracts with negotiated term and volume discounts. As a consequence, it is useful to assess two sets of services—mass-market and enterprise services.[105]

[104] This is not uncommon in competitive markets. In the hotel market, for example, hotels are essentially monopoly providers of telephone services, copy services, exercise facilities, etc. to their guests, but vigorously compete with other hotels to sell the hotel room.

[105] The FCC has reached similar conclusions on several occasions, most recently in its Triennial Review Order: In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996

Q. PLEASE PROVIDE EXAMPLES THAT ILLUSTRATE HOW LOCAL AND LONG DISTANCE SERVICES ARE NOW SOLD JOINTLY AS A SINGLE PRODUCT.

A. Regulatory, technological and marketplace factors have all but obliterated the distinction between "local" and "long distance" services. Wireless customers now receive "buckets" of any-time, any distance minutes of use such that they need not think in terms of local and long distance calls. Similarly, Internet communication via email, IM, and VoIP are typically sold and used without regard for whether the other party is within or without the local and long distance boundaries set for the traditional wireline market.

From a customer's standpoint, it is no different to send an e-mail across the globe than across the street. A consumer can plug in a VoIP phone (or use a wireless VoIP phone) in Washington with a local telephone number from New York (or any other state). The consumer can use his or her wireless phone or VoIP service from Redmond or San Francisco, and pay the same amount whether he or she calls a neighbor around the corner or across the continent. Service providers of all varieties – wireline, cable, wireless, and VoIP alike – have adapted accordingly in that they all routinely offer any distance calling plans that reflect this new reality.

This transformation has also blurred the distinction between voice and data. At a technological level, there is in fact no distinction; all the new technologies use

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and Deployment of Wireline Services Offering Advanced Telecommunications Capability, *Report and Order on Remand and Further Notice of Proposed Rulemaking*, CC Docket Nos. 01-338, 96-98 and 98-147, released August 21, 2003 at ¶123-129.

digital networks that convert both voice and data into indistinguishable digitized bits. And, from the customer's perspective, voice and data are interchangeable for a large and growing portion of their communications needs. Every day, customers search for more e-mails and instant messages than they make voice calls, and many of the former substitute for the latter.

Q. WHAT DOES THE ABOVE DISCUSSION IMPLY REGARDING THE ANALYSIS OF COMPETITION ACCORDING TO "CUSTOMER SEGMENTS"?

A. Taking into account fundamental changes continuing to occur in the industry, it is clear that many traditional market boundaries and definitions have shifted, while others have not. The factors described above imply that the Commission should analyze competition for two customer segments: residential/small business customers (which I call the "mass-market" customers); and large and medium-sized business customers (which I call "enterprise customers"). These distinctions account for the fact that the customers in each segment have different needs, use different services, and are served using different marketing and provisioning methods.

Q. WILL THE TRANSACTION HARM COMPETITION FOR MASS MARKET OR ENTERPRISE CUSTOMERS IN WASHINGTON?

A. No. This is so for several reasons. First, the companies have minimal overlapping local facilities in the state and where overlap exists, numerous other competitors have also deployed facilities there.

Second, as MCI witness, Mr. Beach, explains in his testimony, MCI previously determined that it is not seeking to expand but rather to "manage the decline" of its mass market business such that the transaction will not eliminate a significant competitor for mass market customers. Beyond that, Verizon and MCI face substantial and growing competition in this segment from both wireline and intermodal service providers. This intermodal competition will not be affected in any way by this transaction, and the broad-based set of diversified intermodal competitors will prevent Verizon and MCI from profitably engaging in anti-competitive conduct.[106]

Third, although MCI competes with Verizon to some extent for large enterprise business, this segment has long been recognized as the most competitive segment of the communications industry and will remain so after the transaction. As described below, enterprise customers are sophisticated purchasers of services who can choose among a diverse and numerous array of providers. Given this, the post-transaction entity will not possess market power that will harm competition for the provision of service to enterprise customers.

B. Facilities Overlap is Small and, In Any Event, Numerous Competitors Are Also Serving Areas Where Overlap Exists

Q. DO VERIZON AND MCI HAVE OVERLAPPING FACILITIES IN WASHINGTON?

[106] Of course, it must also be borne in mind that the rates, terms and conditions for most of the intrastate services provided by Verizon Northwest Inc. are regulated by the Commission.

A. Facilities overlap between Verizon and MCI in Washington is quite small. And where the two companies have overlapping local facilities, numerous other competitors have deployed facilities as well. Since competitors can expand into adjacent wire centers or use special access or UNEs[107] to do so without actually building fiber to those wire centers, it is appropriate to examine the presence of competitors for clusters of adjacent wire centers. In Washington, the overlapping wire centers fall into a single cluster, Kirkland. That cluster has 20 different competitors with existing fiber facilities.

Even if the analysis is performed at the analytically inappropriate wire center level, it shows that any overlap of facilities will not harm competition. MCI and Verizon have overlapping local facilities in only four of the 104 wire centers served by Verizon Northwest Inc. in Washington. These four wire centers are served by an average of 14 other competitors. At least 11 other competitors are present in each wire center with overlapping facilities. Table 1 below shows the distribution of wire centers by number of competitors.

[107] UNEs are unbundled network elements, which are network components and functions that ILECs provide under federal law.

Table 1 Number of Competitors Other than MCI and Verizon by Wire Center	
CLLI	**Number of Competitors**
BOTHWAXB	13
JUNTWAXA	11
KRLDWAXX	15
RDMDWAXA	15
Total	20
Average	14
Note: All four wire centers are in the Kirkland, WA cluster. "Total" includes only unique competitors across all wire centers. Source: Data Provided by Verizon.	

Indeed, these data understate competition because they focus exclusively on the traditional wireline market and ignore the robust competition offered by other non-traditional service providers.

According to Mr. Beach's testimony, MCI has several lit buildings in Verizon's service territory. Apart from the fact that such overlap is insignificant, it is even less relevant economically than the wire center overlaps discussed above. Just as a provider with facilities in one wire center within a cluster can readily expand to provide services in an adjoining wire center using UNEs or special access, it can use the facilities located in that wire center to serve the buildings located there. Here, every building with MCI fiber is in a cluster of contiguous wire centers having competing fiber suppliers that can readily provide service to that building.

C. The Transaction Will Not Harm Competition for Mass Market Customers

Q. WILL THE TRANSACTION HARM COMPETITION FOR MASS MARKET CUSTOMERS IN WASHINGTON?

A. No, the transaction will not adversely affect competition for mass market customers in Washington. MCI has decided to manage the decline of its mass market business in Washington and elsewhere, so it would be a less significant competitor regardless of the transaction. Furthermore, after the transaction is completed, mass market customers will continue to have a choice of competitive communications services providers, including wireline competitors, cable telephony providers, wireless services providers and VoIP providers operating throughout the state.

Q. HOW HAS MCI COMPETED WITH VERIZON IN WASHINGTON?

A. MCI has relied largely on UNE-P[108] to compete and, as MCI's witness explains, MCI's presence in the mass market has been declining over the last several months. Moreover, MCI is but one of many competitors for mass market customers. And, given that facilities-based competitors — *i.e.*, cable, wireless, VoIP and CLECs — will remain in the market and intermodal competition is growing vigorously while MCI's mass market business is in decline, MCI's absence will not result in a material impact on competition for mass market customers.

[108] UNE-P is an unbundled network element platform consisting of the local loop plus switching.

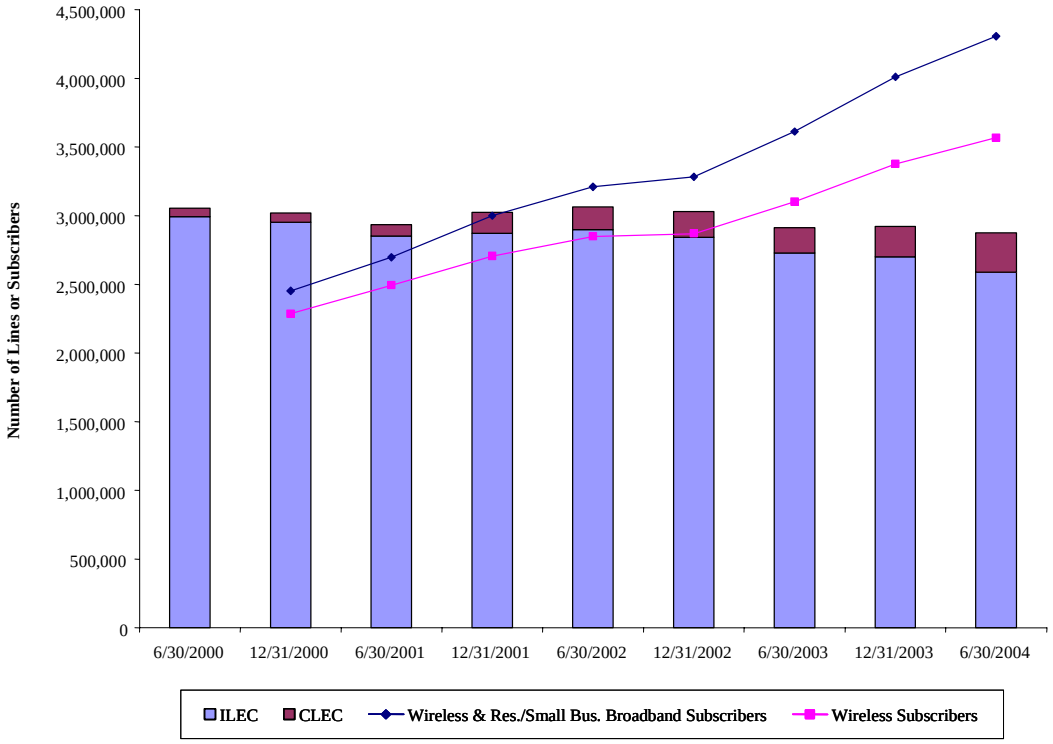
Q. PLEASE PROVIDE AN OVERVIEW OF THE PATTERNS OF INTERMODAL AND CLEC COMPETITION FACED BY ILECS IN WASHINGTON.

A. Figure 8 below summarizes FCC data on the pattern of competition in Washington. It shows that from mid-2000 to mid-2004, residence and small business conventional wireline (*i.e.*, ILEC + CLEC) access lines in Washington dropped by about 179,500, or six percent. In contrast, the number of wireless subscribers and residential and small business broadband lines increased fairly steadily from December 2000 through June 2004 — growing by 1.85 million (76 percent).[109] Thus, by June 2004, the number of wireless subscribers plus residential and small business broadband lines was 1.4 million (or 50 percent) higher than total (ILEC + CLEC) residential and small business in the state.

[109] Data on residential and small business broadband lines is not available for June 2000.

Figure 8

Intermodal Competition for Residential and Small Business Customers In Washington



Sources: Federal Communications Commission Reports, Local Telephone Competition: Status as of June 30, 2001 through June 30, 2004 and December 31, 2001 through December 31, 2003. FCC Reports, High Speed Services for Internet Access: Status as of June 30, 2000 through June 30, 2004 and December 31, 2000 December 31, through 2003.

1. MCI Would Not Be A Significant Competitor For Mass Market Customers In Washington, Regardless Of This Transaction

Q. WOULD MCI BE A SIGNIFICANT COMPETITOR IN THE MASS MARKET SEGMENT IN WASHINGTON ABSENT THE ACQUISITION?

A. No. As I have stated and as MCI witness Michael Beach explains in detail in his testimony, MCI's mass market business (in particular, its consumer segment) is in a "continuing and irreversible decline." Far from seeking to reinvigorate that business, MCI is working merely to manage the decline by, among other things,

dramatically reducing its marketing efforts (including closing call centers).[110] Analysts forecast that MCI's mass market business will decline rapidly in the next several years. Both Needham and Co. and UBS estimate MCI's mass market revenues will decline by about 30 percent per year over the next several years.[111] Credit Suisse/First Boston has projected MCI's revenues by segment and expects mass market revenues to decline sharply both in absolute terms and relative to MCI's other areas.[112]

2. Both Wireline and Intermodal Competition for Mass Market Customers Are Well Established In Washington

Q. ARE THERE OTHER REASONS WHY THE TRANSACTION WILL NOT HARM COMPETITION FOR MASS MARKET CUSTOMERS?

A. Yes. After this transaction is completed, these customers will continue to have a wide array of choices for service providers. Competition from traditional wireline providers is strong in the state and the industry wide trends concerning intermodal competition that I described in detail earlier are very much in evidence in Washington as well.

[110] *Id.*

[111] *See* Declaration of Bamberger, Carlton *et. al.* at 23 to 24, citing Needham & Co., *MCI, Inc.: Double Attack*!, September 16, 2004, p. 10; UBS, Wireline Telecom Play Book, January 14, 2005, p. 62.

[112] *See* Declaration of Bamberger, Carlton *et. al.* at 7, citing Credit Suisse/First Boston, *MCI, Inc.*, August 11, 2004, pp. 8-12.

a. Wireline Competition is Vigorous in Washington

Q. HAVE CLECS BEEN SUCCESSFUL IN COMPETING WITH ILECS FOR CUSTOMERS IN WASHINGTON?

A. Yes. Competition among wireline service providers in Washington is evidenced by the rapid growth of CLECs in the state, at the same time as the ILECs have been losing lines. More specifically, the FCC's Local Competition Report indicates that from year end 1999 to mid-2004:

- ILEC retail lines in the state ***fell*** by over 500,000 lines or about 14 percent.
- CLEC retail lines in the state ***grew*** by about 356,000 lines or about 257 percent.
- Statewide, CLEC share has been increasing rapidly—from only 3.5 percent at the end of 1999 to 13.1 percent in mid 2004. Moreover the CLEC share more than doubled since mid 2001 when it was only 5.8 percent.
- The growth in CLEC lines has been accompanied by a proliferation in the number of CLECs and the spread of the availability of CLEC service throughout the State.
    - The number of CLECs that reported to the FCC as having operations in Washington increased from nine at year end 1999 to 14 in mid 2004.
    - 81 percent of Zip Codes in Washington have at least one CLEC offering service, exceeding the national level of 79 percent.
    - The percent of Zip Codes in the State with at least one CLEC represents a 14 percent increase from 2000, when 71 percent of Zip Codes had at least one CLEC offering service.

It is important to note that these data provide a conservative measure of competition since CLECs serving less than 10,000 lines are not required to report to the FCC; nor does the FCC report include VoIP providers or wireless scenarios

where the customer has opted out of its wireline telephone service. In fact, much of the competition in Washington today is from non-traditional sources such as cable, wireless and VoIP providers.

Q. IS THERE ANY OTHER REASON TO BELIEVE THAT THE FCC DATA UNDERSTATE THE COMPETITIVE LOSSES OF ILECS IN WASHINGTON?

A. Yes. Because Washington's population has grown over this period, it is clear that competitive effects are larger than suggested by the comparison of ILEC losses and CLEC gains. Between mid 2000 and mid 2004, the US Census Bureau estimates that Washington's population grew by five percent, from 5,911,182 to 6,203,788.[113] If one were to assume that mass market access lines grow in proportion to population, one could expect Washington ILEC residence and small business access lines to have increased by at least 148,000 over that period, but for the growth of various forms of competition. Instead, ILEC mass market access lines fell by 405,400 lines. In short, the fact that ILEC share has been declining since mid 2000 despite the positive population growth suggests that the losses—relative to the expected gains—are larger than indicated by the declines shown by the FCC data on ILEC lines.

Moreover, applying the same logic to total ILEC + CLEC residential and small business access lines in Washington, we could expect that they would have ***grown*** from about 3.05 million in mid 2000 to about 3.2 million by mid 2004, rather than

[113] U.S. Census Bureau, Population Division, Table 1: Annual Estimates of the Population for the United States and States, and for Puerto Rico: April 1, 2000 to July 1, 2004.

falling by almost 179,500 or 5.9 percent over that period. The difference is likely due to the intermodal competition described below.

Q. PLEASE DESCRIBE THE LINE LOSSES THAT VERIZON HAS EXPERIENCED IN ITS SERVICE AREA IN WASHINGTON.

A. The degree of intermodal competition found on a nationwide basis is similar to the intermodal competition in Washington generally and in Verizon's service area in Washington in particular; this is no less true with respect to CLEC competition. Verizon WA's total retail lines fell by **[BEGIN VERIZON PROPRIETARY]** ********** **[END VERIZON PROPRIETARY]** in the period from December 2001 to December 2004. This is somewhat higher than the 10 percent decline in total Washington ILEC lines shown by the FCC data for the interval that most closely matches the corresponding Verizon data — *i.e.*, the December 2001 to June 2004 period Over a shorter interval (*i.e.*, from December 2001 to June 2004) than the interval measured by the FCC data for statewide ILEC losses, Verizon lost **[BEGIN VERIZON PROPRIETARY]** ********** ********** **[END VERIZON PROPRIETARY].**

Moreover, Verizon data show that Verizon WA has lost substantial lines in both the residential and, business categories over the last three years. Specifically, between December 2001 and December 2004, Verizon WA:

- Residential lines fell by **[BEGIN VERIZON PROPRIETARY]** **********[END VERIZON PROPRIETARY]**.

- Total business lines fell by approximately **[BEGIN VERIZON PROPRIETARY]** ***** **[END VERIZON PROPRIETARY]**.

- Wholesale lines leased to CLECs, — *i.e.*, sum of resale and UNE-Ps and UNE-Ls and EELs[114] — ***grew*** by about **BEGIN VERIZON PROPRIETARY]** ******* **[END VERIZON PROPRIETARY]**.

- Total UNE-Ls and EELs increased by**[BEGIN VERIZON PROPRIETARY]** ****** **[END VERIZON PROPRIETARY]**channels, indicating substantial growth in facilities-based competition.

b. Cable Competition Is Vigorous in Washington

Q. DO CABLE COMPANIES COMPETE WITH LECS IN WASHINGTON?

A. Yes. Cable companies are actively competing for both residential and small business customers in Washington. Cable companies' high-speed data services, known as cable modems, compete directly with the ILECs' DSL and other broadband services, as well as with dial-up connections and second lines. Cable operators directly compete with incumbent telephone companies by providing telephony services using cable telephony technologies, in particular VoIP telephony.

Cable advanced services are present and growing in Washington. According to publicly available data reported by the cable companies to the Television & Cable Factbook:

[114] EELs are enhanced extended links and are unbundled network elements that connect a UNE-loop (or UNE-L) to a CLEC's distant office.

- 95 percent of the 2.2 million homes passed by cable systems in Washington have broadband service available; and

- Slightly over 50 percent of the homes passed will have cable company provided telephony available by the end of the year.[115]

Table 2 below provides a more detailed look at these data:[116]

Table 2
Advanced Cable Services Availability in Washington as of Year-End 2005

	Homes Passed			Percent of Homes Passed	
Company	**Total**	**Broadband Ready**	**Telephony Ready**	**Broadband Ready**	**Telephony Ready**
Comcast	1,712,018	1,696,973	1,128,340	99%	66%
Other Cable	492,734	398,506	3,697	81%	1%
Total	2,204,752	2,095,479	1,132,037	95%	51%

Notes: Missing homes passed data is estimated based on the average ratio of homes passed to subscribers of other Washington systems. Additional franchises have planned Internet operations.

Sources: Television & Cable Factbook, Cable Volume, 2005; Detnews.com.

Comcast is the nation's and Washington's largest cable provider and its entry into telephony services provides another strong competitor to Verizon. As one recent article described it:

> [Comcast's] move could be the most significant challenge yet to traditional local phone companies such as Verizon Communications, Inc., analysts said.
>
> "[The competition]'s going to be war," [Susan Kalla, an analyst with Friedman, Billings, Ramsey & Co.] said. "It'll be a long and hard-fought battle."
>
> "The next two to three years will be marked by competition not seen before," in the phone and cable industries, said Aryeh B.

[115] Comcast recently announced that it plans to launch its digital telephone service in Seattle this year. *See, e.g.,* http://www.detnews.com/2005/technology/0506/04/0tech-200937.htm.

[116] Although these data include planned operations, they may still understate the availability of telephony in the state because deployment has been quite rapid. *See,* www.detnews.com/2005/technology/0506/04/0tech-200937.htm.

> Bourkoff, an analyst with UBS Warburg in New York. "Ultimately, consumers will have more choices."[117]

Comcast hopes to sign eight million customers for phone service within five years by luring them away from regional phone companies.[118]

Q. IS CABLE TELEPHONY LIKELY TO GROW IN WASHINGTON?

A. Yes. The availability of cable telephony in Washington will undoubtedly increase substantially over the next two years. Comcast, which accounts for almost 80 percent of cable homes passed in the state, recently announced plans to offer telephony service to 15 million homes by the end of 2005 (an increase of about 50 percent from year-end 2004) and ***to all its homes passed*** by the end of 2006.[119] Thus, even if — contrary to the evidence — no other cable company expands its telephony offering, almost 80 percent of cable homes passed in Washington will have access to cable company provided telephony by the end of 2006.[120]

Recent press coverage chronicling the cable companies' tremendous success in signing VoIP and other telephony customers also supports my view that cable telephony will continue to grow in the state. For example, a recent NEW YORK TIMES article reports that:

> [b]y the end of the first quarter, Cablevision had signed up 364,000 subscribers for its digital phone service, and is adding

[117] *See New Hat in Phone Ring*, THE WASHINGTON POST, January 11, 2005.

[118] *Id.*

[119] Comcast Corporation at Bear Sterns 18th Annual Media Conference, March 2, 2005, pp. 10-11.

[120] This is the case because Comcast serves about 80 percent of the cable homes passed in Washington. See data in Table 2 above.

about 1,000 new customers a day. Time Warner Cable had 372,000 customers. Comcast and Cox Communications both have more than 1.2 million traditional phone subscribers and both are now introducing digital phone service.[121]

Q. IS CABLE MODEM SERVICE USED WIDELY THROUGHOUT WASHINGTON?

A. Yes. In fact, cable modem service is not only available throughout the state, but it is also the major source of broadband in Washington.

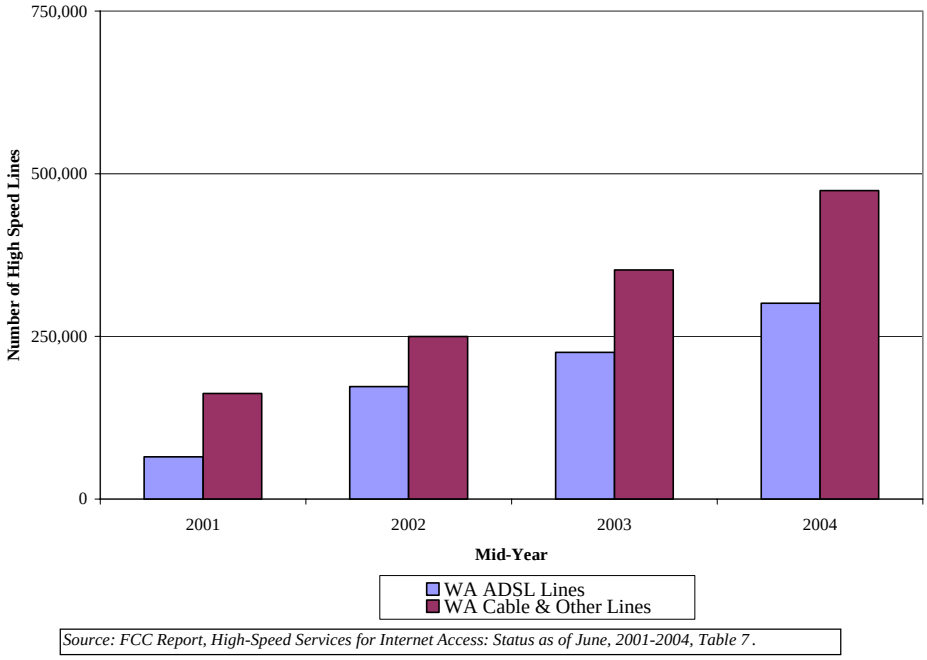
As shown in Figure 9 below, as of June 2004, coaxial cable accounted for 55 percent while ADSL accounted for 39 percent of the approximately 775,000 high speed lines serving Washington.[122]

[121] Cable's New Pitch: Reach Out and Touch Someone, NEW YORK TIMES, May 8, 2005.

[122] The remaining six percent is served by other types of technology. FCC, *High-Speed Services for Internet Access: Status as of June 30, 2004*, Table 7, "High Speed Lines by Technology, as of June 30, 2004."

Figure 9

Washington State High-Speed Lines, by Technology



Source: FCC Report, High-Speed Services for Internet Access: Status as of June, 2001-2004, Table 7 .

Q. WHAT IS THE SIGNIFICANCE OF THE WIDESPREAD AVAILABILITY OF CABLE MODEM SERVICE IN WASHINGTON?

A The deployment of cable broadband in the state is important because, as I explained earlier, cable broadband enables the provision of telephony services using circuit-switched as well as VoIP services, whether provided by the cable companies or other VoIP providers. Given that their cable modem services are available to the vast majority of Washington households, cable companies enable state-wide competition by VoIP providers like Vonage. As described in greater detail below, application-based VoIP service is already present in Washington and is well positioned to compete with traditional telephone providers. Moreover, under these circumstances, the Commission can be confident that cable telephony

will soon be deployed even in those areas of the state where it is not now deployed.

Q. DO CABLE COMPANIES COMPETE FOR SMALL BUSINESS CUSTOMERS IN WASHINGTON?

A. Yes. Cable companies are currently offering a broad array of services to business customers of all sizes. For example, Comcast offers "Workplace Standard and Enhanced" packages of telecommunications services to small businesses for a monthly service charge of $95-$160.[123] The standard package includes broadband connections up to 5.0 Mbps downstream and up to 512 Kbps upstream, seven comcast.net e-mail addresses, 1 dynamic IP address, firewall, domain name service and priority business class support.

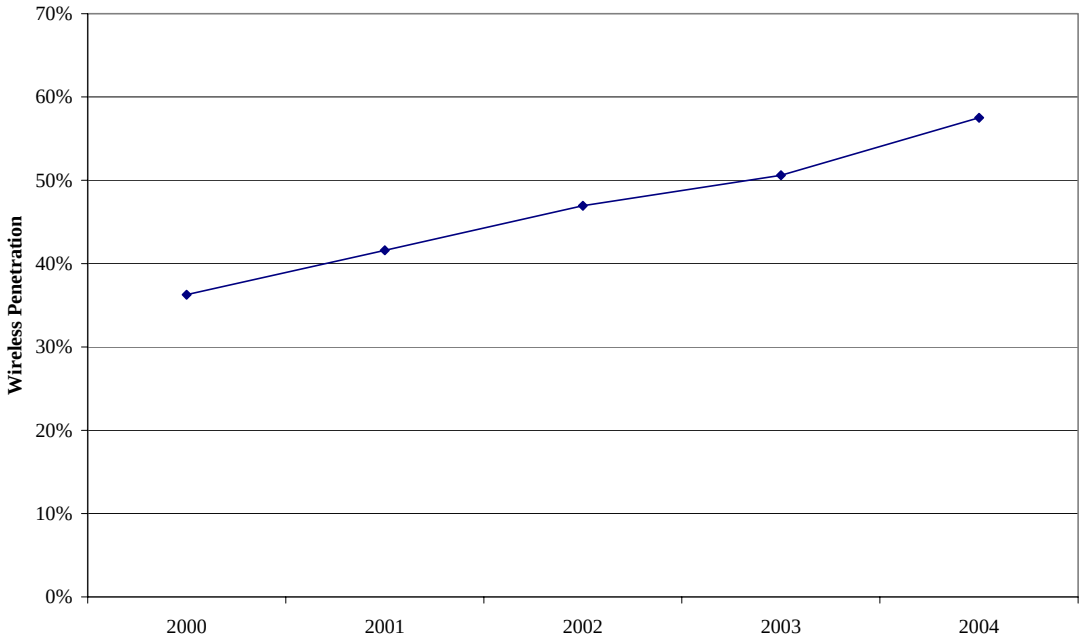
c. Wireless Services Are Also Displacing Wireline Services in Washington

Q. IS WIRELESS SUBSCRIBERSHIP GROWING IN WASHINGTON?

A. Yes. Customers are also increasingly using wireless services in direct competition with traditional telecommunications services. As shown in Figure 10 below, wireless penetration has been increasing steadily in Washington since 2000.

[123] http://work.comcast.net/smallbusiness.asp.

Figure 10
Wireless Penetration in WA, 2000 – 2004



Source: FCC, Local Telephone Competition, Status as of June 30, 2004, Table 13; US Census Bureau, Annual Population Estimates 200-2004 available at http://www.census.gov/popest/states/NST-ann-est.html.

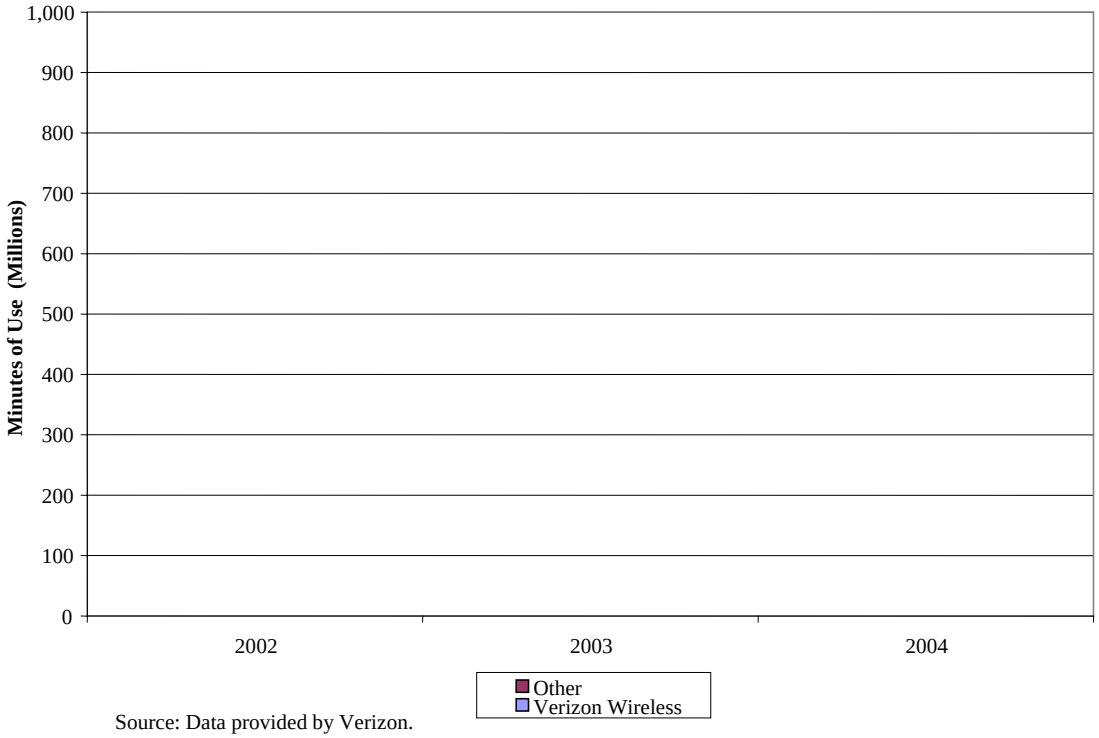
FCC data for June 2004 show that in Washington there were almost 3.6 million wireless subscribers and almost 3.3 million incumbent LEC lines. Wireless subscribers ***grew*** 66 percent between June 2000 and June 2004, whereas ILEC lines ***fell*** by almost 15 percent and even total (ILEC + CLEC) lines ***fell*** by about 6 percent. The latter decline occurred despite the substantial growth of CLEC lines shown in the FCC data.[124]

[124] As noted earlier, The FCC data provide a conservative measure of ILEC line loss since CLECs serving less than 10,000 access lines are not required to report to the FCC, nor does the FCC report include VoIP providers or wireless scenarios where the customer has opted out of its wireline telephone service. In fact, much of the competition today is from non-traditional sources such as cable, wireless and VoIP providers, as shown in the text.

Wireless minutes of use terminating on Verizon's network have similarly increased in the state, as shown in Figure 11 below. Note that this figure ***understates*** the extent to which MOUs have declined since it does not capture MOUs that terminate on other Washington ILECs' networks and does not capture wireless-to-wireless calls that do not terminate on the wireline network.

[BEGIN VERIZON PROPRIETARY]

Figure 11
Wireless MOUs in WA, 2002 – 2004



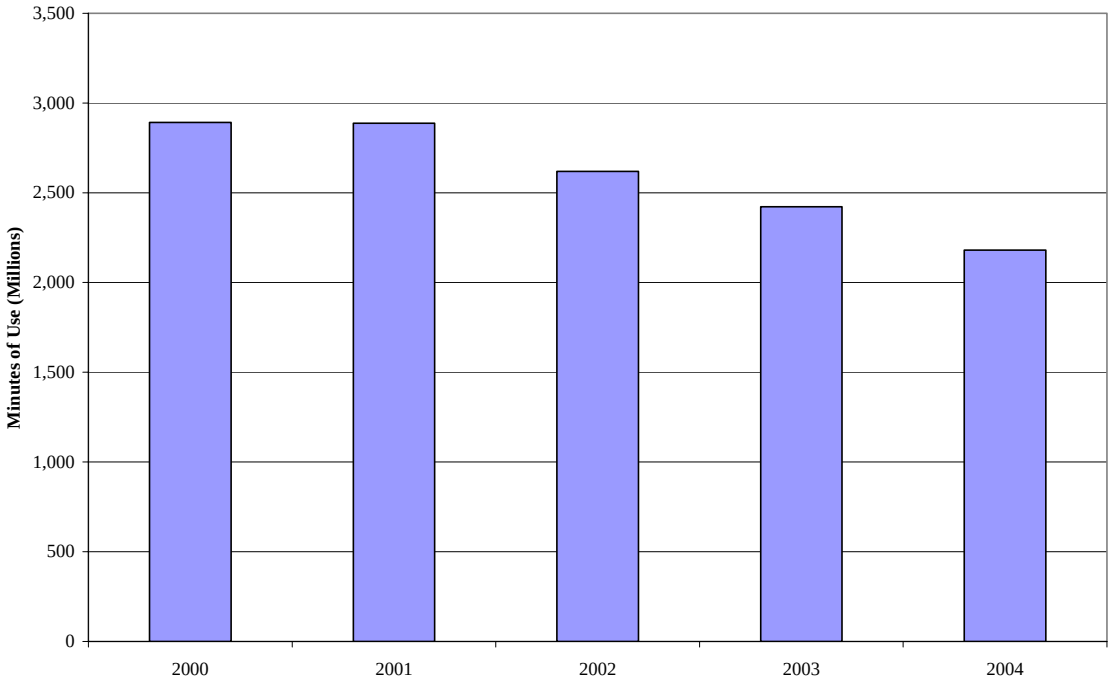
Source: Data provided by Verizon.

[END VERIZON PROPRIETARY]

Q. IS THERE ANY EVIDENCE SHOWING THAT WIRELESS USAGE HAS AFFECTED VERIZON'S WASHINGTON WIRELINE SERVICES?

A. Yes. As shown in Figure 12 below, Verizon WA's access MOUs are down 25 percent from 2000 to 2004 suggesting gains by wireless.

Figure 12
Verizon WA Access MOUs 2000 – 2004



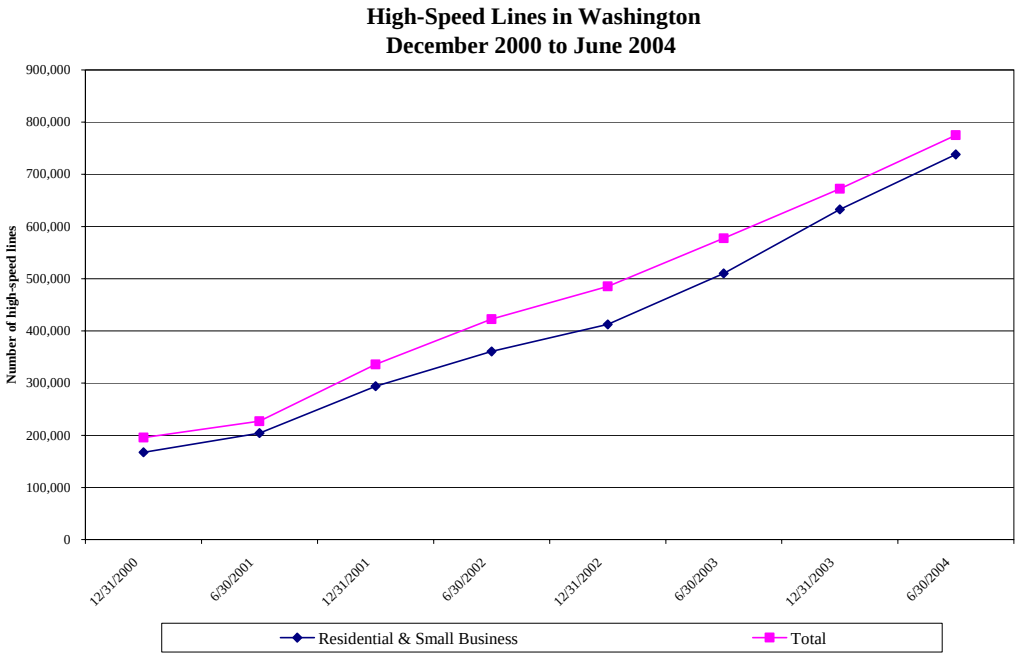
Source: Federal Communications Commission, National Exchange Carrier Association, Quarterly Minutes of Use

d. Broadband Providers Compete Vigorously in Washington

Q. HAS BROADBAND INTERNET ACCESS GROWN IN WASHINGTON?

A. Yes. According to the FCC's High-Speed Services for Internet Access Report, broadband access lines in Washington grew from about 196,000 in December 2000 to about 775,000 in June 2004. This is shown in Figure 13 below. The number of residence and small business broadband lines increased by almost 571,000 lines or about 340 percent, over the same period.

Figure 13



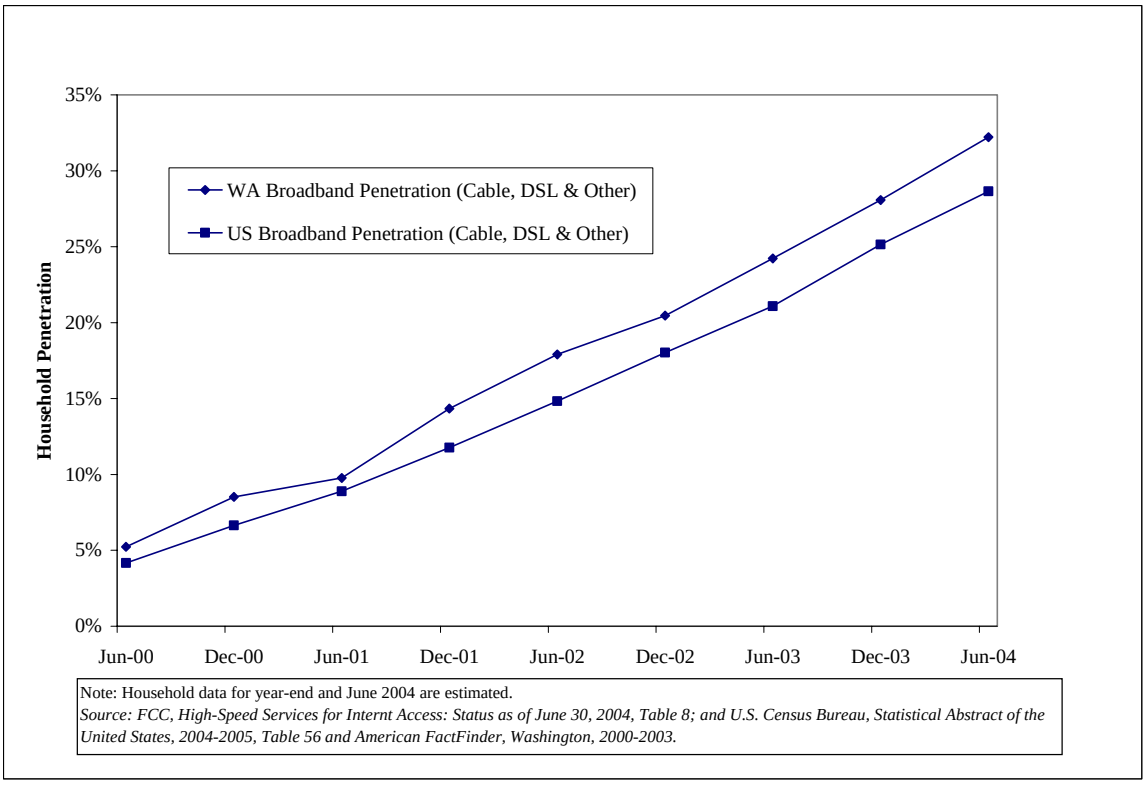
Source: Federal Communications Commission Reports, High Speed Services for Internet Access: Status as of June 30, 2000 through 2004 and December 31, 2000 through 2003.

Not only has the number of broadband lines been growing, the number of entities offering high speed Internet services has grown as well. As of June 2004, there were 17 ADSL providers, seven coaxial cable providers and a total of 32 unduplicated high-speed lines providers in Washington. This is an increase from eight ADSL providers, between one and three coaxial cable providers and a total of 15 unduplicated providers in mid-year 2000.

The number of Zip Codes with two or more providers had grown to 89 percent in June 2004 from only 77 percent in June 2002; and more than two-thirds of all Zip Codes have at least three high speed Internet providers.[125]

A substantial and rapidly growing percentage of Washington residents have opted to purchase broadband services. Figure 14 below shows that by mid-2004, 32 percent of Washington households had broadband services – a five-fold increase from the 5.2 percent in mid-2000 and well above the national average of 29 percent.

Figure 14
Washington Household Broadband Penetration



[125] FCC, "High-Speed Services for Internet Access: Status as of June 30, 2004", Tables 6 and 13; "High-Speed Services for Internet Access: Status as of June 30, 2000", Table 4; "High-Speed Services for Internet Access: Status as of June 30, 2002," Table 10.

e. VoIP Services Are Widely Available In Washington

Q. IS VOIP SERVICE OVER EXISTING BROADBAND CONNECTIONS AVAILABLE TO RESIDENTIAL AND SMALL BUSINESS CUSTOMERS IN WASHINGTON?

A. Yes. A number of vendors offer VoIP telephony over existing broadband connections to consumers in Washington, including Vonage, Net2Phone, Lingo and AT&T's CallVantage. In fact, wherever broadband access is available, customers can order VoIP telephony. For example, in 2003 Vonage stated:

> Vonage offers its DigitalVoice information service to residential and small business customers. The service is technically available anywhere in the world where a customer has a high-speed Internet access connection, since the service is accessed over the Internet.[126]

Table 3 lists some VoIP providers, their area codes in Washington and their package offerings for residential and small business customers. All provide some sort of unlimited local and long distance calling plan with monthly prices ranging from $19.95 to $49.99 excluding the cost of broadband connection.

[126] Before the Pennsylvania Public Utility Commission, *Investigation into Voice Over Internet Protocol Services as a Jurisdictional Service*, Comments of Vonage Holdings Corporation, p. 2.

Table 3
Washington VoIP Plans

Provider	Plan	Area Codes Offered	Monthly Price	Anytime Minutes	Additional Minutes	Long Distance
(a)	(b)	(c)	(d)	(e)	(f)	(g)
Vonage	Premium Unlimited	206, 253, 360, 425, 509	$24.99	Unlimited	N/A	Included
Vonage	Basic 500		$14.99	500	$0.039	Included
Vonage	Small Business Unlimited		$49.99	Unlimited	N/A	Included
Vonage	Small Business Basic		$39.99	1,500	$0.039	Included
AT&T	CallVantage Service	206, 253, 360, 425	$29.99	Unlimited	N/A	Included
AT&T	CallVantage Local		$19.99	Unlimited Local	N/A	$0.04
AT&T	CallVantage Small Office[1]		$49.99	Unlimited	N/A	Included
Lingo	Link	206, 253, 360, 425, 509	$7.95	Unlimited In-Network	$0.03	Unlimited In-Network
Lingo	Basic		$14.95	500	$0.03	Included
Lingo	Unlimited		$19.95	Unlimited	N/A	Included
Lingo	Business Unlimited[2]		$49.95	Unlimited	N/A	Included
Lingo	Business Unlimited Int'l[2]		$99.95	Unlimited	N/A	Included
Net2Phone	US/Canada Unlimited	206, 253, 360, 425, 509	$29.99	Unlimited	N/A	Included
Net2Phone	US/Canada 500		$14.99	500	$0.039	Included
Net2Phone	VoiceLine Basic[3]		$8.99	Unlimited Inbound	N/A	$0.05

Notes & Sources:
Provider websites, accessed June 7, 2005.
[1] CallVantage Small Office also includes unlimited faxing, additionally the service includes a second line with 500 long distance faxing and calling minutes per month. Additional minutes over 500 for the second line costs $0.04 per minute.
[2] Lingo Business plans includes 500 outgoing fax minutes. The Unlimited Business International plan includes calls to many international countries.
[3] Net2Phone VoiceLine Basic: Unlimited inbound calls & pay-as-you-go outbound calls.

3. Long Distance Customers Will Not Be Harmed By The Transaction

Q. WILL THE ACQUISITION HARM COMPETITION FOR LONG DISTANCE CUSTOMERS?

A. No. As a threshold matter (and as I explained earlier), it is no longer economically appropriate to regard local and long distance services as part of

stand-alone markets to be analyzed independently. The intermodal competition that I have described in detail has all but obliterated the distinction between "local" and "long distance" services. Wireless customers now receive "buckets" of any-time, any distance minutes of use such that they no longer think in terms of local and long distance calls. Similarly, Internet communications via e-mail, IM or VoIP all take place without regard for whether the other party is within or without the local and long distance boundaries set for the traditional wireline market.

In any event, even when evaluated by reference to the historical concept of the "long distance market," the transaction raises no concern of harm to competition in that market. This is so because customers will continue to have multiple alternative services available once the transaction is complete. Even if a customer does not use or own a cell phone, the price of that customer's long distance service will be protected from anti-competitive increases in wireline prices because such intermodal competition constrains the prices of all wireline services and, in particular, "long distance" service.

Q. ARE EMERGING TECHNOLOGIES IN USE IN WASHINGTON?

A. Yes. Wi-Fi and WiMAX technologies are being used throughout the nation, including Washington. Similarly, Washington mass market customers are using

satellite. And the Chelan County PUD is currently conducting two BPL trials in Eastern Washington State.[127]

D. The Transaction Will Not Harm Competition For Enterprise Customers

1. Competitors Include A Diverse Group Of Companies Taking Multiple Approaches To Serving Large Enterprise Customers.

Q. WHAT TYPES OF PRODUCTS AND SERVICES DO ENTERPRISE CUSTOMERS PURCHASE?

A. Enterprise customers, particularly large enterprise customers, demand a range of communications services and equipment, including: internal (voice and data) networking equipment to link their employees at a given location or across different offices in different places; communications links to their customers and suppliers, again including voice and data and, in some cases, video services. Thus, in many cases they may seek to purchase an integrated bundle of products and services. Yet they are sufficiently sophisticated that they can purchase individual components of the bundle or use multiple sources to ensure route diversity. This dual approach allows different types of firms to compete to serve enterprise customers.

Q. PLEASE DESCRIBE THE PURCHASING PRACTICES OF ENTERPRISE CUSTOMERS.

A. As I mentioned earlier, enterprise customers are sophisticated purchasers of communications services. These customers may (and often do) operate at

[127] *See* The National Association of Regulatory Commissioners, *Report of the Broadband Over Power Lines Task Force*, February 2005, p. B-10.

multiple locations and in very different geographies. They differ considerably in the number and types of services they require and the desired level of reliability and redundancy. They also employ very different, far more sophisticated purchasing practices than those on which residential and small business customers rely.

Large enterprise customers use a range of purchasing techniques to ensure that their demands are met as economically as possible. Some may seek all their services from a single source, while others may contract with different service providers (either to receive different services from each or to ensure backup if supply from one service provider is disrupted). Their service procurement or purchase methods may vary, ranging from requests for proposals ("RFPs"), auctions and contracts, on one end, to informal negotiations or catalog purchases, on the other. The FCC has acknowledged that "[l]arger business customers in general tend to be more sophisticated and knowledgeable purchasers of telecommunications services than mass market customers."[128] That is, they have staff (or consultants) with specialized knowledge of communications technologies and procurement practices that are dedicated to the purchase of those services.

Many medium-sized business customers buy similar types of integrated telecommunications packages and use the same purchasing methods as large customers. For example, medium-sized businesses can and do use the RFP

[128] FCC, In re Application of GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, for Consent to Transfer Control of Domestic and International Sections 214 and 310 Authorizations and Application to Transfer Control of a Submarine Cable Landing License, CC Docket No. 98-184, Memorandum Opinion and Order, June 16, 2000, ¶121.

process and/or consultants to obtain many of the purchasing advantages of large enterprise customers. Others purchase more standardized service packages, albeit in volumes sufficient to warrant individualized attention from providers.[129] Still others purchase transport capacity, primarily for data and interoffice networks. As with large enterprise customers, use of those sophisticated purchasing methods will continue to protect against anticompetitive conduct. Thus, medium-sized businesses that employ such purchasing practices should be considered to be part of the enterprise segment.

Many medium-sized businesses also face choices that are similar to those of large businesses. Many firms that compete to sell services to large enterprise customers also compete to serve medium-sized businesses, including IXCs, newer network providers, cable companies, and value-added resellers. AT&T, for example, recently teamed up with IBM to compete to serve these medium-size business customers.[130] In addition, CLECs, such as XO and PaeTec, focus on serving these customers.

Q. HOW DO THE SOPHISTICATED PURCHASING PRACTICES OF ENTERPRISE CUSTOMERS GUARD AGAINST ANTI-COMPETITIVE CONDUCT?

[129] Medium-size businesses include customers with sufficient telecommunications volumes to be targeted by specialized firms that do not necessarily seek to address the residential and small business market. *See* In the Matter of Applications of NYNEX Corporation Transferor and Bell Atlantic Corporation Transferee, For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries, *Memorandum Opinion and Order*, (File No. NSD-L-96-10) released August 1, 1997 ("Bell Atlantic/NYNEX Order"), ¶53.

[130] *See* Carol Wilson, "AT&T, IBM Team on SMB Data Applications," *Telephony Online* (Mar 2, 2005), http://telephonyonline.com/broadband/news/att_ibm_smb_030205.

A. In light of the practices described above, anti-competitive effects would arise in this context only if service providers could successfully use unilateral or coordinated actions to force large enterprise customers to pay inflated prices for the services purchased. Such actions are not possible because large enterprise customers frequently use RFPs and bidding methods to obtain the most favorable purchase terms (including splitting purchases among multiple service providers).

Moreover, the service provider's market share – whether "high" or "low" – makes less difference under RFP-driven procurement practices than in markets not dominated by RFP procurement. Since bidders that can provide similar services at comparable values — regardless of their market share — have a chance of winning the bid, the number of bidders and the value of their product are more important in RFP-driven markets. This fact has been recognized in the 1992 Merger Guidelines of the U.S. Department of Justice and the Federal Trade Commission.[131] Because Verizon's proposed transaction with MCI will not prevent large enterprise customers from soliciting bids for services offered by a diverse array of providers, it will not harm competition in this segment.

Q. HOW DO SUPPLIERS COMPETE TO SERVE THE VARIED NEEDS OF ENTERPRISE CUSTOMERS?

A. Given the purchasing patterns that I just described, a host of competitors, including global network service providers ("GNSPs"), systems integrators, equipment providers, CLECs/DLECs, and IP applications providers, all compete

[131] U.S. Department of Justice and Federal Trade Commission, *1992 Horizontal Merger Guidelines* (revised April 8, 1997), Section 1.41, fn. 15.

to supply the largest possible share of the equipment and services needed by enterprise customers. Moreover, these service providers themselves depend, to a greater or lesser degree, on multiple equipment vendors and may collaborate with several facilities-based carriers to create a network that can serve commercial and institutional customers.

a. Network Service Providers

Q. WHAT CHARACTERISTICS DEFINE ENTERPRISE NETWORK SERVICE PROVIDERS?

A. These firms integrate data and voice communications on network infrastructure with global reach. According to the Gartner Group, GNSPs compete to supply global multinational companies.[132] Leading GNSPs include: AT&T, Equant, BT and Infonet Services Corp, which has recently reached an agreement to be acquired by BT. Other major competitors include: MCI; Sprint (which "offers global services through a combination of company owned points of presence and its partners Equant and Infonet" and which is investing strongly in integrated offerings, working with IBM and other partners);[133] and T-Systems (the international service arm of Deutsche Telekom (DT) that "is relatively unknown outside of Europe but has increased its visibility in the U.S. market").[134] Qwest

[132] D. Neil, W. Hahn, J. Delcroix, J. Pultz, *Magic Quadrant for Global Network Service Providers, 2004*, Gartner, November 10, 2004, p. 1.

[133] Jay E. Pultz and David Neil, *Magic Quadrant for U.S. Network Service Providers, 4Q04*, Gartner, November 10, 2004, p. 4.

[134] D. Neil, W. Hahn, J. Delcroix, J. Pultz, "Gartner's 2004 Network Service Provider Magic Quadrants", Gartner, November 10, 2004, pp. 4-5. Profiles of these providers are set forth in Exhibit WET-3 to this testimony.

Communications (which has its own long haul fiber backbone network), Broadwing, and Global Crossing provide global network services as well.

b. Equipment Providers

Q. HOW DO EQUIPMENT PROVIDERS SERVE ENTERPRISE CUSTOMERS?

A. Equipment providers not only manufacture and provide equipment but also design, build and maintain networks for enterprise customers. In addition, they consult on the design, implementation, and maintenance of network infrastructure. Major equipment providers include Cisco, Avaya, 3Com, Lucent, Nortel, NEC and Alcatel.[135]

Q. HOW ARE THESE PROVIDERS ABLE TO COMPETE WITHOUT OWNERSHIP OF THEIR OWN WIRELINE OR WIRELESS ASSETS?

A. Equipment providers compete to provide products necessary to make converged data and voice systems work optimally. Each equipment provider offers its own set of solutions to enterprise customers. For example, Cisco provides equipment *and* network design services, but uses "channel partners" and resellers to actually manage the installation and coordination of the equipment with network service providers.[136] Cisco also works with system integrators to serve enterprise

[135] Profiles of these providers are set forth in Exhibit WET-3 to this testimony.

[136] Cisco 10-K for the fiscal year ended December 31, 2004; Cisco website, "Partners and Resellers" (http://www.cisco.com/en/US/partners/index.html); "Resellers Lock Up Revenue with Managed Network Security," PhonePlus Magazine, September 2004 (http://www.phoneplusmag.com/articles/491resell01.html)

customers. For example, IBM and Cisco expanded their relationship in May 2004 to provide VoIP services to enterprises and mass market customers:

> Like other enterprise-friendly offerings, the IBM-Cisco partnership seeks to bundle voice with other communications tools, including instant messaging and videoconferencing." IBM will market its consulting and integration services and will support a range of Cisco's voice, video and conference hardware and software offerings.
>
> IBM vice president Doug Elix agreed the two companies are "considerably increasing" their investments in the Internet Protocol (IP) area because they believe enterprises will handle all of their communications over data networks in the future. "Converged communications running on intelligent networks is changing the way business is conducted, and we expect both companies to be major players in that business transformation."[137]

Avaya's Enterprise Communications Group sells communications systems, products and applications to enterprise customers. Avaya offers customers either a new IP telephony system or the ability to "IP-enable" their existing voice communication systems. Avaya's product offerings include IP telephony systems, telephone sets, multi-media contact center infrastructure, and traditional voice communication systems. Avaya's service offerings include managed services, business consulting, professional services, design and network integration, product implementation, and maintenance services.[138] According to Avaya's website, its equipment allows customers to reduce their expenditures on telephone services[139]

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[137] Keith Regan, *IBM, Cisco Ally for VoIP Push*, ECT News Network, May 18, 2004 (http://www.macnewsworld.com/story/33848.html)

[138] Avaya, Inc. 10-K for the fiscal year ended September 30, 2004

[139] http://www.avaya.com/gcm/master-usa/en-us/tasks/learn/facts/iptelephony/qa8/adoptingipt.htm. Using its "IP Telephone Strategy" allows enterprise customers to save money over other telephony services. "The U.S. Customs and Border Patrol improved its ability to respond to emergency conditions … [and] is

c. Systems Integrators And IP Application Providers

Q. HOW DO SYSTEMS INTEGRATORS AND IP APPLICATION PROVIDERS SERVE ENTERPRISE CUSTOMERS?

A. These companies support integration of hardware, software and services in order to provide on-site design and integration services as required for complete network infrastructure. Enterprise customers use systems integrators to set up their own networks using wholesale capacity and equipment provided by these integrators. Some systems integrators, such as SAVVIS, even maintain their own infrastructure that enterprise customers can "plug into."[140] VoIP allows them to also provide voice services.

With its Global Services division, IBM is the largest systems integrator in the world.[141] It provides network services along with computer and Internet related information technology, professional, and product support.[142] The company is engaged in strategic outsourcing, consulting and deploying integrated technology systems.[143] Other systems integrators include Accenture, Cap Computer Sciences Corp. ("CSC") and EDS, each of whom have extensive capabilities in WAN and

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expected to save…thousands of dollars a year over its previous telephony service." Other examples include: Marin county, California**,** which is using Avaya IP-based enterprise mobility solutions so that employees and elected officials can access and manage critical business tools by calling a single number and speaking simple voice commands into the phone; and Washington, D.C, which is deploying Avaya voice solutions as part of its DCNet initiative to link 30,000 employees in 360 locations.

[140] Savvis Communications 10-K for the fiscal year ended December 31, 2004

[141] *See* Datamonitor Company Profiles, Chapter 1: IBM Global Services, October 7, 2004, pp. 1 and 16.

[142] *Id.* at 1.

[143] *Id*. at 16.

LAN infrastructure, as well as hosting and integration capabilities.[144] These companies include network transport services in a complete managed bundle for enterprise customers.[145]

Q. HOW DO THESE PROVIDERS COMPETE WITHOUT THEIR OWN NETWORKS OR WIRELESS SERVICE OFFERINGS?

A. Growing complexity and utilization of IT and communications systems require greater planning and management, and thus stimulate demand for systems integrators. Hence, system integrators compete to provide the bundle of products and services needed to integrate data and voice on the same network. IBM's recent $969 million deal to provide DSL-based Internet telephony to Lloyds TSB Bank provides a good example of how systems integrators provide competitive services. IBM will replace Lloyds' incumbent service provider, British Telecom ("BT").[146] In providing this network, IBM teamed with other vendors to compete

[144] Profiles of these and other systems integrators are set forth in Exhibit WET-3.

[145] Mike Harris, "*Carriers Collide with IT Service Providers*," Gartner Dataquest, February 19, 2003, p. 3

[146] Moreover: "Lloyds TSB is the first major UK company to actually go for a fully converged voice and data network," IBM UK spokesperson Bill Mew told NewsFactor. "The deal involves 70,000 VoIP phones, the largest implementation ever in the UK – and one of the largest in Europe." *See* Robin Arnfield, "IBM Wins Lloyds TSB Network Contract," *NewsFactor Network*, December 6, 2004 2:15PM (http://www.newsfactor.com/perl/story/28870.html). *See also* IBM Global Services Press Release, "IBM Wins Lloyds TSB Network Contract," December 6, 2004.

with BT.[147] Thus, as with equipment providers, system integrators collaborate with network service providers to compete against other NSPs.[148]

d. CLECs And DLECs

Q. HOW DO CLECS AND DLECS SERVE ENTERPRISE CUSTOMERS?

A. CLECs and DLECs serve enterprise customers using a variety of network architectures, including the same fiber and switching infrastructure that underlies the exchange networks. However, they have adapted their own facilities in ways that have been optimized to serve various types of enterprise customers. For example, XO Communications provides business customers with local and long distance voice and data telecommunications services through its national telecommunications network consisting of more than 6,700 route miles of fiber optic lines connecting to 953 unique ILEC end-office collocation nodes in 37 U.S. cities. In addition, XO owns licenses to deliver telecommunications services via local, multipoint distribution service, or LMDS wireless spectrum in all of the largest U.S. cities.[149]

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[147] Similarly, system integrator Lockheed Martin was able to unseat teams led by incumbent provider MCI and Sprint by joining with AT&T Corp., BellSouth Corp., Hewlett-Packard Co., Hughes Network Systems Inc., Qwest Communications International Inc., SBC Communications Inc., and Verizon Communications Inc. to become the comprehensive provider of managed network services to over 37,000 U.S. Postal Service locations. Thus, Lockheed Martin won a contract worth a potential $3 billion over 18 years even though MCI was the incumbent provider for many of the contracts USPS is consolidating.

[148] Jason Miller, *USPS Taps Lockheed Martin for $3 Billion Telecom Contract*, Government Computer News, October 14, 2004 (http://www.gcn.com/vol1_no1/outsourcing/27505-1.html) AT&T News Release, *Accenture and AT&T Team to Provide Managed Messaging Solutions to Businesses and Government Agencies*, May 24, 2004. AT&T Wireless News Release, *AT&T Wireless Forms System Integrator Program* (March 18, 2003).

[149] XO Communications 10-K for the fiscal year ended December 31, 2004

e. Cable Companies

Q. HOW AND TO WHAT EXTENT DO CABLE COMPANIES COMPETE FOR ENTERPRISE CUSTOMERS?

A. As discussed above, cable companies are marketing their advanced services to businesses, including those in the enterprise segment. Among the cable companies currently providing service to enterprise customers are Comcast, Cablevision, Time Warner Cable, Cox Communications, and Charter Communications.[150]

While commercial sales are currently about $1 billion annually, many in the industry see the segment as being a potentially much larger revenue source. For example, a Cox executive recently stated, "When we look at our franchises, we see an $8 billion to $10 billion opportunity that exists among businesses out there."[151] An article in CABLE DIGITAL NEWS noted:

> In particular, Time Warner Cable, Cox Communications, Charter Communications, Cablevision Systems and Adelphia Communications are looking to make their mark in the business space...they're hankering to steal market share away from the phone companies as well as expand the overall commercial market … [and] executives at Time Warner, Cox and other big MSOs say they are actively recruiting more large companies with fiber-based services[152]

[150] Profiles of these providers are set forth in Exhibit WET-3 to this testimony.

[151] *Multichannel News*, "Cable's Quiet Growth Pump; Commercial Sales: $1 Billion a Year and Growing Fast," August 23, 2004.

[152] *Cable Digital News*, "Cable Operators Show They Really Mean Business," September 2004.

Comcast offers several packages designed specifically for enterprise business customers.[153] And other cable operators have already experienced success in the enterprise market. Time Warner recently introduced two broadband networking products designed specifically for customers with 1,000 employees or more and the company has about 500 enterprise customers among its 140,000 commercial customers.[154] Cablevision offers broadband and telephony services to businesses through its Lightpath service. Lightpath served over 1,662 buildings with about 154,000 lines as of December 31, 2004.[155]

f. Wireless Providers

Q. HOW AND TO WHAT EXTENT DO WIRELESS PROVIDERS COMPETE FOR ENTERPRISE CUSTOMERS?

A. Wireless providers now offer a variety of plans designed to meet the needs of different-sized customers – *i.e.*, from home office to small and medium businesses to enterprises and government institutions. Some providers, such as Nextel and Sprint, offer customized solutions by industry.[156] Sprint also offers its business customers the "PCS Integrated Office," which allows the user to retrieve contacts or messages from a wireless phone in the same fashion as from the office

[153] *See* http://www.comcastcommercial.com/index.php?option=content&task=view&id=20.

[154] Time Warner Inc., SEC Form 10-K, Dec. 31, 2004, at 8. A September 2004 article states that enterprise customers accounted for 500 of Time Warner's 140,000 commercial accounts. *Cable Operators Show They Really Mean Business*, CABLE DIGITAL NEWS, September 1, 2004.

[155] CSC Systems Corp, SEC Form 10K, December 31, 2004.

[156] *See* Sprint Corporation, http://www.sprint.com/business/products/products/universityWirelessAccess.jsp, accessed April 7, 2005, and Nextel Corporation, http://www.nextel.com/about/enterprise/wbs/finance_insurance.shtml, accessed April 7, 2005.

phone.[157] Cingular offers services designed to appeal to business customers – *e.g.*, it offers a multi-line business discount which grows with the size of the business. Cingular and Sprint also offer businesses plans that allow employees of corporate subscribers to share minutes. Other major carriers offer similar incentives to business customers.

According to the Yankee Group: "As carriers attempt to deliver wireless data solutions to businesses, they will both compete and partner with traditional IT suppliers."[158] Sixty-three percent of enterprises have formal relationships with multiple wireless carriers and almost one-third (29 percent) have formal relationships with three or more carriers. On average, enterprises have relationships with 2.23 carriers.[159]

Q. HAS ENTERPRISE CUSTOMERS' DEMAND FOR WIRELESS SERVICES INCREASED?

A. Yes, particularly since these customers are centralizing control of spending on wireless voice and data services and looking to bundled service pricing as a means of reducing costs.[160] Ten percent of the customer base for voice and data services provided by Cingular Wireless is comprised of business accounts.[161] The

[157] http://www.sprint.com/business/products/products/pcsIntegratedOffice_enterprise.jsp, retrieved March 21, 2005.

[158] Roberta Wiggins and Eugene Signorini, Competition Among U.S. Wireless Carriers Intensifies in the Pursuit of Enterprise Customers, The Yankee Group, April 2004, p. 1.

[159] *Id* at 7.

[160] *Id*. at 2.

[161] *Id*. at 8.

Yankee Group reports that business subscribers make up approximately 70 percent of Nextel's base.[162] Individuals who use T-Mobile services to address their business communication needs are estimated to account for up to 20 percent of the total installed base of T-Mobile USA.[163]

Recently, Sprint entered into a contract with Ford Motor Company in Detroit to replace 8,000 of SBC's fixed lines with Sprint's wireless service.[164] This is a good example of an important trend occurring in the enterprise segment – enterprise customers are seeking the kind of flexibility that wireless customers can offer in the form of mobility and are increasingly viewing wireless service as an alternative to wireline service.

g. Enterprise Customers Use VoIP Services

Q. DO ENTERPRISE CUSTOMERS USE VOIP SERVICES?

A. Yes, enterprise customers have begun to adopt and deploy VoIP services. They do so either by installing IP PBXs into their networks and purchasing IP telephones or by subscribing to hosted IP telephony service, also called IP Centrex, in which the VoIP call control and management reside in the service provider's network.

[162] *Id*. at 9.

[163] *Id*. at 11.

[164] http://www.computerworld.com.au/index.php/id;93373959;relcomp;1

In fact, a recent survey by AT&T identified dozens of multinational firms whose employees are already using VoIP. The survey revealed that 43 percent of surveyed firms are using, testing or planning to implement VoIP within the next two years.[165] Companies that have announced plans in recent months include Boeing, Ford Motor Company, Bank of America, and Bearing Point. In fact, the NERA Boston office where I work uses VoIP telephony exclusively.

Broadwing Communications recently announced that it will be launching a business-user oriented VoIP local and long distance service in at least 23 major U.S. markets. The company indicated that the new VoIP service is expected to help meet the needs of large multi-state business enterprises with support they require for inbound/outbound domestic long-haul and local telephony, international calling, T1-level Internet access with dynamic bandwidth allocation, VPN, functions and toll-free features.[166] Diane Meyers, senior research analyst for Strategic Partners, indicates that the Broadwing offering is "making it easy" to IP-enable current PBXs, and the carrier is expanding VoIP beyond the small and medium-sized business market into large enterprises. "This service introduction provides new alternatives for large enterprises," she added.[167]

[165] "Hi! The Net is Calling Vonage's Citron: Can You Hear Him Now?" NEWSWEEK ENTERPRISE, January 31, 2005, http://www.vonage.com/corporate/press_news.php?PR=2005_01_31_1, accessed February 1, 2005.

[166] Telecomweb News Digest, *Broadwing Details Nationwide VoIP Entry*, June 9, 2005, http://www.telecomweb.com/cgi/pub/tnd/tnd06090508.html, accessed June 16, 2005.

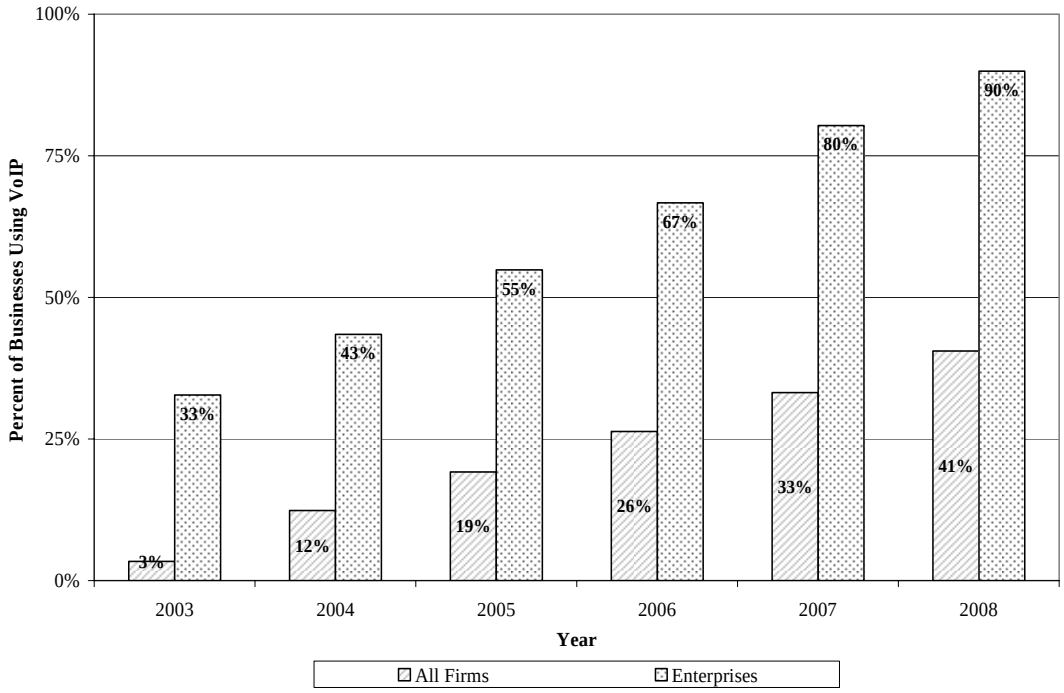
[167] *Id.*

According to In-Stat/MDR, the percent of U.S. Businesses using VoIP has grown from 3 percent in 2003 to 12 percent in 2004, and will grow to 41 percent in 2008.[168]

Figure 15 below shows the forecast of percentages of U.S. enterprise and U.S. total businesses using VoIP through 2008.

[168] Schoolar, Daryl, Business VoIP: An End-User's Perspective, 2004. In-Stat/MDR, November 2004 at 1.

Figure 15
Forecast Percent of US Businesses Using VoIP



Source: Schoolar, Daryl, "Business VoIP: An End-User's Perspective, 2004," In-Stat/MDR, November 2004, Table 11 at 32.

A July 23, 2004 article in the SEATTLE POST-INTELLIGENCER reported that The Boeing Company announced plans to move its 150,000 employees to an Internet-based phone system.[169]

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE TRANSACTION'S EFFECT ON COMPETITION FOR ENTERPRISE CUSTOMERS.

A. The transaction will not obstruct or impair competition for enterprise customers. These customers employ sophisticated purchasing practices, including competitive bidding, precisely because they offer the prospect of lucrative contracts. Enterprise service providers are a diverse array of companies that will remain to serve enterprise customers after the transaction is completed. These

[169] SEATTLE POST-INTELLIGENCER, *Internet Phone Service Has A Nice Ring*, July 23, 2004.

industry characteristics, coupled with the fact that Verizon serves a relatively small part of the enterprise segment, all indicate that the transaction will not impair or obstruct competition.

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Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes