REDACTED EXHIBIT NO._____
(HMS-1T)

BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of Qwest Corporation to Initiate a Mass-Market Switching and Dedicated Transport Case Pursuant to the Triennial Review Order	**Docket No. UT-033044**

DIRECT TESTIMONY OF

HARRY M. SHOOSHAN III

ON BEHALF OF

QWEST CORPORATION

DECEMBER 22, 2003

CONFIDENTIAL PER PROTECTIVE ORDER IN DOCKET NO. UT-033044
REDACTED

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EXECUTIVE SUMMARY

My testimony provides guidance, from the perspective of sound economic and policy reasoning, for making decisions that are consistent with the Triennial Review Order ("TRO") and rationally related to the goals of the Telecommunications Act of 1996 ("the Act"). The overall objective of my testimony is to provide the appropriate framework under the FCC's TRO for analyzing where competition would be unimpaired without the unbundled switching and transport requirements for serving residential and small business customers. Within this framework, I provide a summary of the evidence presented in greater detail by Qwest's witnesses in this proceeding demonstrating that competition is not impaired in six Metropolitan Statistical Areas ("MSAs") in Washington.

In its TRO, the FCC made rebuttable national findings that the development of competition among firms providing switched local services to residential and small business customers (what the FCC calls "mass market" customers) is impaired without the unbundled switching and transport requirements. However, the FCC also recognized that geographically specific analysis may demonstrate that efficient competitors are not impaired in specific areas without access to unbundled circuit switching for mass market customers and unbundled transport.

While there are many flaws in the TRO, the resolution of those issues is in the hands of the federal appellate court considering the appeal. For purposes of this case, I

recommend that this Commission make the findings required by the TRO. However, where there are ambiguities or internal inconsistencies in the Order, the Commission should consider the principal policy objectives of the Act and relevant judicial opinions interpreting the impairment standard. Along these lines, Congress limited the unbundling requirement to cases where failure to provide the element would cause impairment. The Act and the various court decisions have made it clear that the FCC and the state commissions should limit the imposition of unbundling requirements to situations where it is clear that an efficient firm would not have a reasonable opportunity to succeed without the unbundling requirement. By adhering to these precedents, the Commission will help ensure that the statutory objectives are met and that the current process is a constructive one.

There are two "tracks" of inquiry that can lead to a finding of no impairment in a particular geographic market for local circuit switching serving mass market customers. Track One involves meeting either of two relatively objective triggers. The first trigger ("the self-provisioning trigger") is met if three or more competitors unaffiliated with each other or the incumbent use their own switches to serve mass-market customers. The second trigger ("the wholesale trigger") is met if two or more wholesale providers offer unbundled local circuit switching. If the triggers are met, the FCC has made it very clear that the impairment inquiry ends. Track Two involves the analysis of the viability of additional competition that does not rely on unbundled local switching at TELRIC-based prices, including additional Competitive Local Exchange Carrier ("CLEC") entry and

expansion and the competition from alternative sources, such as wireless and cable-based communications.

The step-by-step process for identifying the geographic areas where there is no impairment for local circuit switching serving mass market customers involves first determining the appropriate product (service) market that is served with the unbundled element at issue. The product market for evaluating competition and impairment in this proceeding, therefore, includes the types of services that residential and small business customers purchase over POTS lines. These include, but are not restricted to, basic local service, vertical features, toll services, and all services that significant numbers of customers view as reasonable substitutes for these services. There is no preordained method for determining the scope of geographic markets, and the FCC offers very little guidance for divining one, other than declaring that a market cannot include an entire state, but must be large enough to allow the CLEC to take advantage of scale economies. The simplest, and perhaps most obvious, guiding principle for establishing geographic markets is that the scope of the market should be determined based on the best available information.

The key to determining the appropriate geographic markets is the selection of a method for aggregating wire centers. An aggregation of wire centers that is based upon the ability of efficient competitors to provide service over their own switches to mass market customers meets both the economic and practical requirements for defining an appropriate geographic market. Given the circumstances in Washington, aggregating

wire centers by Metropolitan Statistical Area ("MSA") makes sense from economic and practical perspectives. MSAs are: (1) granular enough to include areas with similar cost and revenue characteristics; (2) broad enough to allow competitors to capture economies of scale; (3) reasonable areas for looking at actual and potential competition; and (4) structured such that wire centers generally fit neatly within their borders.

In addition to addressing the market definition, this Commission must identify the "crossover point" for determining whether a customer is a mass market or an enterprise customer. The FCC finds that customers taking four or more DS0 loops could be served in a manner similar to that described above for enterprise customers—that is, voice services provided over one or several DS1s. I believe that the FCC's crossover point is reasonable if one takes into account the additional data revenue that a CLEC could obtain from the customer over and above the more efficient provision of voice service. In the absence of "significant evidence to the contrary," I believe the Commission should adopt the FCC's cutoff of three lines and below as the demarcation of the mass market.

Qwest presents compelling evidence that efficient competitors are not impaired in many areas in Washington without access to unbundled circuit switching for mass market customers. In total, Qwest provides evidence that CLECs are not impaired in markets in six MSAs. As described by Mr. Reynolds, there is sufficient existing CLEC competition to meet the FCC's self-provisioning trigger in the Seattle MSA, the Tacoma MSA, and the Vancouver portion of the Vancouver-Portland MSA. The evidence of broad deployment of existing CLEC switches is supported by a business case analysis,

presented by Mr. Copeland, that demonstrates the potential for additional CLEC competition. In another three MSAs, Olympia, Bremerton, and Bellingham, Qwest presents evidence that there is sufficient existing and potential competition to satisfy the FCC's Track Two requirements for a finding of no impairment.

Assuming the Commission adopts MSAs as the appropriate geographic market, Qwest is seeking findings of non-impairment and elimination of the unbundled switching requirement only in these six MSAs. Consistent with this approach, the evidence Qwest has presented is generally limited to these six MSAs. If the Commission determines that an area other than an MSA is the appropriate geographic market, the Commission should remove the unbundling requirements for Qwest in the largest geographic areas wherein it finds that competition would not be impaired. It would also be appropriate to consider additional areas for non-impairment. For example, Mr. Reynolds' testimony shows that in the Spokane MSA, there are two CLECs offering services to mass market customers using their own switches.

For areas where there is no economic impairment related to mass market switching, the FCC directs states to determine if there is operational impairment. Operational concerns listed by the FCC include difficulties in obtaining loops, collocation space and cross-connects from an incumbent LEC. The FCC, however, also recognizes that an operational problem only causes impairment directly when there is no practical operational solution. Qwest is currently engaged in a collaborative process with CLECs

to resolve concerns with this process. Mr. Pappas explains that obtaining collocation space and cross-connects does not pose a significant problem for CLECs in Washington.

The FCC adopted two ways for showing where competitors are not impaired without unbundled transport: "(1) by identifying specific point-to-point routes where carriers have the ability to use alternatives to the incumbent LEC's network; or (2) by identifying specific point-to-point routes where self-provisioning transport facilities is economic."

The FCC established two triggers that, if either is met, ends an incumbent local exchange carrier's ("ILEC's") obligation to unbundle dedicated transport at a particular capacity level on a particular route. If self-supply (Trigger One) or the presence of wholesale facilities (Trigger Two) can be demonstrated for a particular capacity level, then the ILEC need not unbundle transport at that capacity on that route. The FCC did not develop its policy based on customer class (i.e., enterprise and mass market), as it did for loops and switching, but by capacity "because it is a more reliable indictor of the economic abilities of a requesting carrier to utilize third-party alternatives or to self-deploy."

Qwest's analysis of the transport market was confined to a detailed analysis of only 11 of the 39 Qwest wire centers in the Seattle MSA. Nevertheless, using a combination of Qwest data (including on-site verifications by Ms. Torrence), publicly available information, and information provided by two consulting firms, Ms. Torrence has compiled compelling evidence that demonstrates that at least one of the triggers has been met on 25 routes. On several of the routes, both triggers are met. The broad deployment

of alternative facilities on these specific routes strongly suggests that on a more general basis, transport routes, particularly in more urbanized areas, are not impaired.

1. QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, TITLE AND ADDRESS.

A. My name is Harry M. Shooshan III. I am a principal and co-founder of Strategic Policy Research, Inc. ("SPR"), a public policy and economics consulting firm located at 7979 Old Georgetown Road, Suite 700, Bethesda, Maryland, 20814.

Q. PLEASE REVIEW YOUR EDUCATION, WORK EXPERIENCE AND PRESENT RESPONSIBILITIES.

A. I graduated from Harvard University with a B.A. (*cum laude*) and from Georgetown University Law Center ("GULC") with a J.D. From 1978 to 1991, I was an adjunct professor of law at GULC, teaching regulation and communications law. Before co-founding SPR, I served for eleven years on Capitol Hill. I was chief counsel and staff director of what is now the Subcommittee on Telecommunications and the Internet of the U.S. House of Representatives. As a consultant, I have specialized in communications public policy analysis, regulatory reform and the impact of new technology and competition. I have co-authored several studies on the relationship between telecommunications infrastructure and economic development. I have also advised firms on business strategies and market opportunities.

I have testified before several Congressional committees, before the Federal Communications Commission ("FCC"), the Canadian Radio-television and

Telecommunications Commission ("CRTC"), and numerous state commissions, including those in Arizona, California, Connecticut, Idaho, Illinois, Indiana, Iowa, Louisiana, Nebraska, New Jersey, New York, North Carolina, Pennsylvania and Washington. My testimony before state commissions has been on topics related to price regulation, the impact of competition and the classification of services.

I also served as an advisor to the Iowa Utilities Board and a consultant to the staff of the Arizona Corporation Commission where my work included the development of alternative regulation/price regulation plans and implementation of the Telecommunications Act of 1996 ("the Act"). I have also been involved in our firm's advisory work with OFTEL, the telecommunications regulatory body in the United Kingdom.

2. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is:

(1) To provide the appropriate framework under the FCC's Triennial Review Order[1] ("TRO") for analyzing where competition is unimpaired without unbundled switching for serving residential and small business customers;

(2) To provide the appropriate framework under the TRO for analyzing where competition is unimpaired for dedicated transport on specific routes; and

(3) Within these frameworks, to provide a summary of the evidence that demonstrates where competition is not impaired in Washington. The evidence summarized in my testimony is presented in greater detail by Qwest's witnesses in this proceeding.

Q. WOULD YOU PLEASE PROVIDE A SYNOPSIS OF THE STEPS TAKEN BY THE FCC IN ITS TRIENNIAL REVIEW ORDER THAT BEAR ON THIS PROCEEDING?

A. The FCC took several notable steps in the TRO related to the determination of impairment for mass market customers.

- It determined that residential customers and business customers with insufficient demand to justify service over DS1 or higher capacity circuits are in different markets than customers who use greater capacity.

- It made a rebuttable national finding that the development of competition among firms providing switched local services to mass market (residential

[1] Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *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, Deployment of Wireline Service Offering Advance Telecommunications Capability*, CC Docket Nos. 01-338, 96-98 and 98-147 (August 21, 2003) ("TRO").

and very small business) customers is impaired without unbundled switching.

- It made a finding of impairment for DS1, DS3 and dark fiber dedicated transport.

- It recognized that geographically specific analysis may demonstrate that efficient competitors are not impaired in specific areas without access to unbundled circuit switching for mass market customers and unbundled transport.

- It provided guidelines, some specific and others quite vague, for collecting and assessing evidence related to impairment.

- It placed considerable responsibility and discretion in the hands of the state commissioners for determining impairment and non-impairment.

My testimony provides guidance, from the perspective of sound economic and policy reasoning, for making decisions that are consistent with the TRO and rationally related to the goals of the Telecommunications Act of 1996.

Q. WHAT IS YOUR OVERALL ASSESSMENT OF THE EVIDENCE PRESENTED BY QWEST IN THIS PROCEEDING?

A. Qwest presents compelling evidence that efficient competitors are not impaired in many areas in Washington without access to unbundled circuit switching for mass market customers. In total, Qwest provides evidence that CLECs are not impaired in markets in six MSAs. As described by Mr. Reynolds, there is sufficient existing CLEC competition to meet the FCC's self-provision triggers in the Seattle

MSA, the Tacoma MSA and the Vancouver portion of the Vancouver-Portland MSA. The evidence of broad deployment of CLEC switches is supported by a business case analysis, presented by Mr. Copeland, that demonstrates the potential for additional CLEC competition. In another three MSAs, Olympia, Bremerton, and Bellingham, Qwest presents evidence that there is sufficient existing and potential competition to satisfy the FCC's Track Two requirements for a finding of no impairment. In all six MSAs, a finding of no impairment is strengthened by evidence of substantial and growing competition from wireless and other forms of intermodal competition.

Qwest's evidence demonstrates how far facilities-based local telecommunications competition has progressed in Washington. In seven MSAs in Qwest's service area (the six described above and Spokane), CLECs are using their switches to provide service to mass market customers. Mr. Weber's testimony demonstrates that access to self-provisioned switching is entirely feasible for CLECs given the large number of existing switches and multiple access options. Wireless service is so pervasive that it is difficult for many of our teenage children to imagine a world without cell phones. Today there are more wireless phones than households in the state, and the average usage is over 400 minutes per month. To allow the growth of the type of robust facilities-based competition the Act was designed to foster, the Commission should remove unbundling requirements where they are no longer needed. At this time, Qwest is asking for a finding of non-impairment and relief from the unbundled switching requirement only in these six MSAs. If, however,

this Commission decides on a geographic market definition other than MSAs, it would be appropriate to consider additional areas for non-impairment, as indicated by substantial competitive activity outside the six MSAs. For example, Mr. Reynolds' testimony shows that, in Spokane, there are two CLECs offering services to mass market customers using their own switches.

3. THE GOALS OF THE 1996 TELECOMUNICATIONS ACT

Q. WHAT ARE THE OBJECTIVES OF THE 1996 TELECOMMUNICATIONS ACT?

A. In the TRO, the FCC observed that the preamble of the Act "gives the best snapshot of Congress's overall intent in enacting the 1996 Act."[2] The purpose of the Act, as stated in its preamble, is to:

> "promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies." [3]

This is a concise statement of the **means** and the **end** Congress had in mind when it passed the Act. The end is a competitive market, in which prices are driven toward the costs of efficient service providers, service quality meets customer expectations, and continuing investment in infrastructure leads to high-quality,

[2] TRO, ¶ 70.

[3] *Id.*

innovative services. In fact, these public policy goals have been in place for decades. The reliance on competition as the means of accomplishing them is what is truly novel about the Act.

Q. WHY IS THE TRANSFORMATION FROM REGULATION TO COMPETITION APPROPRIATE FOR LOCAL TELECOM-MUNICATIONS?

A. The decision to adopt the competitive paradigm for local communications markets makes sense for two reasons. First, dramatic growth in demand and accelerated technological change has rendered the regulated, franchise monopoly industry structure of the past obsolete. A monopoly requires barriers that succeed in excluding competitors. When competitors surmount the barriers and serve customers, as they are doing at an accelerated pace in local telecommunications, a monopoly no longer exists.

Second, given the obsolescence of the regulated franchise monopoly structure, competition is the industry structure best suited to maximizing consumer benefits from this industry. By rewarding success, competitive markets encourage entrepreneurs and investors to brave failure and take the risks necessary for the robust investment and innovation required to deliver consumer benefits. Indeed, it is the balance of risks and rewards that accounts for much of the vibrancy in our competitive economy. A competitive industry structure is not as steady or predictable as a regulated, franchise monopoly structure, but given the changes in

demand and technology, it is the most effective structure for delivering consumer benefits from the communications industry.

Q. WOULD YOU PROVIDE A HISTORICAL CONTEXT FOR THE SHIFT BACK TO COMPETITIVE MARKETS?

A. After Alexander Graham Bell's exclusive patents expired in 1894, the ensuing 25 year period was characterized by considerable local telecommunications competition. During those years, telecommunications grew beyond a niche market into a strategic industry, and public interest began to favor regulation over a free market, due in part to the growing belief the telephone was a personal and business necessity. The view also emerged that every household deserved the opportunity to purchase phone service at a "reasonable" price.

The transformation toward regulated monopolies was also driven by the belief that telecommunications was a natural monopoly. Natural monopolies arise in an industry when economies of scale are such that the "natural" outcome is for one firm to produce all of the output in a given geographic area. The logic is that a firm with a smaller amount of output cannot achieve the same average cost and, therefore, is incapable of competing successfully with a larger firm. Given the technology and customer demand in the early 1900s, the telephone industry at that time was considered to be a natural monopoly.

The shift in public policy regarding the telecommunications industry led to the growth of state regulation, with many states enacting statutes creating public

utility commissions to regulate telephone companies. With the passage of the federal Communications Act in 1934, the convergence of public and private interests led to the creation of a regulated telephone system in the United States. For the next fifty years, almost all telecommunications services in the U.S. were provided by private firms operating under regulation. This industry structure rested upon a "regulatory compact" whereby the regulatory commission, on behalf of its constituents, limited competition and regulated prices in a manner that provided the firm a reasonable opportunity to recover its costs, including a fair return on the firm's investments in telecommunications. In return, the firm agreed to an obligation to serve all customers at specified prices, to cross-subsidize basic residential service to promote universal service, and to relegate itself to steady, if unspectacular, earnings.

This form of regulation relied critically on the abilities of both sides to fulfill their obligations, and it persisted for decades in the United States because both sides, for the most part, could do so. All of this began to unravel as the forces of technology, market demand, and competition combined to diminish the ability of the regulators and phone companies to fulfill the obligations of the "regulatory compacts."

Beginning with customer premise equipment[4] in the 1970s and then long distance service in the early 1980s, the industry began moving away from the regulated monopoly, rate of return structure toward real market-based competition. The transformation to competitive markets was recognized and codified by Congress in the 1996 Act, and in the years since the Act, competition in local telecommunications has expanded considerably. Indeed, as described by the FCC in the TRO, telecommunications is a very different industry today than it was in 1996.[5]

Q. HOW WILL COMPETITION FULFILL THE PUBLIC POLICY GOALS OF THE ACT?

A. The decision to embrace a competitive structure in local telecommunications markets is based on a conviction – which I share – that the competitive process is the most successful process available for delivering long-term benefits to consumers. Specifically, if allowed to flourish, the competitive process will fulfill the expectations of the Act, because firms in competitive markets use prices, quality, and innovation to compete with each other for customers, profits, and survival. Consumers are natural beneficiaries of this process. For this process to

[4] Customer premise equipment includes telephony devices located at a customer's site such as telephones and private branch exchanges (PBXs).

[5] *See*, for example, TRO, ¶ 6.

succeed, however, regulators must view competition and reduced regulation as flip sides of the same coin.

Q. WHY ARE COMPETITION AND REDUCED REGULATION FLIP SIDES OF THE SAME COIN?

A. It is noteworthy that the opening phrase of the Telecom Act states that it is an Act to "promote competition and reduce regulation." This is a recognition that: (1) there is an inherent tension between competition and regulation; and (2) as we move toward increasingly competitive markets, unnecessary regulation is not neutral to the process; it is harmful. At its heart, competition is a creative process, fueled by rewards and honed by risk. In a competitive market, rewards are reaped by firms that are most innovative and efficient at meeting consumer demands and desires. Losses are realized for less efficient firms and those that do not meet consumer expectations of quality service.

The tension caused by regulations in competitive markets is that they divert creative energy away from seeking innovative and efficient ways of producing services toward seeking advantages within the regulatory process.[6] For example,

[6] The types of problems that occur when regulation coexists with competition are highlighted by recent comments by FCC Commissioner, Adelstein, when he told TRDaily, '''Increasingly, IP is the way everything is going, so we need to make sure our regulatory apparatus keeps pace with the changes in technology so that there isn't regulatory arbitrage.' He said any action on VoIP should attempt to prevent people from taking 'advantage of changes in technology that allows them to make money because of regulatory differences between one type of technology and another.'" *TRDaily*, "Adelstein Expects Quick Action on FCC's Evolving VoIP Policy" (November 6, 2003). In the final analysis, the inability of regulation to keep pace with technological change is a key reason why the Act makes sense.

the requirement that UNE-P remain available where it is not needed can skew choices by competitors and forestall significant amounts of investment and innovation that would otherwise occur. Unnecessary UNE-P availability can provide transitory benefits to consumers in the form of lower prices. It does so, however, at the expense of investment and innovation that is crucial for the long term benefits from this industry. This is an area, therefore, where customers are best served if regulators heed the words of the FCC's Chairman Powell, that we must "[a]void the temptation to 'shape' the development of markets and instead let the market mechanism make those decisions."[7]

During the transition to competitive markets, the art of successful regulation depends critically on knowing when to exercise restraint and remove regulatory controls that interfere with the healthy incentives that drive investments in a competitive environment. When unbundling requirements become unnecessary, the benefits of unbundling disappear, and the harm such requirements cause to ongoing facilities-based competition and technological innovation is magnified. When this happens, maintaining unbundling requirements assists one segment of firms at the expense of others and diminishes incentives for efficient and beneficial innovations and investments. The purpose of unbundling is not to create a permanent CLEC entitlement to use Qwest's network at TELRIC-based

[7] "The Great Digital Broadband Migration," Remarks of Michael K. Powell, Commissioner, Federal Communications Commission, Before the Progress & Freedom Foundation, (December 8, 2000).

prices. Neither is it to insulate entrants from the risks inherent in competitive markets or to provide price arbitrage opportunities. Instead, the purpose is to promote meaningful competition and reduce regulation. Unnecessary unbundling is contrary to this purpose.

Q. DID CONGRESS RECOGNIZE THAT A FLASH CUT TO COMPETITIVE MARKETS WAS NOT REALISTIC?

A. Yes. Congress recognized in the Act that a flash cut from regulation to competitive markets was not realistic. Instead, Qwest and other incumbent local exchange carriers ("ILECs") were required to make certain portions of their networks available to entrants. This was due, in large part, to the expectation that economies of scale in portions of the ILECs' networks presented insurmountable barriers to entry.[8]

[8] In the First Report and Order, the FCC stated that "Access to unbundled elements…will promote efficient competition for local exchange services because…such access will allow new entrants to enter local markets by leasing the incumbent LECs' facilities at prices that reflect the incumbents' economies of scale and scope." First Report and Order, *In the Matter of the Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; In the Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers,* CC Docket Nos. 96-98, 95-185 (August 8, 1996) ("*First Report and Order*") ¶ 232. The United States Supreme Court, however, ruled that the FCC had gone too far in mandating unbundling in the First Report and Order. *AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366, 386-92 (1999).

Q. DID CONGRESS PLACE LIMITS ON THE OBLIGATION OF ILECS TO PROVIDE ELEMENTS OF THEIR NETWORKS TO COMPETITORS?

A. Congress limited the unbundling requirement to cases where failure to provide the element would cause impairment.[9] In adopting an "impairment" standard, Congress made it clear that unbundling was not a limitless ILEC obligation, a fact that has been twice confirmed by the courts. In *AT&T Corporation v. Iowa Utilities Board* ("*Iowa Utilities Board*"), the United State Supreme Court overturned the FCC's first attempt to articulate the impairment standard:

> "We agree with the incumbents that the Act requires the FCC to apply **some limiting standard**, rationally related to the goals of the Act, which it has simply failed to do."[10]

Then, in its 2002 decision in *United States Telecom Ass'n v. FCC*[11] ("*USTA*"), the D.C. Circuit Court overturned the impairment standard of the UNE Remand Order[12] because the FCC had again failed to apply an appropriate limiting impairment standard. It is in this context that the FCC issued its TRO.

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[9] 47 U.S.C. § 251(d)(2)(b).

[10] 525 U.S. 366, 388 (1999) (emphasis added)

[11] 290 F.3d 415 (D.C. Cir. 2002).

[12] Third Report and Order and Fourth Notice of Proposed Rulemaking**,** *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996***,** CC Docket No. 96-98, 15 FCC Rcd 3696 (November 5, 1999) (*"UNE Remand Order"*).

Q. DID THE FCC RECOGNIZE THAT UNBUNDLING IS AN INTRUSIVE FORM OF REGULATION?

A. Yes. The FCC recognized that "unbundling is one of the most intrusive forms of economic regulation."[13] In the context of achieving the goals of the Act through promoting competition and reducing regulation, it is necessary to remove unnecessary regulation, especially the most intrusive forms of regulation when they are no longer needed. This translates into a guiding principle for considering impairment. *Findings of impairment should be limited to situations where it is clear that an efficient firm does not have a reasonable opportunity to succeed without an unbundling requirement.* Unbundling comes with a cost, and *unnecessary* unbundling requirements come with the greatest cost of all, because they undermine the development of the very competition that unbundling is meant to promote.

Q. WHAT ARE SOME OF THE CONSEQUENCES OF UNNECESSARY UNBUNDLING?

A. Unnecessary unbundling requirements reduce the incentives of entrants and incumbents alike to invest and innovate. A CLEC considering how to offer service must first choose between two competing strategies—resale (including

[13] TRO, ¶ 141.

UNE-P resale)[14] or facilities-based service. Resale entails little risk, little or no network investment, only moderate effort, and is scalable to the exact number of customers served. It amounts to a CLEC offering the ILEC's service using the ILEC's network with the only difference being the CLEC's method of marketing the service. The Act was meant to foster far more than marketing battles. True innovation occurs when carriers deploy different technologies in their networks to become more attractive to customers and to gain a competitive advantage over each other -- something that is not achieved with resale. If UNE-P resale is available in markets where it is not necessary for entry, carriers will have a strong incentive to avoid the risk of investing in their own networks to compete against each other. Incumbents will similarly be less inclined to invest and innovate if the benefits of their doing so will be reaped (cheaply) by their competitors. By fostering risk-averse conduct by carriers, unnecessary unbundling, therefore, undermines innovation and denies consumers the benefits of technological advances that the Act is designed to promote.

Q. DID THE FORMER CHAIRMAN OF AT&T ARGUE THAT UNNECESSARY UNBUNDLING DISCOURAGES INVESTMENT?

A. Yes. In the words of the former AT&T Chairman and CEO C. Michael Armstrong:

[14] I would note that, technically, UNE-P and resale are not identical in all circumstances. For example, *(footnote continued)*

> "No company will invest billions of dollars to become a facilities-based broadband services provider if competitors who have not invested a penny of capital nor taken an ounce of risk can come along and get a free ride on the investments and risks of others.
>
> That would be a major disincentive to the kind of risk-taking that goes with infrastructure investment. And discouraging investment would have a chilling effect on competition."[15]

While Mr. Armstrong's comments dealt specifically with building a broadband infrastructure, his arguments are equally valid in the context of local telecommunications. Allowing competitors to obtain essential network components from incumbents when they can economically supply those elements themselves discourages investment and innovation.

Q. IS THE FACT THAT THERE IS CONSIDERABLE RISK ASSOCIATED WITH FACILITIES INVESTMENTS PROPER JUSTIFICATION FOR REQUIRING UNBUNDLING?

A. No. There are legitimate risks connected with large fixed investments in any competitive market. This is true for General Motors, Qwest, CLECs, and non-wireline competitors. As with entrants in any industry, CLECs face risks of not attracting sufficient customers and revenues. A CLEC can lower this risk by using

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there may be cases where a CLEC integrates its own enhanced features into UNE-P, something that is not possible with resale.

[15] "Telecom and Cable TV: Shared Prospects for the Communications Future," Remarks of C. Michael Armstrong, Chairman & CEO, AT&T, as delivered to Washington Metropolitan Cable Club, Washington D.C. (November 2, 1998).

resale based on traditional wholesale discounts and by building demand for its services prior to leasing unbundled elements and installing its own facilities. It can also lease Qwest's loops at TELRIC-based prices.

The purpose of an unbundling requirement is to prevent CLECs from facing insurmountable barriers to entry. The purpose is not to shield CLECs from universal characteristics of competitive markets or to transfer legitimate business risks from CLECs to Qwest.

Q. DID THE FCC RECOGNIZE THAT UNBUNDLING CAN HAVE SIGNIFICANT ADMINISTRATIVE AND SOCIAL COSTS?

A. Yes. The FCC cites Justice Breyer's observation that unbundling "can have significant administrative and social costs inconsistent with the Act's purposes."[16] There are administrative costs related to unbundling because multiple firms are sharing the same facilities, and it is necessary to manage this process. Social costs arise from the diminished incentives of an incumbent to make investments necessary to maintain and improve its network when it must share the benefits of these investments with its competitors. These social costs arise, in large part, because unbundling can interfere with the balance between risks and rewards that is critical for the ongoing development of competitive markets.

[16] TRO, ¶ 64, quoting *Iowa Utilities Board,* 525 U.S. 428 (J. Breyer, concurring opinion).

Q. IS YOUR TESTIMONY PREMISED ON THE TRO?

A. Yes. While I find flaws in the TRO, the purpose of my testimony in this docket is **not** to rehash these flaws. The D.C. Circuit will ultimately determine whether any portion of the TRO should be overturned. For purposes of this docket, I take the TRO as a given and focus my testimony on its proper interpretation and implementation, particularly as it relates to the unbundled switching requirement for serving mass market customers.

4. FCC AND JUDICIAL GUIDANCE RELATING TO THE PROPER IMPLEMENTATION OF THE ACT

Q. HAVE THE FCC AND THE COURTS ARTICULATED A PREFERENCE FOR FACILITIES-BASED COMPETITION?

A. Yes. While the Act recognizes that initial entry may be by a number of means, there is widespread acceptance that the long-term goal of the Act is to promote facilities-based entry and the investment associated with such entry. As the FCC observed in the TRO, "[w]e reaffirm the conclusion in the UNE Remand Order that facilities-based competition serves the Act's overall goals."[17]

In its *UNE Remand Order*, the FCC emphasized that "consumers benefit when carriers invest in their own facilities because such carriers can exercise greater control over their networks, thereby promoting the availability of new products

that differentiate their services in terms of price and quality."[18] In its recent *Notice of Proposed Rulemaking* ("*TELRIC NPRM*"), the FCC announced it would reconsider its TELRIC methodology; emphasizing again the paramount importance of facilities-based competition:

> "To the extent that the application of our TELRIC pricing rules distorts our intended pricing signals by understating forward-looking costs, it can thwart one of the central purposes of the Act: the promotion of facilities-based competition. While our UNE pricing rules must produce rates that are just, reasonable and nondiscriminatory, consistent with the Act's goal of promoting sustainable competition, they should not create incentives for carriers to avoid investment in facilities."[19]

The courts have also emphasized the importance of facilities-based competition and of an approach to unbundling that advances the critical goal of promoting investment in facilities.

Q. HOW HAVE THE OBJECTIVES OF THE ACT AND THE IMPAIRMENT STANDARD BEEN IMPLEMENTED?

A. The FCC has made several attempts to implement the unbundling provisions of the 1996 Act, but federal courts found these efforts insufficient on two separate occasions. The TRO is the FCC's third attempt to put a balanced unbundling

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[17] TRO, ¶ 70.

[18] *UNE Remand Order,* ¶ 110.

[19] Notice of Proposed Rulemaking, *In the Matter of Review of the Commission's Rules Regarding the* Pricing *of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-193 (September 15, 2003) ¶ 3.

framework in place that is fully consistent with the objectives of the Act. The same panel of the D.C. Circuit that rendered the *USTA* decision will rule on the various appeals of the TRO.

Q. WILL YOU PROVIDE A BRIEF SUMMARY OF THE FCC'S ATTEMPTS TO IMPLEMENT THE ACT'S UNBUNDLING REQUIREMENTS?

A. Yes. The history of the FCC's attempts to implement the Act's unbundling requirements provides important guidance to state commissions concerning how to exercise the discretion they have been granted to make impairment determinations. The FCC's first major attempt to interpret the Act came six months after its passage in what is now commonly known as the *First Report and Order*.[20] In that Order, the FCC initially chose a broad standard governing the ILECs' duty to provide unbundled network elements ("UNEs"). Its interpretation of the impairment standard was equally broad.

The FCC adopted a minimum list of UNEs that incumbents must make available[21] and allowed state commissions to add UNEs as long as the additions were consistent with the Act.[22] The FCC concluded that technical feasibility defined the UNEs that an ILEC had to provide. It held that there was a duty to provide "all network elements for which it is technically feasible to provide access on an

[20] *First Report and Order.*

[21] *Id.* ¶ 241.

[22] *Id.* ¶ 244.

unbundled basis."[23] Prices for UNEs were to be set based on the TELRIC methodology established by the FCC,[24] and the FCC required ILECs to combine UNEs for CLECs.[25]

The FCC found that the term "impair" meant to "diminish in value." Thus, "if the quality of the service the entrant can offer, absent access to the requested element, declines and/or the cost of providing the service rises,"[26] there was impairment.

In *Iowa Utilities Board,* the Supreme Court concluded that this standard placed no meaningful limitations on an ILEC's unbundling obligations: "it is hard to imagine when the incumbent's failure to give access to the element would not constitute 'impairment' under this standard."[27] The Court ruled that the FCC must apply a "limiting standard" on the scope of unbundled elements that is "rationally related to the goals of the Act."[28] The FCC's standard did not meet this requirement because "[t]he Commission's assumption that *any* increase in cost (or decrease in quality) imposed by a denial of a network element" constitutes impairment is "simply not in accord with the ordinary and fair meaning of those

[23] *Id.* ¶ 278.

[24] *Id.* ¶¶ 683-90.

[25] *Id.* ¶¶ 293-95.

[26] *Id.* ¶ 285.

[27] 525 U.S. at 389.

[28] *Id.* at 388.

terms."[29] In properly applying the impairment standard, the Court said that "[t]he Commission cannot, consistent with the statute, blind itself to the availability of elements outside the incumbent's network…[t]hat failing alone would require the Commission's rule to be set aside."[30]

Q. HOW DID THE FCC ATTEMPT TO REMEDY THESE DEFICIENCIES IN ITS APPROACH TO IMPAIRMENT?

A. The FCC attempted to remedy these problems in what is now commonly known as the *UNE Remand Order* by reinterpreting impairment. It adopted the following standard: "[T]he failure to provide access to a network element would 'impair' the ability of a requesting carrier to provide the services it seeks to offer if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element **materially diminishes** a requesting carrier's ability to provide the services it seeks to offer."[31]

Q. WAS THIS STANDARD UPHELD?

A. No. Once again, a federal court, this time the D.C. Circuit in the *USTA* decision, held that the FCC's standards as applied in the *UNE Remand Order* and in the

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[29] *Id.* at 389-90.

[30] *Id.* at 389.

[31] *UNE Remand Order,* ¶ 51 (emphasis added).

Line Sharing Order[32] violated the Act. As described by the Court, the key problem with the FCC's approach stemmed from its underlying premise that "more unbundling is better." The court rejected that premise, ruling that "Congress did not authorize so open-ended a judgment."[33] Of particular relevance for this proceeding, the Court also noted that the FCC's broad-brush approach to the ILEC's UNE obligations caused UNEs to be required "in many markets where there is no reasonable basis for thinking that competition is suffering from any impairment of a sort that might have [been] the object of Congress's concern."[34]

The key elements of the Court's decision were:

1) A recognition that unbundling "imposes costs of its own, spreading the disincentive to invest in innovation and creating complex issues of managing shared facilities;"[35]

2) A prohibition against requiring UNE unbundling in markets "where there is no reasonable basis for thinking that competition is suffering from any impairment of a sort that might have [been] the object of Congress's

[32] Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98, In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket Nos. 98-147 & 96-98 (December 9, 1999) ("Line Sharing Order").

[33] 290 F.3d at 425.

[34] *Id*. at 422.

[35] *Id.* at 427.

concern" (i.e., where facilities-based competition exists or where retail rates are held above cost by regulation);[36]

3) A rejection of the FCC's treatment of cost disparities between new entrants and incumbent carriers in determining impairment, with the court concluding that "average unit costs are necessarily higher at the outset for any new entrant into virtually any business"[37] and that a cost disparity can justify a finding of impairment only if the cost characteristics of a UNE "render it…unsuitable for competitive supply";[38] i.e., where there are "natural monopoly" characteristics that would make deployment of such facilities by competitors "wasteful;"[39] and

4) A requirement that the FCC take into account the existence and extent of intermodal competition, noting that the Act does not permit "the Commission to inflict on the economy with the sort of costs [that result from unbundling] under conditions where it had no reason to think doing so would bring on a significant enhancement of competition."[40]

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[36] *Id.* at 422.

[37] *Id.* at 427.

[38] *Id.*

[39] *Id*. In this respect, the Court reasoned the standard was similar to the essential facilities analysis that is applied in unregulated markets where inputs owned by one provider that are determined to constitute a "monopoly" (that is, where the inputs would be "wasteful" to duplicate) are required to be made available to its competitors. As I discuss later in this testimony, the analysis must not stop at a determination that cost disparities exist, but rather examine whether such disparities are due to characteristics that would make genuinely competitive provision of an element (or of an element's function) wasteful. The D.C. Circuit went on to say that this can only be determined by analyzing economies of scale "over the entire extent of the market." *Id., quoting* Alfred E. Kahn, The Economics of Regulation: Principles and Institutions 119 (1989).

[40] *Id.* at 429.

It is an understatement to say that the courts have been troubled by the seeming imbalance in the FCC's implementation of the Act in favor of unbundling and by the manner in which the FCC has interpreted the impairment standard.

Q. HOW SHOULD THE HOLDINGS OF THE VARIOUS COURTS AFFECT THE FINDINGS MADE BY THIS COMMISSION?

A. This Commission should begin by following the steps outlined in the TRO, keeping in mind the admonition by the courts that the FCC must apply a "limiting standard" on the scope of unbundled elements that is "rationally related to the goals of the Act."[41] Mandatory unbundling when there is no impairment undermines lasting competition.

Where the TRO is ambiguous or contradictory, this Commission should interpret the TRO in a manner consistent with the holdings of the courts in order to ensure that the standard it applies is a limiting one.

[41] 525 U.S. at 388.

5. THE IMPAIRMENT STANDARD AND THE TRO

Q. WHAT IS THE IMPAIRMENT STANDARD AS STATED IN THE ACT AND INTERPRETED IN THE TRO?

A. The Act instructs the FCC to determine which network elements to make available by considering, at a minimum, whether:

> "the failure to provide access to such network elements would impair the ability of **the telecommunications carrier seeking access** to provide the services that it seeks to offer."[42]

In the TRO, the FCC recognizes that the interpretation of the term "the telecommunications carrier" that fits the goals of the Act is not an individual carrier or a group of carriers that follow any specific business plan:

> "We recognize that section 251(d)(2) refers to '*the* telecommunications carrier seeking access,' but such a subjective, individualized approach could give some carriers access to elements but not to others, and could reward those carriers that are less efficient or whose business *plans* simply call for greater reliance on UNEs…**we cannot order unbundling merely because certain competitors or entrants with certain business plans are impaired.**"[43]

[42] 47 U.S.C. § 251(d)(2) (emphasis added).

[43] TRO, ¶ 115 (bold added).

The FCC reinforces this point when it requires that an economic impairment analysis must consider "the most efficient business model for entry rather than to any particular carrier's business model."[44]

This mandate is rationally related to the fundamental goals of the Act. It recognizes that if efficient competitors have opportunities to compete successfully with business strategies that do not rely on unbundled switching, then competing carriers as a class are not impaired without access to unbundled switching. The approach ensures that unbundling requirements are not driven by the needs of carriers that: (1) cannot succeed as facilities-based competitors because they are inefficient; or (2) simply do not consider facilities-based business strategies. Under the proper approach described in the TRO, carriers should have switching available to them at TELRIC-based prices only where there is true economic need.

Q. DOES A COST DISADVANTAGE EQUATE TO IMPAIRMENT?

A. No. After reviewing the unbundling rules in the *First Report and Order*, the Supreme Court stated that "[t]he Commission's assumption that *any* increase in cost (or decrease in quality) imposed by a denial of a network element" constitutes impairment is "simply not in accord with the ordinary and fair meaning of those terms."[45] In line with the Court's comments, the FCC states:

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[44] *Id.* ¶ 517.

[45] 525 U.S. at 389-90.

> "We reject the proposal to find impairment whenever entrants would suffer from a substantial cost disadvantage…A cost disadvantage standard would focus on maximizing entry to the detriment of the other goals of the Act, such as innovation, deployment of new technologies, and reduced regulation, which goals are most likely to be met through facilities-based competition…Second, entry may be possible despite cost disadvantages."[46]

The idea that a firm cannot enter or compete effectively in a market unless it has costs that are equal to or lower than those of the incumbent in that market is not true in theory or in fact. If this were true, one would expect almost no entry into any industry unless the entering firm was able to instantaneously achieve the economies of scale and acquire the knowledge resident in incumbent firms. The reality, of course, is that firms regularly enter industries and markets without having reached the economies of scale or knowledge of incumbents.

In the *AT&T Domestic Non-Dominance Order*, the FCC found "it is not surprising that an incumbent would enjoy certain advantages, including resource advantages, scale economies, long-term relationships with suppliers (including collocation agreements), and ready access to capital," but that the "competitive process itself is largely about trying to develop one's own advantages, and all firms need not be

[46] TRO, ¶ 112.

equal in all respects for this process to work."[47] Indeed, this is the soul of the competitive process.

Furthermore, CLECs have some cost *advantages* over the ILECs. CLECs can enter the market with the most modern network configuration available, locate their switches wherever they choose, serve the customers they believe will be profitable, and adopt only the latest technologies. Added to these CLEC advantages are the substantial asymmetric regulatory requirements that prevent ILECs from picking and choosing which markets and customers to serve. It is far from clear whether it is the ILECs or the CLECs that have the net cost advantage, when all of these factors are considered.

In the TRO, the FCC directs that "State commissions should not focus on whether competitors operate under a cost disadvantage. State commissions should determine if entry is economic by conducting a business case analysis for an efficient entrant."[48] This process and its results for Washington are described in the testimony of Mr. Copeland.

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[47] *AT&T Domestic Non-Dominance Order*, 11 FCC Rcd at 3309, ¶73, quoting Competition in the Interstate Interexchange Marketplace, CC Docket No. 90-132, *Report & Order*, 6 FCC Rcd 5880, 5892 (1991).

[48] TRO, ¶ 517, footnote 1579.

6. FCC IMPLEMENTATION OF THE IMPAIRMENT STANDARD: MASS MARKET SWITCHING

Q. WHAT FINDINGS OF IMPAIRMENT DID THE FCC MAKE WITH REGARD TO MASS MARKET SWITCHING?

A. The FCC found "on a national basis, that competing carriers are impaired without access to unbundled local circuit switching for mass market customers."[49] It also recognized that geographically specific analysis may demonstrate that efficient competitors are not impaired in specific areas without access to unbundled LEC local circuit switching.[50]

Q. WHAT TRACKS OF EVIDENCE DID THE FCC STATE COULD LEAD TO A FINDING OF NO IMPAIRMENT?

A. There are two separate "tracks" of inquiry that can lead to a finding of no impairment in a particular market. Track One involves meeting either of two triggers. The first trigger ("the self-provisioning trigger") is met if three or more competitors unaffiliated with each other or the incumbent use their own switches to serve mass-market customers.[51] The second trigger ("the wholesale trigger") is met if two or more unaffiliated wholesale providers offer unbundled local circuit

[49] *Id.* ¶ 459.

[50] *Id.* ¶¶ 517-20.

[51] *Id.* ¶ 501.

switching in a particular market.[52] If either of the triggers is met, the impairment inquiry ends. In the event neither trigger is met, the Track 2 analysis nevertheless allows a state commission to find no impairment based on an analysis of actual deployment, operational issues, and a business case modeling process that assesses the economic viability of entry by an efficient CLEC.

Q. WHAT ARE SOME REASONS WHY, EVEN IF TRACK ONE TRIGGERS ARE NOT MET, THERE CAN BE SUFFICIENT POTENTIAL COMPETITION IN CERTAIN AREAS FOR A FINDING OF NON-IMPAIRMENT?

A. Even if the Track One triggers are not met in a geographic area, there are several reasons why there can be sufficient competition for a finding of non-impairment. First, competitors do not enter all markets at once, and they may simply not have expanded into a certain area at this time. The fact that a firm—whether it is AT&T or Wal-Mart—does not enter all markets at once is a simple manifestation of a normal competitive process. This is not evidence of impairment.

Second, the presence of extensive competition through the use of UNE-P is not evidence of impairment. UNE-P is a low-risk entry strategy because the CLEC has the ability to offer a complete service at low cost and minimal investment risk. Thus, the only conclusion to be drawn from the presence of UNE-P competition is

[52] *Id.* ¶ 504.

that many CLECs will choose a low-risk, low-cost entry strategy over a higher-cost, higher-risk facilities-based strategy, even where the latter strategy is economically viable. The CLECs' general preference for this strategy does not, however, mean that CLECs are impaired without the availability of unbundled switching. It is critical for state commissions to distinguish between CLEC preferences for a particular market strategy and economic impairment. Impairment turns on the ability of CLECs to compete without the unbundling requirement, not on the fact that they prefer a strategy that is available only because of regulation.

To determine if CLECs are impaired without the unbundled local switching requirement, it is necessary to analyze what CLECs could do in the absence of the availability of the unbundled switching requirement to serve residential and small business customers. This relates to the TRO's Track Two inquiry.

Q. WHAT ARE THE ELEMENTS OF THE TRACK TWO PROCESS?

A. The FCC recognized that even in markets where CLECs are not currently serving mass market customers with their own switches, CLECs are not impaired without access to unbundled switching if they can offer viable competition with a UNE-L strategy. If existing competition does not satisfy the Track One triggers, state commissions are required to evaluate three types of evidence in making a finding under Track Two. Among the factors the state commission must consider are:

Actual Switch Deployment. State commissions are to look at actual switch deployment, including switches that may be only serving the enterprise market. If those switches are operationally and economically capable of serving the mass market, this evidence should be given "substantial weight."[53] In its recent brief filed with the D.C. Circuit Court responding to Qwest's mandamus petition, the FCC emphasized the importance of actual deployment (even if it does not meet a trigger):

> [We] made clear that where the triggers are not met, the presence of even one self-provisioning competitor in a market will increase the likelihood of a finding of no impairment…"[T]he existence of even one such switch might in some cases justify a state finding of no impairment, if [the state] determines that the market can support 'multiple, competitive supply.'"[54]

Intermodal Competition. Commissions must also consider intermodal competition. The FCC states that it "gives weight to the deployment of intermodal technologies"[55] and instructs that "state commissions must also consider whether new technologies provide a superior means of serving customers."[56] While the TRO contemplates that states will consider intermodal competition, the Order provides little guidance as to what weight it should be given. The FCC, however,

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[53] TRO, ¶ 508.

[54] Opposition of Respondents to Petitions for Writ of Mandamus, *United States Telecom Association v. FCC,* Nos. 00-1012, *et al.* p. 23. (October 9, 2003) *quoting* TRO, ¶ 510.

[55] TRO, ¶ 7.

has said that "[a]s we evaluate evidence of intermodal deployment, we will consider to what extent services provided over these intermodal alternatives are comparable in cost, quality and maturity to incumbent LEC services."[57] It is important that this Commission adequately weigh the ample evidence of intermodal competition supplied by Qwest in this proceeding, including evidence that shows it is comparable to Qwest's wireline services.[58]

Potential Additional Competition. State commissions must determine if there are economic barriers associated with self-provided switching. In this regard, the TRO requires the use of business case modeling to analyze whether "a competing carrier could economically serve the market"[59] without unbundled switching. The analysis must be of an efficient entrant, using UNE-L and new superior technologies. The model should include all potential revenues and all factors affecting costs.

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[56] *Id.* ¶ 517. Note also that the FCC expressly directed the states to factor such competition—from cable telephony, packet switches, and other sources—into their impairment analysis. (*Id.* ¶ 499, footnote 1549).

[57] *Id.* ¶ 97.

[58] See Section 8.3 for information on intermodal competition. *See also* the Direct Testimony of Mark S. Reynolds.

[59] TRO, ¶ 517.

Q. WHY DOES A BUSINESS CASE APPROACH PROVIDE MEANINGFUL EVIDENCE ABOUT IMPAIRMENT AND NON-IMPAIRMENT?

A. The relevant question for determining impairment is whether an efficient competitor can economically enter a market without unbundled switching. That is, without the unbundling requirement, can efficient firms earn revenues that are sufficient to overcome barriers to entry? This is the type of decision that competitive firms make every day, and the tool that they use to evaluate such decisions is the business case. For an investment decision, a business case determines if expected revenues over the life of the investment (or enterprise) under consideration, taking account of the time value of money, will compensate the firm for its costs and create value for the entrepreneurs or owners. An investment will create value if it can generate more cash than it uses, when all cash outflows and inflows are stated in terms of today's dollars.

Q. DID THE FCC ALSO IDENTIFY OPERATIONAL ISSUES FOR THE CONSIDERATION OF IMPAIRMENT?

A. Yes. State commissions are also required to determine whether operational barriers are "making entry uneconomic for competitive LECs."[60] Commissions must examine operational issues involving loop provisioning, collocation and cross-connects. Qwest witness Dennis Pappas addresses these issues in his direct testimony.

Q. WHAT APPROACH WILL YOU FOLLOW IN THE SUBSEQUENT SECTIONS FOR EXAMINING THE EVIDENCE RELATED TO IMPAIRMENT?

A. The step-by-step process for presenting the evidence that identifies geographic areas where there is no impairment is accomplished in the steps described below.

- Identify the appropriate product (service) market that is served with the unbundled element at issue, such as switching. (As discussed in Section 7, the geographic scope of the markets where there is no impairment is "discovered" as a result of the analysis.)

- Determine where the extent of actual competition from non-ILECs for these services in the state satisfies the triggers specified in the TRO.

- Assess where conditions are conducive to additional expansion and entry by competitive providers.

- Support finding of potential competition with evidence of intermodal competition.

- For areas where there is no economic impairment, determine if there is operational impairment.

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[60] TRO, ¶ 507.

The guiding principle behind these steps is to limit any requirement to unbundle local circuit switching to situations where it is clearly needed for efficient firms to compete and it provides an opportunity to compete.

Q. WHAT IF THE COMMISSION FINDS THAT QWEST HAS NOT SATISFIED EITHER THE TRACK ONE OR THE TRACK TWO REQUIREMENTS?

A. The Commission may still find that "impairment in a given market could be mitigated by granting requesting carriers access to unbundled local circuit switching for a temporary period, permitting carriers first to acquire customers using unbundled incumbent LEC local circuit switching and later to migrate these customers to the competitive LECs' own switching facilities."[61] The TRO refers to this as "transitional access." If a state commission were to find that rolling access to unbundled switching would cure any impairment then it must implement rolling access "rather than perpetuating permanent access to the switching element."[62]

[61] *Id.* ¶ 524.

[62] *Id.*

7. THE MARKET

Q. HOW ARE MARKETS DEFINED?

A. Markets have product and geographic dimensions. For the analysis of impairment, it is important to consider both.

7.1. THE PRODUCT MARKET

Q. WHAT IS A PRODUCT MARKET AND WHY IS IT IMPORTANT TO DEFINE THE PRODUCT MARKET CORRECTLY?

A. A "product" market includes services that significant numbers of customers view as substitutes. The type of competition the Act seeks to foster exists where multiple firms provide services that consumers view as substitutes and where conditions are conducive to additional entry and expansion by efficient firms. This accomplishes the goals of the Act because, in the process of vying for customers, competitive firms drive prices toward the costs of efficient firms, improve service quality, and invest in new technologies. These are the market characteristics that Congress had in mind when it passed the Act. Properly identifying services that consumers view as substitutes is, therefore, a key step in evaluating the success of the Act. Determining if this competition is developing and can continue to develop without unbundled switching is a key step in evaluating impairment.

Q. WHAT GUIDANCE DID THE FCC PROVIDE FOR DEFINING THE PRODUCT MARKET FOR THIS PROCEEDING?

A. For the purpose of this proceeding, the FCC's approach to defining the product market begins by identifying two customer groups: mass market customers and DS1 enterprise customers. Next, the FCC defined the product market for this proceeding as the services provided to "mass market customers:"

> "The mass market for local services consists primarily of consumers of analog 'plain old telephone service' or 'POTS' that purchase only a limited number of POTS lines and can only be economically be served via analog DS0 loops."[63]

The product market for evaluating competition and impairment in this proceeding, therefore, includes the types of services that residential and small business customers purchase over POTS lines. These include, but are not restricted to, basic local service, vertical features, toll services, and all services that significant numbers of customers view as reasonable substitutes for these services. As described below, this includes wireless and cable telephony services that compete with POTS, as well as local and toll services that are offered at packaged prices.

[63] TRO, ¶ 459.

Q. IN EVALUATING COMPETITION AND IMPAIRMENT, WHAT FACTORS SHOULD DETERMINE WHETHER SERVICES ARE IN THE SAME PRODUCT MARKET?

A. The final decision about whether services are in the same product (or service) market rests with consumers. If, after considering the quality and prices of two services, significant numbers of consumers consider them to be reasonable substitutes, then the services are economic alternatives for each other. Additional evidence can come from examining if the services are marketed in the same channels, whether competitors market their services as substitutes, and whether providers are viewed as competitors.

We can glean more insights into this topic from the extensive analysis of markets by economists and the courts. When services are in the same market, they are viable economic alternatives and, therefore, substitutable.

Q. FOR SERVICES TO BE IN THE SAME MARKET, IS IT NECESSARY FOR THEM TO BE IDENTICAL?

A. No. To be considered substitutes, services do not have to be identical, functionally equivalent, or even of equal quality. Parity is not necessary, or even usual, among products or services that are in the same market.[64] For example, one

[64] In the economics literature, goods are substitutes that satisfy similar wants. Air conditioning and fans are considered substitutes, though they are quite different in quality and technology employed. *See, for example*, Michael L. Katz and Harvey S. Rosen, *Microeconomics*, Third Ed. (Irwin-McGraw-Hill, Boston MA: 1998) at 60.

court has ruled that display advertisements in daily newspapers do not constitute their own product market, because "door-to-door delivery, direct mail and the weekly papers [are] viable substitutes."[65] There are numerous other examples of products that are not functionally identical or equivalent and yet have been found by the courts to be sufficiently substitutable to exert competitive pressure on one another. Some of these are described below.

Q. FOR SERVICES TO COMPETE, IS IT NECESSARY FOR ALL CUSTOMERS TO VIEW THE SERVICES AS REASONABLY INTERCHANGEABLE?

A. No. For determining which services are in the same market, it is also not necessary for *all* customers to view the services as being reasonably interchangeable. What is critical in determining whether services are competitive substitutes is whether they "have the ability—actual or potential—to take significant amounts of business away from each other."[66]

When a significant number of consumers actively choose among reasonable alternatives, firms must compete with each other for these customers. In the process of vying for customers, competitive firms seek advantages and respond to their competitors by driving prices toward the costs of efficient firms, improving

[65] *Drinkwine v. Federated Publications*, 780 F.2d 735, 738 n. .3 (9th Cir. 1985), *cert. denied*, 451 U.S. 911 (1981).

[66] *SmithKline Corp. v. Eli Lilly & Co*., 575 F.2d 1056, 1063 (3d Cir.), *cert. denied*, 439 U.S. 838 (1978).

service quality, and/or incorporating innovations in the production or delivery of services.

Q. WOULD YOU PLEASE PROVIDE SOME EXAMPLES OF SERVICES AND PRODUCTS THAT THE COURTS HAVE DETERMINED ARE IN THE SAME PRODUCT MARKETS?

A. Reviewing court decisions about product market definitions helps drive home the point home that "substitutable" and "the same" are not synonymous standards. For example:

- "Premium" ice cream is not a market in itself, because all grades of ice cream compete for customer preference and for retailers' freezer space; in other words, lower-quality ice cream is a relevant substitute for premium ice cream.[67]

- Glass jars and metal cans are sufficiently interchangeable in use to be in the same product market.[68]

- "Passive visual entertainment," including cable television, satellite television, videocassette recordings, and free over-the-air television are all substitutable enough to be in the same product market.[69]

Note that products and services that consumers view as substitutable often have very different prices and quality. An important lesson from these examples is that consumers in competitive markets do not make decisions based solely on price. A

[67] *See Super Premium Ice Cream Distrib. Antitrust Litig*., 691 F. Supp. 1262 (N.D. Cal. 1988), *aff'd mem. sub nom. Haagen-Dazs Co. v. Double Rainbow Gourmet Ice Creams, Inc*., 895 F.2d 1417 (9th Cir. 1990).

[68] *See United States v. Continental Can Co*., 378 U.S. 441, 453-57 (1964).

recognized benefit of competitive markets is that consumers can choose among products and services based upon mixes of price and quality,[70] and consumers can change the mixes of price and quality they purchase and consume. This means that services with very different prices (including different mixes of non-recurring and recurring costs), such as basic cable television and satellite television, can take business away from each other. They compete in terms of price and quality, not price or quality. Looking at one dimension in isolation can lead to a mistaken conclusion that the services are not in the same market.

Consider, for example, wireless and wireline services. Although the prices of packages for wireline and wireless services are similar, the quality attributes of these services can be quite different. The sound quality of wireless in some locations remains inferior to wireline quality, but the mobility "quality" of wireless is clearly superior. As the prices of wireless services have declined, increasing numbers of consumers are choosing wireless usage and "lines" over wireline usage and lines. This development reflects not just a pricing decrease, but also the conclusion of many consumers that the mobility and added

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[69] *See Cable Holdings v. Home Video, Inc.*, 825 F.2d 1559, 1563 (11th Cir. 1987). For more examples, see ABA Section of Antitrust Law, Antitrust Law Developments (4th ed. 1997), at 500-08.

[70] In this context, quality refers to non-price attributes of products and sources.

functionality of wireless telephones provides a desirable quality advantage over wireline telephones.[71]

Another example relates to packaged telecommunication services relative to stand-alone local service. The fact that these service offerings are different does not mean that they are in separate product markets. Consumers can and do move from one pricing plan to another. Moreover, the growth in popularity of packaged services, due in part to consumer preference for simplicity, demonstrates that many consumers are migrating to packaged services. Basic local service and packaged services are, therefore, in the same product market.

Q. SHOULD THE IMPAIRMENT ANALYSIS FOCUS ON QWEST'S SERVICES?

A. No, the focus of the impairment analysis should be not on Qwest's ability to provide services, but on the ability of other firms to provide services in competition with Qwest and with each other, including non-wireline firms. The "product" dimension of the market for this analysis includes the full array of service offerings that efficient competitors offer to retail customers (including, but

[71] For deciding where triggers are met, the FCC instructs the states to consider to what extent intermodal services are comparable in terms of "cost, quality and maturity." TRO, ¶ 97. First, note that this is a compound requirement. Cost, quality and maturity need to be considered together. Second, the FCC does not expect state commissions to consider wireless service providers in the application of the triggers outlined in the TRO, though such providers may be relevant to other parts of a state commission's analysis. *Id.* ¶ 499, footnote 1549. Third, the FCC found the changing technical, economic and usage factors related to intermodal services are relevant for the consideration of future

(footnote continued)

not limited to, basic local exchange service). It is not restricted to the current offerings of Qwest or any particular competitor.[72]

7.2. GEOGRAPHIC MARKETS

Q. HOW SHOULD THIS COMMISSION DETERMINE THE SCOPE OF GEOGRAPHIC MARKETS WHERE THERE IS NO IMPAIRMENT?

A. There is no preordained method for determining the scope of geographic markets, and the FCC offers very little guidance for divining one, other than declaring that a market cannot include an entire state, while stating that it must be large enough to allow the CLEC to take advantage of economies of scale.[73] For evaluating impairment, narrowly defined areas where competitors are already serving customers with their own switches also offer limited guidance, other than to establish the minimum size of the market. Firms usually refrain from entering at the same time all geographic areas where entry is economically feasible. Initial entry typically occurs where the expected benefits are greatest, and expansion occurs over time to areas that are expected to add value. Current service areas do

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impairment determinations. *Id.* ¶ 97, footnote 331. I return to this issue in my discussion of existing and potential non-CLEC competition.

[72] It is important to emphasize that the "market" being defined here is not in the traditional sense an economic market for purposes of antitrust analysis, but rather the "market" for purposes of determining where services can economically be provided without unbundled switching.

[73] TRO, ¶ 495.

not account for growth by existing facilities-based firms (or viable entry by others) that has simply not yet occurred.

The simplest, and perhaps most obvious, guiding principle for establishing geographic markets is that the scope of the market should be determined based on the best available information. There are two important perspectives that provide additional guidance for determining the scope of geographic markets for the analysis of impairment, one economic and one practical.

Q. WHAT ECONOMIC PERSPECTIVE SHOULD GUIDE DECISIONS ABOUT GEOGRAPHIC MARKET DEFINITIONS FOR THE IMPAIRMENT ANALYSIS?

A. From an economic perspective, the relevant geographic markets for purposes of the impairment analysis should be the areas where competitors have viable opportunities to provide service over their own switches to mass market customers.[74] These areas are determined by market and financial factors that vary by place and time. One key factor is the ability of a firm to achieve sufficient economies of scale. Firms enter and expand into areas when their analyses give rise to expectations that they can create value for themselves or the owners of the business. Where firms are already providing service with their own switches, the

[74] As Mr. Reynolds notes in his direct testimony, a statewide or larger geographic market definition might, absent the FCC's pronouncement in the TRO, be appropriate. However, given the FCC's mandate that the geographic market in the state proceedings be smaller than an entire state, Qwest is not advocating a statewide market definition in this case.

reasonable conclusion is that they can do so. The FCC realized, however, that competitors may have opportunities to provide additional competition. These opportunities may increase competition in geographic areas where facilities-based CLECs are already providing service, and the opportunities may result in an extension of facilities-based CLEC competition into new geographic areas.

Business case analyses inform firms' decisions about where they should provide service over their own facilities. These analyses provide meaningful evidence for state commissions' decisions about where competitors are not impaired without unbundled switching. The areas where competitors are not impaired without unbundled switching are the geographic markets for findings of non-impairment in this proceeding.

Q. WHAT PRACTICAL PERSPECTIVE SHOULD GUIDE DECISIONS ABOUT GEOGRAPHIC MARKET DEFINITIONS FOR THE ANALYSIS OF IMPAIRMENT IN THIS PROCEEDING?

A. From a practical perspective, it is necessary to use geographic areas for which data are available. Individual wire centers are too small to constitute markets because no CLEC would ever roll out a mass market offering in a single wire center. However, wire centers may be practical geographic units for collecting data. It is reasonable for CLECs to make decisions about areas for initial entry and subsequent expansion based on the revenue and cost characteristic of *groups* of wire centers with similar characteristics. It is not typical for firms to enter single

wire centers, because individual wire centers are not large enough to allow competitors to achieve the necessary economies of scale.

The key to determining appropriate geographic markets is the selection of a method for aggregating wire centers. An aggregation of wire centers that is based upon the ability of efficient competitors to provide service over their own switches to mass market customers meets both the economic and practical requirements for defining an appropriate geographic market.

Q. HOW DO YOU RECOMMEND THIS COMMISSION AGGREGATE WIRE CENTERS INTO MARKETS FOR THE ANALYSIS OF IMPAIRMENT?

A. The usual definition of the geographic market is the area wherein competitors actually do operate or efficient competitors *could* operate. In reality, the geographic scope of CLEC operations varies considerably. Some CLECs use a single switch to serve multiple states. Other CLECs have much more localized operations. Notwithstanding this real-world diversity, the FCC has instructed state commissions to specify fixed areas which do not vary among CLECs for geographic markets.[75] Given this instruction, I believe that specifying the geographic market to be the MSA is the best practical choice.

[75] TRO, ¶ 495.

Based on the circumstances in Washington, aggregating wire centers by MSAs is logical from both an economic and a practical perspective. MSAs are: (1) granular enough to include areas with similar cost and revenue characteristics; (2) broad enough to allow competitors to capture economies of scale; (3) reasonable areas for looking at actual and potential competition; and (4) structured such that wire centers generally fit neatly within their borders. For practical reasons, which an MSA boundary bisects a wire center, it makes sense to include the entire wire center in the geographic area.

There is a case for non-impairment at this time in six of the MSAs in Washington. The evidence presented by Mr. Reynolds indicates that at least one, and as many as seven, CLECs are self-supplying switched services to mass market customers in each MSA, and the evidence provided by Mr. Copeland indicates that there is a clear potential for CLECs to increase the level of mass market competition using their own switches in each of these MSAs. At this time, Qwest is asking for a finding of non-impairment and relief from the unbundled switching requirement only in these six MSAs.

Q. IF THIS COMMISSION DOES NOT ADOPT MSAs AS THE APPROPRIATE GEOGRAPHIC MARKET, SHOULD THE COMMISSION CONSIDER ADDITIONAL AREAS FOR NON-IMPAIRMENT?

A. Assuming the Commission adopts MSAs as the appropriate geographic market, Qwest is at this time seeking findings of non-impairment and elimination of the unbundled switching requirement only in these six MSAs. Consistent with this approach, the evidence Qwest has presented relating to CLEC self-provisioning of switches and CLEC business case analyses is generally limited to these six MSAs. If the Commission adopts a geographic area smaller than MSAs as the appropriate geographic market, however, it will be necessary to evaluate – and, in many instances, to find – non-impairment in some areas of Washington that are outside these six MSAs.

Findings of non-impairment in some of these geographic areas would be compelled by evidence of substantial CLEC facilities-based operations outside the six MSAs and economic analyses showing that an efficient CLEC can operate economically in those areas without access to unbundled switching. For example, Qwest is not seeking a non-impairment finding for the Spokane MSA even though Mr. Reynolds' testimony demonstrates that two CLECs are offering service to mass market customers in that MSA with their own switches. If the Commission endorses a geographic market smaller than the MSA, it is likely that non-impairment findings in portions of the Spokane MSA would be required.

Q. WHEN AGGREGATING WIRE CENTERS INTO GEOGRAPHIC MARKETS, IS IT NECESSARY TO VIEW ALL OF THE EVIDENCE RELATED TO EXISTING AND POTENTIAL COMPETITION?

A. Yes. To aggregate wire centers into markets for the analysis of impairment, it is necessary to consider all of the evidence of existing and potential competition.[76] This evidence is mutually supportive. Evidence of existing competition in a core area is more meaningful when viewed in the context of evidence about the conditions for the potential expansion of this competition. And, results from a model showing that switch-based competition is viable are more meaningful when affirmed by the existence of the competition anticipated by the model. Furthermore, the FCC's emphasis on evidence of existing and potential competition makes it abundantly clear that evidence of both types of competition are important to the analysis of impairment.

It is, therefore, necessary to define geographic markets broadly enough to take into consideration evidence of existing and potential competition. Figure 1 demonstrates the importance of examining the totality of the evidence in an analysis of impairment. This is a summary of the evidence of existing and potential competition in the Seattle MSA presented in the testimonies of Mr. Reynolds and Mr. Copeland. The totality of the evidence reflected by the three columns of this summary shows the lack of impairment in the Seattle MSA.

Figure 1

Evidence of No Impairment in the Seattle MSA

	Wire Center	3+ CLEC Switching and Mass Market UNE-L (No. of CLECs)	Unaffiliated CLECs with Switching Capability	Positive Business Case	Qwest DS0 Lines
1	BELLEVUE SHERWOOD	7	7	X	60,283
2	SEATTLE MAIN	7	7	X	102,735
3	SEATTLE CHERRY	6	6	X	59,126
4	RENTON	5	5	X	70,487
5	SEATTLE ATWATER	5	5	X	44,970
6	SEATTLE EAST	5	5	X	61,662
7	KENT O BRIEN	4	5	X	20,916
8	SEATTLE DUWAMISH	4	4	X	26,392
9	SEATTLE ELLIOTT	4	4	X	22,132
10	SEATTLE LAKEVIEW	4	4	X	49,081
11	KENT ULRICH	3	4	X	36,579
12	SEATTLE CAMPUS	3	3	X	23,013
13	SEATTLE EMERSON	3	3	X	55,050
14	SEATTLE SUNSET	3	3	X	43,649
15	BELLEVUE GLENCOURT		2	X	60,077
16	AUBURN		2	X	46,521
17	SEATTLE WEST		2	X	36,444
18	KENT MERIDIAN		1	X	25,527
19	ISSAQUAH			X	30,066
20	SEATTLE PARKWAY			X	29,255
21	FEDERAL WAY			X	26,812
22	DES MOINES			X	17,688
23	MERCER ISLAND			X	15,344
24	MAPLE VALLEY				14,611
25	ENUMCLAW				11,780
26	BLACK DIAMOND				3,830
	Qwest Lines	676,075	844,644	963,809	994,030
	Percent of Qwest Lines in MSA	68%	85%	97%	100%
	Net present value of business case for MSA ($000)			$12,654	

The first column, which relies on the testimony of Qwest witness, Mark Reynolds, shows that three or more unaffiliated CLECs are self-supplying switching to mass market customers in at least 14 wire centers in the Seattle MSA. This column

[76] This includes evidence of non-CLEC competition from wireless and cable companies.

shows wire centers with three or more CLECs that have both switching capability and are leasing unbundled loops ("UNE-L") for mass market customers (those customers with three or fewer DS0 lines). The column provides the number of CLECs in each wire center that have both of these. Note that this is a highly conservative count because CLECs who self-provide both switching and lines (such as **[BEGIN CONFIDENTIAL]** REDACTED **[END CONFIDENTIAL]** in the Kent Meridian, Kent O'Brien and Kent Ulrich wire centers) are not included in the counts in this column.[77]

Information in the other columns demonstrates that wire centers with three or more CLECs with switching capability and mass market UNE loops does not reflect all areas of non-impairment. As shown in the second column, there are an additional four wire centers in which CLECs have local switching capability.[78] Together, the evidence in the first two columns shows that CLECs have local switching capability in 18 of the 26 wire centers in the Seattle MSA. As shown at the bottom of the figure, these 18 wire centers comprise 85 percent of Qwest's DS0 access lines in the MSA. The "Xs" in the next column indicate that an efficient CLEC has viable opportunities to extend the self-supply of switching to

[77] **[BEGIN CONFIDENTIAL] REDACTED [END CONFIDENTIAL]**

[78] In the Bellevue Glencourt, Auburn and Seattle West wire centers at least two CLECs have switching capability and mass market UNE loops; in the Kent Meridian wire center, **[BEGIN CONFIDENTIAL]** REDACTED **[END CONFIDENTIAL]** has switching capability, but no UNE loops because it self-provides lines.

mass market customers in another five wire centers. This column relies on the business case results presented in Mr. Copeland's testimony and produced by the CLEC Profitability ("CPRO") model.

Given that the extent of existing and potential switched-based competition for mass market customers in the MSA, there is a clear opportunity for an efficient CLEC to offer viable competition throughout the MSA over its own switch. Overall, the business case analysis estimates that MSA-wide entry offers an efficient CLEC a financial opportunity valued at more than $12 million.

Q. IS IT NECESSARY FOR EVERY WIRE CENTER IN AN MSA TO HAVE EXISTING CLEC SELF-SUPPLY OF SWITCHING OR A POSITIVE VALUE FROM THE BUSINESS CASE MODEL TO INCLUDE THE WIRE CENTER IN THE GEOGRPAHIC MARKET?

A. No. At the end of the day, determining the aggregation of wire centers that best reflects market realities entails weighing numerous considerations. A question raised by the examination of Figure 1, for example, is whether a rational CLEC would self-supply switched services to customers in the Maple Valley, Enumclaw or Black Diamond wire centers. On the positive side, customers in these wire centers may already be receiving area-wide advertising, such as billboard, newspaper and radio advertising. A national CLEC manager could easily conclude it is best not to incur the ill will associated with turning away these customers, especially if the CLEC's business case analysis shows that serving

customers in these wire centers will have, at worst, only a slight negative impact on an otherwise very positive business case. Also, there may be some very high value customers, even in wire centers that on average are not attractive. On the negative side, a CLEC may decide that it will not serve any customers that it cannot serve profitably.

To this point, if CLECs do not have positive value business cases in these wire centers, even when they have a switch in place serving mass market customers in surrounding areas, it is likely that Qwest is not serving the customers in these wire centers profitably either. The goals of the Act are not properly served by unbundling requirements that cause ILECs to subsidize the abilities of CLECs to provide service to otherwise unprofitable customers.

Q. ARE THERE OTHER DETERMINATIONS RELATING TO MARKET IDENTIFICATION REQUIRED BY THE TRO?

A. Yes. In addition to addressing the market definition, this Commission must identify the "crossover point" for determining whether a customer is a mass market or an enterprise customer. The FCC finds that "[a]t some point, customers taking a sufficient number of multiple DS0 loops could be served in a manner similar to that described above for enterprise customers—that is, voice services provided over one or several DS1s...."[79] The FCC also stated: "We expect that in

[79] TRO, ¶ 497.

those areas where the switching carve-out was applicable, the appropriate cutoff will be four lines absent significant evidence to the contrary. We are not persuaded, based on this record, that we should alter the Commission's previous determination on this point."[80]

I have not seen any evidence leading me to believe that it would be appropriate to challenge the FCC's presumptive crossover point. Qwest, therefore, recommends that the Commission utilize the four line presumption. Although it appears that there are many instances in which customers purchase more than three lines to a location, there are also opportunities for CLECs to migrate customers with four or more lines to a location onto a DS1 or higher circuit.

8. THE EVIDENCE

8.1. EXISTING CLEC COMPETITION

Q. FOR PURPOSES OF THIS ANALYSIS, HOW ARE CLECS DEFINED?

A. For purposes of this analysis, CLECs include all competitive local exchange carriers certified by the WUTC, including cable companies offering telephony services.

[80] *Id.*

Q. HOW DOES EVIDENCE OF EXISTING CLEC COMPETITION RELATE TO A FINDING OF NON-IMPAIRMENT?

A. Evidence of existing competition is relevant to both the Track One and Track Two inquiries into non-impairment.

- Where three or more CLECs are providing service to residential or small business customers over non-ILEC switches, the Track One self-provisioning trigger is satisfied and there is no impairment.

- While the presence of one or two CLECs providing service to residential or small business customers over non-ILEC switches may not be sufficient to satisfy the Track One self-provisioning trigger, it is important evidence for the Track Two analysis of whether it is economically feasible for a CLEC to self-deploy switches. The fact that even one CLEC has a self-deployed switch can provide important evidence that an efficient CLEC would not be impaired.

- Finally, evidence of extensive and growing competition using traditional resale and UNE-P, even where no CLEC is providing service to residential or small business customers over non-ILEC switches, demonstrates that CLECs are able to acquire significant market shares. This lowers the risk associated with facilities-based entry. Indeed, as I discussed earlier, the ability to build a customer base prior to investing in facilities was one of the original motivations behind mandatory resale by the ILECs.

Q. DOES THE FCC INSTRUCT STATE COMMISSIONS TO CONSIDER THE PROVISION OF LOCAL SERVICES BY INTERMODAL PROVIDERS USING PACKET AND/OR SOFT SWITCHES IN THE TRIGGER ANALYSIS?

A. Yes. The FCC said that state commissions "shall consider carriers that provide intermodal voice service using their own switch facilities (including packet and soft switches)" to the extent those services are comparable to ILEC services and that "states must consider packet switches to the extent they are used to provide local voice service to the mass market."[81] In its Brief in opposition to Qwest's mandamus petition, the FCC emphasized that it "expressly directed the states to factor such competition—from cable, packet switches, and other sources—into their impairment analysis."[82]

Q. WHAT IS THE EVIDENCE THAT CLECS ARE NOT IMPAIRED IN THREE MSAs?

A. Mr. Reynolds presents evidence that competition from CLECs satisfies the first trigger in the Seattle, Tacoma, and Vancouver portion of the Portland-Vancouver MSAs. In these MSAs, the areas where mass market customers are currently receiving service from non-ILEC switches form the core of the area where there is

[81] TRO, ¶ 499, footnote 1549.

[82] Opposition of Respondents FCC and Department of Justice to Petitions for Writ of Mandamus, *United StatesTelecom Ass'n v. FCC,* Nos. 00-1012, 00-1015, *et al* (October 9, 2003), at 24.

no impairment. Evidence of additional areas where CLECs have local switching capability and results from the business case analysis establish that the geographic market for non-impairment extends throughout the MSAs. This evidence relating to the Seattle MSA is provided above; below, I provide similar evidence relating to the Tacoma and the Vancouver portion of the Portland-Vancouver MSAs.

Q. WHAT IS THE EVIDENCE OF NON-IMPAIRMENT IN THE TACOMA MSA?

A. Figure 2 is presented on the same basis as the information about the Seattle MSA above.

Figure 2
Evidence of No Impairment in the Tacoma MSA

	Wire Center	3+ CLEC Switching and Mass Market UNE-L (No. of CLECs)	Unaffiliated CLECs with Switching Capability	Positive Business Case	Qwest DS0 Lines
1	TACOMA FAWCETT	4	6	X	39,308
2	PUYALLUP	*	4	X	50,645
3	TACOMA JUNIPER	*	4	X	37,418
4	TACOMA GREENFIELD	*	4	X	31,124
5	TACOMA WAVERLY 2	*	3	X	12,316
6	TACOMA WAVERLY 7		2	X	44,811
7	TACOMA LENOX		2	X	40,526
8	GRAHAM		2		22,323
9	TACOMA LOGAN		2	X	22,061
10	TACOMA SKYLINE		2	X	20,305
11	TACOMA FT LEWIS		2	X	13,338
12	SUMNER			X	16,479
13	BONNEY LAKE			X	12,628
14	BUCKLEY				3,903
15	ROY				2,884
16	CRYSTAL MOUNTAIN				768
Qwest Lines		170,811	334,175	340,959	370,837
Percent of Qwest Lines in MSA		46%	90%	92%	100%
Net present value of business case for MSA ($000)				$2,402	

Figure 2 shows that four CLECs have switching capability and are serving mass market customers using UNE loops in the Tacoma Fawcett wire center. Four additional wire centers have at least three CLECs with switching capability, at least one CLEC using UNE loops, and two cable companies **[BEGIN CONFIDENTIAL]** REDACTED **[END CONFIDENTIAL]** which self-supply access lines. An asterisk reflects the presence of at least one switched-based CLEC with UNE loops and the two cable companies.

CLECs have local switching capability in 11 of the 16 wire centers in the Tacoma MSA. Ninety percent of the lines are in wire centers where there are two or more CLECs with local switching capability. The business case analysis supports and strengthens the case that there is no impairment in the Tacoma MSA. As shown in the "Positive Business Case" column, an efficient CLEC has viable opportunities to provide services using self-supplied switching to mass market customers in 12 of the 16 wire centers. These 12 wire centers represent 92 percent of the lines in the MSA. Overall, the business case analysis estimates that MSA-wide entry offers an efficient CLEC a financial opportunity valued at more than $2 million.

Q. WHAT IS THE EVIDENCE OF NON-IMPAIRMENT IN THE VANCOUVER PORTION OF THE PORTLAND-VANCOUVER MSA?

A. As shown in Figure 3, there is a strong case for non-impairment in the Vancouver portion of the Portland-Vancouver MSA.

Figure 3
Evidence of No Impairment in the Vancouver Portion of the Portland-Vancouver MSA

	Wire Center	3+ CLEC Switching and Mass Market UNE-L (No. of CLECs)	Unaffiliated CLECs with Switching Capability	Positive Business Case	Qwest DS0 Lines
1	VANCOUVER OXFORD	4	4	X	41,652
2	ORCHARDS		2	X	66,106
3	VANCOUVER NORTH		2		24,385
4	RIDGEFIELD			X	3,981
5	BATTLEGROUND				11,569
Qwest Lines		41,652	132,143	111,739	147,693
Percent of Qwest Lines in MSA		28%	89%	76%	100%
Net present value of business case for entire MSA ($000)				$3,526	

The figure shows that in the Vancouver Oxford wire center, four CLECs have switching capability and are using UNE loops to serve the mass market. In addition, in two other wire centers, two CLECs have local switching capability. In total, 89 percent of DS0 lines are in wire centers in which CLECs have local switching capability. The business case analysis supports the case that there is no impairment in the Vancouver portion of the Portland-Vancouver MSA. It shows that an efficient CLEC using self-supplied switching can economically provide services to mass market customers in three of the five wire centers, representing 76 percent of the lines. Overall, the business case analysis estimates that the entire Portland-Vancouver MSA offers an efficient CLEC a financial opportunity valued at more than $3 million.

8.2. VIABLE ADDITIONAL CLEC COMPETITION

Q. WHAT IS THE SHOWING REQUIRED BY THE TRO TO OVERCOME THE NATIONAL FINDING OF IMPAIRMENT FOR CLECS UNDER TRACK TWO?

A. The FCC recognizes that "the [switch] self-provisioning trigger…identifies only the existence of *actual* competitive facilities servicing the mass market and does not address the *potential* ability of competitive LECs to deploy their own switches to service this market."[83] The FCC expects state commissions to find "no impairment" where "self-provisioning of switching is economic notwithstanding the fact that no three carriers have *in fact* provisioned their own switches."[84]

For areas where the Track One triggers are not met, it is necessary to assess where conditions are conducive to additional CLEC expansion and entry. Viable additional CLEC competition can come from the geographic expansion of a current network or service offering, from extending a service to a new customer group, from repeating a successful business plan in a new geographic market, or from de novo entry.

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[83] TRO, ¶ 506.

[84] *Id.*

Q. WHAT DIRECTION DID THE FCC PROVIDE FOR ASSESSING THE VIABILITY OF ADDITIONAL COMPETITION?

A. The FCC's directions for considering whether additional CLEC competition is viable are as follows:

> "State commissions should not focus on whether competitors operate under a cost disadvantage. State commissions should determine if entry is economic by conducting a business case analysis for an efficient entrant. This involves estimating the likely potential revenues from entry, and subtracting out the likely costs."[85]

The FCC correctly recognizes that business case modeling is the appropriate way to assess the economic viability of additional entry and expansion by CLECs.

Q. WHAT EVIDENCE HAS QWEST OFFERED TO DEMONSTRATE WHERE CLECS CAN OFFER VIABLE ADDITIONAL COMPETITION WITHOUT AN UNBUNDLED SWITCHING REQUIREMENT?

A. Mr. Copeland presents the results of the CPRO model for six MSAs. This model follows the directives of the FCC and sound modeling practices to demonstrate where CLECs are not impaired without the unbundled switching requirement.

[85] *Id.* ¶ 517, footnote 1579.

Q. DOES UNE-P AND RESALE DATA PROVIDE INFORMATION ON THE ABILITY OF CLECS TO WIN MASS MARKET CUSTOMERS?

A. Information on UNE-P and resold lines highlights the ability of CLECs to successfully win customers from Qwest. As shown in Exhibit WRE-2C of Mr. Easton's testimony, competitors are serving customers with UNE-P in every wire center in the Seattle, Tacoma, Bellingham, Bremerton, Olympia, and the Vancouver portion of the Portland-Vancouver MSAs. This widespread acceptance of CLECs by consumers is consistent with inputs in the CPRO model regarding CLEC share.

Q. PLEASE SUMMARIZE THE CASE FOR NON-IMPAIRMENT IN THE OLYMPIA, BREMERTON AND BELLINGHAM MSAs.

A. Mr. Reynolds presents evidence that one or two CLECs are self-supplying switching to mass market customers in each of the Olympia, Bremerton, and Bellingham MSAs. The importance of this evidence is highlighted by the FCC's observation that "the existence of even one [self-provided switch] might in some cases justify a state finding of no impairment, if it determines that the market can support 'multiple competitive supply.'"[86] Evidence from the business case analysis establishes that the geographic market for no impairment extends throughout these MSAs. The following figures summarize information concerning the number of CLECs offering mass market services using their own

switches and the results of the business case analysis in each of these MSAs. In the Olympia MSA, two of the four wire centers, representing 88 percent of mass market lines, have one or two CLECs providing mass market services over their own switches and a positive business case.

Figure 4
Evidence of No Impairment in the Olympia MSA

	Wire Center	CLEC Switching and Mass Market UNE-L (No. of CLECs)	Positive Business Case	Qwest DS0 Lines
1	OLYMPIA WHITEHALL	2	X	60,974
2	OLYMPIA LACEY	1	X	50,003
3	OLYMPIA EVERGREEN			8,163
4	ROCHESTER			7,230
Qwest Lines		110,977	110,977	126,370
Percent of Qwest Lines in MSA		88%	88%	100%
Net present value of business case for MSA ($000)			$454	

In the Bremerton MSA, one wire center has a CLEC offering services to mass market customers using its own switch, and in two wire centers the business case model demonstrates that an efficient CLEC could provide services using self-supplied switching to mass market customers. In total, 58 percent of mass market lines could be served by an efficient CLEC using its own facilities.

[86] TRO, ¶ 510.

Figure 5
Evidence of No Impairment in the Bremerton MSA

	Wire Center	CLEC Switching and Mass Market UNE-L (No. of CLECs)	Positive Business Case	Qwest DS0 Lines
1	BREMERTON ESSEX	1	X	42,384
2	SILVERDALE		X	25,707
3	PORT ORCHARD			17,139
4	BAINBRIDGE ISLAND			16,066
5	COLBY			10,452
6	CROSBY			3,724
7	SUNNYSLOPE			977
Qwest Lines		42,384	68,091	116,449
Percent of Qwest Lines in MSA		36%	58%	100%
Net present value of business case for MSA ($000)			$454	

The Bellingham MSA is comprised of two wire centers, one of which accounts for 97 percent of the mass market lines. In this large wire center, there is one CLEC serving mass market customers with its own switch. This comports with the business case analysis, which is positive in that wire center.

Figure 6
Evidence of No Impairment in the Bellingham MSA

	Wire Center	CLEC Switching and Mass Market UNE-L (No. of CLECs)	Positive Business Case	Qwest DS0 Lines
1	BELLINGHAM REGENT	1	X	51,785
2	BELLINGHAM LUMMI			1,612
Qwest Lines		51,785	51,785	53,397
Percent of Qwest Lines in MSA		97%	97%	100%
Net present value of business case for MSA ($000)			$32	

Q. PLEASE SUMMARIZE THE CASE FOR NON-IMPAIRMENT IN QWEST'S SERVICE AREA IN WASHINGTON.

A. Information presented in this section demonstrates that CLECs are not impaired in serving mass market customers in six MSAs in Qwest's serving area in Washington. Three of the MSAs – Seattle, Tacoma and the Vancouver portion of Portland-Vancouver – meet the Track One requirements. The other three MSAs – Olympia, Bremerton and Bellingham – meet the Track Two requirements.

8.3. EXISTING ADDITIONAL COMPETITION

Q. HOW DO YOU RECOMMEND THIS COMMISSION FACTOR INTERMODAL COMPETITION INTO ITS IMPAIRMENT ANALYSIS?

A. Except to the extent that cable companies are operating as CLECs, Qwest does not rely on intermodal competition for its mass market switching trigger evidence. However, to the extent that this Commission is called upon to make close calls in evaluating and weighing the evidence presented, I believe that the existence of

substantial intermodal competition that Qwest has not included—especially from numerous wireless providers throughout the state—should lead the Commission to a finding of "no impairment." Such a result would also be consistent with the TRO and the direction from the courts.

Because cable-based telephony providers are classified as CLECs and factored into the CLEC analysis, they are excluded from the discussion below. References to cable-based competitors in the following discussion relate to cable modem and Voice over Internet Protocol ("VoIP") services.

Q. WHAT EVIDENCE RELATED TO NON-CLECS BEARS ON THE REBUTTAL OF THE NATIONAL FINDING OF IMPAIRMENT?

A. The FCC mandates that the economic impairment analysis must consider "the most efficient business model for entry rather than to any particular carrier's business model."[87] This guiding principle for weighing evidence related to impairment extends to all viable business models, including wireless and cable telephony models that are already successful and promise even greater future success. Indeed, the FCC says explicitly that "we also give weight to the deployment of intermodal technologies."[88] And in its discussion of Track Two evidence, the FCC states that:

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[87] TRO, ¶ 517.

[88] *Id.* ¶ 7.

> "While most comments have focused on the UNE-L strategy, in which a requesting carrier combines the incumbent's loops and transport with its own switch, collocation and backhaul, state commissions must also consider whether new technologies provide a superior means of serving customers."[89]

Just as cable TV and direct broadcast satellite provide passive entertainment services that many customers view as superior, wireless and cable-based competitors provide telecommunications services that many customers view as superior. In terms of the earlier discussion of markets, wireless and cable-based competitors services are in the same market as the wireline services under consideration in this proceeding.

Although a consideration of intermodal competition is not necessary to find non-impairment in many geographic areas, state commissions have considerable discretion in how they weigh the importance of existing competition from wireless and cable-based competitors. Where significant numbers of customers view intermodal services as substitutes for wireline services, competition exists that is not impaired without unbundled local switching. Wireless and cable-based competitors do not use Qwest's switches to provide services in competition with Qwest and each other.

In certain geographic areas, intermodal competition alone can be sufficient for a finding of non-impairment. In other areas, existing and potential intermodal

[89] *Id.* ¶ 517.

competition support the finding of non-impairment in conjunction with the evidence of existing and potential CLEC competition.

Q. WHAT DOES THE FCC SAY ABOUT EXISTING COMPETITION FROM WIRELESS (CMRS) SERVICE PROVIDERS?

A. The FCC recognizes that the D.C. Circuit's ruling in *USTA* requires it to "give adequate consideration to existing facilities-based competition"[90] and that "the Act expresses no preference for the technology that carriers should use to compete with the incumbent LECs."[91] The FCC also recognizes that wireless competes for traditional LEC mass market services.[92] As observed by the FCC:

> "Wireless telephone subscriber growth for the mass market has been remarkable…Over 90 percent of the United States population lives in counties served by three or more wireless operators…Prices for wireless service have steadily declined in recent years…the average monthly bill in mid-2001 was about $46."[93]

Nonetheless, the FCC concludes that, "despite evidence demonstrating that narrowband local services are widely available through CMRS [wireless] providers, wireless is **not yet** a suitable substitute for local circuit switching."[94]

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[90] *Id.* ¶ 33.

[91] *Id.* ¶ 97.

[92] *Id.* ¶ 140.

[93] *Id.* ¶ 53.

[94] *Id.* ¶ 445 (emphasis added).

By way of understatement, this point is open to debate.[95] It is not necessary to resolve this debate, however, because (as quoted above) the FCC makes it clear that emerging technologies are relevant to the analysis of impairment.

Q. WHAT IS THE STATUS OF EXISTING AND POTENTIAL WIRELESS COMPETITION?

A. Over the last several years, mobile wireless has become the predominant form of voice communications for many consumers. In the last five years:

- The percent of the population in the U.S. over 15 years of age with a cell phone increased from 23 to 60 percent;[96]
- The average price per minute dropped 70 percent;[97] and
- The average usage per subscriber increased five-fold, from approximately 100 to 500 minutes per month.[98]

As shown below, subscribers are using their wireless phones more each year. The FCC's 2002 estimate of 385 average minutes of use per month per subscriber

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[95] As observed in a footnote to the above quote, "The Commission, however, recently relied on wireless broadband PCS substitution to support Track A findings in two Section 271 proceedings." (*Id.* ¶ 445, footnote 1361).

[96] Wireless Subscribers from Cellular Telecommunications and Internet Association, (CTIA) Semi-Annual Wireless Industry Survey, 2003, *www.wow-com.com;* Population data from the U.S. Census Bureau. *www.census.gov*.

[97] Federal Communications Commission Eighth Report, *In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, and Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services,* WT Docket No. 02-379 (July 14, 2003) Table 9. (*"FCC Eighth CMRS Report"*).

[98] *Id.*

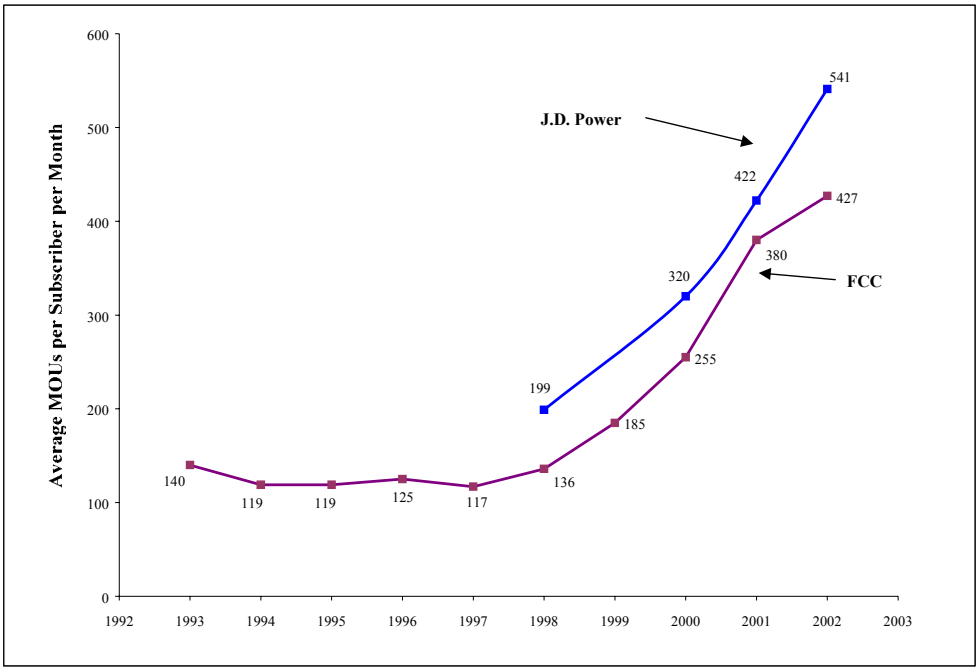
shown below is similar to the estimate by J.D. Power of 422 minutes.[99] J.D. Power estimates that this increased in 2002 by 28 percent for an average wireless usage of 541 minutes per month.[100] The FCC estimate for the second half of 2002 is 427 minutes per month.[101] Because many households have multiple wireless phones, wireless usage in many households exceeds 800 minutes per month.

[99] Based on survey responses from 14,492 households in 25 of the largest U.S. markets. "J.D. Power and Associates Reports: Wireless Phone Penetration Among U.S. Households Climbs Above 50 Percent As More First-Time Subscribers Enter the Marketplace," *J.D. Power Press Release (*September 26, 2001).

[100] Berman, Dennis K., "Boomtown: We May Be Reaching Our Limit for Yakking On All of Our Phones," *The Wall Street Journal* (December 23, 2002).

[101] *FCC Eighth CMRS Report*, ¶ 102.

Figure 7
Average Minutes of Use per Month by Wireless Subscribers Nationwide[102]



The Yankee Group predicts that personal wireless calling will overtake wireline calling in 2006.[103]

[102] *FCC Eighth CMRS Report,* Table 9. *See also* "J.D. Power and Associates Reports: Wireless Usage Continues to Climb as Flat-Rate Pricing and Free Minutes Become More Prevalent in the Marketplace*," J.D. Power Press Release* (September 26, 2000); "J.D. Power and Associates Reports: Wireless Phone Penetration Among U.S. Households Climbs Above 50 Percent As More First-Time Subscribers Enter the Marketplace," *J.D. Power Press Release* (September 26, 2001); and Berman, Dennis K., "We May Be Reaching Our Limit for Yakking On All of Our Phones," *The Wall Street Journal* (December 23, 2002). Note: FCC data is as of year-end. J.D. Power data is reported in September of each year and described in detail in the FCC Eighth CMRS Report.

[103] Mallinson, Keith, "Landline Displacement Fuels Mobile Growth but Market Still Cries Out for Wireless Carrier Consolidation" *The Yankee Group: Wireless/Mobile Research and Consulting* (October 30, 2002) at 11.

There are now more wireless subscribers in Washington than households,[104] and, as observed by the FCC, there is "much evidence however that consumers are substituting wireless service for traditional wireline communications."[105] The Yankee Group, which regularly conducts research on wireless communications markets, reports that 12 percent of 18-to-24-year-olds have gone "totally wireless" for their phone service and as many as 28 percent more plan to do so over the next five years.[106]

Mr. Reynolds' testimony describes research conducted within Qwest's 14-state region that evidences that the percentage of those substituting wireless for wireline connections in the surveyed areas is even higher. Specifically, surveys of residential customers in Utah and Iowa indicate significant wireless substitution. In Utah, 27 percent of respondents substitute wireless service for residential wireline service. In Iowa, at least 25 percent of customers who use wireless

[104] In 2002, there were approximately 2.9 million mobile wireless subscribers and 2.3 million households in Washington. *FCC Eighth CMRS Report*, Table 2, citing CTIA. Population data from the U.S. Census Bureau.

[105] *FCC Eighth CMRS Report*, ¶ 120.

[106] A senior analyst for the Yankee Group concludes that "[t]he mobile phone has become the essential means of communications, making the landline phone a supplemental and increasingly non-essential item, particularly among young adults and college students who are often not at home and who frequently change addresses." *Yankee Group News Release,* "Twelve Percent of U.S. Young Adults Are Totally Wireless, According to the Yankee Group" (August 5, 2003).

services at home do not have a wireline phone.[107] There is no reason to believe that the experience in Washington would be materially different.

Whether based upon simple trend analysis or the more elaborate analyses by industry experts, expectations are that increasing numbers of consumers will view wireless services as superior means of communicating. Some of the many reasons for this are that:

- Young adults, who have grown up using wireless phones, are a growing part of the population.
- Wireless prices have declined to the point where they are comparable to wireline prices for comparable packages of services.[108]
- Wireless service offers mobility. This quality component is a key reason why wireless is viewed as a superior means of making local phone calls for many customers. It is the phone that is always within easy reach, even when at home.
- On November 24, 2003, wireless local number portability ("WLNP") was implemented in the 100 largest metropolitan areas, including Seattle, Tacoma and Portland-Vancouver.[109] This enables customers to transfer their wireline phone number to wireless service. By May 24, 2004, WLNP will be available to all customers.[110] The Yankee Group estimates that 30 million wireline phone users could "cut the cord" during the next five years.[111]

[107] Direct testimony of Mark S. Reynolds, Exhibit MSR-1T, p. 47.

[108] See TRO, ¶ 53.

[109] "Wireless Local Number Portability: FCC Consumer Fact Sheet," Federal Communications Commission, (November 4, 2003).

[110] *Id.*

[111] Alexander, Steve, "Cutting the Cutting the Phone Cord: Who and How Fast?" *Star Tribune (*November 12, 2003).

Q. WHAT IS THE STATUS OF EXISTING AND POTENTIAL CABLE-BASED COMPETITION?

A. The FCC recognizes that voice services from "[c]able companies' voice service competes with the primary landline voice service and second line while cable modem service competes with second line dial-up service and xDSL service."[112] Comcast has already demonstrated that it can provide a highly desirable means of providing service to many customers in Tacoma and Seattle, and given rapidly increasing availability of VoIP services, expectations are that increasing numbers of consumers will switch to cable-based communications services.

Q. IS SIGNIFICANT COMPETITION EXPECTED FROM VOIP TECHNOLOGY?

A. Yes. FCC Chairman Michael Powell said recently that the Commission intended to launch a major examination of VoIP regulation, and later indicated that review would take the form of a notice of proposed rulemaking.

> "We . . . think we need to turn the corner on something that is becoming really critical and it's beginning to bud and explode and that is really the movement of applications on the Internet platform," Mr. Powell said last month. "I think the country is in some ways going to have to make fresh judgments about those things . . . rather than act as if they're just somehow minor, incremental extensions of everything in the past because it has the seeds of completely tearing apart the regulatory regime."[113]

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[112] TRO, ¶ 52.

[113] TR Daily, "Qwest To Pursue VoIP Services; CEO Cites Regulatory Vacuum" (November 4, 2003).

Recent announcements by Time Warner and AT&T confirm Mr. Powell's assessment that VoIP services are taking off. Time Warner, the second largest cable company in the country, announced a major acceleration of its plans to roll out VoIP services, stating that it now expects to offer these services to almost all of the 18 million homes passed by the end of next year.[114] AT&T, which has been providing VoIP services to businesses, announced that it will roll out new VoIP services to consumers in major markets across the country in 2004.[115]

A source of competition that, according to the FCC Chairman, has the potential to "tear apart" the regulatory regime bears consideration in an analysis of impairment. Firms using VoIP to provide service do not require unbundled elements from the ILEC.

Q. WHAT IS YOUR FINAL OBSERVATION ABOUT INTERMODAL COMPETITION?

A. The FCC states that "competition from cable telephony and CMRS providers only serves as evidence of entry using *both* self-provisioned loop *and* a self-provisioned switch."[116] The use of the word "only" is curious, especially if the implication is that intermodal competition does not address the central goals of the

[114] Grant, Peter and Shawn Young, "Time Warner Cable Expands Net-Phone Plan," *The Wall Street Journal* (December 9, 2003) at A19.

[115] "AT&T Unveils Major Voice over Internet Initiative: Expand Business and Launch Consumer Offers in 2004," *AT&T News Release* (December 11, 2003).

[116] TRO, ¶ 446.

Act. Earlier, the FCC correctly recognized that "full ownership of facilities…allows the competitive LEC to totally engineer its own network."[117] This is equally true for full ownership of facilities by intermodal competitors. Firms with their own facilities are in the best positions to innovate. Cable companies are leaders in providing broadband access to residential customers and they are in the forefront of testing voice service for residential customers using Internet protocol technology. Wireless and wireline users alike are benefiting from innovative pricing plans proliferated by wireless service providers. Competition from cable telephony and CMRS firms is delivering lower prices, higher quality service, and the rapid deployment of advanced technology. The accelerated pace of technological change, which provided impetus for the Act, promises additional competition from these and other sources, such as VOIP. When considering the evidence about potential additional competition without the unbundled switching requirement, it is important to recognize that wireless and cable are formidable forms of local exchange competition. Requiring unbundling in the face vigorous existing and rapidly expanding competition from CLEC and intermodal competitors that do not require or use Qwest's switches is inconsistent with the goals of the Act.

[117] TRO, ¶ 36.

Q. HAVING SAID THAT THE EVIDENCE OF ACTUAL AND POTENTIAL IS "MUTUALLY SUPPORTIVE," HOW SHOULD THE COMMISSION EVALUATE THE EVIDENCE IN LIGHT OF THE TWO TRACKS SET OUT IN THE TRO?

A. It is important for the Commission to recognize that if Qwest meets the self-provisioning trigger in a market, that showing ends the impairment analysis, and elimination of the unbundled switching requirement in that market is required. In other words, if the self-provisioning trigger is met in a market, it is not necessary, and indeed not permitted, to consider Track 2 evidence for that market. As the FCC stated at page 22 of its *Opposition to Mandamus Petitions*:

> And as for switching for mass market customers, the *Order* required *automatic elimination* of unbundling in any market where three competitors have deployed switching, either through traditional circuit switches or intermodal alternatives such as cable or packet switches. (Emphasis added).

Similarly, the CLECs conceded in their appeal of the TRO that the FCC "required switching to be automatically removed from the mandatory UNE list when states find that certain 'triggers' are met in individual markets."[118]

[118] Opening Brief of CLEC Petitioners, Nos. 00-0012 *et al.*, at 35 (D.C. Cir., filed Dec. 1, 2003).

8.4. OPERATIONAL IMPAIRMENT

Q. WHAT DOES THE FCC SAY ABOUT OPERATIONAL IMPAIRMENT?

A. In areas where there is no economic impairment, the FCC directs states to determine if there is operational impairment. Operational concerns listed by the FCC include difficulties in obtaining loops, collocation space, and cross-connects from an incumbent LEC.[119]

The FCC, however, also recognizes that an operational problem only causes impairment directly when there is no practical operational solution. An operational solution renders operational problems into the same category as all other economic costs. The FCC is especially concerned with the process of obtaining loops through what is referred to as the batch hot cut process. Qwest is currently engaged in a collaborative process with CLECs to resolve concerns with this process. Qwest witness Dennis Pappas explains that obtaining collocation space and cross-connects does not pose a significant problem for CLECs in Washington.

[119] *Id.* ¶ 511.

8.5. SUMMARY OF EVIDENCE OF NON-IMPAIRMENT

Q. WHAT IS YOUR OVERALL CONCLUSION ON THE EVIDENCE RELATED TO LOCAL CIRCUIT SWITCHING PRESENTED BY QWEST?

A. Qwest has properly specified the product and geographic market as required by the TRO. Qwest has presented ample evidence through a combination of triggers evidence and an analysis of potential deployment to support the elimination of unbundled local circuit switching in the six MSAs for which it is seeking relief.

9. FCC IMPLEMENTATION OF THE IMPAIRMENT STANDARD: TRANSPORT

Q. WHAT FINDINGS OF IMPAIRMENT HAS THE FCC MADE WITH REGARD TO LOCAL TRANSPORT?

A. The FCC states that "competing carriers face substantial sunk costs and other barriers to self-deploy facilities and that competitive facilities are not available in a majority of locations, especially non-urban areas."[120] The FCC examined impairment for four capacity levels of dedicated transport: OCn, dark fiber, DS3 and DS1, and found that, for OCn transport, "on a national level…requesting

[120] *Id.* ¶ 360.

carriers are not impaired without access to unbundled OCn transport facilities."[121] For the remaining dedicated transport capacities—dark fiber, DS3, and DS1—the FCC found that "on a national level…requesting carriers are impaired without access to [these unbundled]…transport facilities, subject to both a granular route-based review by the states to identify available wholesale facilities . . ."[122]

Q. WHAT EVIDENCE DID THE FCC STATE COULD LEAD TO A FINDING OF NO IMPAIRMENT?

A. As with switching, the FCC adopted two tracks for showing where competitors are not impaired without unbundled transport: "(1) by identifying specific point-to-point routes where carriers have the ability to use alternatives to the incumbent LEC's network, or (2) by identifying specific point-to-point routes where self-provisioning transport facilities is economic."[123] Although the FCC instructs state commissions to consider the potential for self-provided transport where specific routes are "suitable for 'multiple, competitive supply,'"[124] at this time, Qwest is only seeking findings of no impairment where there are sufficient existing point-to-point routes to justify such a finding.

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[121] *Id.* ¶ 359.

[122] *Id.*

[123] *Id.* ¶ 360.

[124] *Id.* ¶ 410.

Q. WHAT TRIGGERS DID THE FCC SET FOR THE IMPAIRMENT TEST FOR DEDICATED TRANSPORT?

A. The FCC established two triggers that, if either is met, ends an ILEC's obligation to unbundle dedicated transport at a particular capacity level on a particular route. If self-supply (Trigger One) or the presence of wholesale facilities (Trigger Two) can be demonstrated for a particular capacity level, then the ILEC need not unbundle transport at that capacity on that route. The FCC did not develop its policy based on customer class (i.e., enterprise and mass market), as it did for loops and switching, but by capacity "because it is a more reliable indicator of the economic abilities of a requesting carrier to utilize third-party alternatives or to self-deploy."[125]

Q. HOW DID THE FCC DEFINE A ROUTE FOR PURPOSES OF IMPAIRMENT ANALYSIS?

A. The FCC defines a route as a "connection between wire center or switch 'A' and wire center or switch 'Z.'"[126]

[125] *Id.* ¶ 376.

[126] *Id.* ¶ 401.

Q. MUST ANOTHER CARRIER'S TRANSPORT FACILITIES FOLLOW THE PRECISE ROUTE AS QWEST'S FOR A FINDING OF NO IMPAIRMENT?

A. No. The FCC has determined that a CLEC or other carrier need not pass through any wire center in between points "A" and "Z" in order to provide an alternative route between those switches, even though the ILEC facilities may do so.[127] This is important in that it recognizes and encourages efficient facilities deployment by competitors. There is no need to mirror each transmission link in Qwest's network unless a CLEC seeks to be connected to all of those switches and central offices.

Q. HOW HAS THE FCC DETERMINED THAT THE TRIGGER FOR SELF-DEPLOYMENT IS MET ALONG A TRANSMISSION ROUTE?

A. The FCC determined that the ability to self-deploy on a specific route is met when "three or more competing carriers, not affiliated with each other or the incumbent LEC, each have deployed non-incumbent LEC transport facilities along [that] route, regardless of whether these carriers make transport available to other carriers."[128]

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[127] *Id.*

[128] *Id.* ¶ 400.

Q. HAS THE FCC MADE ANY EXCEPTIONS TO THE APPLICATION OF THE SELF-SUPPLY TRIGGER?

A. Yes. Since the FCC has concluded that competing carriers cannot generally self-supply DS1, this trigger is not applicable to DS1 dedicated transport facilities.[129] Therefore, state commissions must rely on the wholesale provision trigger in determining whether CLECs are impaired without unbundled DS1 transport facilities.

Q. HOW DID THE FCC DETERMINE THAT THE COMPETITIVE WHOLESALE PROVISION TRIGGER IS MET ALONG A TRANSMISSION ROUTE?

A. The FCC determined that CLECs "are not impaired where competing carriers have available two or more alternative transport providers, not affiliated with each other or the incumbent LEC, immediately capable and willing to provide transport at a specific capacity along a given route between incumbent LEC switches or wire centers."[130] The FCC specifies that the wholesale facilities must be readily available to be used by CLECs and that to be considered a wholesale provider on a particular route, the carrier owning the facilities in question must make those transport services widely available. The FCC anticipates that a competitor may

[129] *Id.* ¶ 409.

[130] *Id.* ¶ 400.

purchase dark fiber from the ILEC, "light" it, and make it available on a wholesale basis.[131]

Q. ARE THERE AREAS OF FLEXIBILITY IN EXAMINATION OF TRANSPORT IMPAIRMENT BY STATE COMMISSIONS?

A. There does appear to be some flexibility to the state commissions in considering route-specific availability of alternative transport facilities. Specifically, the FCC describes, as an alternative to the self-supply and wholesale triggers, an analysis of the potential ability of competitors to deploy facilities. This showing could conceivably be made through a variety of means. For example, a CLEC's fiber ring may be located near an ILEC switch, but not be connected in any way. Rather than purchase a transport UNE connecting that ILEC switch to another ILEC switch to which the CLEC is connected, it may be more efficient for the CLEC to deploy its own transport facility from the nearest point on its fiber ring to the ILEC switch in question. Also, as described above, the standards themselves are not so rigid as to require that other carriers' facilities traverse precisely the same route as the ILEC's in order to be considered effective alternative facilities.

[131] *Id.* ¶ 414.

Q. DID THE FCC ADOPT ANY CHANGES TO THE SCOPE OF ILEC TRANSPORT UNBUNDLING OBLIGATIONS?

A. Yes. The FCC limited the definition of dedicated transport for which unbundled access is required to those facilities that connect incumbent LEC switches and wire centers.[132] That is, transmission between an ILEC and a CLEC network is not "within" the ILEC's local network to be unbundled under Section 251(c)(3). The FCC concludes that Section 251(c)(2) allows for CLECs to interconnect with the ILEC network and does not require the establishment of unbundled transport services.[133] The FCC points out that CLECs can choose how close to locate their switch to ILEC wire centers, but have no choice in the distance among those ILEC wire centers. This rationale also excludes entrance facilities from unbundling obligations.[134] Further, the FCC considers "backhaul" transmission as not eligible for unbundling.[135] The FCC anticipates that traffic is likely highly-concentrated over such facilities, and self-supply is more likely.[136] Additionally, this limitation applies to wireless operators as well.[137]

[132] *Id.* ¶ 365.

[133] *Id.* ¶ 366.

[134] *Id.* ¶ 366, footnote 1116.

[135] *Id.* ¶ 365.

[136] *Id.* ¶ 367.

[137] *Id.* ¶ 368.

Q. WHAT CONSIDERATIONS UNDERLIE THE FCC'S DECISION TO LIMIT THE TYPES OF TRANSPORT TO WHICH UNBUNDLING RULES WOULD APPLY?

A. It appears that the FCC has considered the fact that CLECs are able to control many of their costs and they should be encouraged to do so. The FCC pointed out in the TRO that its limited "definition of transport is consistent with the Act because it encourages competing carriers to incorporate those costs within their control into their network deployment strategies rather than to rely exclusively on the incumbent LEC's network."[138] I agree with the FCC's analysis. There is no reason to burden ILECs when CLECs can minimize their costs through their own decision-making and network design. Additionally, as described above, transmission between carriers' networks is not transmission "within" the ILEC local network to be unbundled. This is a significant change in implementation of the Act.

Q. HAS THE FCC IMPOSED ANY LIMITATIONS ON THE TRANSPORT CAPACITY THAT A CLEC MAY PURCHASE ON A GIVEN ROUTE?

A. Yes. The FCC has determined that a competing carrier and its affiliates may purchase no more than 12 unbundled DS3 circuits per route.[139] While the FCC admits to "line drawing" in this instance, it asserts that it has developed an

[138] *Id.* ¶ 367.

[139] *Id.* ¶ 388.

extensive record to support this finding. For example, the FCC notes CLECs assert that it is not economic to deploy transport facilities with fewer than 10-18 DS3 circuits, but they are installing 12 DS3s or higher capacities to serve enterprise customers.[140] The FCC explains that, at capacity levels above 12 DS3s, a carrier is able to self-provision (i.e., at OCn capacity) or to deploy its own electronics to activate unbundled dark fiber. Therefore, dark fiber and multiple DS3 circuits "provide reasonable substitutes" for OCn circuits at those capacities.[141] I believe this is a reasonable limitation on transport unbundling as well. It does not make sense to discontinue unbundling of OCn, but then require unbundling of other facilities that are effectively at the OCn capacity. Additionally, as the FCC pointed out, in actual practice, self-supply by CLECs is often fiber activated at the OCn level.[142]

Q. HOW HAS QWEST APPROACHED THE DEDICATED TRANSPORT ISSUES IN THIS CASE?

A. In this docket, Qwest confined itself to a triggers analysis of dedicated transport. Qwest witness Rachel Torrence has presented evidence that demonstrates that 25 A-Z routes within the Seattle MSA meet either or both of the dedicated transport triggers defined by the TRO.

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[140] *Id.*

[141] *Id.* ¶ 389.

[142] *Id.* ¶ 382.

Q. PLEASE DESCRIBE MS. TORRENCE'S CONCLUSIONS.

A. The route-specific approach mandated by the TRO is demanding. Given those demands and the time constraints in this case, Ms. Torrence's analysis was confined to a detailed analysis of transport competition relating to only 11 of the 39 Qwest wire centers in the Seattle MSA. Using a variety of data, Ms. Torrence has demonstrated that on 25 routes related to those 11 wire centers one or both of the transport triggers have been met.

Q. WHAT IS YOUR OVERALL CONCLUSION ON THE EVIDENCE RELATED TO LOCAL TRANSPORT PRESENTED BY QWEST?

A. The evidence presented by Ms. Torrence should be relied upon by the Commission to enter an order finding no impairment on those routes, thus relieving Qwest of any obligation to unbundle dedicated transport on them.

10. CONCLUSIONS

Q. WHAT CONCLUSIONS DO YOU DRAW FROM THE CASE PRESENTED BY QWEST IN THIS PROCEEDING?

A. In my opinion, Qwest has presented a strong case that meets the requirements of the TRO and is premised on sound economic, legal and policy grounds. With regard to mass market local circuit switching, Qwest has presented evidence that satisfies both the triggers set out in Track One and the analysis required for relief under Track Two. As a result, it has effectively rebutted the national presumption

of impairment for local circuit switching in the six MSAs for which it is seeking relief at this time. With regard to local transport, Qwest has demonstrated the presence of competitively supplied transport facilities on the specified routes such that it should be relieved of the requirement to unbundle dedicated transport on those routes.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.