REDACTED EXHIBIT NO. _____ (MSR-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

MARK S. REYNOLDS

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 establishes that facilities-based CLECs are now using their own switches to serve mass market local exchange customers in Washington at a level sufficient to meet the FCC's Triennial Review Order (TRO) "Track 1" self-provisioning trigger analysis in certain markets. Based on information available to Qwest from its own wholesale billing systems, the Local Exchange Routing Guide (LERG) and the E911 database, it is clear that more than three unaffiliated CLECs are now serving mass market customers with their own switches in the Seattle metropolitan statistical area (MSA) (consisting of 26 wire centers), the Tacoma MSA (consisting of 16 wire centers) and the Vancouver portion of the Portland/Vancouver MSA (consisting of five wire centers). In addition, Qwest's evidence establishes that facilities-based CLECs are now serving mass market customers with their own switches in the Bellingham MSA (consisting of two wire centers), the Bremerton MSA (consisting of seven wire centers), the Olympia MSA (consisting of four wire centers), the Spokane MSA (consisting of 13 wire centers) and the Yakima MSA (consisting of two wire centers). In paragraph 462 of the TRO, the FCC states:

> Where a state determines that there are three or more carriers, unaffiliated with either the incumbent LEC or each other, that are serving mass market customers in a particular market using self-provisioned switches, the state must find "no impairment" in that market.

Also, as the FCC emphasized in a brief relating to the TRO that it recently filed with the United States Court of Appeals for the District of Columbia:

> [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.'"[1]

There are three concepts central to this directive from the FCC. First, the scope of the market must be defined to allow for an analysis of competitive data within a relevant geographic area. In paragraph 495 of the TRO, the FCC provides guidance as to how geographic markets should be defined, stating that state commissions should not define markets so broadly as to encompass an entire state but also should not define them so narrowly that "a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market." For the reasons outlined in the testimony of Mr. Harry Shooshan, MSAs should be used to establish appropriate geographic boundaries around the relevant market for purposes of this docket.

Second, a definition of the product market related to "mass market" customers must be established to allow an examination of evidence of facilities-based CLEC competition in that specific market. In the TRO, the "mass market" refers not only to residential customers, but also to business customers that do not use DS1 capacity facilities. In paragraph 497 of the TRO, the FCC recognizes that "at some point, customers taking a sufficient number of multiple DS0 loops could be served in a manner similar to that described for enterprise customers," and states further that "we expect that in those areas

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

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." As more fully explained in Mr. Shooshan's testimony, Qwest recommends for this proceeding that the Commission continue to follow the FCC's guidelines in defining "mass market" customers as those served by no more than three DS0 loops at a location.

Finally, under the guidelines of paragraph 462 of the TRO and after the market definition has been determined as stated above, the state commission must determine whether three or more unaffiliated CLECs are providing local exchange service to mass market customers via CLEC-owned switching. Qwest's evidence is that more than three CLECs are indeed providing local exchange service to mass market customers via their own switches in the Seattle, Tacoma, and Vancouver MSAs, providing the Commission a basis on which to make a non-impairment finding with respect to these markets without further analysis. In my testimony, I also discuss E911 record data showing that CLECs are providing local exchange service via CLEC-owned switching in numerous communities throughout each of the three MSAs. In fact, the E911 data indicate that CLECs now actively serve residential customers in the mass market in the following communities:

[BEGIN CONFIDENTIAL]

Residential CLEC E911 Records

MSA	Communities
REDACTED	REDACTED
REDACTED	REDACTED
REDACTED	REDACTED

[END CONFIDENTIAL]

Further, I present detailed evidence in Highly Confidential Exhibit MSR-6HC showing that specific CLECs in each MSA are active in the mass market. This exhibit is based upon information shown in the LERG regarding CLECs with voice-type switches serving specific areas of the Washington market and on Qwest wholesale billing records related to these same CLECs regarding where the CLECs have collocation arrangements and where they are purchasing mass market unbundled loops from Qwest (defined as from one to three unbundled loops terminating at a customer's location). The exhibit also reflects CLECs currently providing mass market local exchange service via cable telephony. To the extent additional CLECs are serving mass market customers via CLEC-owned loop facilities or via switches not defined specifically as voice switches, such as "soft switches" or packet switches, this exhibit understates the actual level of competition in the mass market in Washington. The evidence available to Qwest shows

that the number of unaffiliated CLECs serving mass market customers via CLEC-owned switches in each MSA is:

Seattle:	8
Tacoma:	7
Vancouver:	4

In each MSA, the number of unaffiliated CLECs serving the mass market is above the threshold level of three established by the FCC and supports a finding of non-impairment in these geographic areas. I present additional evidence in Highly Confidential Exhibit MSR-7HC that facilities-based CLECs are also actively serving mass market customers via their own switches in the Bellingham, Bremerton, Olympia, Spokane, and Yakima MSAs, although the evidence available to Qwest at the time of this filing indicates that fewer than three unaffiliated CLECs are doing so in these markets. However, the evidence presented in my testimony, coupled with evidence presented by Messrs. Copeland and Shooshan, is that facilities-based CLECs are present in the mass market and that efficient CLECs are not economically impaired in the Bellingham, Bremerton and Olympia MSAs.

Additionally, I provide a discussion of "intermodal" wireless and Voice over Internet Protocol (VoIP) telephony competition. In paragraph 97 of the TRO, the FCC states "the fact that an entrant has deployed its own facilities - regardless of the technology chosen - may provide evidence that any barriers to entry can be overcome…This approach is consistent with USTA's admonition that we should consider intermodal competitors as

relevant to our analysis." In addition, in discussing evidence of impairment at page 10 of the TRO, the FCC stated "in particular, we are interested in evidence concerning whether new entrants are providing retail services in the relevant market using non-incumbent LEC facilities. *We also give weight to the deployment of intermodal technologies."* (Emphasis added.) While the "three CLEC trigger" requirement is met in the three MSAs, intermodal competition is also now impacting Qwest's local exchange customer base in all MSAs in the state and should be considered as additional evidence of facilities-based competition in Washington. Wireless coverage is now virtually ubiquitous in Washington and at least 12 unaffiliated wireless providers are now offering service within Qwest service territory. Given the attractive pricing and packaging of wireless offerings and the mobility of wireless service, many customers are now substituting wireless service for traditional Qwest wireline service. Also, as of November 2003, customers in the 100 largest MSAs nationwide are now able to keep their preexisting telephone number when changing from the service of one wireless provider to another and may also retain their preexisting Qwest wireline number when electing to substitute wireless for Qwest's wireline local exchange service. This "number portability" event will increase even further the pace of competition between wireless and wireline services.

Finally, I discuss in my testimony that at least four unaffiliated vendors are now offering VoIP telephony service in Washington. This service merely requires a broadband internet connection at the customer's location, and the VoIP provider delivers a "plug and play" device to the customer that is easily connected to the broadband connection. The

VoIP services are typically priced as a package and include a range of features and unlimited local and long distance calling. Providers of VoIP services are not currently classified as CLECs and are not currently subject to regulation as telephony service providers. While VoIP service is another intermodal form of mass market competition now present in Washington, providers of these services are not included in my assessment of competition with respect to the mass market switching triggers. The presence of these providers in Washington, however, further demonstrates that intermodal competition in the state is robust.

The level of facilities-based CLEC competition in the mass market in the Seattle, Tacoma and Vancouver MSAs clearly exceeds the threshold established in the TRO and supports a finding of non-impairment in these areas. Additionally, intermodal competition in these areas is now clearly present and should provide the Commission assurance that competitive options for mass market customers beyond services offered by traditional CLECs are available. I recommend that the Commission make a finding of non-impairment with respect to mass market local switching in the Seattle, Tacoma, and Vancouver MSAs based on the FCC's "Track 1" trigger analysis, and that such a finding is also appropriate in other MSAs where the Commission finds that the Track 1 trigger is not met but finds that that competition is present and that additional competition is not economically impaired (commonly referred to as the "Track 2" analysis), as discussed in the testimony of Messrs. Shooshan and Copeland.

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND EMPLOYMENT.

A. My name is Mark S. Reynolds and my business address is 1600 7th Avenue, Room 3206, Seattle, Washington, 98191. I am employed by Qwest Services Corporation ("QSC") as the Senior Director of Washington Regulatory Affairs for Qwest Corporation ("QC") and other Qwest companies.

Q. PLEASE REVIEW YOUR PRESENT RESPONSIBILITIES.

A. I am primarily responsible for all aspects of state regulatory compliance for QSC, particularly QC's regulated Washington operations. My responsibilities include oversight of regulatory filings and advocacy, including presentation of testimony, as in this docket. I am also responsible for QSC's and its affiliates' communications and activities with the Washington Utilities and Transportation Commission ("Commission").

Q. BRIEFLY OUTLINE YOUR EMPLOYMENT BACKGROUND.

A. I received a B.A. from Oregon State University in 1977 and an M.B.A. in 1979 from the University of Montana. My professional experience in the telecommunications industry spans 22 years working for Qwest and its predecessors, U S WEST Communications, Inc. ("U S WEST") and Pacific Northwest Bell. I have held various director positions relating to cost studies and

analyses, economic analyses, pricing, planning and interconnection for U S WEST in the marketing and regulatory areas. I was responsible for ensuring economic pricing relationships between and among U S WEST's product lines, including telephone exchange service, long distance, and switched/special access services. I represented U S WEST, both as a pricing policy witness, and as the lead company representative, in a number of state regulatory and industry pricing and service unbundling workshops. Subsequently, I managed an organization responsible for the economic analyses and cost studies that supported U S WEST's tariffed product and service prices and costs before state and federal regulators.

I have also managed U S WEST's interconnection pricing and product strategy and the interconnection negotiation teams that were responsible for negotiating interconnection and resale contracts with new local service providers. In addition, I managed U S WEST's cost advocacy and witness group, which was responsible for providing economic cost representation in telecommunications forums, workshops and regulatory proceedings. Finally, prior to my current position, I was responsible for state regulatory finance issues and, specifically, the development and implementation of Qwest's performance assurance plans in conjunction with its recent Section 271 applications.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes. I have testified in a number of proceedings before the Commission dating back to 1989, including rate and cost dockets, wholesale arbitration dockets, wholesale complaint dockets, the Qwest/U S WEST merger docket, the 271 docket, the Dex sale docket, and most recently, the basic business exchange service competitive classification docket.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. In the Triennial Review Order (TRO), the Federal Communications Commission (FCC) required that a state commission find that competing carriers are not impaired in serving "mass market" customers without access to the Incumbent Local Exchange Carrier's (ILEC) unbundled switching if the ILEC meets either of two quantitative “triggers” in the relevant markets, which consist of the geographic and customer market segments within which evidence of the level of competition is to be assessed. The purpose of my testimony is to evaluate whether the triggers are met in certain markets and show that numerous CLECs are now serving mass market customers in relevant markets in Washington via CLEC-owned switches. In view of these facts, and coupled with testimony presented by Messrs. Copeland and Shooshan, I conclude that a finding of non-impairment by the Commission in certain markets is warranted.

II. MASS MARKET SWITCHING TRIGGER REQUIREMENTS

Q. WHAT CRITERIA DOES THE FCC REQUIRE THE STATES TO EXAMINE IN DETERMINING WHETHER IMPAIRMENT EXISTS WITH RESPECT TO LOCAL SWITCHING IN THE MASS MARKET?

A. The FCC establishes two trigger tests for its analysis of mass market switching impairment. The first (the "self-provisioning trigger") requires state commissions to determine whether, in addition to the ILEC, at least three CLECs are serving the mass market via CLEC-owned switches in the relevant market. The second trigger analysis (the "wholesale trigger") requires the state commission to determine whether a minimum of two carriers not affiliated with the ILEC are offering wholesale unbundled local switching to CLECs in the relevant market. Specifically, the FCC states:

> Where a state commission determines that there are three or more carriers, unaffiliated with the incumbent LEC or each other that are serving mass market customers in a particular market using self-provisioned switches, the state must find no impairment in that market unless it petitions this Commission for a waiver of the trigger. A state must also find no impairment when it determines that there are two or more competitive wholesale suppliers of unbundled local circuit switching, unaffiliated with the incumbent or each other.[2]

If either of the "trigger" criteria is met, the FCC has mandated that the state commission find that no impairment exists. The trigger analysis is commonly referred to as the "Track 1" analysis.

The FCC also defines a "Track 2" analysis that gives the state commissions the latitude to find that no impairment exists even if neither of the two Track 1 triggers is met if the state commission determines that the market is suitable for "multiple, competitive supply."[3] In the Track 2 analysis, the state commission analyzes actual deployment (even if it falls short of meeting a trigger), operational issues, and a business case analysis of an efficient entrant. Other Qwest witnesses, notably Messrs. Shooshan and Copeland, provide additional evidence showing that the markets indeed allow competitive entry from an economic perspective. My testimony, however, focuses on the competitive evidence relating to the Track 1 analysis of the two triggers and actual CLEC switch deployment for the Track 2 analysis.

Q. HOW SHOULD THE FCC'S COMPETITIVE SWITCH TRIGGER THRESHOLD BE APPLIED IN THIS PROCEEDING?

A. For an ILEC to meet the TRO's self-provisioning trigger, the Commission must find that at least three unaffiliated CLECs are serving mass market customers via

[2] TRO at ¶¶462,463.

[3] TRO at ¶506.

self-provisioned local switching in the relevant market. In other words, the trigger focuses on the number of CLECs providing service to mass market customers in the relevant market via switches owned or controlled by them, not on the number of switches physically located in the market. Similarly, the wholesale switching trigger is met if at least two unaffiliated wholesale providers are offering local circuit switching to CLECs in the relevant market. In neither instance are the switches required to be physically located in the same market area as the location of retail customers being served.[4]

Q. WHAT FACTORS SHOULD THE COMMISSION CONSIDER IN EXAMINING THE LEVEL OF CLEC COMPETITION IN THE MASS MARKET?

A. In the TRO, the FCC recognizes that, in defining the relevant market, the Commission should assess evidence of how CLECs have chosen to enter the market and serve customers. The FCC directs state commissions to consider "the locations of customers actually being served (if any) by competitors, the variations in factors affecting competitors' ability to serve each group of customers, and competitors' ability to target and serve specific markets economically and efficiently using currently available technologies."[5] The FCC has also indicated

[4] TRO at fn. 1536

[5] TRO at ¶495.

that state commissions should consider "competitors' ability to use self-provisioned switches"[6] in determining whether the non-impairment trigger is met. While Mr. Shooshan discusses these requirements in more detail, my testimony focuses on actual market evidence that facilities-based CLECs are now serving mass market customers.

III. DEFINITION OF THE RELEVANT MARKET

a. Geographic Market Definition

Q. WHAT GENERAL GUIDANCE DID THE FCC PROVIDE THE STATES IN DEFINING THE RELEVANT MARKET FOR PURPOSES OF EVAULATING IMPAIRMENT WITH RESPECT TO MASS MARKET LOCAL SWITCHING?

A. In paragraph 495 of the TRO, the FCC's most definitive discussion of market definition in the TRO, the FCC discussed the latitude the Commission has to define the relevant market in this proceeding. The states may not define a market as broadly as encompassing an entire state, but should not "define the market so narrowly that a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market." Within these parameters, the Commission should establish a definition of the

[6] *Id.*

relevant market that properly reflects how mass market customers are actually being served.

Q. IS A MARKET DEFINITION AS SMALL AS AN INDIVIDUAL WIRE CENTER APPROPRIATE?

A. No. It is difficult to conceive of a circumstance in which a CLEC would limit its market to a single ILEC wire center, particularly given the broad reach of switches and the highly interrelated nature of most geographic areas - especially urban areas - in Washington. Defining a market as narrowly as an ILEC wire center would ignore the manner in which CLECs are now providing switched voice grade services in Washington. It is not reasonable to assume that a CLEC would incur costs for switch deployment, customer acquisition, advertising, and customer service to obtain mass market customers in only an individual wire center. Also, I show in my testimony that facilities-based CLECs in Washington serve geographic areas spanning multiple wire centers. A wire center market definition is also inconsistent with the FCC's admonition "not to define a market so narrowly that a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market."[7]

Q. HAVE CLECS ASSERTED THAT THEY ARE SERVING BROAD GEOGRAPHIC AREAS WITH SWITCHES DEPLOYED IN WASHINGTON?

A. Yes. In fact, in the AT&T arbitration proceedings that recently concluded,[8] AT&T witness David Talbott testified that AT&T should qualify for tandem interconnection rates in view of the fact that its switches serve broad geographic areas. He stated:

> In order to achieve the same scale economies as incumbents, CLECs must deploy switches that serve a comparatively broader geographic area, because they lack the concentrated, captive customer base the incumbents enjoy.[9]

Further, he stated that AT&T's switches in Washington are capable of serving a geographic area comparable to Qwest's tandem switches:

> Because AT&T's switches are capable of serving customers within geographic areas comparable to Qwest's tandem switches in Washington, the Commission should order Qwest to pay the applicable tandem interconnection rates for the termination of local traffic at each AT&T switch.

It is noteworthy that Mr. Talbott asserts that AT&T's switches are capable of serving geographic areas as large as areas served by Qwest's tandem switches in Washington. AT&T's factual claims regarding the broad coverage area of CLEC

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[7] TRO at ¶495.

[8] *In the Matter of the Petition for Arbitration of AT&T Communications of the Pacific Northwest and TCG Seattle, with Qwest Corporation, Pursuant to 47 U.S.C. Section 252(b)*, Docket No. UT-033035.

[9] *In the Matter of the Petition for Arbitration of AT&T Communications of the Pacific Northwest and TCG Seattle, with Qwest Corporation, Pursuant to 47 U.S.C. Section 252(b)*, Docket No. UT-033035, Direct Testimony of David L. Talbott, September 25, 2003, at 5.

switches are consistent with evidence I present in this testimony showing that CLEC geographic coverage of switches currently deployed in the state, as self-reported in the LERG, spans multiple Qwest wire centers.

Q. WHAT ARE THE TYPES OF CLEC VOICE SWITCHES NOW DEPLOYED IN WASHINGTON AND WHAT GEOGRAPHIC SERVING CAPABILITIES DO THEY HAVE?

A. Most CLEC switches now deployed in Washington are modern, digital switches. Based on the LERG, the most common digital switches used by CLECs in the state are switches such as the Northern Telecom DMS 10, DMS 100 and DMS 500 models, as well as the Lucent 5ESS switch. Qwest witness Joseph H. Weber discusses the capabilities of CLEC digital switches now deployed in the state to serve broad geographic areas. As Mr. Weber states, CLEC switches are capable of serving areas as large as entire states, and some CLECs actually provide service in one state from a switch physically located in a neighboring state.

Q. DOES THE LERG PROVIDE INSIGHT INTO THE GEOGRAPHIC COVERAGE OF CLEC SWITCHES IN THE STATE?

A. Yes. All carriers serving Washington report to Telcordia, the administrator of the LERG, considerable information, including the physical locations of their

switches, the rate centers[10] (typically identified by community name) served by each switch, and the prefixes used by the carrier to serve customers in each rate center. This information is utilized by all carriers serving the state to program their switches to route telephone calls properly between the various carriers. Thus, the information in the LERG is not just a casual compilation of data; it has real operational significance. Confidential Exhibit MSR-2C is a map of Washington that depicts the manner in which a subset of the CLECs in Washington report to be serving various geographic areas of the state via CLEC-owned switches, based on data shown in the LERG. The map is based on data strictly as it has been provided to Telcordia by the CLECs, reflects only geographic areas in which the CLECs report their local switched services are active (no distinction is made in the LERG regarding mass market vs. enterprise switched services) and no attempt has been made to recategorize the listed CLEC names to reflect legal affiliation between CLECs. For example, the map reflects switches owned by two entities that are affiliates whose switches continue to be listed in the LERG under separate entity names.

On the map, the larger circles represent the cities in which the CLEC's switches are physically located, while the smaller circles represent the various rate centers served by those switches. The lines radiating from the CLEC switch locations to

[10] A "rate center" is defined as "a specified geographical location within an exchange area (or location outside the exchange area) from which mileage measurements are determined for the application of

the various rate centers are illustrative of the geographic area served by each switch, as reported by the CLECs. This map reflects strictly data as it is shown in the LERG and incorporates no other information, such as CLEC switch collocation data.

Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THE MAP IN CONFIDENTIAL EXHIBIT MSR-2C?

A. There are several important conclusions to be drawn from the illustrative map. First, it is readily apparent that, consistent with AT&T's advocacy cited above, CLECs are commonly serving communities across a broad geographic scope from their self-provisioned switches. Second, a number of the CLECs represented on the map are CLECs of significant scale and scope, who provide local exchange services to mass market customers as well as enterprise customers. Third, the map shows that CLECs have found it feasible to transport traffic significant distances, and even across state boundaries, to serve targeted markets from voice switches that serve broad geographic areas.

Q. ARE MSAs THE APPROPRIATE MEASURE OF THE RELEVANT GEOGRAPHIC AREA IN THIS PROCEEDING?

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interexchange mileage rates." (Qwest Corporation Exchange and Network Services Price List, Section 2, sheet 15). Rate centers typically encompass multiple wire centers.

A. Yes.[11] As discussed in the testimony of Mr. Harry Shooshan, MSAs are a reasonable means of defining the relevant geographic market in Washington[12] and are consistent with the FCC's guidance at paragraph 495 of the TRO requiring the state commissions to define a geographic market for purposes of assessing mass market competition that is smaller than an entire state, yet large enough to recognize economies of scale and scope that CLECs can realize by serving a relatively broad geographic area. MSAs are also consistent with the manner in which CLECs are now providing local exchange services.

Q. WHERE ARE THE PRIMARY MSAs IN WASHINGTON?

A. Washington has ten primary MSAs, which include: (1) Bellingham; (2) Bremerton; (3) Olympia; (4) Portland/Vancouver; (5) Richland/Kennewick/Pasco; (6) Seattle/Bellevue; (7) Spokane; (8) Tacoma; (9) Wenatchee; and, (10) Yakima. Because the Richland/Kennewick/Pasco and Wenatchee MSAs are largely outside Qwest service territory in Washington (with the exception of Pasco), I will not present evidence of competition in those areas. In my testimony, I present

[11] Qwest notes that 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.

[12] Based on the demographics and locations of Qwest's service territory in Washington, MSAs are a reasonable measure of the geographic market for telecommunications in Washington (absent market data to the contrary). These considerations are state-specific and MSAs may not be the best measure of the geographic market in all circumstances. Groups of wire centers that may not correspond to full MSAs may be appropriate in defining the geographic market in certain instances if they comprise a complete community of interest that would constitute an individual market.

evidence that facilities-based CLECs and CLEC-provisioned switches are present in sufficient numbers in the Seattle MSA, Tacoma MSA, and the Vancouver portion of the Portland/Vancouver MSA to support a finding of non-impairment with respect to mass market local switching under a trigger analysis, and that mass markets facilities-based competition now exists in other MSAs, including Bellingham, Bremerton, Olympia, Spokane and Yakima. This evidence, coupled with the findings of the economic analysis model discussed in the testimony of Messrs. Copeland and Shooshan, supports a non-impairment finding in the Bellingham, Bremerton and Olympia, in addition to those listed above. Although there is evidence of CLEC switches serving mass market customers in the Spokane and Yakima MSAs, Qwest is not pursuing a MSA-specific finding of non-impairment in these MSAs at this time.

Q. DO MSA BOUNDARIES CONFORM TO THE BOUNDARIES OF QWEST WIRE CENTERS?

A. Not precisely. MSAs define population groupings. Wire centers were established primarily to support physical deployment of the telephone network, and MSAs are much larger than a wire center's boundaries. However, MSA boundaries typically end at county lines, as do most Qwest wire center boundaries for wire centers that serve the periphery of a county. As Mr. Shooshan testifies, in any limited instances where a wire center in a particular MSA is bisected by a county line, the entire wire center should be included in the MSA in which the

preponderance of the wire center's customers are located. Since Qwest inventories its internal network tracking data by wire center, it has the ability to correlate that data to specific MSAs, as shown later in my testimony.

b. "Mass Market" Customer Definition

Q. AT PARAGRAPH 497, THE TRO REQUIRES STATE COMMISSIONS TO ESTABLISH THE "APPROPRIATE CROSS OVER POINT" BETWEEN MASS MARKET AND ENTERPRISE CUSTOMERS IN THIS DOCKET. HOW DOES QWEST RECOMMEND THE COMMISSION DIFFERENTIATE BETWEEN MASS MARKET CUSTOMERS AND ENTERPRISE CUSTOMERS IN WASHINGTON?

A. The FCC views mass market and enterprise customers very differently in the TRO. According to the FCC, "DS1 enterprise customers are characterized by relatively intense, often data-centric, demand for telecommunications service sufficient to justify service via high-capacity loops at DS1 capacity and above."[13] The FCC also describes DS1 enterprise customers as "those customers for which it is economically feasible for a competing carrier to provide voice service with its own switch using a DS1 or above loop."[14]

[13] TRO at ¶451

[14] TRO at ¶ 451, n. 1376

Mass market customers are defined by the FCC as "analog voice customers that purchase only a limited number of POTS lines and can only be economically served via DS0 loops."[15] "Mass market" refers not only to residential customers, but also to business customers that do not use DS1 capacity facilities. The FCC recognizes 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, including the same variety and quality of services and customer care that enterprise customers receive."[16] However, the FCC left it to the states to determine where the cutoff point should be between mass market and enterprise customers, which can be defined as "the point where it makes economic sense for a multi-line customer to be served via a DS1 loop."[17]

Q. WHAT THRESHOLD DOES QWEST RECOMMEND THIS COMMISSION USE IN ESTABLISHING THE BREAK POINT BETWEEN "MASS MARKET" CUSTOMERS AND "ENTERPRISE" CUSTOMERS?

A. As discussed in the testimony of Qwest witness Harry Shooshan, CLECs (by their choices in serving the market) determine when it is appropriate to serve a single customer location with multiple DS0 services or a single DS1 service. Discovery has not yet been provided to confirm what the CLEC market in general shows this

[15] TRO at ¶497.

[16] *Id.*

"cross over point" to be in Washington. Therefore, Qwest does not intend to challenge the FCC's presumption of four DS0 lines at a single customer location as the "cross over point" at which it is economically feasible to serve a customer via a DS1. In the TRO, the FCC stated: "We expect that in 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."[18] Qwest recommends that the Commission continue to follow the FCC's guidelines in defining "mass market" customers as those served by no more than 3 DS0 loops at a location.

IV. EVIDENCE OF CLEC MASS MARKET FACILITIES-BASED COMPETITION

Q. WHAT FACTORS DOES THE FCC IDENTIFY AS SIGNIFICANT IN ASSESSING MASS MARKET COMPETITION?

A. In the TRO, the FCC recognized that how CLECs have actually entered a geographical market and how they are serving customers in that market are key factors to consider, and it directed the state commissions to consider "the locations

[17] *Id.*

[18] *Id.*

of customers actually being served (if any) by competitors" and how competitors "target and serve specific markets."[19] In addition, the FCC also identifies "competitors' ability to use self-provisioned switches"[20] as a factor to consider.

Q. WHAT INFORMATION HAVE YOU EXAMINED TO ASSESS THE EXTENT OF COMPETITION IN THE MSAs IN QWEST SERVICE TERRITORY?

A. I have examined several sources of information in developing my conclusion that at least three CLECs are providing local exchange services to mass market customers via their own switches in three MSAs in Washington. As discussed above, the LERG is a repository of information regarding switches being utilized by Qwest, CLECs, Independents, cable telephony providers, and wireless carriers to provide voice-grade services to customers. It identifies each rate center that the provider purports to serve. In addition, Qwest tracks the various wholesale services being provided to facilities-based CLECs, such as unbundled loops, number porting, and collocation. Finally, Qwest has obtained a confidential report from Intrado, Qwest's E911 service administrator, of all residential and business E911 records for all service providers currently serving customers in Qwest's territory. All E911 records associated with CLEC services provided by resale of Qwest services or via UNE-P purchased from Qwest are reflected in the

[19] TRO at ¶495.

[20] *Id.*

E911 database as Qwest records because these access lines are served via Qwest's local switches. Consequently, all E911 records identified as CLEC records are associated with CLEC facilities-based lines served via CLEC-owned switches.

Q. SHOULD THE LERG DATA BE RELIED UPON FOR PURPOSES OF IDENTIFYING THE SCOPE OF LOCAL EXCHANGE COMPETITION BY FACILITIES-BASED CLECS IN THIS PROCEEDING?

A. The information in the LERG is an important component of the evidence the Commission should rely upon in this docket. Since the LERG is used as a basis for routing customer telephone calls between the switches of the various providers, it is important to both carriers and customers that the LERG data be accurate and current. At the same time, however, the information in the LERG is self-reported by each carrier. Thus, like any database, it is only as accurate as the data that is placed into it by the providers of the information. The CLECs have been asked via discovery to verify the accuracy of the LERG, specifically in Bench Request 41 issued in Order No. 3, by the Administrative Law Judge in this proceeding. As of the date of this filing, the CLEC discovery responses I have seen all state that the LERG contains accurate information for the CLECs that have responded.

Q. WHAT INFORMATION DOES THE LERG CONTAIN THAT ILLUSTRATES THE MANNER IN WHICH CLECS HAVE DEPLOYED SWITCHES TO SERVE LOCAL EXCHANGE CUSTOMERS?

A. The LERG contains comprehensive information regarding the geographic areas served by each provider, the prefixes assigned to each carrier's switch, the switch location, the switch owner, and other specific information of this nature. However, each carrier's information in the LERG is not provided at the same level of specificity. For example, many carriers report the actual type of switch being used (e.g., 5ESS, DMS 10, DMS 100), while others elect to simply note that the switch is a digital switch. Also, the LERG reflects the "rate center" served by each switch, as opposed to wire center or exchange area, which is how Qwest typically tracks network information for administrative purposes.

Q. BASED ON COMPETITIVE INFORMATION AVAILABLE TO QWEST, WHICH MSAs MEET THE SELF-PROVISIONING TRIGGER WITH RESPECT TO MASS MARKET SWITCHING?

A. While facilities-based CLEC competition is present in all MSAs within Qwest's service territory, the evidence available to Qwest shows that there are at least three unaffiliated facilities-based CLECs serving mass market customers in the

Portland/Vancouver, Seattle and Tacoma MSAs via CLEC-owned switches. These MSAs include the following Qwest wire centers:[21]

Seattle MSA: Auburn, Bellevue Glencourt, Bellevue Sherwood, Black Diamond, Des Moines, Enumclaw, Federal Way, Issaquah, Kent Meridian, Kent O'Brien, Kent Ulrich, Maple Valley, Mercer Island, Renton, Seattle Atwater, Seattle Campus, Seattle Cherry, Seattle Duwamish, Seattle East, Seattle Elliott, Seattle Emerson, Seattle Main, Seattle Parkway, Seattle Sunset and Seattle West.

Tacoma MSA: Bonney Lake, Buckley, Crystal Mountain, Graham, Puyallup, Roy, Sumner, Tacoma Fawcett, Tacoma Ft. Lewis, Tacoma Greenfield, Tacoma Juniper, Tacoma Lenox, Tacoma Logan, Tacoma Skyline, Tacoma Waverly 2 and Tacoma Waverly 7.

Vancouver MSA: Battleground, Orchards, Ridgefield, Vancouver North and Vancouver Oxford.

Q. HOW DOES THE VOLUME OF FACILITIES-BASED CLEC COMPETITION IN THESE MSAs COMPARE TO QWEST'S CUSTOMER BASE?

A. As I related earlier in my testimony, Qwest has obtained a confidential report from Intrado, the third-party E911 database administrator for Washington,[22] of residential and business CLEC customer records in the database as of July 2003. This report also reflects E911 records associated with customers served by Qwest

[21] Also, see Confidential Exhibit MSR-4C and Highly Confidential Exhibit MSR-6HC.

[22] All local exchange telephone service providers serving areas with E911 capability are required to report service type and customer location information associated with their local exchange customers to Intrado, which maintains a confidential, dynamic database containing this provider self-reported information. The Intrado database is used by emergency service providers to direct emergency services to the precise location of the party placing a call to 911 for assistance, keyed to the address and telephone number information contained in the E911 database.

switches. These quantities are summarized for each MSA in the following table:

[BEGIN CONFIDENTIAL]

July 2003 E911 Customer Records

MSA	Residential CLEC Records	Residential Qwest Records	Business CLEC Records	Business Qwest Records
Redacted [23]	Redacted	Redacted	Redacted	Redacted
Redacted	Redacted	Redacted	Redacted	Redacted
Redacted	Redacted	Redacted	Redacted	Redacted

[END CONFIDENTIAL]

The E911 records reflect all local exchange customers served (both mass market and enterprise) and do not correspond precisely to access lines in service, since PBX DID numbers are sometimes reported to Intrado, and a PBX DID trunk may have several numbers associated with a single physical trunk. In other instances, numbers associated with access lines used only for inbound calling purposes may not be reported to Intrado, since those lines are incapable of making E911 calls. The first example would tend to cause E911 records to overstate the actual lines

[23] Reflects only records for the Vancouver portion of the Portland/Vancouver MSA.

in service, while the second would drive an understatement in actual in-service quantities. However, since the E911 CLEC records shown above are associated

with facilities-based CLECs[24] using their own switches to serve customers via either UNE loops purchased from Qwest or CLEC-owned loop facilities (which Qwest has no direct means of tracking), this information provides a reasonable view of the actual scale of facilities-based CLEC competition in these MSAs.

Q. DOES THE E911 REPORT DATA PROVIDE USEFUL INSIGHTS REGARDING THE DISPERSION OF FACILITIES-BASED MASS MARKET CLEC CUSTOMERS WITHIN THE THREE MSAs?

A. Yes. The E911 record report discussed above provides data by community name in which the E911 records are active. Since residential local exchange service is a mass market service, a review of the CLEC E911 residential records in the communities associated with each of the three MSAs shows that CLECs are currently serving residential customers via CLEC-owned switches not only in the core metropolitan areas of the MSAs, but also in a number of smaller communities throughout the MSAs. Confidential Exhibit MSR-3C shows the actual CLEC residential E911 records counts in the communities within Qwest's service territory in which residential E911 records were reflected in the Intrado E911 database as of July 2003. I have not shown business E911 records in this exhibit since, as stated in the previous response, business E911 records include businesses of all types and sizes and therefore would not alone be enlightening as to dispersion of CLEC mass market business customers specifically.

[24] E911 records also capture residential and business customers served by cable telephony providers.

Q. WHAT OTHER INFORMATION IS AVAILABLE TO QWEST THAT DEMONSTRATES THAT FACILITIES-BASED COMPETITION IS SIGNIFICANT IN THESE MSAs?

A. When customers choose to change their local service provider from Qwest to a facilities-based CLEC, they often elect to retain their preexisting telephone number by "porting" the number from the Qwest switch to the CLEC switch. Each ported number is associated with a physical access line or PBX trunk served by a CLEC switch. Qwest tracks, through its wholesale systems, the quantity of telephone numbers that have been ported to CLECs on a wire center basis. The quantity of ported numbers in each wire center in each of the MSAs in which Qwest is seeking unbundling relief is shown on Confidential Exhibit MSR-4C. It is important to note that ported numbers do not reflect the full scope of facilities-based CLEC competition, as (for example) customers in some instances do not elect to retain their preexisting Qwest telephone number when migrating to a CLEC. Also, Qwest's ported number tracking reflects only numbers ported from Qwest to CLECs and does not reflect numbers ported back to Qwest. However, the ported number totals clearly indicate a significant level of facilities-based CLEC competitive activity in these MSAs.

Q. DOES CONFIDENTIAL EXHIBIT MSR-4C PROVIDE OTHER INFORMATION RELEVANT TO AN ASSESSMENT OF THE LEVEL OF

FACILITIES-BASED CLEC COMPETITION PRESENT IN THESE MSAs?

A. Yes. This exhibit also shows the total number of stand-alone "mass market" DSO-level UNE loops[25] (DSO-level UNE loops at customer locations with three or fewer lines) by wire center, the number of unaffiliated CLECs purchasing mass market loops, the total number of DS0-level UNE loops in service by wire center (mass market and enterprise combined) and the number of unaffiliated CLECs collocated in each wire center. This exhibit shows a widespread use of "mass market" UNE loops by CLECs in each of the MSAs identified, and shows that CLECs have collocated in the great majority of the wire centers within these MSAs.

Q. HOW MANY ACCESS LINES CAN FACILITIES-BASED CLECS SERVE IN THESE MSAs VIA TELEPHONE NUMBERS CURRENTLY ASSIGNED TO CLEC SWITCHES?

A. The LERG reflects the NPA/NXX codes (area codes and prefixes) assigned to each CLEC switch serving Washington. On Confidential Exhibit MSR-5C, I have shown the number of NXXs (prefixes) assigned to each CLEC in each of the MSAs. In the Vancouver area of the Portland/Vancouver MSA, there are a total of 25 NXXs assigned to CLEC switches; in Seattle, there are a total of 281; and in Tacoma, there are 104. Since each prefix can accommodate 10,000 telephone

[25] Includes 2 wire analog, 2 wire non-loaded, 2 wire ADSL compatible and ISDN BRI DS0-level loops.

numbers, the CLEC prefixes serving these MSAs can potentially serve 250,000, 2,810,000 and 1,040,000 lines in Vancouver, Seattle and Tacoma respectively. Clearly, there is ample capacity in telephone numbers assigned to existing CLEC switches in these MSAs to serve a significantly greater number of customers than these CLECs currently serve.

Q. WHY IS THE FACT THAT CLECS HAVE CHOSEN TO COLLOCATE IN QWEST CENTRAL OFFICES IMPORTANT TO THIS PROCEEDING?

A. A CLEC purchasing collocation space in Qwest's central offices has the ability to access all of the local loops in that office (or use Enhanced Extended Loops to access loops in other offices) and has access to the full range of customers served by that central office by connecting the loops to the CLEC's switch. The presence of CLEC collocation in multiple central offices within an MSA demonstrates that CLECs are capable of serving customers throughout the MSA.

Q. IS IT POSSIBLE FOR CLECS TO SERVE MASS MARKET CUSTOMERS IF THEY DO NOT PURCHASE COLLOCATION IN QWEST'S CENTRAL OFFICES?

A. Yes. For example, cable telephony providers such as Comcast typically do not purchase collocation from Qwest. Instead, they directly serve customers via their cable distribution facilities. Cable telephony providers are certified as CLECs in Washington and provide services that are direct substitutes for Qwest landline service. They are included in the count of CLECs meeting the Track 1 trigger

test. Similarly, CLECs using fiber loops often connect those loops directly to CLEC switches, which may not be collocated in Qwest central office space. In addition, in smaller wire centers, the CLEC can connect the UNE loops directly to multiplexers and interoffice UNEs to reach its serving switch. This arrangement, called an Enhanced Extended Loop (EEL), is readily available and does not require collocation at the local central office serving the customer. The EEL serving arrangement is described in detail in Mr. Weber's testimony.

Q. ARE CLECS THAT HAVE COLLOCATION ACTUALLY SERVING MASS MARKET CUSTOMERS IN THESE MSAs?

A. Yes. Highly Confidential Exhibit MSR-6HC shows, by wire center in each MSA, the collocated CLECs now purchasing "mass market" UNE loops (defined as three or fewer loop terminations at the customer's location). This exhibit also identifies the type of local switch being utilized to serve these areas, as self-reported by the CLECs in the LERG. As shown on this exhibit, the numbers of unaffiliated CLECs[26] serving mass market customers via CLEC-owned switches in each MSA are:

Seattle:	8
Tacoma:	7
Vancouver:	4

[26] Since these quantities are drawn from highly confidential information, the specific CLEC identities are not shown here. The identity of each CLEC, and the data relied upon to identify these CLECs as serving mass market customers, is contained in Highly Confidential Exhibit MSR-6HC.

In each MSA, the number of unaffiliated CLECs now serving mass market customers well exceeds the threshold level established by the FCC and supports a finding of non-impairment in these geographic areas. It is important to note that this analysis understates the actual number DS0-level loops being used by CLECs to serve mass market customers, since Qwest has no means of tracking the quantities of CLEC-self provided loops. While Qwest believes the information shown on this exhibit is conservatively low and likely understated, the data clearly show that the Track 1 trigger has been met in these three MSAs.

Q. YOU HAVE INCLUDED CABLE TELEPHONY PROVIDERS IN THE CLECs SHOWN ON THIS EXHIBIT. SHOULD CABLE TELEPHONY PROVIDERS BE INCLUDED IN A COUNT OF CLECs IN A TRACK 1 TRIGGER ANALYSIS?

A. Yes. In fact, cable telephony providers serving these MSAs are certified as

CLECs, have tariffs and prices lists in effect as local exchange providers and provide switched local exchange telephone service to mass market customers via CLEC-owned switches and CLEC-owned loop facilities. While cable telephony is technically an "intermodal" form of competition, these providers are CLECs in every sense and should be included in a count of qualifying CLECs in this proceeding.[27]

Q. DO YOU HAVE SIMILAR EVIDENCE OF THE LEVEL OF LOCAL EXCHANGE MASS MARKET COMPETITION IN OTHER MSAs?

A. Yes. On Highly Confidential Exhibit MSR-7HC, I show that CLECs are present in the Bellingham, Bremerton, Olympia, Spokane, and Yakima MSAs and are serving the mass market. In each of these MSAs, the evidence available to Qwest indicates that at least one facilities-based CLEC is using CLEC-owned local switching to provide service to mass market customers. These MSAs contain the following Qwest wire centers:

Bellingham MSA: Lummi and Regent.

Bremerton MSA: Essex, Colby, Crosby, Port Orchard and Silverdale.

Olympia MSA: Evergreen, Lacey, Whitehall and Rochester.

Spokane MSA: Deer Park, Elk, Green Bluff, Liberty Lake, Newman Lake, Spokane Chestnut, Spokane Fairfax, Spokane Hudson, Spokane

[27] *See* TRO at ¶229. The FCC recognizes that cable telephony is now available to "about 9.6% of the total households in the nation." Cable telephony providers, as CLECs, deliver local switched voice telephony via standard local voice switches and coaxial local loop infrastructure.

Keystone, Spokane Moran, Spokane Riverside, Spokane Walnut and Spokane Whitworth.

Yakima MSA: Chestnut and Yakima West.

Again, this information is conservatively low and does not reflect CLECs who may be providing service to mass market customers via CLEC-owned loops or by switches not classified as traditional "voice" switches, such as packet or "soft" switches, as discussed in the testimony of Mr. Weber. However, this exhibit shows that each of these MSAs is capable of supporting CLEC competition, and the evidence presented by Messrs. Shoosan and Copeland indicates that economic impairment does not exist in the Bellingham, Bremerton, and Olympia MSAs. Although there is evidence of CLEC switches serving mass market customers in the Spokane and Yakima MSAs, Qwest is not pursuing a MSA-specific finding of non-impairment in these MSAs at this time.

Q. HAVE YOU REVIEWED CLEC DISCOVERY RESPONSES TO DETERMINE WHETHER ADDITIONAL CLECs MAY QUALIFY IN THE TRACK 1 TRIGGER ANALYSIS?

A. Yes. I have reviewed all discovery received to date in this proceeding and have not yet seen evidence that CLECs in addition to those already identified in my testimony are serving mass market customers. However, should such information become available after the filing date of my direct testimony, I will supply that evidence in a supplemental filing.

Q. HAVE YOU DETERMINED WHETHER PROVIDERS OF LOCAL SWITCHING ARE OFFERING WHOLESALE LOCAL SWITCHING TO OTHER LOCAL EXCHANGE CARRIERS IN WASHINGTON MSAs?

A. Not at this time. The sale or lease of local switching capacity between carriers is typically arranged on a contractual basis between the carriers, and publicly-available evidence of such arrangements is difficult to obtain. However, CLECs in Washington have been asked through discovery whether they are engaging in such transactions. Should discovery responses reveal that wholesale local switching transactions have occurred in the Washington MSAs, such evidence should be considered in the analysis in this proceeding.

V. CLEC MASS MARKET SERVICE OVERVIEW

Q. DO CLEC PRICE LISTS SUPPORT YOUR POSITION THAT CLECS ARE OFFERING LOCAL EXCHANGE SERVICES TO MASS MARKET CUSTOMERS IN WASHINGTON?

A. Yes. The price lists for a number of CLECs show that they are offering local exchange services to mass market customers. Facilities-based carriers, including Advanced TelCom Group (ATG), Allegiance, Comcast, Eschelon, Integra, MCImetro, McLeodUSA, Rainier Connect, SBC, XO, and others have price lists on file with the Commission which indicate they are providing competitive local exchange services in the MSAs addressed in this proceeding and reflect service areas consistent with the coverage areas reported in the LERG by these

providers.[28] I highlight the competitive offerings available to mass market customers from representative Washington CLECs in the testimony that follows.

Q. WHAT SERVICES DOES ATG MAKE AVAILABLE TO MASS MARKET CUSTOMERS IN WASHINGTON?

A. A review of the services offered in ATG's Price List No. 3 indicates that the company primarily targets the business market.[29] ATG's prices vary depending on whether the service is offered via "resale" or "on-net." Many services provisioned on ATG's own network (i.e., "on net") are available with term discounts. ATG has developed a variety of packaged or bundled offerings, such as the "Telecommuter Plan," the "Small Business Plan," and the "Home Office Line." In addition to these packages and standard access lines, ATG offers analog and digital trunk services. Following is a brief example of services available from ATG:

- Basic Business Line - $26.60 per month On Net; $23.94 per month Resold.
- Small Business Plan (includes two business flat rated lines, 1 business feature package, 1 voice mail, and 1 34K SDSL) - $169.00 per month with a one year term agreement On Net.

[28] While Comcast and Rainier Connect are providing service to mass market customers via cable telephony, and are therefore "intermodal" competitors, I have included them in this section because they are operating as CLECs in Washington, as opposed to wireless and VoIP providers, who are not required to certify as a CLEC to provide services to mass market customers.

[29] While ATG does offer a Residential Line, the service is priced the same as a Basic Business Line. It is important to remember that the first of the two trigger analyses focuses on whether an unaffiliated CLEC is serving "mass market" customers with its own self-provisioned switch. Thus, if ATG is serving business customers with fewer than four lines, it meets the trigger.

- Analog Trunk - $26.60 per month On Net; $23.94 per month Resold.

Additional information regarding the services offered by ATG are shown on Exhibit MSR-8.

Q. WHERE ARE ATG SERVICES AVAILABLE?

A. ATG is certified to provide local exchange service throughout Washington, including all Qwest exchange areas. ATG's Price List No. 3 indicates that it applies to the provision of local exchange services within the State of Washington.[30] According to the company's website, www2.callatg.com, local offices exist in Bellingham, Everett, Olympia, Tacoma, and Yakima.

Q. WHAT TYPES OF LOCAL SERVICES ARE OFFERED BY ESCHELON, AND WHERE ARE THESE SERVICES AVAILABLE?

A. Eschelon offers service to business customers over its own facilities, as well as by utilizing UNE-P. A Premium Business Line, provisioned over Eschelon's own switching facilities, is priced at $24.66 per month and term discounts apply.[31] Eschelon's Price List No. 3 indicates services are available in areas served by the Company's switch and associated Qwest wire centers served by the Company's collocated facilities.[32] The company is certified to provide Local Exchange Services throughout Washington, including all Qwest exchange areas. Examples

[30] Advanced TelCom Group Price List No. 3, Original Sheet No. 10, effective April 13, 2003.

[31] Eschelon Telecom of Washington Price List No. 3.

[32] Eschelon Telecom of Washington, Price List No. 3, Sheet No. 41, Effective September 23, 2002.

of other Eschelon services for mass market customers are shown on Exhibit MSR-8.

Q. DOES INTEGRA OFFER SERVICE TO BUSINESS CUSTOMERS IN THE THREE MSAs?

A. Yes. A Business Line in the Seattle-Tacoma Metro areas is priced at $29.00 per month, according to Integra's Washington Price List No. 5, for services provisioned over Integra's own network (referred to as "on-network" in Integra's price list). Term discounts may also apply. Business customers in the Vancouver EAS area pay $21.00 per month on-network. *See* Exhibit MSR-8.

Q. DOES MCIMETRO OFFER LOCAL EXCHANGE SERVICE IN THE THREE MSAs ADDRESSED IN THIS PROCEEDING?

A. Yes. MCImetro Price List No. 2 specifies service is available in Qwest service areas in Washington.[33] A "local line," described as a "facilities based service" in the Price List, is priced at $26.89 per month. Trunks, in various configurations, are also available. In addition, MCImetro bundles local and long distance and makes term discounts available to business customers, a sampling of which are demonstrated in Exhibit MSR-8. MCImetro also makes local service available to residential customers, but may do so using UNE-P rather than the company's own facilities.

[33] MCImetro Access Transmission Services LLC, Washington Price List No. 2, Sheet No. 58, Effective November 9, 2001.

Q. DOES MCLEOD'S WASHINGTON PRICE LIST SHOW THAT ITS SERVICE IS AVAILABLE IN THE MSAs IN WHICH QWEST IS REQUESTING RELIEF FROM ITS OBLIGATIONS TO UNBUNDLE LOCAL SWITCHING?

A. Yes. Section 5 of McLeod's Washington UTC Price List No. 1 lists the cities and wire centers where McLeod is offering service, either over its own switch or through the use of network elements. The Price List demonstrates McLeod is provisioning residential service via a McLeod switch in Seattle, Spokane, Tacoma, Olympia and Vancouver, and many other communities. Business Local Exchange services are available from McLeod in these MSAs via a combination of McLeod switches and network elements.

Q. PLEASE PROVIDE EXAMPLES OF LOCAL EXCHANGE SERVICES OFFERED TO RESIDENTIAL AND BUSINESS CUSTOMERS BY MCLEOD.

A. The "Simple Preferred Package" for Small Businesses consists of a local switched line and three features for $30.95 per month. Additional packages are available priced incrementally higher based on the number of features included in the package. Residential customers may also select from a number of packages, including the "Value Preferred Package," which includes a local switched line and 6 features for $30.95 per month and a "Premium Preferred Package" which is comprised of a local switched line and ten features for $35.95 per month.

McLeod also offers residential customers stand-alone local switched line service in the "OneLine Preferred Package." Examples of other McLeod offerings are provided in Exhibit MSR-8.

Q. SBC IS ANOTHER FACILITIES-BASED PROVIDER OPERATING IN WASHINGTON. WHAT SPECIFIC GEOGRAPHIC AREAS DOES IT SERVE?

A. SBC Telecom's Price List No. 2 states that the company's services are available in Clark, Island, King, and Snohomish counties in Qwest and Verizon exchanges. Two of the MSAs addressed in this proceeding, Vancouver (Clark County) and Seattle (King County), are within Qwest's service territory and are encompassed by SBC's stated service area.

Q. DOES SBC OFFER SERVICE TO BOTH RESIDENTIAL AND BUSINESS CUSTOMERS?

A. Yes. "SBC Phone Solution for Residence" provides residential customers with a line and fifteen features for $30.00 per month. Business customers may choose "Basic Business Line" service, which consists of a stand-alone local exchange line, or from a number of packaged offerings. "Basic Business Line" is available for $24.00 per month for Rate Class 1 and $32.00 per month for Rate Class 2. "SBC Phone Solution for Business" is priced at $43.00 per month for Rate Class 1 and $49.00 per month for Rate Class 2. Exhibit MSR-8 contains examples of other offerings available to mass market consumers from SBC.

Q. DOES XO, ANOTHER FACILITIES-BASED COMPETITOR, FOCUS EXCLUSIVELY ON THE BUSINESS MASS MARKET IN WASHINGTON?

A. Yes. While XO is certified to provide Local Exchange Service throughout Washington, the company's Local Exchange Services Price List No. 1 indicates services are available in the Spokane, Seattle, Vancouver, and Clarkston exchanges, with the caveat that not all services are available in all areas. Examples of XO's offerings include Basic Business Line, PBX Analog Trunk. Rates for XO's service vary by rate area, options selected, and length of term agreement. Exhibit MSR-8 describes a sampling of XO's services in more detail.

Q. IS COMCAST CERTIFIED TO OFFER SERVICE IN ALL QWEST EXCHANGE AREAS, INCLUDING THE COMPETITIVE MSAs ADDRESSED IN THIS PROCEEDING?

A. Yes. Comcast received certification in July 1998 to provide cable telephony Local Exchange Services throughout Washington, including all Qwest exchange areas. Comcast offers residential customers a stand-alone access line for $12.25 per month and also offers numerous bundles consisting of local access combined with various feature packages as well as long distance options. Unlike Rainier Connect (another cable telephony provider discussed below), which serves both the residence and business mass markets, Comcast limits its service offerings to residential customers. Comcast has a Price List on file with the Washington

Utilities and Transportation Commission. Exhibit MSR-8 identifies several Comcast offerings in more detail.

Q. YOU MENTIONED RAINIER CONNECT AS BEING A COMPETITIVE CABLE TELEPHONY PROVIDER. WHERE DOES IT OFFER SERVICE, ACCORDING TO ITS PRICE LIST ON FILE WITH THE WUTC?

A. Rainier Connect's Price List No. 2 indicates its services are available in the 253-262, 253-683, and 253-693 NPA/NXX areas. The 253 NPA serves the Tacoma area. Rainier Connect's website, www.rainierconnect.com, specifies that service is available in Pierce County, Eatonville, Graham, South Hill, and Tacoma areas, which are within the Tacoma MSA.

Q. WHAT SERVICES DOES RAINIER CONNECT OFFER MASS MARKET CUSTOMERS?

A. Rainier Connect provides basic Local Exchange Service to residential and business customers, as well as several packages and bundles. For example, consumers may select "Basic Residential Service," priced at $12.50 per month, "Quick Connect" which consists of one phone line, Voice Mail or Caller ID/Call Waiting, and FastTrax DSL for $66.99 per month, or "Triple Play" which includes one phone line, a choice of dial-up, cable modem or DSL Internet access, and cable TV. Business mass market customers may select "Basic Business Service" priced at $25.00 per month. These and other mass market offerings are shown in Exhibit MSR-8.

VI. INTERMODAL COMPETITION: WIRELESS AND VOICE OVER INTERNET PROTOCOL (VoIP)

Q. HAS THE FCC PROVIDED GUIDANCE AS TO HOW INTERMODAL COMPETITION SHOULD BE EVALUATED IN STATE TRIENNIAL REVIEW PROCEEDINGS?

A. Yes. While the FCC did not include an evaluation of wireless and VoIP competition in its trigger analysis for mass market local switching, it specified that intermodal competition should be given weight in determining whether impairment exists in a defined market. In particular, the FCC stated:

> In appropriate instances, evidence of the deployment of intermodal alternatives informs our judgment on the "impair" factors described above, and in those circumstances, we will give weight to deployment of intermodal alternatives in our analysis. Specifically, we consider whether these intermodal alternatives permit a requesting carrier to serve the market, either through self-provisioning or by obtaining capacity on a wholesale basis. We take these alternatives into account for several reasons. First, the Act expresses no preference for the technology that carriers should use to compete with the incumbent LECs. Second, we do not want to prejudice market participants' business decisions about whether to deploy alternative facilities by basing our unbundling rules on the presence or absence of any certain technology. Third, in some instances, the presence of intermodal alternatives can be just as probative of a lack of impairment as the presence of traditional wireline "telephone" deployment. The fact that an entrant has deployed its own facilities - regardless of the technology chosen - may provide evidence that any barriers to entry can be overcome. This approach is consistent with *USTA'*s admonition that we should consider intermodal competitors as relevant to our analysis.[34]

[34] TRO at ¶97.

It is clear that the FCC views intermodal competition as a factor that must be considered in assessing the full scope of competition in the mass market.

a. Wireless Competition

Q. DID THE FCC DIRECT STATE COMMISSIONS TO CONSIDER WIRELESS SERVICE WHEN ANALYZING LOCAL COMPETITION IN STATE TRIENNIAL REVIEW PROCEEDINGS?

A. Yes. In discussing evidence of impairment, the FCC stated, "In particular, we are interested in evidence concerning whether new entrants are providing retail services in the relevant market using non-incumbent LEC facilities. *We also give weight to the deployment of intermodal technologies*." (emphasis added).[35] Wireless service is a major form of intermodal telephony competition in Washington. The FCC recognized the competitive impact from wireless services ILECs are now experiencing and stated "some carriers attribute, at least in part, the recent drop in wireline switched access lines to this replacement of wireline phones by wireless phones. This replacement may particularly affect second-line growth."[36] Clearly, the FCC is cognizant of the increasing use by consumers of wireless services as an alternative to traditional wireline service.

[35] TRO at Executive Summary, page 10.

[36] TRO at ¶53.

Q. IS WIRELESS SERVICE NOW A GENERALLY-ACCEPTED MEANS OF PLACING AND RECEIVING TELEPHONE CALLS?

A. Yes. Wireless phones are now widely accepted by business and residential consumers for voice telephony. In addition, wireless providers are now augmenting their services with data applications such as dial-up wireless internet access, text messaging and image transmission to bring additional functionality to their services and attract new customers.

Q. WHAT RECENT EVENT HAS AUGMENTED WIRELESS SERVICE AS A VIABLE ALTERNATIVE TO TRADITIONAL WIRELINE TELEPHONE SERVICE?

A. On November 24, 2003, in response to an FCC mandate, wireless number portability was implemented in the top 100 MSAs in the country, which include the Seattle, Tacoma, Portland/Vancouver, and Spokane MSAs. Wireless number portability will not only enable wireless subscribers to retain a preexisting wireless telephone number when changing service providers, it will also enable customers to retain the preexisting wireline telephone number when the customer elects to disconnect the wireline service entirely and rely on wireless service as the customer's primary telecommunications service. This event will remove a barrier that may have prevented wireline customers from "cutting the cord" and substituting wireless service for traditional telephone service provided by Qwest.

Q. CAN YOU REPORT THE NUMBER OF WIRELESS SUBSCRIBERS IN THE STATE OF WASHINGTON?

A. Yes. According to the FCC's *Local Telephone Competition* report, released June 12, 2003, there were 2,866,458 wireless subscribers in Washington as of December 2002, a 6% increase from December 2001.[37] To put this in perspective, Qwest had 2,227,722 retail access lines in service in Washington as of December 2002. In other words, the number of wireless subscribers in Washington well exceeds the number of Qwest retail lines in the state.

Q. DO WIRELESS CARRIERS NOW PROVIDE SERVICE THROUGHOUT QWEST SERVICE TERRITORY IN WASHINGTON?

A. Yes. While each wireless carrier does not typically provide direct service throughout the state (although customers are able to use "roaming" functions to

[37] Table 13: Mobile Wireless Telephone Subscribers. Carriers with under 10,000 subscribers in a state were not required to report.

use their wireless handsets even if they are not in their wireless carrier's primary service area), wireless carriers in the aggregate provide complete coverage of Qwest's wireline service territory. Confidential Exhibit MSR-9C is an extract from the September 2003 LERG showing the wireless carriers that provide service in all Qwest Washington rate centers.

Q. DO CERTAIN WIRELESS CARRIERS UTILIZE VOICE SWITCHES THAT ARE COMMONLY USED TO PROVIDE WIRELINE SWITCHED SERVICES?

A. Yes. Wireless service providers use local voice switches to handle local calling traffic, and essentially use "wireless loops" to deliver service to the end user. In fact, several wireless carriers shown on Confidential Exhibit MSR-9C use switches such as Lucent 5ESS, Nortel DMS 250, Nortel DMS 10, and Nortel DMS 100, which are switches commonly used to provide wireline local exchange service by Qwest and CLECs. These switches are the same types of switches I referenced earlier in my testimony regarding CLEC switches functioning as local end offices serving mass market customers.

Q. CAN RESIDENCES AND SMALLER BUSINESSES USE WIRELESS SERVICE AS A DIRECT SUBSTITUTE FOR QWEST WIRELINE SERVICE?

A. Yes. Wireless service is a clear alternative to Qwest wireline service for residential customers and smaller businesses, especially those that have

employees that spend time both in and out of the office. For example, "on the go" businesses such as landscapers and real estate agents are prime examples of the types of small businesses that rely heavily on wireless service. Some wireless providers have expanded their wireless product offerings to include wireless Internet connectivity, “push to talk” functionality, and text messaging, features popular with residential and small business customers.

Q. WHICH WIRELESS PROVIDERS NOW OFFER SERVICE IN WASHINGTON?

A. Numerous wireless providers now offer service in the state and wireless service is available throughout Qwest’s service territory. Wireless providers in Washington include Nextel, U S Cellular, AT&T Wireless, Pacific Bell Mobile Services d/b/a Cingular Wireless, Sprint, T-Mobile, Verizon Wireless, Inland Cellular Telephone Company, and RCC Holdings d/b/a CellularOne in partnership with Cingular and T-Mobile.

Q. WHAT IS THE GEOGRAPHIC COVERAGE OF THE WIRELESS CARRIERS THAT OFFER SERVICE IN WASHINGTON?

A. Exhibit MSR-10 contains the current wireless coverage maps for many of the carriers listed above. These maps were obtained directly from the Internet web sites of the respective carriers on November 18, 2003.[38] While the scale and map

[38] Wireless provider coverage maps tend to change frequently as the carriers add cell sites to expand coverage.

formats tend to vary from carrier to carrier, these maps show that certain carriers, such as Verizon, Nextel, AT&T, Sprint, and T-Mobile, offer service in each of the MSAs at issue in this proceeding. Others, including U.S. Cellular and Cingular serve varying subsets of the MSAs.

Q. ARE THE PLANS OFFERED BY THE WIRELESS CARRIERS PRICE-COMPETITIVE WITH QWEST'S LOCAL EXCHANGE SERVICE RATES?

A. Although wireless service is packaged differently than wireline service (i.e., wireless service typically includes a range of features, free long distance calling within the "home" coverage area of the provider, is often priced on a "block of time" basis, etc), wireless service is competitively priced for many customers. Wireless companies offer a variety of plans - local plans, regional plans, and national plans – with varying amounts of minutes included. Generally, wireless packages including long distance and features start as low as $20.00 per month.

As a point of comparison, consider that in Washington Qwest's flat-rated local exchange residence line is priced at $18.60 ($12.50 basic rate plus $6.10 mandatory Subscriber Line Charge), excluding any charges for features or intraLATA long distance. The comparable Qwest business rate is $32.99. Cingular Wireless offers customers in Seattle and Tacoma a $19.99 per month plan which includes 50 anytime minutes, Call Waiting, Caller ID, Three-Way

Calling, and Long Distance.[39] T-Mobile now offers a wireless calling package of 300 "whenever" minutes and unlimited weekend minutes for $29.99 per month. This plan includes enhanced VoiceMail, Built-In Paging, Caller ID, Conference Calling, Call Waiting, Call Hold, and no long distance or roaming charges.[40] Nextel offers a "National Instant Connect 500" plan that includes 500 anytime minutes and unlimited night and weekend minutes for $49.99 which includes "free" nationwide long distance, 3-Way Calling, Call Hold, and Call Waiting.[41] AT&T offers a "mLife Local Plan" which includes 650 anytime minutes, unlimited night and weekend calling, and "free" nationwide long distance for $39.99 per month.[42]

These examples represent only a very small demonstration of the wireless plans and services that are available to Washington consumers. For small business and residence customers that find value in the service attributes offered by the wireless carriers, a few of which are shown in the above examples, wireless service is clearly an attractive alternative to Qwest's wireline service.

Q. HAS QWEST CONDUCTED ANY RESEARCH TO ASSESS THE EXTENT TO WHICH CUSTOMERS FIND WIRELESS SERVICE TO BE AN ATTRACTIVE ALTERNATIVE TO WIRELINE SERVICE?

[39] www.onlinestore.cingular.com, visited 11-18-03.

[40] www.t-mobile.com, visited 11-18-03.

[41] www.nextel.com, visited 11-18-03.

A. Yes. Qwest recently commissioned research studies in Utah and Iowa to determine the extent to which Qwest wireline customers perceive wireless service to be a reasonable substitute for traditional wireline service. These studies were both done in 2003, and consisted of telephone interviews, conducted by an opinion research firm, with wireless customers within Qwest's service territory in these states. Of the 1624 interviews completed with Utah residential wireless customers, 27% were substituting wireless service for residential wireline service. In Iowa, results show that 25% of wireless users who use their phones for personal calls do not have a wireline service at home. Of those, well over half had disconnected their wireline service in favor of their wireless phone. This information clearly demonstrates the substitutability of wireless services. While these results are not specific to Washington, they are specific to Qwest customers and show that wireless service is viewed as being more than a niche service. I am unaware of any differences between Washington and either Utah or Iowa that would produce a result that was significantly different. It is clear from this evidence that Qwest's customers are very aware that wireless services are available and, based on these statistics, a very significant number of them are substituting wireless service for wireline service.

[42] www.attwireless.com/personal/plans, visited 11-18-03.

Q. ARE TECHNOLOGICAL DEVELOPMENTS INCREASING THE ATTRACTIVENESS OF WIRELESS SERVICE AS A DIRECT SUBSTITUTE FOR QWEST'S LOCAL EXCHANGE SERVICES?

A. Yes. In addition to the rapid augmentation of wireless voice telephony with data-related applications, wireless local number portability was implemented in 100 of the nation's largest metropolitan areas in November 2003, including the Seattle, Tacoma, Portland/Vancouver, and Spokane MSAs, as discussed above. Wireless companies outside the 100 top markets are not mandated to comply now, but must do so by May 24, 2004. Wireless number portability gives consumers the option of keeping their same number when switching between wireless carriers or between wireline and wireless carriers. Commenting on the FCC's decision to allow consumers to switch their home telephone number to their wireless phone and vice-versa, FCC Chairman Powell stated: "After today, it's easier than ever to cut the cord. We act to eliminate impediments to competition between wireless and wireline services."[43]

The Yankee Group, a market research firm, agrees with Chairman Powell's assessment of the impact of wireless number portability. Yankee Group surveys show that about six million traditional phone users switched to wireless even before they could port their phone numbers. Now that consumers can take their

[43] *FCC Upholds Right to Switch Phone Numbers*, Reuters, November 10, 2003.

wired phone number with them, The Yankee Group expects the figure will increase to 30 million over the next five years.[44] As stated above, Qwest's research of its customer base indicates the transition is already well underway.

Q. IN ADDITION TO THE FINDINGS DISCUSSED ABOVE, IS THERE OTHER RECENT EVIDENCE SHOWING THAT CONSUMERS FIND WIRELESS SERVICE TO BE A COMPETITIVELY PRICED ALTERNATIVE TO TRADITIONAL WIRELINE SERVICE?

A. Yes. Recent research conducted by CIT-PriMetrica and Ernst & Young indicates that nearly 50 percent of U. S. households would be prepared to switch from a wireline service to a family share wireless option with 600 shared base minutes offered at $50 per month.[45] With a family share plan, wireless phones used by various family members are able to share the same "bucket" of minutes in the plan's usage allowance. In the example cited above, a family with up to four wireless phones on a shared plan would not be charged per minute usage fees so long as the combined monthly usage of all of the phones is 600 minutes or less.

Additional findings indicate that one third of U.S. households would drop their wireline service for a similar wireless package with 2000 shared base minutes

[44] *Cutting the Phone Cord, Who and how fast?*, www.startribune.com, November 12, 2003.

[45] *Mobile Wireless-Primary Fixed Line Substitution*, 2003 Ernst & Young/PriMetrica.

costing $130 per month.[46] Based on the survey results, CIT-PriMetrica describes the wireless threat to wireline companies as "substantial."

Q. DO YOU HAVE EVIDENCE IN ADDITION TO THE UTAH AND IOWA SURVEYS THAT QWEST CUSTOMERS ARE SUBSTITUTING WIRELESS SERVICE FOR TRADITIONAL LANDLINE SERVICE?

A. Yes. Qwest has empirical evidence that its customers are disconnecting Qwest landlines and substituting wireless services for those landlines. In August 2002, Qwest implemented a tracking system whereby its service representatives began asking the customer requesting disconnection of a Qwest access line if the customer was substituting wireless service from an unaffiliated carrier for that line. If the customer provided this disconnect reason to Qwest's service representative when placing the disconnect order,[47] those quantities were tracked and retained in Qwest's systems. Since August 2002, the following number of residential lines were reported by Qwest customers to have been disconnected due to wireless substitution:

Seattle:	4402	Bellingham:	249
Tacoma:	1371	Bremerton:	333
Vancouver:	660	Olympia:	409
Spokane:	1277	Yakima:	239

[46] *Id*.

[47] Customers often decline to provide a reason for the disconnect, and tracking of disconnect service orders for the "competition-wireless" reason is therefore understated.

It is clear that Washington consumers are heeding the marketing messages of wireless carriers that wireless service can be an effective substitute for traditional landline service.

Q. DO YOU HAVE EVIDENCE THAT WIRELESS CARRIERS SERVING THE WASHINGTON MARKET CONSIDER THEIR SERVICES TO BE DIRECT SUBSTITUTES FOR TRADITIONAL LANDLINE TELEPHONE SERVICE?

A. Yes. T-Mobile, AT&T Wireless, Nextel, and the Cellular Telecommunications & Internet Association (CTIA)[48] recently filed Petitions for Reconsideration or Clarification (Petitions) of the FCC's Triennial Review Order in which these wireless carriers urge the FCC to allow them to gain access to certain unbundled network elements based on their position as facilities-based competitors. Following are excerpts from several of these Petitions which demonstrate the impact wireless carriers are having on the local exchange market, viewed from their own perspective:

> "T-Mobile competes directly with incumbent local exchange carriers ("LECs") for customers by offering a wide variety of telecommunications services, including local voice service. As the recently adopted *Triennial Review Order* makes clear, commercial radio service ("CMRS") carriers such as T-Mobile have played a leading role in fostering the development of facilities-based, intermodal competition, a cornerstone of the "new competitive paradigm" envisaged by the Commission. Wireless subscribership has increased dramatically since 1996, and wireless carriers have begun to mount an intermodal challenge to the local service monopolies of incumbent LECs throughout much of the nation. … [T]he FCC made a finding that CMRS providers offer services in competition with

[48] CTIA is the international organization of the wireless communications industry.

"telecommunications services that have been traditionally within the exclusive or primary domain of incumbent LECs."

"As the *Triennial Review Order* makes clear, wireless carriers have succeeded in mounting an intermodal challenge to the local service monopolies of incumbent LECs to a far greater extent than could have been reasonably predicted in 1996. Initially, wireless service was more of a complement than a competitor to wireline telephone service. That situation has changed, however, as wireless rates have fallen dramatically in recent years, innovative service packages (e.g., big "buckets" of minutes; free long distance) have developed, and technical quality and coverage have improved. Consequently, many consumers now view their wireless phone as their "primary phone." Indeed, a growing number of CMRS customers are "cutting the cord" and replacing their landline phones entirely with wireless phones, while others are using wireless phones instead of purchasing second or third lines from the incumbent LECs. There also are indications that many young adults use wireless phones as their primary communications devices, and may not order wireline service at all. This intermodal success story is "remarkable," not only because wireless mass market subscribership has roughly tripled since 1996, but also because this growth has been accompanied by substantial facilities deployment by wireless carriers.… UNEs will allow CMRS carriers to strengthen their position as intermodal alternatives to the incumbent LECs' historical local voice monopoly.… [T]he FCC has traditionally crafted its UNE rules in a manner that focused primarily on the way network elements are used in a competitive wireline network without regard to alternative networks, such as wireless. While this wireline-centric focus may have made sense in 1996, when mass market wireless service was still in its relative infancy, it can no longer be justified now that wireless subscribership has grown to over 140 million customers – a subscriber base that firmly establishes wireless carriers as a major source of potential intermodal competition throughout the nation… In establishing service eligibility rules, the FCC's objective was to encourage the provision of local voice service "in direct competition to incumbent LEC service." T-Mobile and other CMRS providers clearly satisfy this objective. Indeed, as the FCC has noted, a fair number of consumers have used or plan to use CMRS to replace their incumbent LEC-provided POTS lines entirely." (footnotes omitted) [49]

[49] *Petition for Reconsideration of T-Mobile USA, Inc.,* before the Federal Communications Commission, CC Docket No. 01-338, CC Docket No. 96-98, CC Docket No. 98-147, October 2, 2003, P. 1, 5, 6, 7, 9, 14.

> "Nextel is the fifth largest national wireless carrier in the United States, with over eleven million customers and, together with Nextel Partners, Inc., covers 297 of the top 300 metropolitan areas in the United States. Nextel competes directly not only with other commercial wireless radio service ("CMRS") providers, but also directly with incumbent local exchange carriers ("ILECs"). Among the range of services Nextel provides to its customers is mobile local voice service.[50] … As the Commission has recognized, there are some end users that use mobile wireless services to replace ILEC-provided POTS lines entirely.[51] … Plainly wireless carriers are facilities-based competitive providers of local voice services and, as such, are eligible for UNE combinations." (footnotes omitted)[52]

> "CMRS carriers have played a critical role in fostering the development of an extremely competitive, facilities-based alternative to traditional wireline offerings. As the Commission noted in its Eighth Report on CMRS competition, 95 percent of the United States population lives in counties "with access to three or more different operators (cellular, broadband PCS, and/or digital SMR providers) offering mobile telephone service." In addition, 83 percent of the U.S. population lives "in counties with five or more mobile telephone operators competing to offer service." This intense competition in the CMRS market has resulted in new innovative products and services for consumers, as well as lower prices for these services.[53] … In establishing the service eligibility criteria, the Commission stated that its goal was to encourage the provision of local voice service "in direct competition to traditional incumbent LEC service." CMRS carriers, through their service offering, clearly satisfy this objective." (footnotes omitted)[54]

In sum, my testimony and the associated exhibits demonstrate that wireless service presents a viable substitute for Qwest wireline local exchange service in Washington. The existence of wireless service as a competitive alternative can

[50] *Nextel Communications, Inc., Petition for Reconsideration or Clarification before the Federal Communications Commission,* CC Docket No. 01-338, CC Docket No. 96-98, CC Docket No. 98-147, October 2, 2003, page 1.

[51] *Id.,* at page 11.

[52] *Id.,* at fn. 25.

[53] *Petition for Reconsideration or Clarification of the Cellular Telecommunications & Internet Association* before the Federal Communications Commission, CC Docket No. 01-338, CC Docket No. 96-98, CC Docket No. 98-147, October 2, 2003, page 2.

thus be considered as a significant additional factor with the other evidence Qwest has submitted in this proceeding, further demonstrating that alternatives to Qwest's wholesale local switching are readily available in providing competitive local services to customers.

b. Voice Over Internet Protocol (VoIP)

Q. IS VOIP SERVICE NOW AVAILABLE TO CONSUMERS IN WASHINGTON?

A. Yes. In fact, I am aware of at least four vendors now offering VoIP telephony applications to consumers in Washington. AT&T offers a "suite" of VoIP products for business customers and currently has a VoIP trial underway targeted at residential and business customers for use over any DSL or cable modem service. Five Star Telecom is also a provider of VoIP products and services, offering service under the "earthphone" trade name. In addition, Vonage and Packet8 offer telephony services utilizing VoIP technology. Exhibit MSR-11 contains excerpts from the web sites of each of these providers offering highlights of their respective VoIP services.

Q. DOES VoIP SERVICE FUNCTION IN A MANNER SIMILAR TO STANDARD CIRCUIT SWITCHED TELEPHONY?

[54] *Id.* at page 6.

A. In general, yes. For example, the VoIP customer utilizes a standard telephone set to originate and receive telephone calls, and the dialing patterns are identical to standard wireline telephone service. The customer's telephone set is simply plugged into an interface device that enables the telephone call to be processed over a broadband connection via the Internet. Mr. Weber provides a more detailed description of the technical details around VoIP telephony. Currently, VoIP providers do not pay Switched Access charges for this type of traffic, enabling VoIP providers to offer very low long distance rates. For example, Vonage offers free long distance within the continental United States and Canada, and international long distance rates from the U.S. are priced as low as $0.05 per minute. Typically, long distance carriers charge $0.30 per minute or more for the same call.

Q. ARE THE VoIP OFFERINGS AVAILABLE IN WASHINGTON PRICED COMPETITIVELY WITH QWEST'S LOCAL EXCHANGE SERVICE?

A. Yes. However, similar to the wireless/wireline pricing comparisons, direct comparisons between VoIP service and Qwest wireline services are not easily made. Vonage offers a "Residential Premium Unlimited Plan" priced at $34.99 per month that includes unlimited local and long distance calling within the U.S. and Canada, free Call Waiting, Voice Mail, Call Forwarding, Repeat Dialing, Call Transfer, and Caller ID. Alternatively, residential customers may subscribe to Vonage's "Unlimited Local/Regional Calling Plan" and receive unlimited local

and regional service plus 500 nationwide and Canada long distance minutes, as well as all of the features included in the Premium Unlimited Plan for $24.99 per month. Vonage's "Small Business Unlimited" plan, priced at $49.99 per month, provides unlimited local and long distance calling within the U.S., as well as a free fax line, free Call Waiting, Voice Mail, Call Forwarding, Call Transfer, and Caller ID. The "Small Business Basic Plan" provides all the same free features as the Small Business Unlimited Plan, with 1500 local and long distance minutes for $39.99 per month. In addition, Vonage allows its customers to select the area code they would like assigned to them. For example, a Vonage customer doing significant business volumes with Los Angeles customers may elect a Los Angeles area code. By so doing, all calls from Los Angeles customers to the Vonage customer are toll-free. Consumers subscribing to Vonage's service may also elect to keep their current phone number.

Another example of a VoIP service provider is Packet8. This VoIP provider offers its "Freedom Unlimited" residential plan for $19.95 per month. This plan provides several features and unlimited calling to anyone in the 50 states and Canada and Packet8 subscribers worldwide. Packet8's "Basic Business" plan, priced at $59.95, also includes a range of calling features, as well as 4,000 minutes of local and long distance calling within the U.S. and Canada. Similar to the Vonage offering, Packet8 allows the customer to select the geographic "rate center," which allows incoming calls from customers in that geographic area to

call the Packet8 customer toll-free. Calls between Packet8 customers anywhere in the world are always free.

As stated previously, Qwest's stand-alone basic exchange rate, excluding features and long distance, is $18.60 for residence and $32.99 for business. For Qwest's residential and business customers with access to a broadband Internet connection and who use calling features and make long distance calls, these services represent a viable and price-competitive alternative to traditional local exchange service.

Q. HASN'T THE VOICE QUALITY OF VoIP SERVICE BEEN A MAJOR COMPLAINT OF USERS OF THIS TECHNOLOGY?

A. Yes, the VoIP technology has been in existence for as many as ten years and was originally used by savvy Internet users to make voice telephone calls to overseas users with similarly-equipped PCs. The quality of these calls was poor, but the calls were free. However, Internet Protocol technology has quickly advanced to the point at which VoIP calls are virtually indistinguishable in quality from calls made via traditional wireline connections. As shown in Exhibit 12 , Bill Brady, Director of Business Development for Five Star Telecom, says:

> Historically, Internet Telephony has been associated with poor quality and even loss of signal. This is no longer the case; the technologies employed by earthphones result in call quality as good as that of the public network and that is far superior to cellular. It has to be heard to be believed.

While VoIP service quality was an issue in the past, Internet Protocol technology has overcome those issues.

Q. DOES THE WASHINGTON UTILITIES AND TRANSPORTATION COMMMISSION REGULATE PROVIDERS OF VoIP SERVICES?

A. My understanding is that the Washington Utilities and Transportation Commission does not regulate pure VoIP telephony providers such as Vonage and Packet8. These providers take care to package and promote their services as being strictly on-premises hardware and software solutions, and rely on preexisting broadband transport obtained separately by the customer for origination and termination of telephone calls.

Q. CAN YOU QUANTIFY THE NUMBER OF WASHINGTON CONSUMERS NOW UTILIZING VoIP SERVICES IN LIEU OF QWEST LOCAL EXCHANGE SERVICES?

A. Since the VoIP providers are not regulated and are not required by any agency to report the size and composition of their customer bases, Qwest has no means of assessing the number of customers served by VoIP providers.

Q. HOW HAVE THE VoIP PROVIDERS MADE THE AVAILABILITY OF THEIR SERVICES KNOWN IN WASHINGTON?

A. In addition to the information regarding these providers that is readily available on the Internet, Vonage has run advertising on the major Seattle television

stations in 2003 promoting this service. Additionally, Vonage's service was highlighted in an article in Popular Mechanics in 2002 (*see* Exhibit MSR-13), stressing the simplicity, quality and affordability of the Vonage VoIP service.

Q. WHAT SIGNIFICANCE DO YOU ATTRIBUTE TO VoIP SERVICE AS A FACTOR THE COMMISSION SHOULD CONSIDER IN THIS PROCEEDING?

A. It is clear that the competitive paradigm is changing in the local exchange market. Like wireless services, VoIP service is now a competitive option consumers may select to serve their telecommunications needs. While Qwest's empirical evidence in this proceeding is primarily focused on traditional wireline CLEC-based competition, the evidence set out in Qwest's direct testimony excludes information not directly available to Qwest of the number of lines served by CLEC-owned loop facilities, wireless services and VoIP services. However, the growing presence of VoIP services, as well as wireless services, is a further indication that the competitive paradigm is changing and additional local retail service options for Washington consumers are now available.

VI. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. I have presented evidence that facilities-based CLECs are now using CLEC-owned switches to serve mass markets customers in the Seattle MSA, Tacoma

MSA, and in the Vancouver area of the Portland/Vancouver MSA via their own switches at levels sufficient to meet the Track A trigger test. Based on information obtained from the LERG, Qwest's wholesale billing systems and the E911 database, it is clear that more than three CLECs are now serving the mass market in these MSAs. I have also presented evidence that facilities-based CLECs are now serving mass market customers with their own switches in other MSAs, and coupled with the evidence presented by Messrs. Copeland and Shooshan, Qwest's conclusion is that CLECs are not economically impaired in serving mass market customers in the Bellingham, Bremerton and Olympia MSAs. In fact, the evidence shows that CLECs are collocated in the great majority of Qwest wire centers in each MSA to facilitate access to unbundled loops to serve customers. The evidence presented by Qwest actually understates the true level of customers being served by these CLECs, since Qwest has no direct means of tracking CLEC-owned loops in service. Finally, I have presented publicly-available evidence from CLEC price lists and marketing materials showing they are positioning their local exchange services as being available across broad geographic areas.

In addition, I have presented evidence that intermodal services, such as wireless service and Voice over Internet Protocol telephony, are now available in these MSAs as alternatives to Qwest wireline services. While I have not counted providers of these services toward the trigger thresholds, the FCC has directed the

state commissions to consider the presence of these services in assessing the scope of local exchange competition. It is clear that intermodal competition is a considerable factor in the current local exchange market, and it is equally clear that this form of competition will rapidly escalate in intensity.

Q. WHAT RECOMMENDATION DO YOU HAVE FOR THIS COMMISSION REGARDING A FINDING OF NON-IMPAIRMENT IN THESE MSAs?

A. The level of facilities-based CLEC competition in the mass market in the Seattle, Tacoma and Vancouver/Portland MSAs clearly exceeds the threshold established in the TRO and supports a Track 1 finding of non-impairment in these areas. I recommend the Commission make a finding of non-impairment with respect to mass markets local switching in those three MSAs, and that the Commission also find that CLECs are not economically impaired in the Bellingham, Bremerton, and Olympia MSAs based on the combination of actual mass market CLEC competition data I presented and the economic evidence presented by Messrs. Copeland and Shooshan for those markets.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

INDEX OF EXHIBITS

Exhibit No.	Subject
MSR-2C	Washington Sample Switching Architecture
MSR-3C	Washington E911 Customer Records
MSR-4C	Washington Facilities-Based CLECs in Selected MSAs
MSR-5C	Washington NXX Codes Assigned to CLECs in Qwest Rate Centers
MSR-6HC	CLECs Serving Mass Markets: Seattle, Tacoma, Vancouver
MSR-7HC	CLECs Serving Mass Markets: Additional MSAs
MSR-8	Washington Facilities-Based Carrier Offerings
MSR-9C	Wireless Carriers Switch Coverage of Qwest Rate Centers in Washington
MSR-10	Wireless Carrier Coverage Maps in Washington
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