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**

REBUTTAL TESTIMONY OF

RACHEL TORRENCE

ON BEHALF OF

QWEST CORPORATION

FEBRUARY 20, 2004

REDACTED VERSION

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I. IDENTIFICATION OF WITNESS

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

A. My name is Rachel Torrence. My business address is 700 W. Mineral Avenue, Littleton Colorado. I am employed as a Director within the Technical and Regulatory Group of the Local Networks Organization of Qwest Corporation ("Qwest"). I am testifying on behalf of Qwest.

Q. ARE YOU THE SAME RACHEL TORRENCE WHO FILED DIRECT AND RESPONSE TESTIMONY IN THIS DOCKET?

A. Yes I am.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to respond to issues raised in response testimony filed by David Bennett on behalf of Integra Telecom of Washington, Inc., Dean R. Fassett on behalf of Eschelon Telecom of Washington, Inc., Global Crossing Local Services, Inc., Integra Telecom of Washington, Inc., McLeodUSA Telecommunications, Inc., Pac-West Telecomm, Inc., and XO Washington, Inc., Mark L. Stacy on behalf of Worldcom Inc. (MCI), and Anthony J. Giovannucci on behalf of AT&T (collectively, "the CLECs").

Q. CAN YOU PLEASE SUMMARIZE YOUR REBUTTAL POINTS?

A. Yes. What should be the relatively simple task of identifying the competitive presence of alternative transport facilities has been confused and complicated by semantics and

misinterpretations by the CLECs. Throughout their responsive testimonies, the CLECs challenge aspects of Qwest's data which was filed as evidence of the existence of competitive transport facilities in the Seattle MSA. They extrapolate what they characterize as requirements from provisions of the TRO when in fact these requirements do not exist in the TRO.

They have mischaracterized Qwest's interpretation of TRO provisions, Qwest's methodology for collecting data, the analysis of data, and the candidate routes as identified for consideration by the Commission. My testimony will clarify these issues, putting forth an accurate portrayal of the issues raised by the parties on behalf of the competing carriers and demonstrate that a finding of non-impairment is appropriate and must be made the routes presented by Qwest.

In addition, my testimony points out inconsistencies in testimony made by parties representing carriers in these proceedings and in responses to Bench and Data Requests submitted by various interested parties.

III. QWEST'S INTERPRETATION OF THE TRO

Q. DO MESSRS. STACY, FASSETT, AND GIOVANNUCCI INTERPRET THE TRO PROVISIONS REGARDING DEDICATED TRANSPORT ACCURATELY?

A. Absolutely not. My direct and responsive testimony (Exhibit Nos. RT-1T and RT-10T) discusses the TRO provisions and rules regarding dedicated transport. These provisions were, for the most part, taken literally, sometimes verbatim, from the order itself. Mr.

Stacy, Mr. Fassett and Mr. Giovannucci have added their own interpretations to what TRO provisions *should* say as opposed to what they actually say.

There are numerous examples where Messrs. Stacy, Fassett, and Giovannucci offer inaccurate and/or expanded interpretations of TRO provisions. These include the definition of operational readiness, the definition of A to Z routes, and whether a transport route can include switching, and impairment at various capacity levels.

Q. PLEASE DESCRIBE HOW THE CLEC WITNESSES HAVE MISINTERPRETED THE DEFINITION OF OPERATIONAL READINESS?

A. Messrs. Fassett, Stacy, and Giovannucci have improperly expanded the FCC discussion of operational readiness on TRO ¶¶ 406 and 414 and in rule §51.319. They incorrectly claim that operational readiness means actually providing service and that operational readiness includes systems and processes. If fact, Mr. Stacy and Mr. Giovannucci assert, oddly enough in *exactly* the same words, "The only effective and practical way for Qwest to demonstrate that a CLEC is operationally ready under the self provisioning trigger is for Qwest to produce evidence that the CLEC is actually providing service … on the given transport route."[1] The TRO provides no language that would substantiate the interpretations presented by Messrs. Fassett, Stacy, and Giovannucci. Notably, they provide no cites back to the TRO in support of this baseless assertion. TRO ¶ 406 simply states that "Each counted self-provisioned facility along a route must be operationally ready to provide transport into or out of an incumbent LEC central office." Footnote

[1] Response Testimony of Mark L Stacy, dated February 2, 2004, Highly Confidential Version (Exhibit No. MLS-3T) ("Stacy"), page 33, lines 677 to 679; Response Testimony of Anthony J. Giovannucci dated February 2, 2004 (Exhibit No. AJG-2T) ("Giovannucci"), page 11, lines 14 to 17.

1256, further elaborates "This requirement is intended to preclude counting competitive facilities before *the facility is capable of operation* on that route." It does not state that the carrier must be offering service or that it has systems and processes in place, only that the *facility be capable of operation*. §51.319(e) of the rules states only that the carrier has deployed facilities and is operationally ready. It does not further define operational readiness. This expansion of the definition proposed by Messrs. Stacy, and Giovannucci for operational readiness is clearly outside the language of the TRO as written.

Further, when Mr. Fassett cites TRO ¶ 414,[2] he changes the context of the language. TRO ¶ 414 states:

> Additionally, the competitive transport providers must be operationally ready and willing to provide the particular capacity transport on a wholesale basis along the specific route. This safeguards against counting alternative fiber providers that may offer service, *but do not yet have their facilities terminated or collocated in the incumbent LEC central office,* or are otherwise unable to immediately provision service along the route. (*emphasis added*)

Consistent with this requirement, Qwest has not counted carriers who are not terminated or collocated in a central office. Clearly, the TRO's focus is on deployment of facilities and the provision of services and does not mention systems or processes. In addition, if a competing carrier is doing business with Qwest, as would be evidenced by an existing collocation, the systems and processes necessary in order to be "operationally ready" must already be in place.

[2] Response Testimony of Dean R. Fassett dated February 2, 2004 (Exhibit No. DRF-1T) ("Fassett"), page 12, lines 7 to 11.

Discussing wholesale transport providers, Mr. Fassett further states that:

> In the past, carriers have experienced problems because of having to use two USOCs and due to the fact that the ordering process is not the same as if they were ordering directly from the ILEC.[3]

Mr. Fassett does not claim that there is no access to alternative transport, but rather that CLECs have "experienced problems" with access to those alternative transport facilities. However, there is no quantification as to the magnitude of these "problems," nor is there any indication that these "problems" interfere with operational readiness and willingness to provide service. Any suggestion that CLECs, including those in this case, do not obtain wholesale transport from other carriers is negated by looking at Highly Confidential Exhibit No. RT-20HC which shows a transport provider with a robust wholesale business.

In addition, Mr. Fassett claims that:

> The trouble reporting and resolution process must be seamless in order for a route to be nonimpaired. [4]

First, there is no support for this claim in the TRO. Second, a carrier's troubleshooting and resolution process does not alter the fact that alternative facilities are indeed operationally ready and available. What Mr. Fassett fails to recognize is that in a truly competitive environment, in order to succeed all carriers will have the incentive to deliver the best possible service.

[3] Fassett, page 14, line 2.

[4] Fassett, page 14, line 6.

Q. CAN YOU SUMMARIZE HOW THE CLECS HAVE DEFINED OPERATIONAL READINESS?

A. The CLEC's definition of operational readiness is analogous to someone who has purchased a car, licensed it, filled up the gas tank, parked it in the garage, chosen not to drive it (mainly because its cheaper and easier to have someone else drive), and then claiming that he has no transport because he is not actually driving and therefore is not "operationally ready" to do so. Obviously, this is ridiculous, but that is exactly what the CLECs are advocating. However, it should be clear that just as the car owner has transport because everything is operationally ready, so to do transport providers meet the trigger if they are operationally ready to provide service, which is clearly different from "actually providing."

Q. SPEAKING HYPOTHETICALLY, IF THE DEFINITION OF OPERATIONAL READINESS WAS EXPANDED TO MEAN ACTUALLY PROVIDING SERVICE AS OPPOSED TO CAPABLE OF PROVIDING SERVICE, WHAT WOULD BE THE IMPACT ON QWEST'S CANDIDATE ROUTES?

A. There would be no impact since the final list of candidate routes presented by Qwest, shown in Highly Confidential Exhibit No. RT-12HC only includes routes with existing and operating collocations by competing carriers currently offering service.

Q. WHAT IS THE BASIS FOR THE DISAGREEMENT REGARDING THE DEFINITION OF A TO Z ROUTES AS DEFINED BY THE TRO?

A. There is apparent agreement by all parties that "a route is a transmission path between one of an incumbent LECs wire centers or switches and another of the incumbent LECs

wire centers or switches." C.F.R. 51.319(e). The disagreement arises when both Mr. Giovannucci [5] and Mr. Fassett[6] again go beyond the definition set forth in the TRO and expand the rules in a manner unsubstantiated by any language contained in the order. Both of these witnesses claim that a carrier does not qualify as a trigger candidate if that carrier connects the "A" and "Z" points on a route through a switch. In fact their interpretation is in direct contradiction to language in the TRO.

Q. IS THIS INTERPRETATION OF THE TRO'S DEFINITION OF TRANSPORT CORRECT?

A. No, it clearly is not.

§51.319(e) states:

> …a "route" is a transmission path between one of an incumbent LECs wire centers or switches and another of the incumbent LECs wire centers or switches. A route between two points (e.g., wire center or switch "a" and wire center or switch "Z") may pass through one or more intermediate wire centers or switches (e.g. wire center or ***switch*** "X"). Transmission paths between identical end points (e.g., wire center or switch "a" and wire center or switch "Z") are the same "route", *irrespective of whether they pass through the same intermediate wire centers or switches*, if any. (*emphasis added*).

Clearly, an intermediate point "X" as defined by the FCC allows for the possibility of routing through a wire center or ***switch***. Thus, a transport route that is self-provisioned or offered at wholesale by a carrier may pass through an intermediate switch. To assert otherwise, as have Messrs. Fassett and Giovannucci, is a direct contradiction of the

[5] Giovannucci, page 11, lines 7 to 10.

[6] Fassett, page 17, line 6.

definition of a route. Mr. Fassett's inaccurate assertion that a dedicated transport route may not include connections to CLEC switches or third party facilities is unsubstantiated and clearly not supported by the language in the rules as set forth. Just as inaccurate is Mr. Giovannucci's similar statement that "…it is not correct to interpret the definition to mean that the connection may rely on either a circuit switch or packet/data switch to create the end-to-end path.[7] Again, neither Mr. Fassett nor Mr. Giovannucci cites any authority within the TRO in support of their claims.

Q. MR. GIOVANNUCCI CLAIMS THAT THERE IS NO HISTORICAL PRECEDENT JUSTIFYING THE DESIGNATION OF A PATH THAT REQUIRES INTERMEDIATE SWITCHING AS DEDICATED TRANSPORT.[8] IS HIS STATEMENT ACCURATE?

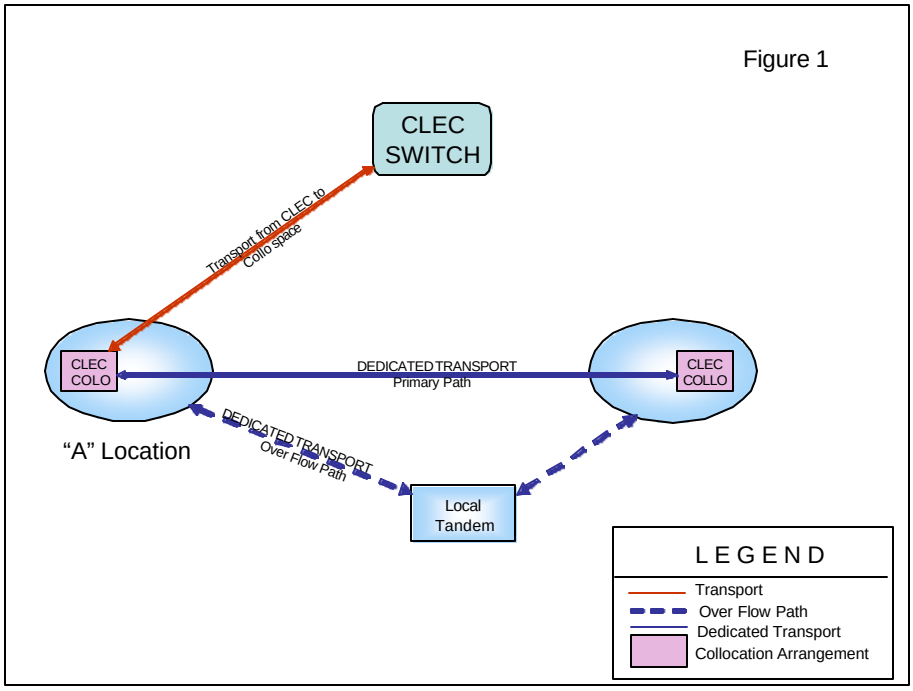
A. Absolutely not. It is quite common for competitive carriers, including AT&T, to purchase dedicated transport from one Qwest central office/switch to another Qwest central office/switch. Even if direct end office connections are in place between Qwest central offices, the path through the intermediate tandem switch may be used as an alternate overflow path. This network architecture is efficient and quite common throughout the industry. As such, Mr. Giovannucci's claim that there is no historical precedent flies in the face of accepted industry practice.

In addition, if we were to compare the Qwest's tandem architecture, with an A to Z route through a tandem, with a CLEC network where the CLEC switch acts as the intermediate

[7] Giovannucci, page 11, line 8.

location, the functionality of the network elements would be identical. Figure 1 below illustrates this configuration.

Figure 1



This contradicts any network or technical rationale for the claim that indirect A to Z route cannot include connections to CLEC switches.

Q. WHAT IS THE NATURE OF THE DISAGREEMENT REGARDING IMPAIRMENT AT VARIOUS CAPACITY LEVELS?

A. The TRO imposes varying criteria for determining non-impairment for dedicated DS1 transport, dedicated DS3 transport, and dark fiber transport dependent on whether the trigger being evaluated is wholesale or self-provisioned.[9] What is in dispute is whether

[8] Giovannucci, page 29, line 8.

[9] *See*, C.F.R. 51.319(e)(1)(i)(ii); 2(i)(A)(B); (3)(i)(A)(B).

electronics capable of transmissions at an OC-n level may be used to satisfy the DS1 or DS3 trigger requirements. The CLECS have confused the issue by diverting attention from the real issue.

Q. WHAT IS THE REAL ISSUE?

A. The real issue is that what must be evaluated is the *transmission* level of the facility in question, not the capacity levels of the *equipment* being used to provide that transmission.

Q. MR. GIOVANNUCCI TESTIFIES ON THE CAPABILITIES OF A HYPOTHETICAL OC-48 FIBER OPTIC SYSTEM.[10] USING HIS EXAMPLE, PLEASE EXPLAIN THE CAPABILITIES OF A FIBER OPTIC SYSTEM IN TERMS OF DELIVERING VARYING TRANSMISSIONS LEVELS.

A. Fiber optic systems are capable of providing transport as well as add/drop functionality for a wide variety of optical and electrical signals, at varying transmission levels. In other words, an OC-48 system can offer DS3 level transport. For Mr. Giovannucci to imply otherwise is to ignore the technical capabilities and network efficiencies of the technology.[11]

The OC-48 system to which Mr. Giovannucci refers is adaptable to the capacity needs of the carrier deploying it. He describes a very narrow application for this type of equipment, while ignoring the flexibilities and efficiencies built into this type of technology.

[10] Giovannucci, page 25 line 14.

[11] Giovannucci, page 30, line 7.

High-speed transport at the OC-48 level is at the 2.4 Gb/s rate. However, the electrical tributary interfaces are available at the DS1 and DS3 capacity levels and the optical tributary interfaces are available at the OC-3 and OC-12 capacity levels. These directional transport functions are provided via High Speed (HS) shelves. Mr. Giovannucci totally ignores the capability of an OC-48 system to provide several capacity layers, including 48 DS3s, 4 OC-12s, 24 DS3s + 2 OC-3, 1344 T1s, or 32256 DS0s. This flexibility from a single system is essential for efficient network management and traffic administration. What Mr. Giovannucci also fails to mention is the simplicity and economics of being able to provision multiple capacity layers. With the mere installation of a circuit card, DS3 capacity levels can easily be achieved from an OC-48 system. This is a card that would need to be installed regardless of the capacity level desired, so the economics would not be a factor. Choosing to only utilize a portion of the technical capabilities of the technology AT&T is deploying does not mean that capability does not exist, nor it is an economical nor efficient use of network infrastructure.

Q DOES THIS EXPLANATION CONTRADICT MR. STACY'S CLAIM THAT FOR TRIGGER TO APPLY A CLEC MUST SELF-PROVISION TO THE SPECIFIC CAPACITY LEVEL IN QUESTION?[12]

A. Yes. Like Mr. Giovannucci, Mr. Stacy totally ignores the capability of an OC-48 system to provide several capacity layers, including 48 DS3s, 4 OC-12s, 24 DS3s + 2 OC-3, 1344 T1s, or 32256 DS0s. The fact that Mr. Stacy ignores that fiber optic systems are capable of providing transport as well as add/drop functionality for a wide variety of

optical and electrical signals and proposes building only to a specific capacity level betrays a misunderstanding of the fundamentals of sound engineering principles and network and technology efficiencies.

Furthermore, it is important to note that the FCC rejected this approach outright. "When carriers self-deploy transport facilities, they typically deploy *fiber rings* that may connect several incumbent LEC central offices in the market." *TRO* at ¶370. "The optical circuits operate and interface at a range of capacities, up to OC192." *TRO* at ¶372. "An OC3 circuit equals the capacity of three DS3 circuits. . . . Effectively, each OCn capacity interval indicates the capacity of the equivalent number of DS3 circuits – for example, an OC48 has the capacity equivalent to 48 DS3 circuits. . . . Therefore, competing carriers are not necessarily leasing physically separate facilities, but rather, dedicated bandwidth capacities along a given route." *TRO* at ¶372. Thus, it is clear that the issue is the transmission level of the facility is determinative, not the capacity level of the equipment used.

Q DOES THIS EXPLANATION ALSO CONTRADICT MR. STACY'S CLAIM THAT THE DEPLOYMENT OF MCI'S FACILITIES AT THE OC-N LEVEL WOULD NEGATE QUALIFICATION OF THE DS3 TRIGGERS?[13]

A. Absolutely. In fact, despite Mr. Stacy's claim that MCI's transport infrastructure was deployed at an OC-n level and therefore not capable of delivering DS3 transport, Qwest has determined [HIGHLY CONFIDENTIAL] REDACTED

[12] Stacy, page 30, line 606.

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED [HIGHLY CONFIDENTIAL]

Q. REGARDING THE EVIDENCE OF NON-IMPAIRMENT FOR DEDICATED TRANSPORT AT THE DARK FIBER, DS3, AND DS1 LEVELS, DOES QWEST TAKE ISSUE WITH HOW MR. STACY INTERPRETS THE FCC'S VIEWS?

A. Yes. On page 29, line 582, Mr. Stacy takes a partial quote from TRO footnote 1198. Taken completely out of context, it leaves the mistaken and misleading impression that that the FCC noted that "at most 13 percent of the BOC wire centers have a single competing carrier collocated using non-ILEC transport facilities." However, the more relevant language in the footnote reads as follows:

> However, in the largest 25 MSAs served by each BOC, 35% of BOC wire centers have a single competing carrier collocated using non-incumbent transport facilities. BOC UNE Fact Report 2002 at III-3, Table 2. Additionally, the BOCs argue that larger central offices are more likely to have competitors collocate alternative transport facilities. BOC UNE Fact Report 2002 at III-3, Table 3 (showing that at least one competitive fiber-based collocation exists in 48% of central offices with over 5,000 business lines). Finally, the BOCs argue that the largest metropolitan areas have a significant number of competitive LEC networks. BOC UNE Fact Report 2002 at III-7, Table 4 (showing an average of 15

[13] Stacy, page 38, line 805.

> competitive networks operate in the top 50 MSAs). As discussed above, we find that transport is appropriately reviewed on a route specific basis. *See supra* para. 376.

Clearly, Mr. Stacy misrepresented the FCC's view. The presence of competitive transport facilities is much more prevalent in larger MSAs such as Seattle than Mr. Stacy would have us believe.

Q. BOTH MR. FASSETT[14] AND MR. GIOVANNUCCI[15] MAKE THE ASSERTION THAT CLECS SHOULD BE PROVIDED WITH 'REASONABLE ACCESS' TO WHOLESALE PROVIDERS. IS THIS A REQUIREMENT IN THE TRO WITH REGARD TO DEDICATED TRANSPORT?

A. No. This is yet another example of attributing a requirement to the TRO that simply does not exist. Both Mr. Fassett and Mr. Giovannucci claim that access to ILEC-provided cross-connects are necessary to gain access to wholesale providers. This is true only in limited instances, and in those instances, such as a CLEC collocation to CLEC collocation arrangements in a Qwest central office, Qwest makes the connections available under the terms and conditions of a carrier's interconnection agreement. But there could well be instances when the hand off from a wholesale provider to a competing carrier is performed without Qwest's participation. In these instances it is inappropriate for Messrs. Fassett and Giovannucci to imply that impairment triggers should not be met because of perceived inadequacies in the systems and processes of the CLECs involved. Again, as evidenced by the fact that neither gentlemen provides a cite

[14] Fassett, page 13, lines 13 to 20.

[15] Giovannucci, page 9, lines 1 to 15.

to the TRO as basis for this assertion, this is not a requirement in the TRO for the satisfaction of the wholesale trigger.

IV. IDENTIFICATION AND ANALYSIS OF CANDIDATE ROUTES

A. ASSUMPTIONS VS. INDUCTIVE REASONING

Q. MESSRS. FASSETT[16] AND GIOVANNUCCI[17] CLAIM THAT QWEST'S CASE IS NOT BASED ON EVIDENCE BUT RATHER ON ASSUMPTION. PLEASE RESPOND.

A. This allegation couldn't be further from the truth. Qwest relied on hard data, physical surveys, and inductive reasoning when presenting its case, and not on assumption or guesswork.

Qwest has first hand knowledge of what has been deployed by competitive carriers at Qwest wire centers and to the associated points of interconnection/interface ("POIs"). Hard data was used when identifying fiber based collocation arrangements in the wire centers being presented. No assumptions were made. Indeed, to Qwest's knowledge, the carriers who have been identified as having fiber based collocation arrangements have not disputed that fact.

It was beyond the POIs where Qwest faced significant challenges when trying to gather data in support of candidate routes being presented for consideration in this proceeding.

[16] Fassett, page 21, line 20.

[17] Giovannucci, page 16, line 10.

However, it is also fact that beyond the POI, competing carriers have basically three options for the provisioning of transport facilities:

1. A competing carrier can purchase/lease facilities from Qwest.
2. A competing carrier can purchase/lease facilities from a carrier other than Qwest.
3. A competing carrier can self-provision, or build their own facilities.

Qwest proceeded to evaluate and investigate these three options. Qwest exercised due diligence in eliminating carriers that fell into the first option, i.e., carriers that were purchasing facilities from Qwest and thus not eligible under the TRO triggers. This left only competing carriers with operating fiber based collocations for further evaluation. Again this was a process that utilized hard data, field surveys and inductive reasoning, not assumption as has been wrongly alleged.

Q. YOU STATE THAT QWEST EXERCISED DUE DILIGENCE IN DETERMINING WHICH CARRIERS WERE PURCHASING FACILITIES FROM QWEST AND ELIMINATED ASSOCIATED ROUTES FROM CONSIDERATION. WAS QWEST SUCCESSFUL IN ELIMINATING ALL CARRIERS ON ROUTES THAT WERE PURCHASING FROM FACILITIES FROM QWEST?

A. For the most part Qwest was successful. However, we did encounter some problems and unfortunately we had a few carriers and routes that were misidentified. As noted in Mr. Bennett's testimony, Qwest erred when it included Integra in multiple routes. Those

routes have been removed from consideration. Highly Confidential Exhibit RT-12HC reflects this change.[18]

In other instances, mergers/acquisitions and name changes made it difficult to track a carrier's facility arrangements with Qwest. When it was determined that a carrier was purchasing facilities from Qwest but had been included on a candidate route erroneously, Qwest moved to remove it from consideration as well. Highly Confidential Exhibit No. RT-12HC reflects these changes.

B. PROCESS FOR IDENTIFYING AND ANALYZING CANDIDATE ROUTES

Q. PLEASE ADDRESS THE PROCESS FOR IDENTIFYING AND ANALYZING THE CANDIDATE ROUTES QWEST IS PRESENTING FOR CONSIDERATION.

A. Messrs. Stacy,[19] Fassett,[20] and Giovannucci[21] all challenge the appropriateness of the process Qwest used to identify and analyze the candidate routes. They have grossly mischaracterized the process that Qwest developed and utilized to assemble the collection of viable routes it is presenting to this Commission.

Qwest faced challenges in gathering the evidence it needed to substantiate a finding of non-impairment in its candidate routes. The most significant issue facing Qwest was that

[18] Highly Confidential Exhibit No. RT-12HC is in the same general format as Highly Confidential Exhibit No. RT-9HC. Route numbers have been retained as set forth in Highly Confidential Exhibit No. RT-9HC for ease of cross-referencing, but a number of routes have been deleted from Highly Confidential Exhibit No. RT-12HC.

[19] Stacy, lines 631-686.

[20] Fassett, Sections V. and VI.

[21] Giovannucci, Section IV and Section VI.

much of the data needed to substantiate its claims of non-impairment had to be obtained from sources outside of Qwest's purview. To deal with these challenges, Qwest developed a process to:

1) Identify potential candidate routes;
2) Gather internal and external data;
3) Analyze data; and
4) Compile a list of candidate routes for consideration by this Commission.

This process included the collection of data gathered from Qwest internal sources, data obtained from third party consultants, actual field verification of facilities, and data responses given under oath by various interested parties and competitive carriers participating in this proceeding. This data was compiled, analyzed and eventually generated the list of routes, Highly Confidential Exhibit No. RT-12HC, that Qwest is presenting for consideration by this Commission.

Q. PLEASE DESCRIBE IN MORE DETAIL HOW QWEST IDENTIFIED POTENTIAL CANDIDATE ROUTES.

A. Given the relatively short timeframe that Qwest had to assemble the evidence needed for this proceeding, the decision was made to focus on a limited number of wire centers within the Seattle MSA with the greatest potential for a competitive transport presence. This was done by using the data gathered by two third party private consulting firms that had done extensive research on the deployment of fiber facilities in the Seattle MSA. These firms presented Qwest with clear and compelling evidence that multiple carriers have built substantial facilities within the wire centers on which Qwest was focusing.

This is evidence that the CLECs have not refuted in this proceeding. Field verifications done by myself substantiated the fact that the facilities shown to have been deployed by these multiple carriers are indeed physically in place. When Mr. Fassett states that this information only "addresses the location of fiber optic networks that have been constructed by CLECs...", but "does not provide insight on the extent to which a CLEC has self provisioned operationally ready transport facilities,"[22] he is in fact acknowledging that these facilities have been constructed and do exist. Some of these facilities, including those owned by carriers Mr. Fassett is representing, have been in place for a number of years. In addition, these facilities, while not always built directly to a Qwest wire center, are always in close proximity to a Qwest wire if not adjacent. After all, there is no disputing the fact that access to the customers being served by Qwest wire centers is the ultimate goal of the CLECs. Easy access to Qwest wire centers is essential.

After identifying Qwest wire centers with a substantial CLEC provisioned facility presence, Qwest investigated the existence of operating collocations or fiber terminations for those CLECs. As previously discussed, only working fiber based collocations were considered for inclusion in the proceeding. In this regard, Messrs. Stacy, Giovannucci, and Fassett's erroneous arguments that operational readiness means actually offering service are completely irrelevant since the candidate routes being presented by Qwest include only carriers actually offering service at those wire centers. As such, the operational readiness component of the trigger is satisfied.

[22] Fassett, page 22, line 6.

At this point, Qwest has identified wire centers with substantial facilities that the CLECs have self-provisioned. It has identified operational fiber based collocations for the same CLECs. And since Qwest had for the most part eliminated collocated CLECs that were purchasing facilities from Qwest, the remaining collocated CLECs are either self-provisioning facilities or obtaining facilities from a carrier other than Qwest.

Q. PLEASE DESCRIBE THE GATHERING OF DATA SUBSTANTIATING THE VIABILITY OF THE ROUTES QWEST HAD IDENTIFIED.

A. As previously stated, the most significant issue facing Qwest was that much of the data needed to substantiate its claims of non-impairment had to be obtained from sources outside of Qwest's purview, and in many instances could only be obtained from the competing carriers themselves. Qwest utilized the services of two outside consultants that would provide a "third party perspective" and to provide a baseline of information from which to start compiling data. Again, the accuracy of this third party data has not been refuted by the CLECs.

Mr. Fassett states the CLEC responses to the Commission's bench requests were not incorporated in my previously filed testimony. He states that Qwest "relies solely on information that Qwest independently developed."[23] This is true as to my direct testimony filed December 22, 2003 (Exhibit No. RT-1T). To develop a complete and accurate picture of what facilities were actually in place, *all* data requests, and not just the Commission's bench requests, have to be reviewed, analyzed, and incorporated.

[23] Fassett, page 20, lines 9 to 10.

Additionally, as can be seen from the discussion above, the carriers in this proceeding have taken a very different view of what type of transport satisfies the FCC's triggers. As a result, the information provided could not always be used to eliminate routes. It was always Qwest's intention to substantiate its candidate routes with information directly obtained from the carriers in question. Most of the data request responses are now in, though some are still outstanding. This data was used in developing the revised final list of routes contained in Highly Confidential Exhibit No. RT-12HC.

Data gathered internally was taken from sources that track facilities and equipment on the Qwest network, including those of competing carriers interconnecting with the Qwest network such as those collocating. While the CLECs may have questioned its sufficiency,[24] they did not refute its accuracy. This data accurately reflected existing operational fiber based collocation, and fiber facilities extending from the collocation to a POI where those services left the Qwest network. It is important to note Qwest does not, nor can it, maintain records on transport, or any other type of, facilities off the Qwest network. Those facilities can truly only be tracked by the carrier deploying them and/or utilizing them.

Q. PLEASE DESCRIBE THE DATA ANALYSIS THAT LED TO THE IDENTIFICATION OF THE CANDIDATE ROUTES QWEST IS PRESENTING TO THE WASHINGTON COMMISSION SEEKING A FINDING OF NON-IMPAIRMENT.

[24] Giovannucci, page 21, lines 11 to 13.

A. As stated previously, responses to data requests provided the final "piece of the puzzle." At this point, Qwest had taken data gathered from Qwest internal sources, data obtained from third party consultants, actual field verification of facilities and established a list of potential candidate routes. These routes:

- Had an operational fiber based collocation in a Qwest central office;
- Had fiber continuity to a Point of Interface (POI) outside a Qwest central office; and
- Left the Qwest network by means of some type of cross connection at the POI.

Again, as previously stated, when these working facilities leave the Qwest network, they could only do so over self-provisioned facilities or facilities purchased or leased from a carrier other than Qwest. The presence and location of competing carrier facilities, namely the proximity to the POI from which the facilities leave the Qwest network, was a strong indication of how those services might be leaving the Qwest network and over which network transport was being provisioned. Finally, the data requests were analyzed on a wire center by wire center, route by route basis. This analysis yielded the final candidate list contained in Highly Confidential Exhibit No. RT-12HC. Highly Confidential Exhibit No. RT-12HC also contains a carrier by carrier, route by route cite to data requests providing evidence of satisfaction of the triggers.

V. NETWORK ARCHITECTURES

Q. MR. GIOVANNUCCI TESTIFIES AT LENGTH ABOUT FIBER RINGS AS DEPLOYED BY AT&T AND THE ROUTING OF TRAFFIC BETWEEN

INTERMEDIATE POINTS ON THOSE RINGS. DOES ANYTHING MR. GIOVANNUCCI SAYS ALTER THE FACT THAT AT&T HAS TRANSPORT FACILITIES ALONG THOSE RINGS THAT SATISFY THE TRIGGERS AS SET FORTH BY THE TRO?

A. No. As an engineer, I recognize that there are a dozen different ways to engineer a network, so I would not presume to comment on the appropriateness of the network architectures that AT&T has chosen to deploy. However, I take issue with Mr. Giovannucci's view about the fundamental elements and capabilities of the technologies being deployed. First and foremost, when a ring architecture is deployed, certain fundamental features must be present which Mr. Giovannucci notably fails to mention.

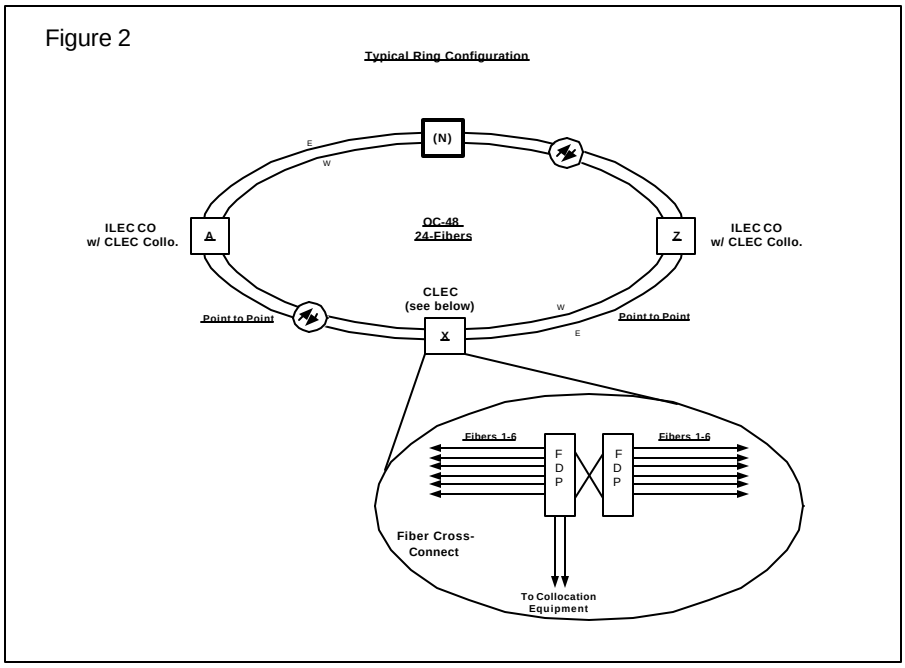
First, in describing his two point rings, he claims that it is not possible to provide dedicated transport because even though more than one collocation is on the same cable route, they are not on the same fiber.[25] This assertion has no technical or rational basis. Clearly, once facilities are deployed, some portion of that facility will be in use. Simply because some of the fibers are in use does not mean that transport cannot be provided on some of the remaining unused fibers that are more than capable of providing a wide variety of services including transport. To use the car analogy again, the fact that I have one seat occupied by a passenger does not automatically mean that remaining empty seats are not available to transport other passengers.

In addition, the fact that fibers are being dropped off at multiple points is evidence that

[25] Giovannucci, page 20, lines 10 to 12.

operational readiness has been achieved. Standard industry fiber engineering practice dictates that a fiber cross-connect be placed to achieve the connectivity that Mr. Giovannucci describes. The existence of a fiber cross-connect is essential to the ability to bring individual fibers into a collocation. The existence of a fiber cross-connect allows for easy access to *any* of the fibers on the fiber cable. In other words, at each and every point on the fiber ring where AT&T enters a collocation in a Qwest central office, that fiber cable terminates at a fiber cross-connect where unaffected fibers (i.e., fibers that are part of the cable but not used to access the collocation) would cross-connect out and fiber being taken into the Qwest central office is cross-connected to the fiber facilities entering the central office. In essence, the circuit may well be dropped off at an intermediate point, but the fiber facilities continue along the ring, usually undiminished (i.e., 24 fibers go into the cross-connect and 24 fibers leave the cross-connect). Mr. Giovannucci's representation is misleading and technically inaccurate. Figure 2 below is an illustration of this architecture.

Figure 2



As can be clearly seen from this diagram, all fibers enter and leave the fiber cross-connect device, which is labeled FDP, for fiber distribution panel. Thus, even if particular fibers within the cable do not go all the way to the collocation, those fibers can be accessed at each and every central office through the FDP. However Mr. Giovannucci chooses to describe it, the truth is that a self-provisioned facility is in place along with the necessary elements to satisfy operational readiness for transport on a particular route.

Q. MR. FASSETT ALSO TESTIFIES ABOUT THE "TYPICAL NETWORK ARCHITECTURE"[26] USED WHEN PROVISIONING DEDICATED TRANSPORT. DO YOU AGREE WITH HIS CHARACTERIZATION?

[26] Fassett, page 17, beginning on line 8.

A. In general, yes. In fact, Mr. Fassett's characterization of varying capacity levels within a network clearly illustrates the need for and existence of the fiber cross-connections referenced in my previous answer.

Q. WHAT IS YOUR RESPONSE TO MR. STACY'S CLAIMS THAT THERE IS A HIGH PROBABILITY THAT THE FACILITIES AND EQUIPMENT IN A COLLOCATION ARRANGEMENT MAY NOT BE USED TO PROVIDE TRANSPORT BETWEEN TWO WIRE CENTERS?

A. While I am not sure I would agree with such a statement, the fact is that in this particular instance it is a moot point. The fiber based collocations selected for inclusion in this analysis left the collocation in the Qwest central office on fiber and cross-connected to facilities off the Qwest network. They were subsequently proven to ride self-provisioned transport to another Qwest central office. The examples Mr. Stacy cites are not relevant and only serve to confuse the issue.

VI. SUBMISSION OF FINAL LIST OF CANDIDATE ROUTES.

Q. HAS QWEST COMPILED A FINAL LIST OF CANDIDATE ROUTES FOR CONSIDERATION BY THE WASHINGTON COMMISSION?

A. Yes. Qwest is presenting a total of 18 routes that meet one or both of the FCC's triggers. The table below is a breakdown of all the routes that were investigated and the triggers if met.

1

Route No.	QWEST WIRE CENTER	Wholesale	Self-Provisioned
Direct 1	Bellevue Glen Court to Belleview Sherwood		
	TOTAL	**2**	**2**
Direct 6	Seattle Duwamish to Seattle Main		
	TOTAL	**3**	**2**
Direct 7	Seattle Main to Seattle East		
	TOTAL	**4**	**4**
Indirect 8	Seattle East to Seattle Elliot		
	(via Seattle Main)		
	TOTAL	**2**	**3**
Direct 9	Seattle Elliott to Seattle Atwater		
	TOTAL	**2**	**3**
Direct 10	Seattle Atwater to Seattle Campus		
	TOTAL	**3**	**2**
Direct 11	Seattle Duwamish to Seattle East		
	TOTAL	**2**	**1**
Direct 14	Seattle Main to Seattle Elliot		
	TOTAL	**4**	**5**
Direct 16	Belleview Sherwood to Kent o Brian		
	(express thru Renton)		
	TOTAL	**2**	**2**
Direct 18	Belleview Sherwood to Seattle Duwamish		
	(express thru Renton)		
	TOTAL	**2**	**2**
Indirect 19	Kent O Brian to Seattle Duwamish		
	(via Seattle Cherry)		
	TOTAL	**2**	**2**
Indirect 20	Seattle Duwamish to Seattle Elliot		
	(via Seattle Main)		
	TOTAL	**2**	**2**
Indirect 21	Seattle Duwamish to Seattle Campus		
	(via Seattle East)		
	TOTAL	**2**	**1**
Indirect 22	Seattle Main to Seattle Atwater		
	(via Seattle Elliot)		
	TOTAL	**2**	**2**
Indirect 24	Seattle Elliot to Seattle Campus		
	(via Seattle Atwater)		
	TOTAL	**2**	**2**
Indirect 26	Seattle Duwamish to Seattle East		
	(via Seattle Main)		
	TOTAL	**2**	**1**
Indirect 27	Seattle Duwamish to Seattle Campus		
	(via Seattle Main to Seattle East)		

	TOTAL	**2**	**1**
Indirect 29	Seattle Main to Seattle Campus		
	(via Seattle Elliott to Seattle Atwater)		
	TOTAL	**2**	**2**

See Highly Confidential Exhibit No. RT-12HC for the complete table.

Q. WHY WAS THE TOTAL NUMBER OF CANDIDATE ROUTES REDUCED?

A. As previously stated, Highly Confidential Exhibit No. RT-9HC was filed without the incorporation of information from data requests sent to all the carriers impacted by Qwest's analysis. While Qwest believed it was a viable list, it fully recognized that the inclusion of some of the candidate routes was dependent on the information on the responses to those data requests. Because validation depended on information that came directly from the CLECs, Qwest had no choice but to wait on data responses before a final list could be compiled.

Q. WHAT EVIDENCE DOES QWEST OFFER IN SUPPORT OF THE CANDIDATE ROUTES?

A. Highly Confidential Exhibit No. RT-12HC, along with a list of candidate routes, contains a cross-reference to data responses that substantiate the fact that facilities exist and do indeed satisfy the triggers for non-impairment. The actual data responses are also attached as exhibits.

Q. FOR ALL OF THE REFERENCES TO AT&T AND MCI IN HIGHLY CONFIDENTIAL EXHIBIT NO. RT-12HC YOU REFER TO THE TEXT OF YOUR TESTIMONY FOR CORROBORATING INFORMATION. PLEASE EXPLAIN.

A. Quite simply, data responses from both AT&T and MCI were, for all intents and purposes, unresponsive. When the data responses were combined with comments made in testimony, it became clear that AT&T and MCI were not giving facts in response to these requests, but rather conclusions based on their interpretation of the TRO. Thus, it was becoming a game of semantics. While bench and data requests were clear to most parties involved, AT&T and MCI chose to side step the intent of the data requests, and responded with unusable information.

Q. GIVE AN EXAMPLE OF MCI "SIDE STEPPING" THE INTENT OF A REQUEST.

A. MCI in its response to CLEC Question No. 20, Bench Request No. 51, stated:

> Subject to and without waiving its General Objections, MCI hereby provides notice that responsive information may not be available in the form requested. MCI further states that is(it) does not differentiate between customers on the basis of their business plans, but MCI does offer general transport services to its customers without regard to the customer's use of such facilities. MCI provides facilities from all collocations located in Washington, but does not connect on a "route", as that term is defined by the FCCs Triennial Review Order.[27]

A route as defined by the TRO is a transmission path between one of an incumbent LECs wire centers or switches and another of the incumbent LECs wire centers or switches. MCI clearly states that it "does not connect on a route, as the term is defined by the Triennial Review Order", yet [HIGHLY CONFIDENTIAL] REDACTED

[27] Attached as Highly Confidential Exhibit No. RT-13HC.

REDACTED [HIGHLY CONFIDENTIAL]

MCI states that it "does not differentiate between customers on the basis of their business plans." Nothing in the data request asked about MCI's customer's business plans. What the intent of the data request was to determine what MCIs deployments are. This seems to be attempt to redefine what is intended by the term "wholesale." Clearly within the context of the TRO, wholesale refers to a carrier selling facilities to another carrier. If in fact MCI sells a transport facility, a transmission path between two Qwest wire centers, to another carrier, does it really matter what the purchasing carrier uses it for? That fact that MCI sold it is enough to count toward satisfying the trigger.

The data request also asked for capacity levels and identification of the type of technology being used, both clearly relevant to the issues at hand. MCI refused to provide this information.

Q. GIVE AN EXAMPLE OF MCI BEING NON-RESPONSIVE TO A DATA REQUEST OR OFFERING CONTRADICTORY INFORMATION.

A. [HIGHLY CONFIDENTIAL] REDACTED

REDACTED. [HIGHLY CONFIDENTIAL].

Q. GIVE AN EXAMPLE OF AT&T BEING NON-RESPONSIVE TO A DATA REQUEST OR OFFERING MISLEADING INFORMATION.

A. In AT&T's response to bench request No. 50 (Confidential Exhibit No. RT-17C) AT&T states: [CONFIDENTIAL] REDACTED

REDACTED

REDACTED

REDACTED

REDACTED [CONFIDENTIAL] *See* TRO ¶ 365-366.

If fact, TRO ¶¶ 365-366 do not mention "entrance facilities" at all as AT&T is defining them. While there is a component of dedicated transport that is the transmission link connecting a Qwest wire center and the AT&T network that is not considered part of the incumbent network and is commonly referred to as an entrance facility, what AT&T is defining as entrance facilities are in reality self provisioned dedicated transport from the AT&T Switch to Qwest wire centers. Figure 3 below is an illustration of this architecture.

[CONFIDENTIAL]

REDACTED

. [CONFIDENTIAL]

Q. WHAT EVIDENCE HAS QWEST UNCOVERED THAT DESPITE ITS DENIALS TO THE CONTRARY, AT&T IS ACTUALLY OFFERING DS3 TRANSPORT AT WHOLESALE?

A. [HIGHLY CONFIDENTIAL] REDACTED
REDACTED
REDACTED
REDACTED
REDACTED [HIGHLY CONFIDENTIAL]

Q. DESPITE CONFLICTING EVIDENCE, WHY IS QWEST INCLUDING MCI IN ROUTES WHERE IT IS SEEKING A FINDING OF NON-IMPAIRMENT?

A. Regarding MCI, their data responses, along with those of other carriers, along with data previously presented by Qwest provides enough substantiation for the Commission to make a finding of non-impairment in the routes where MCI is included for the triggers as identified in Highly Confidential Exhibit No. RT-12HC.

Q. DESPITE CONFLICTING EVIDENCE, WHY IS QWEST INCLUDING AT&T IN ROUTES WHERE IT IS SEEKING A FINDING OF NON-IMPAIRMENT?

A. Regarding AT&T, their data responses, along with those of other carriers, along with data previously presented by Qwest, provides enough substantiation for the Commission to make a finding of non-impairment in the routes where AT&T is included for at minimum the self provisioning trigger as identified in Highly Confidential Exhibit No. RT-12HC and the wholesale trigger as well.

Q. IS THERE SOMETHING THE WASHINGTON COMMISSION CAN DO OTHER THAN MAKE A FINDING OF CONTINUED IMPAIRMENT IN THE ROUTES THAT INCLUDE AT&T AND MCI?

A. As stated repeatedly, Qwest can only go so far in obtaining evidence to substantiate a finding of non-impairment. The only irrefutable evidence is solely in the control of the competitive carriers. The Commission has been presented with clear proof that both MCI and AT&T have facilities in place, but refuse to admit to providing transport on the basis of their interpretation of the TRO, and have further refused to provide facts from which the Commission could draw its own conclusions. These carriers should be compelled to give a full and accurate disclosure of the facilities in questions.

VII. CONCLUSION

Q. DOES THIS CONCLUDE YOUR RESPONSE TESTIMONY?

A. Yes.