BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE PETITION OF DIECA COMMUNICATIONS, INC., D/B/A COVAD COMMUNICATIONS COMPANY, FOR ARBITRATION TO RESOLVE ISSUES RELATING TO AN INTERCONNECTION AGREEMENT WITH QWEST CORPORATION	**)** **)** **)** **)** **)** **)** **)**	**DOCKET NO. 04-2277-02**

DIRECT TESTIMONY

OF

MICHAEL NORMAN

FOR

QWEST CORPORATION

Disputed Issue No. 6

OCTOBER 8, 2004

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I. IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH QWEST CORPORATION.

A. My name is Michael Norman. My business address is 700 W. Mineral Ave., Littleton Colorado. I am employed as a Director within the Technical and Regulatory Group of the Local Networks Organization of Qwest Corporation (Qwest).

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE, AND PRESENT RESPONSIBILITIES.

A. I have been employed in the telecommunications industry for over 25 years. I began my career in 1978 as a contractor for AT&T in Washington State surveying routes to place cable in rural areas. In 1980, I was hired by Qwest (formerly Mountain Bell and then U S WEST) into the Local Network Organization. During my 14 years in the Local Network Organization I have held several different engineering positions including Outside Plant Engineering, Tactical Planning, Central Office Engineering, and Network Planning. In 1999, I was hired by Qwest Wireless as a Lead Network Engineer where I participated in building and planning a new state of the art Code Division Multiple Access ("CDMA") network.

In 2003, I began my current job as a Director in the Technical & Regulatory Group to represent Qwest in regulatory proceedings and to ensure compliance with regulatory requirements.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to provide technical expertise on Disputed Issue No. 6 (Regeneration Requirements (Sections 8.2.1.23.1.4, 8.3.1.9, 9.1.10)). I will demonstrate that Qwest's language for the parties' Interconnection Agreement ("ICA") is operationally and technically reasonable and consistent with the FCC's rules and regulations.

III. ISSUE 6: CLEC TO CLEC REGENERATION REQUIREMENTS (SECTIONS 8.2.1.23.1.4, 8.3.1.9, 9.1.10)

Q. PLEASE EXPLAIN ISSUE 6.

A. Covad's proposal requires Qwest to provide channel regeneration for CLEC-to-CLEC connections as a wholesale interconnection product. Covad would have Qwest provide such service at no charge to Covad.[1]

Q. TO PUT THIS DISPUTE INTO CONTEXT, PLEASE GENERALLY DESCRIBE THE PARTIES' FUNDAMENTAL DISAGREEMENT.

A. Based upon the Parties' interpretation of the FCC's rules and regulations, the Parties disagree upon whether Qwest is required to provide a wholesale channel regeneration product on a CLEC-to-CLEC connection.

Q. WHAT IS CHANNEL REGENERATION AND WHY IS IT NECESSARY?

A. Channel regeneration is required when the length of a circuit prevents the transmission of the proper signal strength to the point such that there is degradation in signal quality. There are industry standards, based on signal quality, that limit the length of the cables that join pieces of

[1] In its proposed language for sections 8.2.1.23.1.4 and 8.3.1.9, Covad appears to carve out an exception to its general request that Qwest provide regeneration on CLEC-to-CLEC connections for free, although the language is confusing.

equipment. If the length of the cable exceeds the requirements as provided by the American National Standard Institute ("ANSI") Standard T1.102-2003 "Digital Hierarchy-Electrical Interface; Annex B" then, regeneration of the signal is required to satisfy acceptable circuit performance. In essence, if the distance between two connections is too long the signal must be boosted, i.e. regenerated, in order to maintain a voice grade quality.

Q. WHAT IS QWEST'S POSITION REGARDING CHANNEL REGENERATION ON A CLEC-TO-QWEST CONNECTION?

A. Pursuant to its obligations under the Telecommunications Act, Qwest delivers all CLEC-ordered circuits between the CLEC's collocation space and Qwest's network with the proper signal quality by first designing the circuit and then, as part of provisioning, Qwest tests the circuit to ensure the service quality is met. Qwest designs circuits to ensure that the cable between the Qwest-provided active elements and the Qwest Central Office cross-connects will meet proper signal level before delivering the circuit to the CLEC. In addition, Qwest partners with the CLEC to test both ends to maintain circuit integrity. During the 271 proceedings, charges for CLEC-to-Qwest channel regeneration were thoroughly debated and, despite being permitted by the FCC and state commissions to charge for channel regeneration on such a connection, Qwest agreed that it would not charge for providing this regeneration unless regeneration was not required by ANSI standards but was specifically requested by a CLEC.

Q. DOES THIS ARBITRATION PROCEEDING INVOLVE CLEC-TO-QWEST CHANNEL REGENERATION?

A. No. The issue in this proceeding is whether Qwest must provide channel regeneration on a CLEC-to-*CLEC* connection free of charge, not whether Qwest must provide channel

regeneration on a CLEC-to-*Qwest* connection. As mentioned above, where channel regeneration is required under the ANSI standard, Qwest has agreed to provide channel regeneration at no charge to CLECs when they interconnect with *Qwest's* facilities.

Q. WHY SHOULD CLEC-TO-*QWEST* CONNECTIONS, AND ANY RESULTING REGENERATION REQUIREMENT, BE TREATED DIFFERENTLY THAN CLEC-TO-*CLEC* CONNECTIONS?

A. For connections between a CLEC and Qwest in a Qwest central office, Qwest is a party to the connection and as stated above, has agreed not to charge to regenerate a signal between it and a CLEC. The rationale behind this is that in a Qwest to CLEC scenario, Qwest maintains the ability to test and maintain the connection because it is a party to the connection. In a CLEC-to-CLEC connection, Qwest is not a participant in the relationship, and has no control over or involvement with the facilities. If a CLEC, who is interconnecting with another CLEC or with its own non-adjacent collocation space, asks Qwest to provision the connection, instead of provisioning its own facility or contracting with another company to provision the facility under Section 8.2.1.23 of the ICA, Qwest will provide the facility, including the testability, but will charge a market rate for that connection. Qwest's ability to charge a market rate encourages the CLEC to invest in its own facilities, thereby furthering the goals of the Telecommunications Act.

Q. IS QWEST OBLIGATED BY THE FCC TO PROVIDE A CLEC-TO-CLEC CONNECTION OR REGENERATION?

A. No. In its *Fourth Advanced Services Order,* the FCC discussed CLEC-to-CLEC connections and amended 47 C.F.R. 51.323(h) to list specifically the only situations in which an ILEC has

an obligation to provide a connection between the collocated equipment of two CLECs.[2] Specifically, ILECs must provide a connection between two CLEC collocation spaces: 1) if the ILEC does not permit the CLECs to provide the connection for themselves[3]; or 2) under Section 201 when the requesting carrier submits certification that more than 10 percent of the amount of traffic will be interstate.[4] Qwest permits CLECs to connect to each other outside of their collocation space, therefore it has removed itself from the CLEC-to-CLEC relationship and has no FCC-imposed obligation to provide a CLEC-to-CLEC connection, much less regeneration for a CLEC-to-CLEC connection.

Q. PLEASE EXPLAIN WHAT YOU MEAN WHEN YOU SAY THAT QWEST PERMITS CLECS TO CONNECT WITH EACH OTHER?

A. Certainly. CLECs can connect with each other in two different ways. First they can perform a direct connect where CLEC A or CLEC B provides the cabling between the two collocation spaces. In the second method of connection, CLEC A takes its cable from its collocation to a Qwest Interconnection Distribution Frame ("ICDF"). Likewise, CLEC B takes its cable to the same ICDF and a jumper wire is run connecting the two CLECs. Through these two scenarios, Qwest permits CLECs to perform either a direct connection or a cross connection outside of their collocation space.[5] On a direct connect architecture a CLEC may regenerate its own signal by placing a repeater bay in its collocation space which will boost the signal as it leaves its

[2] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, Fourth Report and Order* (*Fourth Advanced Services Order*), CC Docket No. 98-147, (FCC 01-204) Rel. August 8, 2001.

[3] Pursuant to 47 C.F.R. § 51.323(h)(1) an ILEC is not required to provide a connection if ". . . the incumbent LEC permits the collocating parties to provide the requested connection for themselves . . . ."

[4] Pursuant to 47 C.F.R. § 51.323(h)(2) "[a]n incumbent LEC is not required to provide a connection between the equipment in the collocated space of two or more telecommunications carriers if the connection is requested pursuant to section 201 of the Act . . . ."

collocation. CLECs are also able to regenerate their circuits by using this same method for CLEC to CLEC cross connection.

Q. WHAT IS THE BASIS FOR COVAD'S POSITION AND IS IT LEGALLY SUSTAINABLE?

A. Covad cites to the FCC's *Second Report and Order* for the proposition that Qwest should provide CLEC-to-CLEC regeneration "on the same terms Qwest provides regeneration for other cabling arrangements in its central offices."[6] There is nothing in the *Second Report and Order*, however, which supports Covad's proposition most notably because the *Second Report and Order* involves a discussion of ILEC to CLEC connections and not CLEC-to-CLEC connections. Furthermore, Covad's implicit argument that Qwest determines whether a CLEC-to-CLEC connection will require regeneration because it controls the assignment of collocation space, and therefore, Qwest should be responsible for any regeneration charge fails, not only because Qwest's processes for assigning collocation space are not at issue here, but also because Qwest does not make a unilateral determination of where a CLEC's collocation space will be placed. The FCC's rules require an ILEC to provide a report to a requesting carrier that details the space available in a particular central office such that the CLEC can indicate its collocation location preferences prior to the assignment of collocation space. Covad can, therefore, acquire information about space that is available in a central office and request that it be placed in a particular location in that office. In addition, Qwest offers to CLECs the option

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5 *Id*.

6 *See* Issue 6 of Covad's Petition (no page numbers are provided) *citing* In the Matter of Local Exhchange Carrier's Rates, Terms and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport, Second Report and Order, CC Docket No. 93-162, FCC 97-208 (Rel. June 13, 1997), ¶¶ 117-118 (the "*Second Report and Order*").

of requesting a tour of its central offices to view the available space after which the CLEC may request, and Qwest will assign to CLEC any space that is available. Thus, collocation assignment is not a unilateral decision made by Qwest, and Covad's position is not sustainable under the FCC's rules and regulations, whereas, Qwest's reliance on the *Fourth Advanced Services Order* and resulting rule modifications is sound.

Q. ALTHOUGH QWEST IS NOT OBLIGATED TO PROVIDE CLEC-TO-CLEC CHANNEL REGENERATION, DOES QWEST OFFER CLEC-TO-CLEC CHANNEL REGENERATION?

A. Yes. In cases where regeneration is required on circuits between two CLECs, Qwest offers channel regeneration as a "finished service" to CLECs under its FCC 1 Access Tariff. Where a CLEC chooses not to provision its own circuit or hire its own contractor to provision the circuit and instead requests that Qwest provide the CLEC-to-CLEC connection requiring channel regeneration, the CLEC may purchase a private line or access service from Qwest and Qwest will design the end-to-end service which will include any necessary channel regeneration.

Q. WHAT IS A FINISHED SERVICE?

A. A finished service is a complete end-to-end service, such as a private line or access service, offered by Qwest to wholesale or retail customers offered at the tariffed rate. The definition of 'finished services' was agreed to through the 271 workshops.[7]

[7] *See* ICA and 7th Revised SGAT at Section 4, Definition of Finished Service.

Q. WHAT OPTIONS, OTHER THAN PURCHASING A FINISHED SERVICE, ARE AVAILABLE WHEN REGENERATION IS NECESSARY TO MEET THE ANSI STANDARD ON A CLEC-TO-CLEC CONNECTION?

A. When a CLEC chooses to connect directly to another CLEC, and if regeneration is required, either CLEC may regenerate the signal from its collocation space thereby boosting the signal to meet the requirements of the ANSI standard. In this situation, Qwest is not involved in provisioning the connection or resulting regeneration. Since the CLEC's facilities must traverse Qwest's route, however, pursuant to Section 8.2.1.23 of the Parties' ICA, Qwest will identify the route and provide the CLEC with information regarding the footage between it and its CLEC partner, so that the CLECs may properly design and provision the connection.

Q. IS COVAD'S PROPOSAL FOR QWEST TO PROVIDE REGENERATION FOR CLEC-TO-CLEC CONNECTIONS AT NO CHARGE TO COVAD REASONABLE?

A. No. Covad's requested language would require Qwest to provide regeneration free of charge for any and all hypothetical future joint ventures and circuit arrangements at no charge to CLECs. Covad makes such request under the unfounded assumption that Qwest purposely provisions collocation space for CLECs on different floors or at opposite corners of the central office, thereby making regeneration necessary, and thereby increasing the cost of CLEC cross-connections.

Qwest provides collocation space on a first come first served basis, and therefore does not control the timing of individual CLEC collocation requests, the amount of space requested, or the evolution of CLEC relationships. It is predictable that CLEC business decisions over time may require circuit connections that need regeneration. It is unreasonable to expect Qwest to

absorb the cost of regeneration when Qwest is not involved in the exchange of traffic or the provision of any service related to the interconnection between third parties.

IV. SUMMARY AND CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY?

A. As set forth above, Qwest's language on this disputed issue is consistent with Qwest's obligations under the FCC's rules and regulations, while Covad's proposed language has no sustainable basis in law. Accordingly, the Commission should adopt Qwest's language on this disputed issue.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.