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Arizona Corporation Commission
Utilities Division – Docket Control
1200 W. Washington Street
Phoenix, Arizona 85007

Re: Qwest Section 271 Application
Docket No: T-00000A-97-0238

To The Commission:

Enclosed please find an original and ten (10) copies of Rhythms Links Inc.'s testimony of J. Scott Bonney, Jr. for the First Amended Set of Workshops on Advanced Services, Line Sharing, Sub-Loop issues and Dark Fiber.

Very truly yours,

LEWIS AND ROCA LLP

Thomas H. Campbell

THC/bjg
Enclosures

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**BEFORE THE
ARIZONA CORPORATION COMMISSION**

**CARL J. KUNASEK
CHAIRMAN**

**JIM IRVIN
COMMISSIONER**

**WILLIAM A. MUNDELL
COMMISSIONER**

**IN THE MATTER OF U S WEST
COMMUNICATIONS, INC.'S COMPLIANCE
WITH § 271 OF THE
TELECOMMUNICATIONS ACT OF 1996.**

DOCKET NO. T-00000A-97-0238

**TESTIMONY OF
J. SCOTT BONNEY, JR.
ON BEHALF OF
RHYTHMS LINKS INC.
FOR §271 WORKSHOP -
ADVANCED SERVICES**

August 22, 2000

1 **I. INTRODUCTION**

2
3 My name is J. Scott Bonney. I am Vice President for Regulatory Affairs and
4 Deployment for Rhythms Links Inc. (“Rhythms”). My business address is 9100 East Mineral
5 Circle, Englewood, CO 80112.

6 **II. PURPOSE AND OVERVIEW**

7
8 I am going to address some of the policy issues regarding the application of Qwest
9 Communications, Inc. (“Qwest”) to obtain approval under section 271 to offer interLATA
10 services in Arizona. This testimony pertains to advanced services, and specifically line-sharing.

11 The Commission should evaluate Qwest’s application in light of the public policy
12 imperative to promote advanced services, as stated in Section 706 of the federal
13 Telecommunications Act. In section 706 of the Act, Congress urged state and federal regulators
14 to “encourage the deployment on a reasonable and timely basis of advanced telecommunications
15 capability to all Americans (including, in particular, elementary and secondary schools and
16 classrooms) by utilizing, in a manner consistent with the public interest, convenience, and
17 necessity, price cap regulation, regulatory forbearance, measures that promote competition in the
18 local telecommunications markets, or other regulating methods that remove barriers to
19 infrastructure investment.”
20

21 I will address whether Qwest provides competitive local exchange carriers
22 (“CLECs”) with non-discriminatory access to line-sharing in Arizona. Rhythms has direct
23 experience in line-sharing with Qwest. It is a party to the interim line-sharing agreement with
24 Qwest (Qwest Exh. KAS-1), and is currently one of the parties negotiating a permanent
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1 amendment to interconnection agreements that will allow it to line-share. Rhythms is currently
2 up-grading its collocations throughout Arizona and the entire Qwest territory to allow it to line-
3 share in every central office in which it is collocated. This network upgrade depends on
4 collocation work by both Qwest and Rhythms, and the network upgrade has not yet been
5 completed in Arizona. Rhythms, however, has submitted line-sharing orders to Qwest, so it is
6 able to give at least anecdotal accounts of the end-to-end processes for line-sharing.
7

8 **A. LINE-SHARING PROVISIONING**

9 An important benefit of line-sharing is that it promises to provide much more rapid
10 installation of xDSL service to customers. The only work effort that needs to be performed by
11 Qwest to provision a line-shared line is for a technician at the central office to perform a lift-and-
12 lay of the customer's line. In contrast, provisioning a normal (non-line-shared) unbundled loop
13 often requires field work at the customer premises as well as work at the central office. These
14 tasks take additional time.
15

16 Qwest, however, proposes no improvement in the provisioning interval for line-
17 shared loops. Indeed, it maintains the same 5-day interval for line-shared loops as for regular
18 unbundled loops, despite the fact that there is clearly a shorter amount of time to provision the
19 line-shared loop because it does not require an equivalent work effort. A 5-day provisioning
20 interval is clearly discriminatory. Qwest, which has line-shared its DSL services for more than
21 two years (while adamantly opposing efforts to allow CLECs to have the same benefits of line-
22 sharing) will continue to be able to provision DSL service in a shorter time period than CLECs if
23 it continues to require a 5-day interval for provisioning line-shared loops.
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1 Already, with the limited number of line-shared loop orders it has placed, Rhythms
2 is already experiencing troubling results. The problem is occurring in Qwest's ability to properly
3 provision the loop at the central office. The loop has either been tied down to the wrong
4 termination or was labeled incorrectly at the main distribution frame. As a result customers have
5 not only been unable to obtain data service, but their voice service was disconnected as well. To
6 resolve the trouble, Rhythms and Qwest have had to meet at the central office in order to correct
7 the situation. Given this preliminary anecdotal evidence of provisioning problems with line-
8 sharing, it becomes even more imperative for Qwest to commit to a shorter interval for line-shared
9 loops and to disaggregate line-sharing performance data rather than lumping it together with all
10 unbundled loop data as it proposes to do.

12 **B. CONDITIONING OF LINE-SHARED LOOPS**

13 Qwest must provide conditioning for line-shared loops. Qwest states that
14 conditioning is not currently available for line-shared loops. There is clearly no technical reasons
15 for not allowing conditioning. Deconditioning refers to the removal of excess bridged taps, load
16 coils, and digital access main lines ("DAMLs") that were deployed by Qwest on the existing loop
17 plant and that interfere with the transmission of data communications over the loop.
18 Deconditioning is therefore required to provide certain xDSL services over a loop, and
19 deconditioning can be ordered by a CLEC when it orders an unbundled loop. The same should
20 hold true for line-shared loops.
21

22 It appears that Qwest does allow that it will provide deconditioning of line-shared
23 loops at some time in the future. Until it provides the legal commitment to do so, it is an empty
24 promise.
25
26

1 If and when Qwest agrees to provide deconditioning of line-shared loops, there is
2 one technical parameter that needs to be addressed. Load coils are deployed on some longer loops
3 by telephone companies because without them, voice services begin to degrade. The removal of
4 some load coils may therefore degrade a customer's voice service, so there are legitimate reasons
5 why Qwest and an end-user customer would not want to remove load coils in order for a CLEC to
6 line-share over that loop. Rhythms proposes that any deconditioning requirement be limited to the
7 removal of load coils on loops of a length below 18 kilofeet. Industry standards for network
8 design state that load coils should be used on loops greater than 18 kilofeet in length in order to
9 preserve the quality of voice service. Concomitantly, however, Qwest should not charge a de-
10 conditioning fee for removal of load coils on loops below 18 kilofeet, since load coils should not
11 have been placed on the loop in the first place.
12

13 **C. LINE-SHARING OVER FIBER-FED UNBUNDLED LOOPS**

14 Qwest does not allow line-sharing over loops fed by digital loop carrier ("DLC")
15 facilities. Because of this limitation, a large percentage of the addressable market of homes and
16 businesses is prevented from being served by line-sharing. This significantly impairs the ability
17 of CLECs from providing xDSL services to customers in Arizona and is discriminatory. The
18 problem is exacerbated as Qwest continues to deploy more and more DLC in its network, and
19 replaces copper feeder facilities. This "fiber to the neighborhood" design means that fiber optics
20 will be deployed by Qwest to remote terminals ("RTs"). Qwest's RTs are located in Controlled
21 Environmental Vaults ("CEVs"), huts and cabinets that are deployed closer to the customer. At
22 the RT, Qwest has installed DLCs or in some instances DSLAM equipment that allow U S WEST
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1 to provide service. A DSLAM like that being deployed by U S WEST in Phoenix can provide
2 integrated voice and data services.

3 The deployment of DLC eliminates available "home run copper" for competitors to
4 lease as unbundled network elements. With a fiber to the neighborhood deployment, CLECs that
5 have placed their DSLAMs in the central office will be unable to obtain unbundled "home run
6 copper" loops to provide service to end users. As the FCC has observed:
7

8 When an incumbent has deployed DLC [*i.e.* fiber] systems,
9 requesting carriers must install DSLAMs at the remote terminal
10 instead of at the central office in order to provide advanced services.
11 We agree that, if a requesting carrier is unable to install its DSLAM
12 at the remote terminal or obtain spare copper loops necessary to
13 offer the same level of quality for advanced services, the incumbent
14 LEC can effectively deny competitors entry into the packet
15 switching market.¹

16 There do exist technically feasible means for line-sharing when Qwest has
17 deployed fiber to the neighborhood. This can be done by allowing the CLEC to access and place
18 line cards in the equipment Qwest deploys at the remote terminal.² Such a "Plug-and-Play"
19 option is clearly required because CLECs would be impaired in providing line-sharing to end
20 users in Arizona. Allowing new entrants to place their line-card-based DSLAMs at the remote
21 terminal permits them to access unbundled loops and line-share on the same terms and conditions
22 as Qwest.

23 ¹ *UNE Remand Order* at ¶ 313. An additional hurdle that the FCC does not
24 appear to have explicitly contemplated is that a new entrant collocating its DSLAM at the
25 incumbent's remote terminal cannot use its own packet switching facilities unless the
26 incumbent is able to segregate the competitor's data streams from its own end-users' data
streams as those data arrive at the central office.

² The competitor should be able to choose whether to own the line card itself or to
obtain a Qwest-owned line card.

1 Under this line-sharing scenario, the primary unbundled network element that
2 requesting carriers must obtain from Qwest to offer line-sharing over fiber-fed loops is a 2-wire
3 DSL-capable loop that comprises the incumbent's copper facilities from the NID at the customer
4 premises to the customer side of the RT, the electronics at the RT necessary to derive the required
5 bandwidth over the incumbent's fiber feeder facilities, and transport over the incumbent's fiber
6 feeder from the RT to the serving central office. The unbundled loop must therefore include a
7 line card in the DLC or DSLAM equipment at the RT. This line card will perform the DSLAM
8 functions.
9

10 For the path between the RT and the serving central office, the Commission should
11 also require Qwest to offer multiple options for the transport of the requesting carrier's data
12 signals over Qwest's fiber feeder facilities: (1) permanent virtual circuits ("PVCs"); (2)
13 permanent virtual paths ("PVPs") and (3) time-division-multiplexed ("TDM") circuits.
14 Requesting carriers should have the option of obtaining PVCs and PVPs in any of the possible
15 formats, including ITU-T Quality of Service Classes A, B, C, and D; ATM Forum Quality of
16 Service Classes 1, 2, 3, and 4; and Service Class Categories Available Bit Rate, Constant Bit Rate,
17 Variable Bit Rate – real time, Variable Bit Rate – not real time, and Unspecified Bit Rate. The
18 above options are all technically feasible and facilitate the offering of innovative, advanced
19 services over the unbundled loop.
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22 Without a requirement to unbundle a full array of options for plug-and-play access
23 to loops at the RT, Qwest could severely disadvantage and impair competitive providers of
24 advanced services.
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26

1 ORIGINAL and ten (10)
2 copies of the foregoing filed
3 this 22nd day of August, 2000,
4 with:

5 Arizona Corporation Commission
6 Docket Control – Utilities Division
7 1200 W. Washington Street
8 Phoenix, Arizona 85007

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