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BEFORE THE ARIZONA CORPORATION COMMISSION

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SEP 03 1999

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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

**RHYTHMS LINKS INC.'S
STATEMENT OF POSITION ON
OSS ISSUES**

Rhythms Links Inc. ("Rhythms") provides this Statement of Position as requested by the Arizona Corporation Commission ("Commission") staff in its August 25, 1999 memorandum on the operational support systems ("OSS") workshop.

Rhythms offers high speed data transmission services to customers utilizing the new Digital Subscriber Line ("DSL") family of services. DSL technology enables a carrier, such as Rhythms, to use existing copper phone lines to deliver high speed data service. Because DSL relies on existing phone lines, DSL-based services can be delivered to virtually all customers' homes and businesses more quickly and at less cost than other data services. Rhythms' services can be used for telecommuting, dedicated access to the Internet and access to Intranet-type

1 networking solutions. Rhythms' provision of DSL service competes directly with US West DSL
2 service, normally referred to as Megabit.

3 In order to provide this service, Rhythms is dependent on US West for three primary
4 components. First, Rhythms needs to be able to collocate and maintain equipment at a central
5 office. Second, Rhythms must lease "clean" copper loops that are unfettered with any interfering
6 loop equipment, such as load coils. Third, Rhythms often requires the timely provision of
7 unbundled transport facilities from US West because competitive interoffice transport alternatives
8 are not available.
9

10 OSS is the lynchpin to the effective and efficient provisioning of these components of US
11 West's network. Without OSS, Rhythms cannot deliver service to its customers on a timely and
12 efficient basis. There are five OSS functionalities: pre-ordering, ordering, provisioning, billing
13 and repair and maintenance. Rhythms will focus its comments on OSS requirements for pre-
14 ordering, ordering and provisioning of loops, although it reserves the right to comment on other
15 OSS workshop issues during the workshop proceedings. Rhythms must be able to order the
16 unbundled loop, and other unbundled network elements to provision its service to its customers,
17 through real-time unrestricted access to US West's OSS for pre-ordering, ordering and
18 provisioning, maintenance and repair, and billing capabilities. In this context, Rhythms needs are
19 no different from other CLECs who have worked on obtaining full and complete implementation
20 of electronic OSS interfaces. Given Rhythms' experience with customer needs and provisioning
21 of DSL-based services, Rhythms knows that it will require real-time electronic access, and will
22 not be able to operate by manually obtaining information or placing orders. At a minimum, the
23 Commission should require US West to provide the following OSS functions.
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1 **PRE-ORDERING**

2 Rhythms requires real time access to basic loop “make-up” information – such as the
3 physical medium of the loop (*i.e.* copper or fiber), loop length, the length and location of bridged
4 tabs, the loop wire gauge, and the presence of load coils, repeaters, Digital Loop Carrier (“DLC”)
5 systems or Digital Access Main Lines (“DAMLs”) – that will enable Rhythms to determine what
6 and how to provision service to a particular end user.
7

8 Rhythms must have access to existing US West electronic, automated operations support
9 systems and databases that allow rapid and efficient access to pre-ordering information about the
10 technical make-up of a potential customer’s loop. Thus, Rhythms will need specific information
11 and data about US West’s outside plant during the pre-ordering process to make effective business
12 decisions so that Rhythms can provide the best service to its customers. Rhythms should be able
13 within a few seconds to access information about the technical make-up of a particular customer’s
14 loop.
15

16 Rhythms plans to deploy a variety of DSL technologies, depending on the characteristics
17 of US West’s loop plant, for serving individual customers. Accordingly, Rhythms needs complete
18 loop make-up information about each loop. Based on the loop make-up information, Rhythms
19 will use a different technology to provide service to an end user with a very long loop or a loop
20 served by a digital loop carrier, than one with a short, clean loop. Also, to allow Rhythms to make
21 service guarantees to its customers regarding the speed of digital transmission and reliability,
22 Rhythms must know the loop make-up information.
23

24 Access to accurate information about the physical characteristics of US West’s loop plant
25 will allow Rhythms’ customer service representative to notify customers in a timely manner
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1 regarding Rhythms' services for which they are eligible. Without complete loop make-up
2 information, Rhythms must "guess" as to the loop characteristics. By the time the guessing is
3 complete, precious time has elapsed and Rhythms is placed in a position to lose potential
4 customers. If Rhythms' potential customers are forced to wait several days before learning
5 whether they can receive service from Rhythms and what services are available, customers will
6 likely not choose Rhythms but instead go with a carrier that has the information required to make
7 a quick judgment, such as US West. The availability of loop make-up information for the initial
8 contact with potential customers is critical to Rhythms' ability to win new customers and enable
9 Rhythms to compete on equal footing with US West, which is presently offering DSL service in
10 Arizona. It goes without saying that the ability to verify loop make-up during the pre-ordering
11 phase of the customer-carrier relationship is fundamental to the ability of Rhythms to compete.
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13
14 Electronic access to pre-ordering loop make-up data also allows Rhythms greater
15 flexibility in structuring its work force because on-line systems can be used 24 hours a day to
16 research the suitability of customer loops to support DSL. Electronic systems can support much
17 greater volumes of inquiries than will manual systems. Time is of the essence in providing pre-
18 ordering information, because the market for high-speed data services, in particular DSL services,
19 is growing larger and more competitive every day, and the importance of the "first mover" or
20 "first to market" dynamic is significant.
21

22 The FCC's March, 1999 *Advanced Services Order* specifically required ILECs to disclose
23 to requesting carriers information with respect to the number of loops using advanced services
24 technology and the type of technologies deployed on those loops. This requirement is built on the
25 earlier FCC requirement to provide competing carriers with the information necessary to
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1 formulate an accurate order for a customer, including “access” to the information such systems
2 contained.

3 US West should be required to provide real time access to its loop make-up information.
4 A Graphical User Interface access, such as that proposed by US West, simply does not provide a
5 real time method of obtaining loop information and is cumbersome because it involves both delay
6 and manual intervention. Until US West has a mechanized system in place, US West should
7 provide manual access to make-up information, and the information should be provided to
8 Rhythms within 48 hours of Rhythms’ request, but in no event longer than the analogous loop
9 make-up information interval applicable to US West’s retail DSL based services.
10

11 A “loop qualification” process as proposed by some ILECs is not an acceptable substitute
12 for real time access to loop make-up information. A “loop qualification” process allows the ILEC
13 to determine for itself whether the loop is “qualified” for DSL rather than providing information
14 by which Rhythms may determine for itself whether the loop is suitable for DSL. The ILEC
15 determines whether a loop is “qualified” by developing an internal list of the criteria it deems
16 necessary for a loop to support DSL.
17

18 The loop qualification process is unacceptable to Rhythms for several reasons. First,
19 Rhythms should be allowed to determine for itself whether a particular loop is capable of
20 supporting DSL service. Even if the loop is not acceptable for provision of some types of DSL
21 service, it may support an alternate service that would be suitable for the customer. The
22 determination of the best way to meet customers’ needs must be placed in the hands of Rhythms,
23 and not the underlying UNE provider, with whom Rhythms competes. Loop qualification allows
24 US West to substitute its judgment for that of Rhythms as to the suitability of providing DSL
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1 service to a customer. Providing loop make-up data to Rhythms so that it can make its own
2 determination is more appropriate than allowing US West to veto Rhythms' efforts to use a loop
3 to provide DSL service. Second, often ILECs impose significant charges to indicate whether a
4 loop is "qualified" according to the ILEC's own internal criteria. Thus, a loop qualification
5 process is analogous to a customer going into an auto parts store, asking whether the store has a
6 particular type of tire, and being charged a fee to learn whether the store believes it can provide
7 that type of tire from inventory. Finally, Rhythms' access to the raw, unfiltered loop make-up
8 data can help prevent inadvertent or deliberate attempts by US West to deny a loop order or an
9 inaccurate claim that no DLS-capable loop is available. DSL carriers, like Rhythms, work hand-
10 in-hand with their vendors to provide state-of-the-art service. They are in the best position to
11 solve tricky technical problems associated with the interconnection between old loop plant and
12 newer technologies. For these reasons, Rhythms recommends that the Commission require US
13 West to provide the underlying data regarding loop make-up, not just a loop "qualification"
14 determination, to Rhythms.
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17 **ORDERING**

18 The ordering process is the means by which Rhythms can ask that loops be provisioned.
19 Once Rhythms knows the loop make-up information, it can decide whether to place an order. The
20 order placement must be accomplished in an efficient and expeditious manner. Generally
21 speaking, ordering can be done manually or electronically. Manual ordering is time consuming
22 and far from efficient. Electronic ordering is available, or is being developed, for nearly every
23 service ILECs offer today.
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1 An efficient ordering system would support real-time electronic access for ordering. Such
2 a mechanized access must include flow-through ordering for DSL-capable loops and should be
3 based on an industry standard, such as EDI systems, so that Rhythms' employees can access and
4 interact with US West's databases using the same protocols and formats. In essence, a fully
5 mechanized, electronic ordering system would enable a Rhythms' employee from a remote
6 location to emulate a US West employee in interacting with ordering systems.
7

8 An electronic ordering system should support an automatic flow-through process that
9 enables a Rhythms' employee to place orders on-line. The system should utilize standardized
10 order forms so that each time Rhythms places an order for a DSL loop, the process is always the
11 same. Once an order form is completed and entered, the electronic system should provide a Firm
12 Order Confirmation ("FOC") on orders for DSL-capable loops within 24 hours confirming
13 whether the loop is available, the date the loop will be provisioned and a price quote. The price
14 quote should provide itemized information about various charges that comprise the quote. The
15 electronic ordering system should then automatically produce a work order for a technician who
16 will do any physical provisioning work that may be necessary. Once any physical work is
17 completed, the electronic system should generate a bill and automatically notify the carrier's
18 repair and maintenance personnel that the loop is operational so that trouble tickets can be issued
19 and resolved in a timely manner.
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22 Until US West has deployed a standardized, real-time electronic access to ordering, the
23 Commission should withhold its approval under §271 of the Act. Rhythms' experience to date
24 with ordering from US West has been unacceptable. For example, Rhythms has experienced an
25 inordinately high number of order rejections related to incorrect Connecting Facility Assignments
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1 (“CFA”) information. Rhythms is dependent on US West for accurate CFA information. US
2 West also routinely provides useless Firm Order Confirmations (“FOCs”) because the due date
3 contained on the FOCs is seldom, if ever, met. Rhythms expects these and other ordering
4 problems to continue, if not worsen, as US West transitions to an electronic UNE ordering system.
5

6 **PROVISIONING**

7 In order to meet the expectations of Rhythms’ customers, Rhythms must be able to obtain
8 and provision copper loops from US West at least as quickly and reliably as they are provided to
9 US West’s retail arm. Since copper loops provisioned for DSL are technically indistinguishable
10 from other UNE loops, US West should be required to provision those loops within the standard
11 interval for UNE loops.

12 DSL loop provisioning is very similar to the provisioning of POTS loops. A customer’s
13 loop is identified and assigned a circuit number, which is similar to a POTS telephone number
14 identification. Also an ordering code identifier is assigned, which denotes the type of loop
15 requested. Once the order is entered, the system makes appropriate notifications that the loop has
16 been provisioned and that appropriate signaling codes are assigned. The mechanized order drops
17 out of the electronic process at the point that a work document is produced for the technician. The
18 technician then works the appropriate loop by taking it off the US West frame and swinging it
19 over to Rhythms’ collocation cage.
20

21 An efficient provisioning system would be flexible enough to provide loops to Rhythms in
22 a manner that meets Rhythms’ business needs. For instance, Rhythms should be able to order
23 loops according to any technical specifications, so long as those specifications are compliant with
24 national, industry-wide standards. As part of that specification, Rhythms should be able to request
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1 the specific type of “conditioning” required for a particular loop. Additionally, an efficient
2 provisioning system would provide reasonable, accurate intervals for delivery of loops. Another
3 critical element of an efficient provisioning is a pre-testing process through which Rhythms may
4 verify that the loop being delivered actually works.

5 The ability to specify “conditioning” for loops is important for at least two reasons. First,
6 Rhythms will be at a competitive disadvantage if it is not allowed to determine for itself how a
7 loop should be provisioned. Rhythms proposes that it be permitted to accept the loop “as is” with
8 no further guarantees from US West if, in Rhythms’ judgment, it believes it can provide service
9 given the loop make-up information provided by US West. Second, Rhythms should be given the
10 ability to specify the necessary conditioning for loops to ensure that it obtains the same level of
11 service that US West provides to itself and its own affiliates.

12 US West has the opportunity to see the total outside plant inventory for retail services, thus
13 allowing itself the opportunity to find spare or alternative loop facilities that may not need
14 conditioning (*e.g.*, load coils removed, acknowledge the presence of bridged taps) or to locate an
15 alternative copper loop instead of the initial loop that may include a segment of Digital Loop
16 Carrier. For example, if a customer has two loops currently provisioned on fiber, US West can
17 rearrange the loops and cross connect one of those two pair to copper plant.

18 The loop provisioning interval becomes critical in light of the extended time US West
19 takes to provide collocation. US West’s provisioning intervals for collocation are quite lengthy
20 and, in the time that Rhythms has been waiting for US West to complete Rhythms collocation, US
21 West has been aggressively advertising and expanding its Megabit DSL service in Arizona. Thus,
22 US West has successfully used its control over collocation to delay Rhythms’ entry and mitigate
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1 any crucial “first in” competitive advantage. Therefore, US West must not be permitted to further
2 slow Rhythms provision of DSL services to Arizona customers through protracted loop
3 provisioning intervals.

4 Where loops require one-time “conditioning” to remove interfering load coils, bridged tabs
5 or repeaters, US West should be required to provide loops in the same interval as loops requiring a
6 dispatch but, in any event, no more than 7 days. If US West is able to shorten the due date
7 interval for its DSL retail product then the due date for Rhythms must be reduced to correspond to
8 the level at which US West provides its retail product.

9
10 Pre-turnover loop testing is a critical piece of provisioning because it allows a CLEC to
11 verify that a loop will perform as specified. Testing is required to verify continuity and line
12 balance. Continuity testing assures that a line is operating properly all the way to the customer’s
13 premises. Line balance verifies that both lines serving a customer’s premises are of the same
14 length. The testing process takes place prior to US West turning the loop over to Rhythms and
15 prior to closing the order-provisioning process to billing. These details are essential prior to
16 commercial launch and must be performed in an efficient and mechanized manner.

17
18 **TESTING**

19 The testing phase of the OSS proceeding should include testing of DSL loops, not just
20 POTS loops.

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22 **PERFORMANCE MEASURES**

23 Performance measurements and penalties are two very important aspects of the pending
24 Section 271 proceeding. It is important to have meaningful, effective and objective performance
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1 measurements and penalties to ensure proper and effective compliance with the terms of the
2 interconnections agreements.

3 Examples of objective benchmarks necessary to ensure timely response times include:

- 4 • Benchmarks for US West’s average response time for OSS pre-order and order
5 interface, firm order confirmations, mechanized completions within specific time
6 frames, and mechanized provisioning accuracy.
- 7 • Performance measurements specifically related to provisioning copper loops for
8 DSL-based services. Rhythms expects that US West’s provisioning of the copper
9 loop as a UNE will be measured for installations completed, missed due dates, and
10 trouble reports for installations.
- 11 • Standards for missed collocation due dates, delay days, and percentage of
12 processed orders.
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15 **CONCLUSION**

16 OSS is critical to Rhythms’ capacity to serve its customers and compete with US
17 West. US West competes directly with Rhythms’ DSL service and, therefore, has no incentive to
18 provide OSS to Rhythms, except for US West’s desire for §271 approval. As a result, the
19 Commission should not provide any §271 approval until US West can demonstrate that it is
20 providing efficient and effective OSS.
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DATED this 3rd day of September, 1999.

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