

**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION
COMMISSION**

In the Matter of the Pricing Proceeding for)	Docket No. UT -960369
Interconnection, Unbundled Elements, Transport)	(Phase II)
and Termination, and Resale - Phase II)	
)	
In the Matter of the Pricing Proceeding for)	Docket No UT-960370
Interconnection, Unbundled Elements, Transport)	(Phase II)
and termination, and Resale for U S WEST)	
Communications, Inc. - Phase II)	
)	
)	
In the Matter of the Pricing Proceeding for)	Docket No. UT-960371
Interconnection, Unbundled Elements, Transport)	(Phase II)
and Termination, and Resale for GTE Northwest)	
<u>Incorporated</u>)	

**SHARED TRANSPORT
SUPPLEMENTAL DIRECT TESTIMONY
OF MARK S. REYNOLDS**

ON BEHALF OF

U S WEST COMMUNICATIONS, INC.

OCTOBER 30, 1998

1, June 1, 1998

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1 I. PURPOSE OF TESTIMONY

2 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

3 A. The Fourteenth Supplemental Order in this proceeding, at paragraphs 41 and 42, requires
4 that U S WEST develop a cost estimate for shared transport that is consistent with the 8th
5 Circuit Court’s finding that the ILECs must provide shared transport. Furthermore,
6 U S WEST is directed to show that the methodology and input data used in the
7 development of the shared transport cost estimate is consistent with the methodologies
8 and inputs used in its prior cost submission in this proceeding and comport with all
9 modifications to those cost submissions ordered by the Commission in this proceeding.
10 The Supplemental Direct Testimony of Garrett Fleming is attached to U S WEST’s

1 shared transport cost submission in compliance with these requirements. Mr. Fleming's
2 testimony supports U S WEST's shared transport cost calculations and provides an
3 explanation of how the cost study complies with the Commission's requirements.

4 The purpose of my testimony is to provide additional information about U S WEST's
5 proposed shared transport unbundled network element, including a detailed explanation
6 of U S WEST's proposed rate structure. Specifically, I will provide a brief review of the
7 regulatory and judicial history that established the requirement to provide shared
8 transport to CLECs. I will also provide a definition of shared transport, based on the
9 requirements established by the FCC and the Courts. I will review some of the
10 important characteristics of shared transport that must be incorporated in an appropriate
11 rate structure. I will also provide a description of the three primary rate elements that
12 apply to U S WEST's proposed shared transport product. They are:

- 13 1) Monthly Charges for each CLEC's Forecasted Use;
- 14 2) Premium Charges for Use that Exceeds each CLEC's Forecast;
- 15 3) A Recombination Charge, which represents U S WEST's
16 combination of unbundled switching, and various transport elements, into a new, macro
17 unbundled network element.

18 Finally, I will discuss why a minute-of-use structure would be inappropriate for shared
19 transport.

20 I will also introduce four exhibits. Exhibit MSR-4A and 4B provide diagrams of shared
21 transport. Exhibit MSR-5 provides a cost/price summary for Shared Transport service.
22 Exhibit MSR-6 provides the calculation of the proposed Shared Transport
23 Recombination Charge. Exhibit MSR-7 contains the proposed terms and conditions for
24 Shared Transport.

25

1 **II.REGULATORY AND JUDICIAL HISTORY OF SHARED TRANSPORT**

2 **Q. WHEN WAS THE ISSUE OF SHARED TRANSPORT FIRST RAISED BY THE**
3 **FCC?**

4 A. In the FCC's First Interconnection Order

5 ¹, released August 8, 1996, the FCC established a definition of unbundled interoffice
6 transmission facilities that included the term "shared". The definition adopted by the FCC in that
7 order is:

8 Interoffice transmission facilities are defined as incumbent LEC transmission
9 facilities dedicated to a particular customer or carrier, or *shared* by more than one
10 customer or carrier, that provide telecommunications between wire centers owned
11 by incumbent LECs or requesting telecommunications carriers, or between
12 switches owned by incumbent LECs or requesting telecommunications carriers.

13 ²

14 The FCC also required incumbent LECs to:

15 Provide a requesting telecommunications carrier exclusive use of interoffice
16 transmission facilities dedicated to a particular customer or carrier, or use of the
17 features, functions, and capabilities of interoffice transmission facilities *shared*
18 by more than one customer or carrier;

19 ³

20 Unfortunately, the above language was subject to a variety of interpretations. For example,
21 U S WEST did not believe that the above language should be read to require U S WEST
22 to share the portion of its transport facilities that are currently being used to serve its
23 retail customer. In fact, U S WEST interpreted the language to mean that a carrier's
24 leased transport facilities could be shared by more than one provider.

25 **Q. WAS THE FCC'S FIRST INTERCONNECTION ORDER REVIEWED BY THE**
26 **EIGHTH CIRCUIT COURT?**

27 A. Yes. On July 18, 1997, the Eighth Circuit Court issued an opinion that vacated, in part,
28 the FCC's First Interconnection Order. The Court vacated the FCC's pricing rules, as
29 well as the FCC's requirement that incumbent LECs combine network elements on

¹ First Report and Order, Implementation of the Local Competition Provisions in the
Telecommunications Act of 1996, CC Docket 96-98, Released August 8, 1996.

² 47 C.F.R. 51.319(d)(1).

³ 47 C.F.R. 51.319(d)(2)(i).

1 behalf of CLECs. In a separate decision released a few months later, the Eighth Circuit
2 Court also vacated the FCC's rule 51.315(b), that required LECs to provide to CLECs a
3 combination of network elements, if those elements had previously been combined by
4 the LEC.

5 **Q. DID THE FCC LATER CLARIFY ITS DEFINITION OF SHARED TRANSPORT?**

6 A. Yes. More than a year after its First Interconnection Order, on August 18, 1997, the
7 FCC released its Third Report and Order on Reconsideration in CC Docket 96-98. The
8 Third Report and Order held that its original rules, adopted in the First Interconnection
9 Order, required U S WEST to provide access, on a shared basis, to the same
10 transmission facilities used to carry U S WEST's own traffic between U S WEST end
11 offices and tandems. The Third Report and Order also expanded the FCC's definition of
12 shared transport to include all transmission facilities connecting U S WEST's switches –
13 including facilities between an end office and a tandem switch, between two end offices,
14 or between two tandem switches.

15 The FCC's rules on shared transport have the effect of requiring U S WEST to recombine
16 parts of its interoffice transport network into a finished service. As such, U S WEST
17 believes that the FCC's Third Report and Order is in conflict with the Eighth Circuit's
18 decision on combinations. As a result, U S WEST, among others, appealed the FCC's
19 proposed rules to the Eighth Circuit Court of Appeals.

20 **Q. WHAT IS THE STATUS OF THE APPEAL OF THE FCC'S THIRD REPORT
21 AND ORDER ON SHARED TRANSPORT?**

22 A. On August 10, 1998, the Eighth Circuit Court considered the petitions for review of the
23 FCC's Third Report and Order that were filed by U S WEST and other incumbent LECs.
24 The Eighth Circuit denied the petitions for review and affirmed the FCC's Third Report
25 and Order. It was this action that caused the Commission to order that a shared transport
26 rate element and accompanying cost support be filed in this proceeding.

27 **Q. HAS THE EIGHTH CIRCUIT'S DECISION ON SHARED TRANSPORT BEEN
28 APPEALED TO THE SUPREME COURT?**

29 A. Not at this time. U S WEST and other incumbent LECs have asked the Eighth Circuit
30 Court to reconsider its August 10, 1998 decision on shared transport. The Eighth Circuit
31 has not yet indicated whether it will consider these requests for reconsideration. Should
32 the Eighth Circuit reaffirm its decision on shared transport, it is likely that the matter
33 will be referred to the Supreme Court, although a decision on such an appeal has not
34 been made by U S WEST.

- 1 **Q. WILL U S WEST PROVIDE SHARED TRANSPORT DURING THE PERIOD**
2 **PRIOR TO THE RELEASE OF A DECISION BY THE SUPREME COURT?**
- 3 A. Yes. U S WEST, through this filing, is setting forth its proposal for shared transport.
4 The U S WEST proposal is consistent with the FCC's decisions in its First and Third
5 Interconnection Orders, as well as the Eighth Circuit's decisions.

6

1 **III. DESCRIPTION OF SHARED TRANSPORT**

2 **Q. WHAT IS SHARED TRANSPORT, AS DEFINED BY THE FCC?**

3 A. The FCC's definition of shared transport includes all transmission facilities connecting
4 U S WEST's switches - including facilities between an end office and a tandem switch,
5 between two end offices, or between two tandem switches. Shared transport is available
6 only in conjunction with unbundled switching, due to the fact that switches perform the
7 important gatekeeper function for access to the shared transport network. Exhibits
8 MSR-4A and MSR-4B are local network diagrams that highlight the portion of the
9 network that will be used to provide shared transport for local traffic and switched
10 access traffic, respectively.

11 **Q. COULD YOU PROVIDE A BRIEF REVIEW OF INTEROFFICE TRANSPORT,**
12 **GENERALLY?**

13 A. Yes. Before discussing shared transport specifically, it may be helpful to review the
14 U S WEST interoffice network. That network consists of trunk ports on end office, local
15 tandem and access tandem switches. Those trunk ports are interconnected by interoffice
16 facilities, which consist of fiber optic cables and their associated electronics, including
17 fiber terminals and multiplexers.

18 When an end user originates an interoffice local call, the originating switch examines its
19 "routing table" to determine an available trunk port that may be used to transport the call
20 to the appropriate terminating end office. The routing table is essentially the 'on ramp'
21 to the U S WEST interoffice transport 'highway'. It directs traffic onto the appropriate
22 interoffice facility, just as an on ramp directs traffic onto an interstate freeway. The
23 routing table, which is designed and continually updated by U S WEST's network
24 engineers, includes:

25 1) A listing of all of the trunk ports that have been installed and activated
26 for the central office;

27 2) The destination associated with each trunk port. The destination is the
28 network node that is at the other end of the transport facility associated with the
29 trunk port. The destination may be a U S WEST central office, a U S WEST
30 local or access tandem, a CLEC or independent company central office or point
31 of interface, or an IXC's point of presence;

32 3) The NXX codes assigned to each distant central office that has been
33 assigned a trunk port in the originating central office. NXX codes are the first
34 three digits of a seven digit telephone number, and uniquely identify a particular
35 central office;

36 4) Instructions on how to route traffic when the trunk ports that serve a

1 particular distant end office are busy. For example, the routing table typically
2 includes instructions to route overflow traffic to the trunk ports that have been
3 assigned to the local tandem, and

4 5) The status (vacant, busy) of each trunk port.

5 **Q COULD YOU PROVIDE AN EXAMPLE OF THE ROUTING OF A LOCAL**
6 **CALL?**

7 A. Yes. Let's assume that a U S WEST end user dials the telephone number assigned to
8 another U S WEST customer who is served by another central office within the local
9 calling area. As soon as the digits are dialed, the originating central office captures the
10 NXX code of the called party. The NXX code is then taken to the routing table, which
11 may determine that all of the direct trunks to the called party's central office are busy.
12 The routing table is then queried for an alternative route, and the table may identify a
13 vacant trunk port that is available to route traffic to the U S WEST local tandem.

14 The call is then delivered, via the trunk port on the originating switch over the interoffice
15 facilities to the associated trunk port at the local tandem. The local tandem contains a
16 routing table, also designed by U S WEST network engineers, which is interrogated in
17 an identical fashion by the local tandem switch to identify an available route to the
18 terminating office. If such a route is available, the routing table provides the identity of
19 the appropriate trunk port to the local tandem switch, and the call is then transported via
20 that tandem trunk port over interoffice facilities to the terminating central office, where
21 the call is terminated.

22 **Q. IS THE ROUTING OF TRAFFIC ALWAYS AS SIMPLE AS YOU HAVE**
23 **EXPLAINED IT ABOVE?**

24 A. No, not always. To help describe the process of routing interoffice traffic, the above
25 description has been somewhat simplified. For example, the introduction of permanent
26 number portability in Seattle will eliminate the exclusive use of an entire NXX by a
27 particular central office. When permanent number portability is deployed, the
28 originating central office can no longer rely on the assumption that each NXX is
29 assigned exclusively to a particular central office. Instead, the originating central office
30 will have to first query a distant number portability database to determine the identity of
31 the terminating central office before it can use the routing table to determine the trunk
32 port that should be used on a particular call.

33 **Q. WHAT DOES SHARED TRANSPORT CONSIST OF?**

34 A. Shared transport is a product used exclusively in conjunction with unbundled switching.
35 This limitation was recognized by the FCC in its Third Report and Order:

36 A requesting carrier that uses its own self-provisioned local switches, rather than

1 unbundled local switches obtained from an incumbent LEC, to provide local
2 exchange and exchange access services would use dedicated transport facilities to
3 carry traffic between its network and the incumbent LEC's network. Thus, the
4 only carrier that would need shared transport facilities would [be] one that was
5 using an unbundled local switch.

6 ⁴

7 Shared transport provides CLECs, who serve their customers via unbundled switching, a
8 means of transporting traffic from their customers to distant end offices or interexchange
9 carriers. Shared transport allows CLECs to access the same routing tables, trunk ports,
10 direct and tandem-switched interoffice facilities used by U S WEST to transport its
11 customers' traffic.

12 ⁵

13 **Q. WHY IS SHARED TRANSPORT ONLY AVAILABLE FOR CLECS WHO**
14 **PURCHASE UNBUNDLED SWITCHING?**

15 A. Shared transport actually consists of a combination of unbundled switching and the
16 various elements of U S WEST's interoffice transport network. Shared transport must
17 be offered on a combined basis with unbundled switching because the routing tables, the
18 on ramp of the interoffice network, are contained within U S WEST's switches.

19 The need to offer unbundled switching in combination with shared transport was recognized
20 by the FCC in its Third Report and Order.

21 Requesting carriers that purchase shared transport as a network element to
22 provide local exchange service must also take local switching, for the practical
23 reasons set forth herein . . .

24 ⁶

25 **Q. HOW IS SHARED TRANSPORT USED BY A CLEC?**

26 A. Because the CLEC uses the same information in the same routing table used by

1 ⁴ Third Report and Order, footnote 127.

1 ⁵ A literal reading of paragraph 41 in the Fourteenth Supplemental Order in this proceeding suggests
2 that U S WEST need only provide cost estimates for the direct transport component of shared transport.
3 U S WEST believes that its obligations emanating from the 8th Circuit Court's ruling, however, requires
4 that it file the integrated shared transport element that includes all of the elements outlined in this
5 testimony. This is substantiated by the FCC's Third Order requirement that shared transport include all
6 transmission facilities connecting ILEC switches - including facilities between an end office and a tandem
7 switch, between two end offices, or between two tandem switches.

1 ⁶ Third Report and Order at para. 47.

1 U S WEST, the CLEC has access to the identical transport facilities as are available to
2 U S WEST customers. That is, when a CLEC's customer served by unbundled
3 switching originates a call, the U S WEST switch will use the same U S WEST routing
4 table to determine the availability of an outgoing trunk port for the CLEC's customer as
5 would be used by a U S WEST customer. Thus, the CLEC has access to the same
6 routing table capabilities, the same trunk ports, and the same direct and tandem-routed
7 interoffice facilities available to U S WEST end users.

8 **Q. IS THERE ANY DIFFERENCE IN HOW SHARED TRANSPORT IS USED FOR**
9 **LOCAL AND EXCHANGE ACCESS TRAFFIC?**

10 **A. Yes. Pursuant to the FCC's rules for shared transport, when a CLEC customer originates**
11 **an exchange access call (i.e., a call that will be routed to an interexchange carrier), the**
12 **only portion of the U S WEST interoffice network that is available on a shared basis is**
13 **the facility from the U S WEST end office to the U S WEST access tandem. Facilities**
14 **that are dedicated to the interexchange carrier's use, such as a direct facility from the**
15 **U S WEST end office or tandem to the interexchange carrier's point of presence, are not**
16 **considered a part of shared transport:**

17 On reconsideration, we further clarify that incumbent LECs are not required to
18 provide shared transport between incumbent LEC switches and serving wire
19 centers. We stated above that shared transport must be provided between
20 incumbent LEC switches. Serving wire centers are merely points of demarcation
21 in the incumbent LEC's network, and are not points at which traffic is switched.
22 Traffic routed to a serving wire center is traffic dedicated to a particular carrier.
23 We thus conclude that unbundled access to the transport links between incumbent
24 LEC switches and serving wire centers must only be provided by incumbent
25 LECs on a dedicated basis.

26 ¹

27 **Q. DOES THIS LIMITATION AFFECT THE ROUTING OF CLEC TRAFFIC TO**
28 **INTEREXCHANGE CARRIERS?**

29 **A. No. CLEC traffic originated from a U S WEST end office switch will be routed to**
30 **interexchange carriers over the same mix of dedicated and tandem-switched interoffice**
31 **facilities used by U S WEST end user customers. However, the dedicated facilities used**
32 **by interexchange carriers for this traffic will continue to be billed by U S WEST directly**
33 **to the interexchange carrier, rather than to the CLEC. These dedicated facilities include**
34 **direct trunk transport and entrance facilities.**

1 ⁷ Third Report and Order at para. 29.

1 **Q. TO THE EXTENT A CLEC END USER ORIGINATES AN INTEREXCHANGE**
2 **CALL TO, WILL THE CLEC HAVE THE ABILITY TO RENDER AN ACCESS**
3 **BILL TO THE INTEREXCHANGE CARRIER?**

4 **A. Yes. If a CLEC customer served by unbundled switching originates a call to an**
5 **interexchange carrier, and the call is routed via shared transport to U S WEST's access**
6 **tandem, the CLEC will have the ability to render an access bill to the interexchange**
7 **carrier. This is consistent with the FCC's Third Report and Order:**

8 We therefore find that . . . [CLECs] that provide exchange access using shared
9 transport facilities to originate and terminate local exchange calls may also use
10 those same facilities to provide exchange access service to the same customers to
11 whom the . . . [CLEC] is providing local exchange service. . . . [CLECs] are then
12 entitled to assess access charges to interexchange carriers that use the shared
13 transport facilities to originate and terminate traffic to the . . . [CLEC's]
14 customers.

15 ⁸

16 U S WEST will provide the necessary usage recordings to the CLEC to enable the CLEC to
17 render access bills to interexchange carriers in compliance with the above requirement.

18

1 ⁸ Third Report and Order at para. 52.

1 **IV. RATE STRUCTURE CONSIDERATIONS**

2 **Q. WHAT ARE THE PRINCIPLES THAT GUIDED U S WEST'S DEVELOPMENT**
3 **OF ITS SHARED TRANSPORT PRODUCT?**

4 A. The first principle is to recognize the inherent risks that are faced by facilities-based
5 providers of telecommunications networks – risks that are faced by parties that own their
6 own networks as well as those whose network consists of unbundled network elements
7 provided by another party.

8 The second principle is to encourage the efficient use of U S WEST's interoffice transport
9 network.

10 The third principle is to create incentives to ensure that one CLEC's actions or inactions will
11 not adversely affect the use of the shared transport network by U S WEST customers or
12 other CLECs.

13 The fourth principle is the costs incurred by providing shared transport should be recovered
14 from shared transport users.

15 The fifth principle is to create incentives to ensure that U S WEST is not required to build
16 excess interoffice transport capacity as a result of the availability of shared transport.

17 **Q. WHAT RISKS ARE ASSOCIATED WITH BEING A FACILITY-BASED**
18 **CARRIER?**

19 A. There are a number of risks associated with being a facility-based carrier, including the
20 requirements to make an up-front investment sufficient to build a network or to purchase
21 all required network elements; to design and manage the network; and to build an
22 inventory of facilities to serve customers.

23 As a facilities-based carrier, U S WEST clearly bears these risks. For example, it has
24 facilities "in inventory" available to serve customer demand when it arises. If
25 U S WEST invests too little in inventory, its service quality declines and, in a
26 competitive world, it will lose sales to other providers. If it invests too much in
27 inventory, it unnecessarily increases its costs. Other facilities-based providers must face
28 the same risks, even if the facilities-based provider relies on unbundled network
29 elements provided by U S WEST. These risks, faced by purchasers of unbundled
30 network elements, were recognized by the Eighth Circuit Court as one of the important
31 differences between resellers and purchasers of UNEs:

32 Carriers entering the local telecommunications markets by purchasing unbundled
33 network elements face greater risks than those carriers that resell an incumbent
34 LEC's services. A reseller can more easily match its supply with its demand
35 because it can purchase telephone services from incumbent LECs on a unit-by-

1 unit basis. Consequently, a reseller is able to purchase only as many services (or
2 as much thereof) as it needs to satisfy its customer demand. A carrier providing
3 services through unbundled access, however, must make an up-front investment
4 that is large enough to pay for the cost of acquiring access to all of the unbundled
5 elements of an incumbent LEC's network that are necessary to provide local
6 telecommunications services without knowing whether consumer demand will be
7 sufficient to cover such expenditures. Moreover, our decision requiring the
8 requesting carriers to combine the elements themselves increases the costs and
9 risks associated with unbundled access as a method of entering the local
10 telecommunications industry and simultaneously makes resale a distinct and
11 attractive option. With resale, a competing carrier can avoid expending valuable
12 time and resources recombining unbundled network elements.

13 ⁹

14 If a CLEC wants to avoid the risks of inventory, it can do so through the resale provisions of
15 the Act.

16 **Q. WHAT ARE THE BENEFITS TO A CLEC IF IT IS CONSIDERED A FACILITY-**
17 **BASED PROVIDER VERSUS A RESELLER?**

18 A. There are several advantages to a CLEC if it can obtain essentially finished services
19 provisioned as unbundled elements. First is the ability to obtain services at TELRIC
20 based rates. Absent a significant rate rebalancing of business and residence services,
21 there is an economic incentive to offer flat rated business lines and business vertical
22 features as unbundled network elements rather than at resale rates (the retail rate minus
23 costs avoided by U S WEST).

24 ¹⁰

25 Second, when a CLEC purchases unbundled switching, U S WEST cannot receive interstate
26 switched access charges for long distance calls that originate from or terminate to
27 that end user, as stated in the FCC First Report and Order. However, the CLEC can
28 assess interstate switched access charges to the interexchange carrier. This is a
29 tremendous economic incentive for all CLECs, but particularly for CLECs that
30 provide both local exchange and long distance services.

31 In addition, CLECs that are facility-based, or considered facility-based, by using unbundled
32 network elements, are exempt from the joint marketing restrictions of the
33 Telecommunications Act. Although the joint marketing restrictions are due to sunset

1 ⁹ *Iowa Utilities Bd. v. FCC*, 120 F. 3d 753, 813 (8th Cir. 1997)(emphasis added).

1 ¹⁰ This incentive is quantified in Exhibit MSR-1 (from my direct testimony), in Hearing Exhibit 542,
2 and in Exhibit MSR-6 to this testimony (which is essentially an updated version of the earlier exhibits).
3

1 in February 1999, that still does not negate their current importance.

2 **Q. HOW DOES THE ABOVE DISCUSSION IMPACT THE RATE STRUCTURE**
3 **FOR SHARED TRANSPORT?**

4 A. A shared transport rate structure must require a CLEC to forecast its use of the shared
5 transport network, and to bear the risks of investing in too much or too little capacity.
6 To do otherwise would allow CLECs to enjoy the benefits of being a facilities-based
7 provider, without bearing the concomitant risks. To do otherwise would also have the
8 effect of shifting the CLECs' risk to U S WEST.

9 **Q. ARE THERE OTHER PRINCIPLES U S WEST CONSIDERED IN DEVELOPING**
10 **ITS SHARED TRANSPORT RATE STRUCTURE?**

11 A. Yes. Because shared transport consists of a U S WEST provided combination of
12 unbundled switching, information in routing tables, trunk ports, and direct and tandem-
13 switched interoffice transport, the rate structure should include a 'recombination' charge
14 to reflect U S WEST's role in furnishing this combination of elements to a CLEC. In
15 fact, the absence of an unbundled loop is the only substantive difference between the
16 combination of unbundled switching and shared transport and resold residence or
17 business exchange service.

18

1 **VI. THE COMMISSION SHOULD NOT ESTABLISH A MINUTE OF USE**
2 **STRUCTURE FOR SHARED TRANSPORT**

3 **Q. DOESN'T THE FCC REQUIRE THE USE OF A MINUTE OF USE RATE**
4 **STRUCTURE FOR SHARED TRANSPORT?**

5 A. No. The initial rate structure established by the FCC in its First Interconnection Order
6 did require the use of a minute of use structure for shared transport.

7 ¹¹ However, the Eighth Circuit struck down this requirement in its July 18, 1997, Decision, which
8 vacated all of the FCC's interconnection pricing rules. Indeed, the FCC has acknowledged the
9 Eighth Circuit's July 18, 1997, Decision in its Third Report and Order:

10 We acknowledge that, under the Eighth Circuit's decision, we may not establish
11 pricing rules for shared transport.

12 ¹²

13 The Eighth Circuit also addressed pricing of shared transport in its August 10, 1998 Shared
14 Transport Decision. It reaffirmed its decision that the FCC has no authority to establish
15 pricing for shared transport, or any other unbundled network element:

16 Clearly, any attempt by the FCC to assert authority over the pricing of unbundled
17 network elements would violate both the Act as we read it and our decision in
18 Iowa Utilities Board.

19 ¹³

20 The Eighth Circuit left for another day speculation by petitioners that states might institute a
21 minute of use structure for shared transport:

22 The distinction between unbundled access and resale is important, petitioners
23 argue, because sections 251(c)(3) and 252(d)(1) require incumbent LECs to
24 provide unbundled access at cost-based rates, while sections 251(c)(4) and
25 252(d)(3) allow incumbent LECs to provide retail services for resale at a higher
26 price, equal to the LEC's retail subscriber rates less avoided costs. Petitioners
27 argue that, if use of all of an incumbent LEC's shared transport facilities may be
28 collectively purchased on a per-minute-of-use basis, entrants will effectively be
29 able to purchase preassembled platforms for resale at the lower cost-based price
30 reserved for unbundled access to network elements. Petitioners argue that if this

1 ¹¹ 47 C.F.R. 51.513(c)(4).

1 ¹² Third Report and Order at para. 30.

1 ¹³ *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 597, 1998 U.S. App. LEXIS 18352, *25 (8th Cir.
2 1998).

1 is allowed to occur, the distinction between resale and unbundled access will be
2 obliterated.

3 This argument is predicated on petitioners' speculative assumption that shared
4 transport will be priced on a usage-sensitive basis. Because the pricing scheme
5 for shared transport (and all other unbundled elements) will be determined by the
6 state commissions . . . it is impossible for this court to determine at this time
7 whether shared transport will be priced in such a way as to erode the distinction
8 between resale and unbundled access. Since, as in Iowa Utilities Board, "we do
9 not know what the state-determined rates [or even what the rate structure] will
10 be," it follows that petitioners' arguments regarding the actual costs that entrants
11 will incur are "speculative at best". . . . Until the state commissions exercise their
12 authority to determine how shared transport will be priced (i.e., whether on a flat,
13 use-sensitive, or other basis, and at what price), we could do no more than
14 conjecture as to whether the unbundled sale of shared transport will erode the
15 careful distinction between resale and unbundled access. Accordingly, we
16 decline at this time to consider petitioners' argument to this effect.

17 ¹⁴

18 **Q. WHILE THE FCC CLEARLY HAS NO AUTHORITY TO ESTABLISH A**
19 **MINUTE-OF-USE STRUCTURE FOR SHARED TRANSPORT, WHY SHOULD**
20 **THIS COMMISSION NOT CONSIDER SUCH A RATE STRUCTURE?**

21 A. A simple minute-of-use rate structure for shared transport allows a CLEC to pay for
22 shared transport on a per-call, as-needed basis. Under such a structure, the CLEC would
23 avoid all responsibility for forecasting its needs, to obtain inventory to satisfy its
24 forecasted needs, and to assume the risks of a true facilities-based network operator.
25 Those risks include the possibility that the CLEC's inventory may be too low and that
26 service to the customer will suffer. Those risks also include the possibility that
27 inventory levels will be too high, unnecessarily increasing the CLEC's cost of service.
28 Moreover, the above risks do not disappear if a minute-of-use structure is used for
29 shared transport – they are borne by the incumbent LEC.

30 Simply put, interoffice transport networks are not assembled from 'minute-of-use' piece
31 parts. Instead, U S WEST and other network operators must assemble their network
32 through facilities that are generally available for use 24 hours a day, 7 days a week,
33 regardless of the amount of traffic that is presented to the network. This is analogous to
34 how highways are constructed – a lane (trunk) at a time, not a car at a time. While the
35 addition of an additional lane of traffic is capable of handling a certain amount of traffic
36 during the rush hour, the highway owner must bear the cost of the lane of traffic –

1 ¹⁴ *Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 597 1998 U.S. App. LEXIS 18352, *16 (8th Cir.
2 1998).

1 regardless of the amount of traffic that it carries throughout the day.

2 Under a minute-of-use structure, it is U S WEST that bears the risk of having too little
3 inventory in its shared transport network. That is, if a CLEC presents unforecasted
4 demand on the shared network, calls will be blocked, lowering the quality of service.
5 And, because the shared transport network is shared, U S WEST's end users will suffer
6 the same reduction in service quality as the CLEC's customers.

7 Under a minute-of-use structure, it is U S WEST that bears the risk of having too much
8 inventory in its shared transport network. The cost of the surplus inventory will be
9 borne by U S WEST and its customers -- not by the CLEC or its customers, since the
10 CLEC need only pay for the minutes-of-use it actually places on the shared network.

11 **Q. DO CLECS HAVE OPTIONS TO AVOID THE RISKS OF MAINTAINING AN**
12 **INVENTORY IN A SHARED TRANSPORT NETWORK?**

13 A. Yes. The Eighth Circuit makes clear that one of the important differences between
14 resale and unbundled network elements is that under resale, a CLEC can avoid the risks
15 inherent in constructing capacity in a network. U S WEST offers CLECs the option of
16 obtaining residence and business exchange services on a resold basis. These resold
17 services include use of U S WEST's shared transport network. Since CLECs can obtain
18 these resold services without forecasting their needs for traffic on the network, they can
19 avoid the risks of maintaining network inventory through the resale provisions of the
20 Act.

21 **Q. LET'S RETURN TO THE ORIGINAL QUESTION POSED IN THIS SECTION**
22 **OF YOUR TESTIMONY. DO YOU BELIEVE A MINUTE-OF-USE STRUCTURE**
23 **SHOULD BE ADOPTED BY THIS COMMISSION?**

24 A. No. I believe that a minute-of-use structure would eliminate the important distinctions
25 between the resale and unbundled network element provisions of the Act, as interpreted
26 by the Eighth Circuit Court. As a result, it appears likely that a simple minute-of-use
27 structure would be found to improperly shift the risks of maintaining the inventory in the
28 shared transport network from CLECs to U S WEST.

29 A minute-of-use structure will allow a CLEC to use U S WEST's entire interoffice network
30 as a bundled whole and on an as-needed basis, with payment only after the fact for actual
31 minutes used. If a CLEC purchases "shared transport" to carry a call between two end
32 offices, under a minute-of-use structure, the CLEC would not have to specify which
33 interoffice trunks or tandem switches should be used to route the call - it would leave
34 that decision (and the complementary need to plan an interoffice network) to U S WEST.
35 In addition, since the CLEC would be purchasing U S WEST's entire interoffice network
36 as currently combined on an as-needed basis, the CLEC would avoid having to make an
37 up-front commitment to particular interoffice facilities and bearing the business risks of
38 investing too much or too little.

1 A minute-of-use structure would have U S WEST's interoffice transport network defined as
2 a single "macro" unbundled network element, consisting of an ever changing mix of
3 dedicated and tandem switched transport elements that would be available to a CLEC on
4 an as needed basis. This approach relieves the CLEC of any real responsibility to
5 forecast, design, or invest in interoffice facilities -- since it would be able to purchase
6 such transport from U S WEST on an as needed basis.

7 Finally, a minute-of-use rate structure would also inappropriately penalize the true facilities-
8 based CLECs, like MCImetro and ELI, who are investing in local telephony, and are
9 constructing their own interoffice transport networks. These CLECs, like all other
10 facility-based network operators, for all practical purposes, must add interoffice trunking
11 in minimal increments of capacity of a DS-1 (i.e., 24 trunks at a time).

12

1 V. U S WEST PROPOSED SHARED TRANSPORT PRODUCT

**2 Q. PLEASE PROVIDE AN OVERVIEW OF THE U S WEST PROPOSAL FOR
3 SHARED TRANSPORT.**

4 A. The U S WEST shared transport product complies with the Act, the FCC's requirements
5 established in its First Interconnection Order and its Third Report and Order, as well as
6 the Eighth Circuit's decisions. Additionally, as Mr. Fleming testifies, U S WEST's
7 shared transport cost analysis is consistent with the other transport cost analyses that
8 U S WEST has filed in this proceeding and complies with the various Commission
9 directives in the 8th through 16th Supplemental Orders. Specifically, U S WEST
10 proposes to apply three primary rate elements to U S WEST's shared transport product.
11 Those rate elements are:

- 12 1) Monthly Charges for each CLEC's Forecasted Use;
- 13 2) Premium Charges for Use that Exceeds each CLEC's Forecast;
- 14 3) A Recombination Charge, which represents U S WEST's
15 combination of unbundled switching and various transport elements into a new macro
16 unbundled network element.

**17 Q. IS U S WEST PROPOSING ANY NONRECURRING CHARGES FOR SHARED
18 TRANSPORT?**

19 A. Not at this time. U S WEST is currently evaluating whether the nonrecurring charge for
20 the analog switch port is sufficient to recover all the nonrecurring costs associated with
21 provisioning the switch port and shared transport elements.

**22 Q. BEFORE WE REVIEW THE RATE STRUCTURE, PLEASE DESCRIBE HOW A
23 CLEC WOULD FORECAST ITS DEMANDS FOR SHARED TRANSPORT.**

24 A. We can begin with an example. Let's assume that a CLEC has decided to obtain
25 unbundled switching and shared transport from one of U S WEST's end offices in
26 Seattle. To initiate service, the CLEC would provide an eighteen month forecast of its
27 originating traffic from that end office. The forecast would provide the quantity of
28 trunks the CLEC will require to originate traffic to each of the end offices in the local
29 calling area. The forecast would also include the number of trunks the CLEC will
30 require to the U S WEST access tandem for the purposes of originating and terminating
31 switched access traffic.

32 Q. HOW WILL THE FORECAST BE USED BY U S WEST?

33 A. U S WEST will incorporate the CLEC's forecast with U S WEST's own forecast of
34 network demand to help ensure the shared transport network has adequate capacity to

1 carry both the CLEC and U S WEST forecasted demand.

2 **Q. BUT CLECS HAVE CLAIMED THAT ALL OF THEIR DEMAND WILL BE**
3 **FORMER U S WEST CUSTOMERS. AS A RESULT, IS THERE REALLY ANY**
4 **NEED FOR A CLEC FORECAST?**

5 A. That may be the case in the initial stages of competition, when there are fewer customers
6 served by end office switches owned by CLECs. However, we need to be prepared for
7 the shifting of customers from one CLEC, who owns its own switch, to another CLEC,
8 who utilizes U S WEST's unbundled switching and shared transport. The shift of such
9 customers will clearly represent a very real increase in the demand on U S WEST's
10 shared transport network. Without timely and accurate forecasts from CLECs that
11 include such demand, the U S WEST shared transport network would suffer from
12 potential blockages - not only for CLEC customers but for U S WEST customers as
13 well.

14 **Q. HOW WILL THE CLEC'S EIGHTEEN MONTH FORECAST BE**
15 **INCORPORATED WITHIN THE RATE STRUCTURE FOR SHARED**
16 **TRANSPORT?**

17 A. A CLEC will be required to commit, in advance, to the initial six months of capacity in
18 its eighteen month forecast. This will be an ongoing requirement such that at any given
19 point in time the CLEC will always have a commitment for the succeeding 6 months of
20 forecasted capacity. A facilities-based provider always adds capacity in increments of
21 DS1 capacity. However, to minimize a CLEC's start up costs, for CLECs who require
22 less than a single DS1's worth of capacity, a CLEC may order smaller increments of
23 DS0 capacity.

24 **Q. WHAT IS THE DIFFERENCE BETWEEN A DS0 AND A DS1 CAPACITY?**

25 A. A DS0 trunk has the capacity to carry a single call at any one time. A DS1 trunk has the
26 capacity to carry 24 simultaneous conversations. Because of its relative efficiency, the
27 U S WEST interoffice network consists entirely of DS1 capacity trunking.

28 **Q. IF U S WEST'S INTEROFFICE NETWORK IS PRIMARILY BASED ON DS1**
29 **CAPACITY TRUNKING, WHY DOES U S WEST PROPOSE TO ALLOW CLECS**
30 **TO ORDER SHARED TRANSPORT IN DS0 UNITS OF CAPACITY?**

31 A. Until a CLEC has sufficient traffic between two locations to justify the use of single
32 DS1, U S WEST believes it is reasonable to allow CLECs to order shared transport on a
33 smaller increment, to minimize their start-up costs.

1 Q. **WHAT IS THE PROPOSED RATE FOR FORECASTED DS0 AND DS1 SHARED**
2 **TRANSPORT TRUNKS?**

3 A. There are two separate rates that apply to local and switched access traffic. The shared
4 transport rate for local traffic is:

5

	<u>Forecasted Capacity</u>	<u>Rate</u>
1		
2	DS0	\$23.44/month
3	DS1	\$166.33/month
4		

5 The shared transport rate for switched access traffic is:

	<u>Forecasted Capacity</u>	<u>Rate</u>
6		
7	DS0	\$15.95/per month
8		

9 These rates were established based on the pricing methodology presented in my direct
10 testimony. Specifically, U S WEST developed the price floor based on TELRIC (see
11 testimony of Garrett Fleming), including attributed and common costs, and then applied
12 its proposed mark-up of 1.18. As required by the Commission, the individual cost and
13 pricing components are displayed in Confidential Exhibit MSR-5.

14 **Q. WHY ARE THERE DIFFERENCES IN THE SHARED TRANSPORT RATES**
15 **FOR LOCAL AND SWITCHED ACCESS TRAFFIC?**

16 A. First, the cost for the switched access DS0 trunk is based on a different amount of
17 assumed traffic than the local access trunks, due to blockage designs. Additionally, the
18 switched access DS0 is a direct trunk between the end office of the CLEC and the access
19 tandem while the DS0 trunk for local access traffic is assumed to be 100% tandem
20 switched. The DS1 local access trunk, in addition to being a much higher bandwidth,
21 capable of carrying much higher traffic loads, assumes that 85% of the traffic is direct
22 trunked between end offices and 15% is routed through the local tandem. Mr. Fleming's
23 testimony and accompanying cost studies address these specific cost differences.

24 **Q. GIVEN THE ABOVE RATE STRUCTURE, HOW DOES A CLEC DETERMINE**
25 **HOW MANY DS0 AND DS1 TRUNKS TO INCLUDE IN ITS FORECAST?**

26 A. The CLEC must begin with a forecast of the number of customers it will serve from a
27 particular U S WEST central office through unbundled switching and shared transport.
28 Then, the CLEC must forecast the amount of local and switched access traffic these
29 customers will generate. These traffic forecasts must, in turn, be used to determine how
30 much capacity the CLEC will order from U S WEST. The actual capacities, by trunk
31 type, are shown in the following table:

	<u>Trunk type</u>	<u>Capacity</u>
32		
33	Local Network	
34	DS0	8,813 mou
35	DS1	213,047 mou
36	Access Network	
37	DS0	6,229 mou
38		

1

2 **Q. HOW ARE THESE CAPACITIES DETERMINED?**

3 A. The capacities represent the actual use of each interoffice trunk in U S WEST's local and
4 access networks.

5 **Q. WHAT IF A CLEC DETERMINES THAT ITS LONG RANGE FORECAST**
6 **NEEDS TO BE MODIFIED?**

7 A. A CLEC may increase or reduce its forecasted shared transport demand for the last
8 twelve months of its eighteen month forecast at any time without penalty.

9 **Q. IF THE ACTUAL USE OF THE SHARED TRANSPORT NETWORK BY THE**
10 **CLEC IS LESS THAN ITS FORECASTED USE, WILL U S WEST REBATE AN**
11 **APPROPRIATE AMOUNT OF THE CLEC'S PAYMENTS?**

12 A. No. Any such rebate or credit would simply convert the rate structure to a 'pay-as-you-
13 go' structure, which would be inconsistent with the Act, as interpreted by the Eighth
14 Circuit.

15 **Q. IF A CLEC DETERMINES THAT IT HAS COMMITTED TO MORE CAPACITY**
16 **THAN IT WILL ACTUALLY REQUIRE FOR THE REMAINING TERM OF ITS**
17 **SIX MONTH FORECAST, CAN THE CLEC REDUCE THIS FORECAST AND**
18 **THEREBY REDUCE ITS CHARGES FOR SHARED TRANSPORT?**

19 A. No. Again, to be consistent with the principle that CLECs must take responsibility for
20 forecasts, and assume the risks associated with purchasing too much or too little
21 capacity, it is important that the CLECs actually be committed to the capacity they have
22 ordered during the first six months of their eighteen month forecast. However, because
23 the CLEC is not committed to the capacity forecasted in the seven to eighteen month
24 portion of its forecast, it may reduce its forecast in this period without incurring the
25 unforecasted capacity charge.

26 **Q. WHAT IF THE CLEC'S ACTUAL DEMAND EXCEEDS THE CAPACITY IT**
27 **HAS OBTAINED THROUGH ITS SIX MONTH FORECAST?**

28 A. Interestingly, a similar situation for a CLEC building its own network would result in
29 call blockage. Such blockage is consistent with the risks faced by true facilities-based
30 providers. If U S WEST were to under forecast its demand, it would face the risk of
31 increased blockage on its network. The same is true of any CLEC who owns its own
32 switch.

33 The truth of the matter is that U S WEST's network is not currently capable of blocking a
34 CLEC's traffic that exceeds the capacity that the CLEC has purchased from U S WEST

1 if there is adequate capacity in the network. Instead, such traffic will continue to be
2 routed regardless of the amount of traffic that has been forecasted by the CLEC. And, if
3 the CLEC substantially exceeds its forecast, and increased blockage occurs on the shared
4 network, U S WEST and CLEC customers will encounter the same increased level of
5 blockage.

6 **Q. IS U S WEST ACTIVELY PURSUING THE DEVELOPMENT OF A**
7 **CAPABILITY TO BLOCK CLEC SHARED TRANSPORT TRAFFIC?**

8 A. No, not at this time. The inherent nature of shared transport is the fact that U S WEST
9 will be required to 'share' its interoffice transport network with CLECs. As a result, a
10 single CLEC has the capability of presenting sufficient traffic to that shared network that
11 could result in blockage for all users of the shared network - including U S WEST's
12 retail customers. U S WEST is hopeful that the forecasting process will avoid such
13 blockages. However, if the forecasting process proves inadequate to the task of avoiding
14 significant CLEC-caused blockages on the shared transport network, U S WEST may
15 have to consider procedures which would limit a CLEC's traffic to its forecasted
16 capacity requirements.

17 **Q. HOW WILL U S WEST RECOVER THE COST OF DEMAND ON ITS SHARED**
18 **TRANSPORT NETWORK THAT EXCEEDS A CLEC'S FORECASTED**
19 **CAPACITY?**

20 A. U S WEST will assess the CLEC a premium charge for the traffic that exceeds the
21 capacity that has been purchased by the CLEC. The following charges will apply to
22 shared transport demand on the local network that exceeds the capacity forecasted and
23 purchased in advance by the CLEC. As is explained more fully below, these charges are
24 calculated by multiplying the "Forecasted Capacity" rates by 2.

25 The unforecasted shared transport capacity rate for local traffic is:

26

<u>Unforecasted Capacity</u>	<u>Rate</u>
DS0	\$46.88/month

27
28
29

30 The unforecasted shared transport capacity rate for switched access traffic is:

31

<u>Unforecasted Capacity</u>	<u>Rate</u>
DS0	\$31.90/per month

32
33

34 **Q. HOW DID YOU ESTABLISH THE RATE FOR THE UNFORECASTED**
35 **CAPACITY USED BY THE CLEC?**

36 A. As an initial matter, if the rate for transport that is not forecasted is the same as the rate

1 for forecasted transport capacity, there would be no incentive for the CLEC to commit to
2 an accurate forecast in advance of its requirements. It would simply avoid the risk of
3 committing to too much capacity by submitting a very low forecast, knowing that it will
4 pay no penalty for the actual capacity it uses above that commitment. U S WEST has
5 learned from its interconnection trunking experience that without "pricing tension",
6 CLECs have little incentive to maintain efficient utilization on interconnection trunk
7 groups.

8 Moreover, by exceeding the CLEC's forecast, the CLEC exposes U S WEST to several risks.
9 First, U S WEST may experience increased blockage on its shared transport network –
10 thereby deteriorating service to U S WEST's own retail customers. And, to the extent
11 the CLEC's unforecasted demand results in blockage on the access network, U S WEST
12 will face a loss in switched access revenues from interexchange carriers.

13 For these reasons, I believe it is appropriate to establish the rate for unforecasted demand at
14 twice the rate for forecasted demand.

15 **Q. CAN A CLEC AVOID THE ABOVE PREMIUM CHARGES BY INCREASING**
16 **ITS SIX MONTH FORECAST?**

17 A. Yes. But only prior to submission of the forecast. Once the CLEC has committed to a
18 particular capacity for a six month period through the submission of a forecast, the
19 CLEC cannot increase that six month forecast to avoid the premium charges. Again,
20 such an approach would allow a CLEC to avoid the risk faced by all facility-based
21 CLECs, who must accurately forecast their traffic, build sufficient interoffice capacity,
22 or suffer the consequences.

23

24 **Q. LET'S TURN TO THE THIRD, AND FINAL, PROPOSED RATE ELEMENT FOR**
25 **SHARED TRANSPORT - THE RECOMBINATION CHARGE. PLEASE**
26 **REVIEW THE UNBUNDLED NETWORK ELEMENTS THAT U S WEST**
27 **CONSIDERED WHEN DEVELOPING THIS CHARGE.**

28 A. Before I discuss the proposed Recombination Charge, it will be helpful to discuss the
29 three primary unbundled network elements that are now available to CLECs. Those
30 elements are unbundled loops, unbundled switching, and shared transport. Those three
31 elements, when combined together, constitute a finished retail service – such as
32 residence or business exchange service.

33 Shared transport itself represents a constantly changing U S WEST provided combination of
34 end office and tandem trunk ports, tandem switching, and interoffice facilities.

35 When a CLEC obtains the U S WEST provided combination of unbundled switching and
36 shared transport, U S WEST has performed a substantial portion of the functions

1 required to combine unbundled network elements into a finished service like business or
2 residence exchange service. The only combination left for the CLEC is the combination
3 of a loop with unbundled switching.

4 **Q. WHAT IS THE PURPOSE OF THE RECOMBINATION CHARGE?**

5 A. The Recombination Charge recognizes both the effort that U S WEST must incur to
6 provide this combination of unbundled switching and shared transport and also the
7 relative similarity between functionality for bundled resold services and the combination
8 of unbundled loops, unbundled switching, and shared transport.

9

10 U S WEST is also, of course, obligated by the Act and the FCC's rules, to provide
11 unbundled network elements to CLECs. The FCC, in its First Interconnection Order,
12 required U S WEST and other incumbent LECs to combine unbundled network elements
13 on a CLECs' behalf.

14 ¹⁵ In the instance where U S WEST had already combined two or more unbundled network elements
15 for its own use, the FCC also prohibited U S WEST from disassembling the combination – but rather
16 required U S WEST to provide to CLECs such combinations intact.

17 ¹⁶ The Eighth Circuit Court vacated each of the above mentioned FCC rules, and clearly found that
18 U S WEST cannot be compelled to combine unbundled network elements on behalf of a CLEC, nor
19 can U S WEST be compelled to provide previously assembled combinations to CLECs.

20 In its Shared Transport Decision, the Eighth Circuit determined that the FCC has
21 authority to define unbundled network elements, and that the FCC did not
22 exceed its authority when it determined that U S WEST and other
23 incumbent LECs must provide a single 'unbundled network element' that
24 consists of switching and shared transport. U S WEST believes the Court
25 went too far in deferring to the FCC in this regard, and has asked the Court
26 to reconsider its decision.

27 **Q. HOW DOES THE ABOVE DISCUSSION LEAD TO THE U S WEST PROPOSAL**
28 **FOR A RECOMBINATION CHARGE?**

29 A. While U S WEST disagrees with the Eighth Circuit's determination that the FCC is
30 entitled to define a new unbundled network element that clearly amounts to a
31 combination of multiple network elements (i.e., switching and the myriad elements that
32 constitute an interoffice transport network), that determination is, nevertheless, the law

1 ¹⁵ See vacated rules 47 C.F.R. 51.315(c)-(f).

1 ¹⁶ See vacated rule 47 C.F.R. 51.315(b).

1 of the land. At issue in this proceeding is the principle that this Commission should use
 2 when establishing the rates for shared transport. It seems reasonable that the
 3 Commission consider the obvious – that shared transport constitutes the provision by
 4 U S WEST of a combination of multiple network elements into a service that is
 5 comparable in many respects to the finished services U S WEST offers to CLECs as
 6 resold services – specifically, residence and business exchange services. The only
 7 significant difference between the resold finished services and the combination of
 8 switching and shared transport is that the former includes a loop, while the latter does
 9 not.

10 **Q. ARE YOU SUGGESTING THAT THE PRICE FOR THE COMBINATION OF**
 11 **UNBUNDLED SWITCHING AND SHARED TRANSPORT SHOULD BE SET AT**
 12 **THE RESALE RATES FOR FINISHED SERVICES?**

13 A. No, but a starting point would be to compare the sum of the unbundled network element
 14 prices (i.e., loops, switching, and shared transport) with the price of a resold finished
 15 residence or business exchange service. That is, if U S WEST were to provide a
 16 combination of loops, switching, and shared transport to a CLEC, it seems clear that the
 17 appropriate rate should be the resale rate – not the rate for the underlying unbundled
 18 network elements. The difference between these rates is effectively the "total"
 19 recombination charge that CLECs are required to pay U S WEST when U S WEST
 20 provides a finished service through the resale provisions of the Act. This can be
 21 illustrated in the following table (all numbers are illustrative):

22	Resold Finished Service		\$40.00
23	Individual UNEs		
24	Unbundled Loop	20.00	
25	Unbundled Switching	1.50	
26	Shared Transport	<u>2.50</u>	
27	Sub Total - UNEs		<u>24.00</u>
28	Effective "Total" Recombination Charge for Resale		16.00

29 Using the above example, in the instance where U S WEST has provided a resold service to
 30 a CLEC, such as a resold finished business exchange service, U S WEST charges the
 31 CLEC the resale rate for the service (\$40 in the above example). U S WEST is not
 32 required to offer the finished service at the price for the underlying unbundled network
 33 elements (\$24 in the above example). In effect, U S WEST's illustrative resale rate
 34 includes a total recombination charge (\$16 in the above example). The total
 35 recombination charge can be thought of as a fee for assembling the myriad of unbundled
 36 network elements contained within U S WEST's network that are available to CLECs as
 37 a finished service.

1 Q. DOES U S WEST PROPOSE A RECOMBINATION CHARGE COMPARABLE
2 TO THE \$16 IN THE PREVIOUS EXAMPLE?

3 A. No. U S WEST is not proposing that CLECs who obtain the combination of unbundled
4 switching and shared transport be assessed the equivalent of a total recombination
5 charge. Because U S WEST has assembled only two of the three primary elements in
6 this combination (i.e., switching and transport), U S WEST is proposing one half of the
7 total recombination charge be assessed. In theory, should U S WEST be compelled in
8 the future to combine all three of the primary unbundled network elements into a
9 finished service (i.e., loops, switching and transport) into a finished service – a second
10 Recombination Charge would apply, bringing such a combination back to the resale rate
11 for the finished service.

12 Q. WHAT IS THE SPECIFIC LEVEL OF THE RECOMBINATION CHARGE
13 PROPOSED BY U S WEST?

14 A. The level of the Recombination Charge varies depending on whether unbundled
15 switching and shared transport combination is being used by the CLEC for residence or
16 business exchange service. The actual levels for such charges are as follows:

1	Switching/Shared Transport Combination	Recombination
2	<u>Is Used By CLEC to Provide</u>	<u>Charge</u>
3	Residence Exchange Service	\$0.16
4	Business Exchange Service	\$9.24

5 The actual computation of these Recombination Charges are contained in Exhibit MSR-6.
6 Exhibit MSR-6 is actually an updated version of Hearing Exhibit 542 in this proceeding,
7 which was initially the response to a Staff data request to U S WEST. As explained
8 above, Exhibit MSR-6 determines the difference between the wholesale revenue streams
9 from business and residential exchange services (including, average exchange service
10 revenues , EUCL, average per line features, average per line toll, and average per line
11 interstate and intrastate switched access) and the rates for UNE elements that would be
12 used to provide the retail services (including, unbundled loop, switch port, switching,
13 shared transport, EICTs, and certain access facilities - entrance facilities/multiplexing).

14 **Q. HOW HAS EXHIBIT MSR-6 BEEN UPDATED FROM WHAT WAS**
15 **CONTAINED IN HEARING EXHIBIT 542?**

16 A. The following modifications were made to update Hearing Exhibit 542 to what is now
17 filed in Exhibit MSR-6;

18 - Adjusted the unbundled loop rate based on the ordered loop cost adjustment

19 - Replaced the Direct Trunk Transport and Tandem Switched Transport UNEs with the new
20 Shared Transport element.

21 - Updated all revenue and demand data from 12/96 data to a 5 month average of 2/98 to
22 6/98 data

23 - Included EICT costs in 'Unbundled Revenue' category

24 **Q. DO THESE CHANGES CHANGE ANY OF YOUR CONCLUSIONS REGARDING**
25 **YOUR PROPOSED 18% MARK-UP?**

26 A. No. There is still more than adequate margin between UNE costs and the average resale
27 revenues to support the 18% mark-up and all my conclusion from my direct testimony.

28 **Q. WHY SHOULD THE LEVEL OF THE RECOMBINATION CHARGE VARY**
29 **DEPENDING ON WHETHER THE CLEC IS SERVING BUSINESS OR**
30 **RESIDENTIAL EXCHANGE SERVICE?**

31 A. For the same reason that the rates for U S WEST's business exchange service are set
32 well above the comparable rates for residential exchange service - namely to establish a
33 subsidy flowing from business to residential exchange service. This subsidy flow is
34 maintained when CLECs resell U S WEST's business and residence exchange services,

1 since the resold rate for these services is based on the retail rate less the avoided cost.
2 Without a higher Recombination Charge for business exchange service, CLECs would
3 be able to avoid the contributions inherent in the resale rates for business exchange
4 service by obtaining the unbundled switching/shared transport combination at rates that
5 are based on cost - without any contribution to support residential exchange service.
6 Without a Recombination Charge, therefore, the unbundled switching/shared transport
7 combination offers CLECs an inappropriate opportunity to arbitrage the differences
8 between UNE pricing and resold business and residence exchange services.

9 **Q. HAVE OTHER COMMISSIONS CONSIDERED RECOMBINATION CHARGES?**

10 A. Yes. Commissions in several states, including Georgia, Tennessee, Louisiana and North
11 Carolina have addressed the issue. For example, the Louisiana Commission determined
12 that a Recombination or 'Glue' Charge would apply even in the instance where a CLEC
13 performs the combination of unbundled network elements into a finished service:

14 **To the extent AT&T purchases unbundled network elements and then**
15 **recombines them to replicate Bell South services, it is reselling BellSouth's**
16 **services.** As Shakespeare pointed out, a rose by any other name is still a rose, and
17 so it is with resale, even when AT&T chooses to call it a combination of
18 unbundled elements. Both the FCC and this Commission have issued Orders
19 strongly supporting an aggressive resale market. This commitment to resale
20 would be rendered meaningless if AT&T were allowed **bypass resale through the**
21 **fiction of "rebundling."** Unrestricted pricing on the recombination of unbundled
22 elements would allow AT&T to purchase unbundled elements from Bell South and
23 then rebundle those elements without adding any additional capability, in order to
24 create a service which is identical to a retail offering already being provided by
25 BellSouth and therefore subject to mandatory resale. **Such an arrangement**
26 **would allow AT&T to avoid both the Act's and this Commission's pricing**
27 **standards for resale, avoid the Act's restrictions regarding joint marketing**
28 **and avoid access charge requirements.** Such an arrangement would also serve
29 as a disincentive to the ILECs to construct their own facilities."

30 ¹⁷ (emphasis added)

31 **Q. HAVE OTHER STATES ADDRESSED THE ISSUE?**

32 A. Yes. In several arbitration cases, Commissions have ruled that there is no limit on how
33 unbundled elements can be combined, but if elements are combined in such a way as to
34 recreate an existing retail service, then the CLEC will pay the resale rate (retail less the
35 avoided cost discount). For example, the Georgia Commission ruled:

¹ ¹⁷ Louisiana Public Service Commission, Report and Recommendation, Docket U-22145, re. AT&T
² Arbitration, Approved January 15, 1997, page 39.

1 The Commission further rules that when AT&T recombines unbundled elements to
2 create services identical to BellSouth's retail offerings, the prices charged to
3 AT&T for the rebundled services shall be computed as BellSouth's retail price less
4 the wholesale discount and offered under the same terms and conditions, including
5 the same application of access charges and the imposition of joint marketing
6 restrictions.

7 ¹⁸

8 The Louisiana Commission ruled in a similar manner:

9 . . . when AT&T recombines unbundled elements to create services identical to
10 BellSouth's retail offerings, the prices charged to AT&T for the rebundled services
11 shall be computed at BellSouth's retail price less the wholesale discount established
12 in Order U-22020 or any subsequent modifications thereof. . . and offered under the
13 same terms and conditions as BellSouth offers the service under.

14 ¹⁹

15 **Q. ARE THERE OTHER STATES WHO HAVE SPECIFICALLY CONSIDERED A**
16 **RECOMBINATION, OR GLUE, CHARGE?**

17 A. Yes. On April 6, 1998, Bell Atlantic submitted a Pre-Filing Statement to the New York
18 Public Service Commission, in connection with its anticipated application to the FCC for
19 interLATA relief under Section 271 of the 1996 Telecommunications Act. This
20 statement is the culmination of months of hearings and collaborative meetings with the
21 NYPSC and its staff. It also reflects substantial participation by the Department of
22 Justice. The statement contains a series of commitments made by Bell Atlantic for the
23 purpose of obtaining from the NYPSC a positive recommendation on Bell Atlantic's
24 ultimate Section 271 application to the FCC.

25 In that statement, Bell Atlantic will assess a Glue Charge of \$6.00 per month for business
26 services in New York City and \$2.00 per month in other locations. No Glue charge for
27 residential service is proposed. While the Bell Atlantic proposal is currently pending
28 before the NYPSC, the proposal has been conditionally approved by the Department of
29 Justice, which stated in an April 6, 1998 letter to John O'Mara, Chairman of the New
30 York Public Service Commission:

31 As you have requested, the Department of Justice has reviewed the Pre-Filing
32 Statement submitted by Bell Atlantic-New York. It is obviously premature for

1 ¹⁸ Georgia Public Service Commission, Order Ruling on Arbitration (Petition by AT&T), Docket
2 6801-U, Issued December 3, 1996, page 51.

1 ¹⁹ Louisiana Public Service Commission, Report and Recommendation, Docket U-22145, re. AT&T
2 Arbitration, Approved January 15, 1997, page 39.

1 the Department to reach any conclusion about what we would recommend to the
2 FCC concerning any actual section 271 application filed by Bell Atlantic-New
3 York. Such a determination, of course, must await the Department's usual
4 practice of reviewing the complete record, including the comments of all
5 interested and affected parties at the time of any such application. Subject to that
6 caveat, however, it is our view that the Pre-Filing Statement filed by Bell
7 Atlantic-New York, if fully and properly implemented, should support a
8 conclusion that the New York local telephone market is fully and irreversibly
9 open to competition.

10 **Q. HAS A COMMISSION IN THE U S WEST REGION CONSIDERED THE**
11 **ADOPTION OF A RECOMBINATION CHARGE?**

12 A. Yes. The Montana Commission has determined that, to the extent U S WEST provides a
13 combination of unbundled network elements to a CLEC that is comparable to a finished
14 service, the resale rate – not the unbundled network element rate – would apply to the
15 combination.

16 **Q. HAS A FEDERAL COURT CONSIDERED THE ADOPTION OF A**
17 **RECOMBINATION CHARGE?**

18 A. Yes. The North Carolina District Court invalidated a "glue charge" only in the
19 circumstances when a CLEC orders unbundled elements and the CLEC combines those
20 elements itself to provide a finished service equivalent to a finished service provided by
21 the BOC.

22 ²⁰

23 **Q. DID THE NORTH CAROLINA COURT ALSO ADDRESS THE SITUATION**
24 **WHEN THE BOC COMBINES THE UNBUNDLED NETWORK ELEMENTS**
25 **FOR THE CLEC?**

26 A. Yes, it did. The North Carolina court clearly understood the arbitrage inherent in
27 requiring a BOC to provide combinations of UNEs at TELRIC-based UNE prices.
28 In that decision, the court admonished AT&T that it would not allow it to "have its
29 cake and eat it too." The court reasoned that:

30 AT&T seeks to have the court declare that BellSouth must sell unbundled
31 network elements at cost-based rates while also interpreting the Agreement to
32 obligate BellSouth to combine these elements for AT&T. . . . This court will not
33 allow AT&T to have its cake and eat it too.

1 ²⁰ *AT&T v. BellSouth Telecommunications, Inc.*, No. 5:97-CV-405-BR (E. D. N Carol., Britt , J.),
2 pp.16-18.

1 ²¹

2 The Court explained earlier the basis for its reasoning when discussing the Eighth Circuit's
3 decision:

4 The practical effect of this holding is to establish a clear boundary between the
5 operation of subsections (c)(3) [unbundled access] and (c)(4) [resale]. In
6 requiring the ILEC to combine network elements that telecommunications
7 carriers sought to purchase on an unbundled basis, the FCC's rule obscured the
8 demarcation between cost-based unbundled access and the purchase of complete
9 services at wholesale prices. In effect, the Eighth Circuit refused to allow the
10 FCC to distort § 251(c)(3) to give requesting carriers an unintended advantage.
11 Consequently, if a requesting carrier seeks to avail itself of the pricing benefits of
12 (c)(3), it must also assume the burden of putting the network elements together in
13 a workable combination. On the other hand, if a requesting carrier desires the
14 ILEC to assemble the service, the carrier must logically pay a higher price for the
15 purchase under (c)(4).

16 ²²

17 **Q. PLEASE SUMMARIZE YOUR DISCUSSION WITH REGARD TO THE**
18 **RECOMBINATION CHARGE.**

19 A. The Washington Commission should establish a Recombination Charge that will apply
20 to the U S WEST provided combination of unbundled switching and shared transport.
21 Such a charge should be based on the difference between the resale rates for business
22 and residential exchange service and the sum of the unbundled network element prices
23 for unbundled switching and shared transport. Such Recombination Charges have been
24 endorsed by several state commissions, have been included in the Bell Atlantic 271
25 proposal, which has been conditionally endorsed by the Department of Justice, and have
26 been approved by the North Carolina district court.

27

1 ²¹ Id. P.11. (emphasis added)

1 ²² *AT&T v. BellSouth Telecommunications, Inc.*, No. 5:97-CV-405-BR (E. D. N Carol., Britt, J.),
2 pp.18-19.

1 VII. SUMMARY

2 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

3 A. In my testimony, I have provided a description of the U S WEST proposed shared
4 transport product offering. Specifically, I provided a brief review of the regulatory and
5 judicial history that established the shared transport requirement. I have also provided a
6 definition of shared transport, based on the requirements established by the FCC and the
7 Courts. I reviewed some of the important characteristics of shared transport that must be
8 incorporated in an appropriate rate structure. I also have described each of the three
9 primary rate elements that apply to U S WEST's proposed shared transport product.
10 They are:

- 11** 1) Charges for a CLEC's Forecasted Use;
- 12** 2) Premium Charges for Use that Exceeds a CLEC's Forecast;
- 13** 3) A Recombination Charge, that represents the U S WEST's
14 combination of unbundled switching, and various transport elements, into a new, macro
15 unbundled network element.

16 My testimony also demonstrated why a minute-of-use structure would be inappropriate for
17 shared transport.

18 VIII. CONCLUSION

19 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

20 A. Yes, it does.

21

TABLE OF EXHIBITS

Shared Transport Diagrams;

- **Shared Transport Local Network** **Exhibit MSR-4A**
- **Shared Transport Access Network** **Exhibit MSR-4B**

Shared Transport Costs/Price Summary **Confidential Exhibit MSR-5**

Calculation of Recombination Charge **Exhibit MSR-6**

Proposed Shared Transport Terms and Conditions **Exhibit MSR-7**