BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale	)))	Docket No. UT 960369 (Phase II)
In the Matter of the pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale for U S WEST	)))	Docket No. UT 960370 (Phase II)
In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale for GTE Northwest Incorporated	))))	Docket No. UT 960371 (Phase II)

TESTIMONY OF

GARRETT Y. FLEMING

U S WEST

OCTOBER 30, 1998

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I. WITNESS IDENTIFICATION

Q. PLEASE STATES YOUR NAME, POSITION EMPLOYER AND BUSINESS ADDRESS.

A. My name is Garrett Y. Fleming. I am employed by U S WEST as Director, Market Services and Economic Analysis. My business address is Room 2030, 1801 California St., Denver, CO. 80202.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes. I submitted rebuttal collocation testimony on October 9, 1998.

II. PURPOSE

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to introduce the Company's Shared Transport cost studies. In its Fourteenth Supplemental Order in Docket No. UT-960370, the Washington Utilities and Transportation Commission ordered U S WEST to file a Shared Transport cost study. In that order the Commission requested that U S WEST file a study that included assumptions similar to those contained in the dedicated transport study originally filed in this docket. In this testimony I will sponsor a study that meets these Commission requirements.

Q. WHAT IS SHARED TRANSPORT?

A. Shared Transport, as defined by the FCC, is access to an incumbent LEC's shared interoffice facilities at rates that reflect the efficiencies of the incumbent LEC. Interoffice facilities carry traffic between a LEC's various central offices. These facilities consist of fiber optic cables between the offices and the electronics required to integrate and desegregate the signals. Interoffice facilities are connected to the switch through trunk ports. In essence, interoffice facilities create the links between all the central offices on the companies' network (i.e., both tandem and end office switches). Interoffice facilities can be either shared with other traffic on the network or dedicated to a particular entity. Dedicated facilities are set aside specifically for the use of one customer or set of customers and cannot be used by normal network traffic. However, it is not economical to assign dedicated pipes to every location the customer may wish to call. Shared interoffice facilities are designed to handle most of the traffic on the U S WEST network. To meet this demand all incumbent LEC's have developed a series of transport facilities which, when used in connection with standard routing tables and central office switches, provides a shared access to all of U S WEST's switches.

Q. IS IT POSSIBLE FOR A CALL TO ACCESS THE SHARED TRANSMISSION NETWORK WITHOUT FIRST GOING THROUGH A SWITCH?

A. No. The switch including the routing tables contained in the switch direct traffic over the shared transmission network. Without this ability, the shared transmission facilities would be useless. For this reason shared

transport can only be purchased in conjunction with a switching port and the switching usage element.

III. PRINCIPLES USED IN THE DEVELOPMENT OF SHARED TRANSPORT COSTS

Q. WHAT PRINCIPLES DID YOU FOLLOW IN COMPILING THE SHARED TRANSPORT COST STUDY?

A. As discussed in detail in Mr. Reynolds' testimony, the Company set forth the following principles for designing the shared transport network element:

The price for the element must reflect the risks inherent in facilities based or Unbundled Network Element (UNE) based competition and not simply represent an alternative pricing scheme for Resale Services;

The price must reflect the efficiencies existing in U S WEST's current interoffice network while insuring the company is not responsible for assuming the risks of inadequate network planning on the part of the CLECs;

The price must encourage reasonable planning for the combined needs of U S WEST and CLEC customers that use the network; and

The costs must comply with the costing principles adopted by the Washington Commission in this Docket and be consistent with the assumptions and methodologies used in the original cost studies filed by the Company in this Docket.

Mr. Reynolds discusses the first three principles in his testimony. I will

discuss how the current studies comply with the Commission requirement that the Shared Transport study conform to the costing methodologies and assumptions contained in its original transport cost studies filed in this Docket, as revised by the Commission decisions in that Docket.

IV. SHARED TRANSPORT SERVICE COSTS

General

Q. BASED ON THE PRINCIPLES YOU LISTED PREVIOUSLY HOW DID U S WEST DESIGN THE PRICE OF ITS SHARED TRANSPORT SERVICE?

A. As discussed by Mr. Reynolds, the shared transport service price must reflect some investment risk on the part of the purchasing CLEC. In order to achieve this effect it was determined that the price structure of shared transport should emulate to some extent the risks encountered by facility based competitors entering the market. Based on this criterion the Company determined that the shared transport product should include the following components:

- The product should include, to the extent identifiable, an initial setup charge that is equivalent to the cost that U S WEST incurs to set up the service;
- The base recurring monthly rate should be set at a capacity equivalent to a DS1 and reflect the efficiencies of U S WEST's current network;
- A shared transport element with the capacity of a DS0 would be

offered to carriers that do not currently have the capacity needs to justify purchasing transport at a DS1 level;

A DS1 and/or DS0 level rate would be applied to traffic between end offices;

A separate DS0 level rate would apply to traffic between an end office and the access tandem;

CLECs must forecast their traffic needs by end office (refer to Mr. Reynolds' testimony regarding forecasting requirements);

Capacity requirements of the CLEC that exceed the forecast, as discussed by Mr. Reynolds, will be charged at DS1 or DS0 increments;

The charge for capacity above the forecast will be double the standard charge.

My testimony focuses on the costing of shared transport. Mr. Reynolds' discusses other aspects of the product structure.

Setup Charge

Q. WHAT IS THE SETUP COST FOR SHARED TRANSPORT?

A. This rate element is set aside to cover any costs the Company may incur in connecting the switch port to the shared transport network. At this point in time the only setup cost U S WEST has identified is the cost of setting up the tracking and billing systems required to bill the service. U S WEST has opted to include these costs in the monthly recurring rate. U S WEST is still investigating whether the purchase of shared transport would increase the cost of setting up the service above the amount that is

already included in the nonrecurring charge for a switch port. At this time no such costs have been identified, so we are not requesting any additional service initiation charge above that included in the switch port nonrecurring rate. The Company will file an additional charge in the future if it is determined such costs exist.

Standard Monthly Rate-DS0 and DS1

Q. WHAT IS THE STANDARD MONTHLY COST FOR SHARED TRANSPORT AT A DS1 AND DS0 LEVEL?

A. Following is the standard monthly recurring costs for shared transport at a DS1 and DS0 capacity:

Capacity	End Office to End Office	End Office to Access Tandem
DS1	113.25 per month	
DS0	15.96 per month	10.86 per month

These costs were calculated using the same transport model U S WEST used to develop its dedicated transport costs in this proceeding.

Q. DO THE ABOVE FIGURES REPRESENT THE TOTAL RECURRING COST OF PROVIDING SHARED TRANSPORT SERVICE?

A. No. I have only calculated the direct cost for providing shared transport

service. Both attributable and common costs are excluded from these cost calculations. Mr. Reynolds' testimony identifies the amount of attributed and common costs for these services that U S WEST is supporting in this Docket. For this reason we have not included these costs in the above amounts.

Compliance with Previous Rulings of This Commission

Q. DO THE SHARED TRANSPORT COST STUDIES YOU ARE SPONSORING IN THIS PROCEEDING COMPLY WITH PREVIOUS RULINGS OF THIS COMMISSION IN THIS DOCKET?

A. Yes, where they are applicable. In the Fourteenth Supplemental Order, U S WEST was ordered to file studies that were consistent with the cost assumptions, principles and methodologies previously adopted by this Commission in this docket. This requirement included insuring consistency with previous cost studies filed with this Commission in that Docket, as revised by any Commission Orders. The Shared Transport studies U S WEST is filing in the immediate proceeding were developed using Version seven (7) of the transport model, the same version of the model that was used in calculating the direct transport costs filed in Phase I. The network design contained in that model was not altered in the current filing. Virtually all the assumptions were also held constant, with a few exceptions. The model U S WEST is filing in the current Docket is virtually identical to the model previously filed with this Commission.

Q. WHY DID THE COMPANY MAKE ANY CHANGES TO THE

ASSUMPTIONS IN THIS PROCEEDING?

A. The original model did not calculate a cost for a shared transport element. Although most of the assumptions for modeling the Shared Transport service are identical to those used in modeling of dedicated transport, there are certain differences. A few model assumptions were revised to reflect these differences. In addition, in its 8th Supplemental Order, the Commission revised certain assumptions that were included in the U S WEST cost studies previously filed with this Commission. The shared transport cost study I am sponsoring in this proceeding was revised to reflect these ordered changes.

Q. WHAT CHANGES DID YOU MAKE TO THE COST STUDIES TO REFLECT PREVIOUS COMMISSION DECISIONS?

A. The cost studies were revised to reflect the Commission prescribed cost of capital of 9.63% and Commission prescribed depreciation rates. In addition, as I discussed previously, I have removed the shared and common costs from the studies.

Q. WHY WAS IT NECESSARY TO REVISE ANY OTHER ASSUMPTIONS IN THE MODEL?

A. There are some basic differences between shared and dedicated transport. Dedicated transport, as its name suggests, is dedicated to the sole use of a single customer. The customer determines what traffic flows over these facilities, and therefore the ultimate usage of the facilities. Shared transport is a network of transmission facilities that are not dedicated to any one customer. Customers that do not buy dedicated

transport have their traffic routed via shared transport. Routing tables contained in the central office switches control traffic over this network. These routing tables send the traffic over the most efficient available route. This shared transmission network can only be accessed through the local or tandem switched network. This difference required us to change one assumption in the original model. The fill on the DS1 card in the multiplexing equipment used to access the transmission network was revised to reflect the fact that traffic entering the multiplexer was coming directly from the trunk port on the switch. The trunk ports in the original models filed in this docket had a fill of 82.6%. Since these same trunk ports feed the shared transport network, we needed to reflect this fill in the cost of the cards accessing that network.

Development of Shared Transport Costs from Model Outputs

Q. ONCE THE MODEL WAS REVISED TO REFLECT THESE ASSUMPTION CHANGES HOW DID YOU DERIVE YOUR SHARED TRANSPORT COSTS?

A. As I stated previously, U S WEST derived its costs based on the assumption that shared transport should have the same economies of scale that U S WEST experiences on its own network. In addition, as discussed by Mr. Reynolds, the Company determined that shared transport cost should be purchased in units of capacity equal to a DS1 or a DS0. Finally, the Company decided that separate rates should be applied to traffic between end offices and traffic between end offices and the access tandem. The costs were developed to meet these requirements.

Q. HOW DO THE COST STUDIES REFLECT THE EFFECIENCIES OF U S WEST'S CURRENT SHARED TRANSMISSION NETWORK?

A. The cost studies reflect the efficiencies U S WEST experiences on its own network in two ways:

The studies are designed to reflect the traffic flows that currently exist on the network; and

The studies reflect actual usage levels for the shared transmission network.

The shared transmission network can be divided into two distinct components. First there are the direct connections between various end offices. These connections handle the vast majority of the traffic on the network. The second component of the network is a hub and spoke arrangement in which all end offices are connected through the local tandem. This approach is the most economical to handle overflow traffic on the direct routed network due to the fact that all traffic from all end offices can be combined at the tandem, increasing the utilization of the facilities that comprise the spokes. Dedicated facilities do not have this flexibility.

Q. WHAT ASSUMPTIONS DID THE COMPANY MAKE REGARDING THE FLOW OF TRAFFIC BETWEEN END OFFICES IN DEVELOPING ITS DS1 SHARED TRANSPORT COSTS?

A. The Company assumed the same traffic flow as exists on the current shared network. End office to end office traffic was assumed to be

directly routed 86% of the time, with the excess, or 14%, being routed through the local tandem. These percentages reflect the actual traffic flows that occur on the U S WEST network.

Q. WAS THE SAME ASSUMPTION USED IN DEVELOPING THE DS0 LEVEL COST?

A. No. The DS0 level traffic between end offices was assumed to be routed through the tandem 100 percent of the time. In a facilities based network a company could never build facilities directly between end offices if traffic volumes were significantly below the capacity of a DS1. In such a case the common practice would be to use a hub and spoke approach to designing the network in which all traffic is routed through a local tandem to the various end offices. The cost for the end office DS0 level service was developed to reflect this fact.

Q. HOW DID THE COMPANY MODEL DS0 TRAFFIC BETWEEN THE END OFFICES AND THE ACCESS TANDEM?

A. The company assumed all traffic to the access tandem was directly routed.

Q. WHY DID THE COMPANY NEED TO DETERMINE THE USAGE CHARACTERISTICS OF THE NETWORK IF IT PLANNED TO USE A CAPACITY CHARGE TO BILL FOR THE SERVICE?

A. The cost of measuring and billing transport on a peak capacity basis would have significantly increased the overall cost of the product. For that reason, and others discussed by Mr. Reynolds, the Company decided to

base the capacity charge on the average number of minutes carried by a DS1 and DS0 circuit within U S WEST's shared transport network. The calculation of these costs was based on the current utilization characteristics of the shared transport network.

Q. HOW WERE THESE COSTS DERIVED?

A. The Company calculated the average per minute cost for each shared transport element. These costs were based on the current actual utilization characteristics of the existing network. These per minute costs were then multiplied by the number of minutes carried by an average DS1 and DS0 circuit during the course of one month to derive the DS1 and DS0 capacity charges.

Q. WHAT WAS THE CAPACITY OF THE DS0 AND DS1 CIRCUITS THAT WAS USED IN CALCULATING YOUR CAPACITY CHARGES?

A. The Company used the following monthly minutes of use to develop each of the capacity charges:

ELEMENT	MOU/MONTH
End Office to End Office	
DS1	213,047
DS0	8,813
End Office to Tandem	
DS0	6,629

These amounts were determined based on the current network utilization. A CLEC would order capacity in DS1 or DS0 increments based on these average usage levels. For instance, if a CLEC forecasted a need for less than 8813 minutes of capacity between end office A and end office B, it would order one DS0. Once the forecasted minutes exceeded 8813, additional capacity would need to be ordered based on the capacity (MOU) requirements of the CLEC.

Q. DO YOU HAVE A COST STUDY THAT SUPPORTS THE COSTS YOU HAVE INTRODUCED IN THE PROCEEDING?

A. Yes. Exhibit GYF-4 to my testimony is the Shared Transport Cost Study. In addition, the Company is supplying a diskette, which contains the table changes that were used to modify the original transport model to calculate Shared Transport costs.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.