EXHIBIT ___ (JLT-T)

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE PRICING	)	
PROCEEDING FOR INTERCONNECTION,	)	
UNBUNDLED ELEMENTS, TRANSPORT	)	
AND TERMINATION, AND RESALE	)	**Docket Nos. UT-960369; UT-960370;**
[FOR U S WEST COMMUNICATIONS, INC.]	)	**UT-960371**
[FOR GTE NORTHWEST INCORPORATED]	)	

EXHIBIT No. _____

DIRECT TESTIMONY OF

JERROLD L. THOMPSON

ON BEHALF OF

U S WEST COMMUNICATIONS

February 15, 2000

TABLE OF CONTENTS

Arizona Corporation Commission
U S WEST Communications
Testimony of Jerrold L. Thompson
December 18, 1998

EXECUTIVE SUMMARY

In the preceding cost docket (UT-960369, et al.), the Washington Utilities and Transportation Commission ordered U S WEST to file new interconnection collocation cost studies with information that indicated how U S WEST's costs complied with parameters used by the FCC in CC Docket 93-162. My testimony provides new collocation cost studies that demonstrate compliance with the FCC's Order in CC Docket 93-162.

My testimony presents the interconnection collocation rates that U S WEST proposes to use to recover its costs to provide collocation services to competitive local exchange carriers (CLECs). My testimony also shows how these proposed costs and rates are reasonable when compared with rates in U S WEST's interstate access tariff and the analysis done by the FCC for those tariffs.

My testimony provides some background information on the FCC's CC Docket No. 93-162 and contrasts that proceeding with the FCC's decision in CC Docket No. 96-98, which is the docket that provides direction for recovery of interconnection costs.

My testimony and analysis of U S WEST's costs and rates proposed for local interconnection collocation concludes that U S WEST's costs are reasonable and comply with the FCC parameters used in Docket No. 93-162 and Docket No. 96-98, as well as the more recent FCC decision in Docket No. 98-147.

Because U S WEST's costs and rates for local interconnection collocation are reasonable and allow U S WEST to fairly recover its cost of providing collocation services to the CLECs, I recommend that the Commission approve the proposed rates.

IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Jerrold L. Thompson. I am employed by U S WEST, Inc., (U S WEST) as Executive Director - Service Cost Information. My business address is Room 4400, 1801 California Street, Denver, CO.

Q. PLEASE REVIEW YOUR EDUCATION, WORK EXPERIENCE AND PRESENT RESPONSIBILITIES.

A. My accounting experience includes about 25 years of work in education, public accounting and in private industry. I have been employed in telecommunications for over 20 of those years. The majority of my experience is in the area of cost accounting in telecommunications. I have experience in telephone cost accounting as it relates to independent telephone companies and with U S WEST. For several years I supervised the development and filing of many financial reports and cost studies that supported U S WEST's submissions before the 14 state jurisdictions of U S WEST and the FCC, including the reports known as the Automated Report Management Information System (ARMIS). I have provided expert accounting testimony in many proceedings in the majority of U S WEST's serving territory over the last 15 years. I have BA and MBA degrees from the University of New Mexico and a Master of Taxation degree from the University of Denver. I hold Certificates as a Public Accountant in New Mexico and Colorado. I belong to the American Institute of Certified Public Accountants, and the New Mexico, Colorado and Arizona state CPA societies.

My responsibility includes managing the organization that provides information, including expert testimony, on the cost of service for all products and services that U S WEST offers, including its traditional retail services and the more contemporary wholesale services.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN WASHINGTON?

A. Yes. I have provided testimony in Docket UT-990300 and in the earlier phase of Docket UT-960369, UT-960370; UT-960371. In addition, I have provided testimony in numerous proceedings in Arizona, Colorado, Idaho, Minnesota, Montana, Nebraska, New

Mexico, North Dakota, Utah, and Wyoming.

PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. In the Washington Utilities and Transportation Commission's ("the Commission") 17th Supplemental Order the Commission directed U S WEST to file a cost study to support its prices for collocation services[1]. My testimony provides the cost studies for collocation in compliance with that Order. The cost studies are attached to my testimony as Exhibit JLT-4. My testimony is presented along with the testimony of Mr. Larry B. Brotherson.

[1] 17th Supplemental Order: Interim Order Determining Prices, Paragraph 531.

Q. WHAT WAS THE COMMISSION'S DIRECTIVE AND HOW HAVE YOU ORGANIZED YOUR TESTIMONY?

A. The Commission has upon several occasions, directed U S WEST to file collocation cost studies that demonstrate compliance with the FCC's Order in CC Docket No. 93-162[2], ("FCC Second Report and Order", or "Physical Collocation Order"). For example, the Commission's 8th Supplemental Order, at paragraph 417 states:

> Therefore, we will require GTE and U S WEST to submit testimony in Phase II of this proceeding regarding the degree to which their studies comply and are consistent with the Physical Collocation Order (including, but not limited to, U S WEST's EICT recurring cost study).

I address U S WEST's compliance with FCC Orders after a discussion of the collocation elements in general and details of the process used by U S WEST to develop its collocation cost study. In the second section I describe collocation cost issues discussed in the FCC's Second Report and Order in CC Docket No. 93-162 and their relationship to the FCC's First Report and Order in CC Docket No. 96-98. I also discuss additional collocation costs identified by the FCC in CC Docket No. 98-147. Finally, I discuss how U S WEST's proposed cost studies comply with the analysis undertaken by the FCC and how the proposed costs compare with U S WEST's Interstate Collocation tariff.

The testimony of Mr. Larry B. Brotherson describes U S WEST's collocation products and the proposed rate elements. His testimony also reviews the additional collocation elements identified by the FCC in CC Docket No. 98-147 and explains how U S WEST satisfies these additional requirements.

COLLOCATION COST ELEMENTS

Q. WHAT ARE THE PRIMARY COLLOCATION COST ELEMENTS PROPOSED BY U S WEST?

A. First, the proposed elements are grouped into four categories of collocation costs: Standard (general collocation elements), Cageless, Cage, and Virtual. In these categories there are non-recurring and recurring elements. The non-recurring elements are: Terminations, Entrance Facility Installation, Fiber Cable Splicing, Backup AC Power Feed Installation (optional), Space Construction, Power Changes and Additions,

[2] FCC Docket No. 93-162, In the Matter of Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport, Second Report and Order, Released June 13, 1997.

Construction of Additional Bays, Labor, Quotation Preparation Fee (QPF), and Grounding (Cage). There is also a small recurring charge associated with maintaining several of these elements. Stand alone recurring charges are: Power Usage, and AC Power Usage (optional), Security Cards, Central Office Synchronization, Interconnection Tie Pair (ITP), Space Construction, Additional Bay, Additional Power Cable, Space Rent, Grounding (Cage), and Equipment Bay (Virtual). The cost-based rates proposed by U S WEST for these services are listed in Exhibit JLT-1.

The testimony of Mr. Brotherson describes these elements in greater detail.

COST STUDY PROCESS

Q. WHAT IS THE BASIS FOR THE COLLOCATION COST STUDY?

A. All of the common collocation (e.g., standard and caged) and cageless collocation cost elements were modeled on the costs of actual collocation jobs. This was accomplished through an analysis of every item that was purchased and installed on a sample of collocation jobs. The invoices were analyzed through a multi-step process as follows:

Each item of material that was billed to each job was entered into a database;
Each item of material was then classified into cost categories that represented the various components of collocation (i.e. cable racking, power cable, support structure etc.);
The costs for placing each component of a collocation job were calculated using standard contract labor costs and the number of units being placed on each job as determined from the invoices;
The calculated labor costs were compared to the actual invoiced labor charges to determine that they were reasonable;
The labor costs were added to the material costs to determine the total cost for each component of the job;
Each component of cost was then placed into groups that represented the collocation elements that were to be priced;
The element classifications were then designated as being recoverable through a one-time nonrecurring charge or a monthly recurring charge;
Each classification of costs that was designated for recovery through a nonrecurring rate was analyzed to determine whether the facility would be: (a) solely dedicated to the use of a single CLEC and therefore recovered through a nonrecurring rate; or (b) shared among numerous providers including U S WEST and therefore recovered through a recurring rate;
Cost categories that were deemed to be shared among collocators were prorated to a standard job based on the anticipated number of CLECs that would participate in the use of those facilities; and

The results of the analysis were used to build a standard cost model with inputs that could be revised.

Q. WHAT TYPES OF COLLOCATION JOBS WERE INCLUDED IN THE SAMPLE?

A. The sample included only cageless collocation jobs. Once the study was completed, the assumptions were revised and the missing elements were added to get a standard cost for a caged collocation job. Wherever possible, actual caged collocation data was used in revising the assumptions or estimating the cost for those components of a caged collocation job (e.g., the cost of the cage) which are not found in cageless collocation jobs.

Q. HOW DID U S WEST TAKE INTO ACCOUNT THE COST ELEMENTS OF CAGED COLLOCATION THAT WERE NOT ELEMENTS OF CAGELESS COLLOCATION?

A. A study of sampled cage costs was performed. Based on this sample, it was determined that some of the assumptions used in the cageless analysis would need to be revised to more accurately reflect the costs of a standard caged collocation job. The sample of the cage costs was also used to check the reasonableness of the standard cost study once it was developed.

Q. HOW DID THE COMPANY IDENTIFY THE JOBS THAT WERE TO BE INCLUDED IN THE COLLOCATION STUDY?

A. The company determined that it would study all cageless collocation jobs that were constructed prior to May of 1999. A total of 96 jobs were originally identified as meeting these criteria. Nineteen of the jobs identified were augments of existing jobs and were eliminated from the sample. All the receipts for the remaining 77 collocation jobs were then collected. In certain instances, there is a significant lag between the completion of the job and the receipt of the vendor billing for that job. To determine if the company had received the contractor billing for all the work performed on a specific job, the receipts for each job were compared to the authorized purchase orders for those jobs. If this comparison showed that the billing for virtually all the contracted construction had been received, the job was retained in the sample. Jobs with greater than 10% of the total billing still outstanding were removed from the sample. Of the 77 jobs, the billing on 41 jobs was sufficiently complete to use in the analysis.

Q. YOU SAID THAT THE FIRST STEP WAS THAT AN ITEM OF MATERIAL WAS ENTERED INTO A DATABASE. WHAT DATA DID THE COMPANY ENTER INTO THE DATABASE?

A. The database contains each type of material that was purchased on each job, the quantity purchased, the purchase price and the standard contracted labor rates for placing the facility. Each item or group of items was then categorized into groups that represent the

various components of constructing a collocation location. For instance, all the material items, such as cable, fuses, and lugs used to connect various sizes of cable were grouped into the Power Plant category. Similarly, cable racking, cable horns and the components used to connect the racking were placed in a Cable Racking category.

Q. WHY DID YOU USE STANDARD CONTRACTED LABOR COSTS AS OPPOSED TO USING THE ACTUAL LABOR THAT WAS BOOKED TO THE JOB?

A. The invoices for labor costs did not contain an itemized list of all the functions that were performed by the contractors. Virtually all the bills only listed the total hours spent on the job along with the total cost for all functions performed. To determine costs for an average collocation job, these labor costs needed to be divided into the same cost components as the material costs. To do this the study used the standard contract labor rate for each function multiplied times the unit volumes obtained from the material receipts to develop costs by category. The total of these costs were then compared to the actual labor receipts to insure that the calculations produced reasonable results.

Q. WHAT WAS THE FINAL OUTCOME OF THIS PORTION OF THE ANALYSIS?

A. At the completion of this step of the cost study process costs by category were identified by material, labor, engineering, taxes, shipping charges, etc.. The total average cost exceeded $80,000 per collocation job.

Q. IS THE COMPANY RECOMMENDING THAT THE TOTAL AMOUNT BE RECOVERED THROUGH A FLAT ONE-TIME NONRECURRING CHARGE?

A. No. First, a standard flat rate for all collocations would not reflect the differences in the collocation designs or options that are available to CLECs. For example, a CLEC can order power cable in sizes ranging from 20 to 400 AMPs and the number of bays and terminations can vary significantly between collocation requests. The standard costs need to be capable of recognizing these differences. In addition, the FCC has specified certain costing principles to which all ILECs must comply in pricing collocation. These principles include but are not limited to:

1. ILECs cannot force collocators to use a dedicated SPOT frame to terminate their services on an ILEC network (because it increases the costs of providing these facilities);

2. ILECs cannot charge a one-time nonrecurring charge for the use of facilities that were not placed specifically for collocation or that already existed in the central office;

3. Any charges for a security system must be recovered through a recurring rate element and the costs must be spread over all users of the central office space including the ILEC; and,

4. The recovery of costs incurred specifically for collocation facilities that will be shared by more than one CLEC must be prorated between those CLECs anticipated to be using the facilities.

Many of these FCC rules specify whether a specific cost can be recovered through a one-time nonrecurring charge or if the recovery of the costs should be spread over time.

Q. HOW DID U S WEST REVISE ITS COST CALCULATIONS TO ALLOW FOR DIFFERENCES BETWEEN THE COSTS FOR VARIOUS COLLOCATION DESIGNS?

A. U S WEST gives Collocators many options as to the number and type of terminations they wish to order and the size and number of the power feeds they require. To account for these variations in the requested facilities, U S WEST developed standard costs for terminations and power feeds. These standard costs were modeled based on the characteristics (i.e. material and labor costs and unit quantities and standard distances and designs) found in the 41 jobs which were studied. These standard designs were then adjusted to account for any incremental cost or savings that would be incurred if the design was altered.

Q. WHAT GUIDANCE DID THE FCC GIVE REGARDING RECOVERING A COLLOCATION COSTS THROUGH A ONE-TIME NONRECURRING CHARGE?

A. In its Second Report and Order in CC Docket No. 93-162, regarding pricing for collocation the FCC set out principles for determining whether a cost should be recovered through a nonrecurring charge. In Paragraph 32 of that order the FCC states:

> While carriers typically recover investment costs through recurring charges, we find that it is not unreasonable for LECs to assess nonrecurring charges to recover the cost of equipment. Inasmuch as physical collocation is a new service, LECs may have difficulty projecting either the length of time that equipment will be used by an interconnector or the useful life of that equipment for depreciation purposes. When a LEC imposes a recurring charge to recover the depreciation of an asset over time, overestimating the life of the equipment or the length of time that an interconnector would use the equipment could prevent the LEC from recovering the total cost of its investment. We will not, however, permit LECs to recover initially an amount greater than the total installed cost of the equipment, plus a reasonable overhead loading.

The FCC went on to say in paragraph 33:

> We do not agree with ALTS' position that nonrecurring charges

> developed in conformance with these requirements constitute a barrier to entry. To the extent that the equipment needed for expanded interconnection service is dedicated to a particular interconnector, we believe that requiring that interconnector to pay the full cost of the equipment up front is reasonable because LECs should not be forced to underwrite the risk of investing in equipment dedicated to the interconnectors use, regardless of whether the equipment is reusable….

It is clear, from these ordering paragraphs, that the FCC recognizes that LECs should not be held accountable for underwriting all the risk of building an interconnector's network. The FCC establishes the costing principle that the cost of facilities constructed solely for the provisioning of collocation (i.e. dedicated to collocation) can be recovered through nonrecurring up front charges. In fact the order goes so far as to imply anything else would result in an unreasonable transference of the risk of constructing a CLEC network to the ILEC which is providing collocation. The 1996 Telecommunications Act was designed to give competitors access to critical network elements that were currently owned by the ILECs. This access to elements was considered critical to meeting the competitive objectives of the Act. Nowhere in the Act did Congress decide that it was also the ILEC responsibility to finance a co-provider's entry into the market. Such a requirement would be unreasonable and discriminatory.

Q. DID U S WEST DECIDE TO RECOVER ALL COSTS INCURRED ON THE 41 JOBS THROUGH NONRECURRING RATES?

A. No. There were three categories of costs that U S WEST currently recommends recovering through recurring monthly rates. Those three categories are:

1. Interconnection Tie Pairs;
2. Security systems; and
3. Power Plant additions.

Many of the jobs that were reviewed were constructed using a Single Point of Termination

(i.e. SPOT or POT) frame. This was U S WEST's preferred means of setting up a collocation at the time of the job because it provided a discreet location at which collocators could connect their services. The FCC in CC Docket No. 98-147, stated that ILECs could not require CLECs to use a SPOT or POT frame if it simply increased the collocator's costs without a corresponding benefit to the ILEC. As stated by the FCC:

> Incumbent LECs may not require competitors to use an intermediate connection arrangement in lieu of a direct connection to the incumbent's network if technically feasible, because such intermediate points of interconnection simply increase costs without concomitant benefit to incumbents. (Para. 43)

This requirement caused U S WEST to reconsider its standard construction practices. The company determined that the least cost approach for providing CLECs direct connections to U S WEST's network was generally through the use of an existing intermediate or toll distribution frame. These frames currently exist in the central offices and are used by U S WEST to connect its own services to the network. Since this design requires the use of an existing frame and existing connections from that frame to the COSMIC frame, it was determined that these costs should be recovered through recurring rates. This position is in conformance with the FCC Order since the forward looking design requires the use of existing facilities that are shared with U S WEST. In other words, the frames and connecting cables will no longer be either dedicated to collocation or new construction, and therefore should be recovered through recurring monthly rates.

Q. WHY DID U S WEST DECIDE TO RECOVER SECURITY COSTS THROUGH RECURRING CHARGES?

A. In Docket No. CC 98-147, the FCC required that the security arrangements for CLECs could not be any greater than those imposed on the ILECs own employees and /or contractors[3]. Thus any cost for a security system must be shared between the CLECs and U S WEST. Since these facilities are not used solely for the provisioning of collocation, U S WEST is seeking to recover them through recurring monthly rates.

Q. DOES THE SAME PRINCIPLE APPLY TO THE RECOVERY OF COSTS ASSOCIATED WITH POWER PLANT ADDITIONS?

A. No. In this same Order, the FCC defines power plant additions as one component of site preparation costs. As stated by the FCC:

> For example, if an incumbent LEC implements cageless collocation arrangements in a particular central office that requires air conditioning and power upgrades, the incumbent may not require the first

[3] CC Docket No. 98-147 at 48.

collocating party to pay the entire cost of site preparation. (Para 51)

This statement indicates that it would be legitimate for U S WEST to charge for power system upgrades through a nonrecurring charge that is spread over all collocators that benefit from the upgrades. However, few of the jobs in the study sample contained significant costs for upgrading the existing power plant. Since the cost sample provided no evidence that power upgrades have been significant to date, (i.e., collocators are generally served from the existing power plant network), U S WEST is not seeking up front recovery of power plant additions at this time. If the cost of power plant upgrades becomes more significant over time the Company may reevaluate this position in the future.

Q. ONCE YOU ELIMINATED THE COST OF THE JOBS THAT WAS TO BE RECOVERED THROUGH RECURRING RATES, WHAT WAS THE NEXT STEP IN DEVELOPING THE COST STUDY?

A. The next step in developing the cost study was to identify those nonrecurring components of a standard collocation that would be used by more than one collocator. Several components of a standard collocation were determined to fall into this category including but not limited to:

Lighting;
Cable Racking;
Aerial support structure; and
Heating Ventilation and Air Conditioning (HVAC).

The costs for these elements of collocation were prorated over the number of collocators that were anticipated to use the facilities.

Q. WHAT WAS THE NEXT STEP IN DEVELOPING THE STUDY?

A. At this point all the costs have been divided into specific collocation components such as cable racking, power cable, support structure and terminations. They have also been identified as being recoverable through recurring or nonrecurring charges. The last step was to determine the proposed cost recovery structure and group the individual components into those categories. These cost recovery categories are the collocation elements U S WEST is proposing in this proceeding. Several cost components (e.g. cable racking, support structure, etc) may be recovered through a single collocation element (e.g. Space construction).

Q. HOW FLEXIBLE IS U S WEST REGARDING THE ELEMENT DEFINITIONS PROPOSED HEREIN?

A. U S WEST is flexible in this regard. It has only attempted to develop elements that meet our co-provider's needs. For instance, the collocators have asked U S WEST to design a

rate structure with less variability. They wanted a flatter or more constant pricing design. U S WEST has attempted to do this by eliminating some distance sensitive prices, combining elements and averaging costs between jobs. If this proposal does not meet co-provider's needs, U S WEST would be willing to consider changes to the product design. To U S WEST, the important aspect of collocation is meeting the co-provider's needs and recovering costs. The product design can be changed but it should meet these two objectives.

COMPLIANCE WITH FCC RULES

Q. WITH THESE PROPOSED ELEMENTS, HAS U S WEST ADDRESSED COMMISSION CONCERNS IDENTIFIED IN THE EARLIER PROCEEDING?

A. Yes. The Commission expressed concerns related to comparisons of the proposed rates with the FCC Interstate Tariff No. 5[4], and compliance with the parameters in the FCC's Second Report and Order.

Q. HOW DOES YOUR TESTIMONY ADDRESS THESE CONCERNS?

A. First, my testimony examines the proposed rates using the same criteria used by the FCC in its Second Report and Order and concludes that the proposed rates meet the FCC's parameters for reasonability. Second, my testimony compares U S WEST's proposed rates in this proceeding to the rates in the Interstate Tariff No. 5. This comparison indicates similarities in the rates for like services, and explains why some differences are to be expected.

FCC SECOND REPORT AND ORDER

Q. WHAT IS THE FCC'S SECOND REPORT AND ORDER?

A. The FCC's Second Report and Order referenced by the Commission is from CC Docket No. 93-162.[5] In the Second Report and Order, the FCC reported on its investigation of the expanded interconnection rates, terms and conditions for interstate special access and switched transport.

Q. WHAT IS THE HISTORY OF THE SECOND REPORT AND ORDER AND U S WEST'S FEDERAL PHYSICAL COLLOCATION TARIFFS?

A. U S WEST's initial physical collocation tariffs were filed in response to an October 19, 1992 FCC Order (Special Access Expanded Interconnection) that required local exchange

[4] Ibid., at 320.

[5] In the Matter of Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport, released June 13, 1997

companies to file tariffs offering interstate special access expanded interconnection service to all interested parties. In September 1993 the FCC adopted the Switched Transport Expanded Interconnection Order. In June 1993 the FCC released the Physical Collocation Tariff Suspension Order which initiated an investigation into the lawfulness of the collocation tariffs. (The special access and switched transport expanded interconnection tariff investigations were consolidated into the Switched Transport Consolidation Order.) Subsequently, numerous events including court rulings and the enactment of the 1996 Telecom Act transpired. U S WEST stopped providing new Physical Expanded Interconnection Collocation (EIC) service through its FCC physical collocation tariffs on December 15, 1994. Between December 15, 1994, and December 31, 1995, existing physical EIC customers were converted to virtual EIC. The FCC's Second Report and Order CC Docket 93-162 was finally issued June 13, 1997- four years after the investigation commenced and nearly five years since the initial October 19, 1992 Order. On August 1, 1997, U S WEST filed its modified Tariff Review Plan (TRP) with the FCC which reflected the changes that were required by the FCC in its Second Report and Order. The sole purpose for the modified TRP was to calculate refunds for a service that had not been offered since 1995.

Q. WERE THE COST METHODOLOGIES USED BY THE FCC IN ITS SECOND REPORT AND ORDER CONSISTENT WITH TELRIC PRINCIPLES USED BY THE FCC IN ITS INTERCONNECTION ORDER?

A. No. Unlike local interconnection services, the cost methodology required by the FCC in its Second Report and Order (what the FCC occasionally terms its Expanded Interconnection rules) included only the direct costs of virtual collocation, not Total Element Long Run Incremental Cost (TELRIC) required by the FCC for local interconnection. For example, paragraph 612 of the FCC's First Report and Order on interconnection states: "…section 251 requires incumbent LECs to offer collocation for purposes of accessing unbundled network elements, whereas our Expanded Interconnection rules require collocation only for the provision of interstate special access and switched transport."

Furthermore, the methodology used by the FCC to adjust the collocation costs for interstate special access and switched transport effectively resulted in a narrow range of regional rates adjusted to approximate nationwide averages.[6]

Q. ARE THE COSTS OF LOCAL COLLOCATION REQUIRED TO BE BASED UPON TELRIC PRINCIPLES?

A. Yes. The FCC states:

[6] See Second Report and Order at 143.

> As discussed in Section VII.B.2.a.(3).(c), below, we find that the ratemaking methodology we are adopting to implement the collocation obligations under section 251(c) is consistent with congressional intent and fully satisfies the just compensation standard.[7]

Section VII.B.2.a.(3).(c) is a discussion of Pricing of Interconnection and Unbundled Elements for Cost-Based Pricing Methodology, based on economic cost, and Fifth Amendment issues. The FCC concludes in this section:

> …we conclude that, even if the 1996 Act's physical collocation and unbundled network facility requirements constitute a taking, a forward-looking economic cost methodology satisfies the Constitution's just compensation standard.[8]

The FCC concludes that *forward-looking economic cost methodology* (i.e., TELRIC) provides just compensation and therefore does not violate Fifth Amendment "taking" accusations, as long as compensation is provided. The FCC concluded that recovery of collocation costs based on TELRIC principles, as it has discussed them, provides adequate recovery of costs for the local exchange carrier.

Q. ARE THE CONCLUSIONS REACHED BY THE FCC IN ITS SECOND REPORT AND ORDER APPROPRIATE FOR EVALUATION OF COLLOCATION COSTS FOR LOCAL INTERCONNECTION?

A. The WUTC found that:

> Given the FCC's position on the relevance of its expanded interconnection requirements and their applicability to collocation under section 251 of the Act, the Commission finds that use of the FCC's prior collocation orders is consistent with the Act, notwithstanding the fact that the FCC in its *Physical Collocation Order* dealt with studies submitted prior to the Act.[9]

However, the FCC's Order must be used appropriately. Direct costs, as used in the FCC Order, may have some similarity to TELRIC based cost studies and may provide one benchmark, but for several reasons, the Second Report and Order is limited in its scope because of its focus upon interstate special access (i.e., DS1 and DS3 services), and switched transport service. In addition, some of the cost data reviewed by the FCC in its Second Report and Order may be dated because it was developed in 1994[10]. Because the

[7] See First Report and Order, CC Docket 96-98, at 617.
[8] See First Report and Order, at 740.
[9] Ibid at 268.
[10] See Second Report and Order, Appendix B, col. c.

understanding of collocation in this time frame was very limited, much of the cost information supplied to the FCC and used in the Second Report and Order was based on estimates without extensive practical support. This fact was acknowledged by the FCC in its Second Report and Order.[11]

Q. CAN THE FCC'S SECOND REPORT AND ORDER BE USED FOR EVALUATION OF COLLOCATION COSTS FOR LOCAL INTERCONNECTION?

A. Yes, but because of significant short-comings and differences in the context and purpose of the Second Report and Order from the purpose of this proceeding, it should not be the only basis of determining reasonableness of U S WEST's collocation costs in this proceeding.

[11] See Second Report and Order at 142.

Q. WHAT WAS THE FIRST AREA OF DISCUSSION IN THE SECOND REPORT AND ORDER?

A. In the first area of discussion, (what the FCC terms the "case-by-case" analysis), the FCC discussed a number of issues related to rate structure of collocation charges. Among these were:

recovery of recurring costs through nonrecurring charges (at 29) (i.e., a non-recurring charge that includes the present value of future recurring costs);

whether it is reasonable to assess nonrecurring charges for costs of equipment (at 33);

the reasonableness of components of nonrecurring costs (e.g., depreciation and cost of money and income tax) (at 27);

construction costs based upon total estimated demand of collocators (at 48);

(5) power costs in increments that allow purchase of quantities in reasonable increments (at 59); and

unbundling of components that allows the purchase of only components that are desired by the collocating company (at 62).

Q. IS THE COLLOCATION COST STUDY PROPOSED BY U S WEST IN THIS PROCEEDING CONSISTENT WITH THE FCC'S FINDINGS ON THESE ISSUES?

A. Yes. U S WEST's collocation nonrecurring cost studies do not include recurring costs, and they do not include cost of money, depreciation, or income tax. The collocation costs are based upon total estimated demand by interconnectors (e.g., the number of collocators expected per office, and the quantities of facilities expected to be requested). Power costs are identified in increments that correspond to the power requirements of the collocating company. The cost elements are unbundled so that services that are not desired, are not required to be purchased by the collocating carrier.

Q. YOU STATED EARLIER THAT THE FCC'S SECOND REPORT AND ORDER EVALUATED "DIRECT COSTS". COULD YOU EXPLAIN THE FCC'S USE OF DIRECT COSTS IN MORE DETAIL?

A. Yes. The FCC's collocation cost analysis was based upon the direct costs of collocation. That is, the FCC looked at costs that did not include common costs, unlike the TELRIC standard required for interconnection costs[12]. Because the costs in the Second Report and

[12] See First Report and Order at 691 and 694.

Order were limited to direct costs, those costs would be generally lower than costs that included common costs, like TELRIC. The FCC's Second Report and Order did allow overhead loadings, but limited those to "the lowest overhead loading factor reflected in its rates for any of its comparable DS1 or DS3 services"[13]. In the FCC's analysis, for most collocation elements, the overhead loading factor for U S WEST was 1.01[14], which allowed only one percent for costs other than direct, virtually eliminating common costs. Therefore, the cost standard used by the FCC would be expected to be lower than an equivalent TELRIC.

Q. WHAT OTHER ANALYSES DID THE FCC DO TO DETERMINE THE REASONABLENESS OF THE COLLOCATION RATES?

A. The FCC undertook a second analysis using average costs for categories of collocation costs. The FCC explained this process as follows:

> …We conduct a review of LECs' cost justifications by comparing the direct costs of all LECs that provide physical collocation service on a function-by-function basis. We perform our function-by-function analysis by developing industry-wide average direct costs and calculating the standard deviation of those costs relative to that average for each function associated with providing physical collocation. If a LEC has direct costs for a particular function that are greater than one standard deviation above the industry-wide average for that function, we determine whether the LEC justifies its high direct costs for that function by scrutinizing the LEC's cost data and any explanations the LEC makes on the record. If the LEC fails to justify high direct costs for the function, we disallow the direct costs to the extent that they exceed one standard deviation above the average.[15]

However, the FCC made it clear that the average plus one standard deviation was not a "maximum allowable direct cost, but rather a benchmark for general disallowance where higher costs were not otherwise adequately justified." [16]

Q. HOW DO THE COSTS THAT U S WEST IS PROPOSING IN THIS FILING COMPARE TO THESE FCC PARAMETERS?

A. I have prepared a comparison of the collocation cost benchmarks used by the FCC to the collocation elements proposed by U S WEST. This comparison is shown in Exhibit JLT-

[13] See Second Report and Order at 313.
[14] See Second Report and Order, Appendix D.
[15] See Second Report and Order at 125.
[16] See Second Report and Order at 170.

2. In order to prepare this comparison certain modifications were necessary.

The first modification was to convert non-recurring costs to recurring costs. Although, the FCC found that non-recurring charges were appropriate, for the industry average analysis, the FCC converted all non-recurring costs to recurring costs. The FCC's modification assumed an amortization of 60 months for these costs and used a present value calculation at an 11.25% discount rate.[17] My analysis used this same assumption in order to provide a like comparison to the FCC benchmarks. In addition, other calculations were made from the cost study to allow comparisons of equal or like costs and units. For example, since initial power distribution costs are included in space construction in U S WEST's proposed rates, but not in the FCC benchmark, power costs were removed from space construction and shown separately for this comparison.

The collocation elements proposed by U S WEST that were analyzed by the FCC were Entrance Facility, Floor Space, Power, DS1 and DS3 Cross-connects, Security, and Space Construction.[18] U S WEST's collocation costs for these elements are within the parameters used by the FCC in its Second Report and Order. In every case, U S WEST's costs are less, often by considerable amounts. For example, U S WEST's Security card costs are quite comparable, $ .84 per card versus a FCC benchmark of $8.70. The $8.70 direct cost was found by the FCC to be "not unreasonably high"[19]

As is shown in Exhibit JLT-2, U S WEST's comparable proposed costs comply with the FCC benchmarks.

Q. DO U S WEST'S COST STUDIES FOR LOCAL COLLOCATION COMPLY WITH MORE RECENT FCC ORDERS REGARDING COLLOCATION?

A. Yes. U S WEST's rates comply with FCC Order CC Docket No. 98-147. The testimony of Mr. Brotherson addresses U S WEST's compliance in greater detail. This order primarily deals with collocation from a perspective of what collocation elements need to be offered and the terms and conditions of those offers. However, the FCC does provide some direction regarding cost methodology for site preparation. The FCC states:

> For example, if an incumbent LEC implements cageless collocation arrangements in a particular central office that requires air conditioning and power upgrades, the incumbent may not

[17] Second Report and Order, at 165.

[18] The FCC also had a category for DS1 and DS3 POT Bays that are not elements proposed by U S WEST.

[19] See footnote 415 of the Second Report and Order, Pacific Bell was the only company to submit costs other than for a security escort, and their costs were $8.70 for the first card and $22.20 for each additional card.

require the first collocating party to pay the entire cost of site preparation.[20]

U S WEST's cost studies assume an average of 3 collocators in each central office. This assumption means that those costs related to construction are divided by 3 in cases where a facility (e.g., a cable rack) is used only by CLECs. Where facilities are assumed to be shared by CLECs and U S WEST, the cost recovery is assumed to be limited to recurring charges, and is determined on a shared basis with all users. This cost methodology is consistent with the FCC's rules.

Q. HOW DO U S WEST'S PROPOSED LOCAL COLLOCATION RATES COMPARE WITH ITS INTERSTATE TARIFF FOR COLLOCATION?

A. Exhibit JLT-3 compares U S WEST's Interstate Access virtual collocation rates with those proposed by U S WEST for local physical collocation in Washington. In several cases the rates proposed for local physical collocation are higher than U S WEST's interstate virtual collocation rates for interstate access. Higher rates for local physical collocation would be expected for several reasons.

First, as I have already discussed, the rates approved by the FCC were filed in 1995, based upon 1994 cost estimates.[21] Labor rates have increased about 4% per year in the 1994 to 2000 time period. Therefore, wage costs paid to employees or contractor labor, many of which are based upon bargained agreements, would be higher in hourly rates and in benefits. These hourly rates affect installation costs that are generally reflected in the non-recurring rates in the comparison.

Second, inflation has increased costs since 1994. Material and equipment costs have caused increases in the cost of collocation elements. Unlike "high" technology items that may have decreased in cost over this period, collocation materials are typically "low" technology, and costs have not decreased.

Third, the rates in the interstate collocation tariff are for virtual collocation, not physical collocation. This would explain some differences between the interstate tariff and the costs for local physical collocation. For example, there would be higher costs included in the quote preparation fee for requests for physical collocation than virtual collocation due to the need to determine space requirements, infrastructure, engineering, etc.

Fourth, because the rates in the interstate tariff are based on only direct costs, and the Local Physical collocation rates are based upon TELRIC costs that include shared and common

[20] CC Docket No. 98-147 at 51.

[21] See FCC Second Report and Order, Appendix C, "Date of Data filing-4/26/94"

costs, the interstate tariff rates would generally be lower.

Lastly, some of the differences can be due to the lack of experience with collocation by telephone companies in 1994. For example, in 1994 much of the experience by the Local Exchange companies was based upon limited real world data.[22] As I have explained, U S WEST's physical collocation costs are based on real world data.

CONCLUSION AND RECOMMENDATION

Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION?

A. The Commission should approve U S WEST's collocation costs as the basis for rates for local physical collocation for U S WEST in Washington.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[22] FCC Second Report and Order, "The physical collocation direct costs LECs develop are necessarily estimates because these costs pertain to a new service for which most LECs have little or no operating experience or relevant historical data." at 142.

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE PRICING	)	
PROCEEDING FOR INTERCONNECTION,	)	
UNBUNDLED ELEMENTS, TRANSPORT	)	
AND TERMINATION, AND RESALE	)	**Docket Nos. UT-960369; UT-960370;**
[FOR U S WEST COMMUNICATIONS, INC.]	)	**UT-960371**
[FOR GTE NORTHWEST INCORPORATED]	)	

EXHIBITS OF

JERROLD L. THOMPSON

ON BEHALF OF

U S WEST COMMUNICATIONS

February 15, 2000

INDEX OF EXHIBITS

DESCRIPTION	EXHIBIT
Collocation Elements	JLT-1
Comparison of U S WEST costs and FCC Benchmark	JLT-2
Comparison of U S WEST rates and FCC Tariff	JLT-3
Collocation Interconnection TELRIC Study	JLT-4

	Units	90 Day Initial Charge	Monthly Rate
1 Standard Collocation			
1.1 Terminations			
DS0			
Cable Placement	Per Block	$319.48	$0.4093
	Per Termination	$6.00	$0.0077
Cable	Per Block	$340.10	$0.4357
	Per Termination	$4.66	$0.0060
Blocks	Per Block	$587.42	$0.7525
	Per Termination	$8.05	$0.0103
Block Placement	Per Block	$612.88	$0.7851
	Per Termination	$8.40	$0.0108
DS1			
Cable Placement	Per Block	$472.79	$0.6966
	Per Termination	$50.84	$0.0749
Cable	Per Block	$340.10	$0.5011
	Per Termination	$42.22	$0.0622
Panel	Per Block	$494.57	$0.7287
	Per Termination	$53.18	$0.0784
Panel Placement	Per Block	$238.43	$0.3513
	Per Termination	$25.64	$0.0378
DS3			
Cable Placement	Per Termination	$226.39	$0.3336
Cable	Per Termination	$253.54	$0.3736
Connector	Per Termination	$27.59	$0.0406
Connector Placement	Per Termination	$26.77	$0.0394
1.2 Entrance Facility			
Standard Shared[1]	Per Fiber	$1241.75	$6.98
CLEC POI[2]	Per Fiber	$1682.33	$3.17
Cross Connect	Per Fiber	$1,622.28	$3.39
Express	Per Cable	$7,589.47	$7.47
1.3 Cable Splicing			
Setup	Per Setup	$515.79	
Per fiber Spliced	Per Fiber	$38.08	

[1] These rates are in conformance with paragraph 319 of the 17th Supplemental Order of Docket No.UT-960369, et al.
[2] Same as Above.

1.4 Power Usage
Power Plant per Amp Ordered

Power Plant	Per AMP Ordered	$9.34
Power Usage-Less than 60 AMPS	Per AMP Ordered	$1.57
Power Usage-More than 60 AMPS	Per AMP Used	$3.13

Backup AC Power Feed Usage

120 V	Per Amp Per Month	$17.94
208 V, Single Phase	Per Amp Per Month	$31.09
208 V, Three Phase	Per Amp Per Month	$53.79
240 V, Single Phase	Per Amp Per Month	$35.88
240 V, Three Phase	Per Amp Per Month	$62.06
480 V, Three Phase	Per Amp Per Month	$124.13

Backup AC Power Cable

20 Amp, Single Phase	Per Foot, Per Month	$8.01	$0.0118
20 Amp, Three Phase	Per Foot, Per Month	$9.93	$0.0146
30 Amp, Single Phase	Per Foot, Per Month	$8.63	$0.0127
30 Amp, Three Phase	Per Foot, Per Month	$11.86	$0.0175
40 Amp, Single Phase	Per Foot, Per Month	$10.15	$0.0150
40 Amp, Three Phase	Per Foot, Per Month	$13.97	$0.0206
50 Amp, Single Phase	Per Foot, Per Month	$12.04	$0.0177
50 Amp, Three Phase	Per Foot, Per Month	$16.82	$0.0248
60 Amp, Single Phase	Per Foot, Per Month	$13.62	$0.0201
60 Amp, Three Phase	Per Foot, Per Month	$19.36	$0.0285
100 Amp, Single Phase	Per Foot, Per Month	$16.86	$0.0248
100 Amp, Three Phase	Per Foot, Per Month	$26.33	$0.0388

1.5 Security

Access Card	Per Employee	$0.84
Card Access	Per Employee, Per	$6.88

1.6 Central office Clock Synchronization	Per Port	$6.33

1.7 Interconnection Tie Pair

DS0	Per Connection	$0.98
DS1	Per Connection	$1.29
DS3	Per Connection	$15.26

2 Cageless Collocation

2.1 Space Constuction

No QPF Retained	2 Bays, 1 40 Power	$33,658.41	$49.59

If contract has provisions to collect and retain a Quote Preparation fee that fee would be deducted from the space construction charge

DC Power Cable-Change to standard design			
20 Amp-Initial Feed Only	Per Initial Power	($2,356.32)	($3.47)
30 Amp-Initial Feed Only	Per Initial Power	($1,503.79)	($2.22)
40 Amp-Initial Feed Only	Per Initial Power	N/A	N/A
60 Amp-Initial Feed Only	Per Initial Power	$2,064.37	$3.04
Each Additional Bay	Per Bay	$3,520.65	$5.19
DC Power Cable-Additional Power Cables			
20 Amp-Does not apply to initial	Per Additional Feed	$5,982.13	$8.81
30 Amp-Does not apply to initial	Per Additional Feed	$6,834.66	$10.07
40 Amp-Does not apply to initial	Per Additional Feed	$8,338.44	$12.29
60 Amp-Does not apply to initial	Per Additional Feed	$10,402.82	$15.33
2.2 Rent	Per Square Foot		$2.97
2.3 Quote Preparation Fee	Per Collocation	$4,195.90	

3 Caged Collocation

3.1 Space Constuction

Cage-Up to 100 Sq Ft	Cage&1 40 Amp	$56,145.24	$82.72
Cage-101 Sq Ft to 200 Sq Ft	Cage&1 40 Amp	$58,100.31	$85.60
Cage-201 Sq Ft to 300 Sq Ft	Cage&1 40 Amp	$59,620.61	$87.84
Cage-301 Sq Ft to 400 Sq Ft	Cage&1 40 Amp	$61,525.84	$90.65

If contract has provisions to collect and retain a Quote Preparation fee that fee would be deducted from the space construction charge

DC Power Cable-Change to standard design

20 Amp-Initial Feed Only	Per Initial Power	($9,137.43)	($13.46)
30 Amp-Initial Feed Only	Per Initial Power	($8,318.85)	($12.26)
40 Amp-Initial Feed Only	Per Initial Power	($6,607.47)	($9.74)
60 Amp-Initial Feed Only	Per Initial Power	na	na
100 Amp-Initial Feed Only	Per Initial Power	$10,115.29	$14.90
200 Amp-Initial Feed Only	Per Initial Power	$32,292.92	$47.58
300 Amp-Initial Feed Only	Per Initial Power	$59,249.62	$87.30
400 Amp-Initial Feed Only	Per Initial Power	$91,130.47	$134.27

DC Power Cable-Added Power

20 Amp-Does not apply to initial	Per Additional Feed	$7,546.12	$11.12
30 Amp-Does not apply to initial	Per Additional Feed	$8,364.70	$12.32
40 Amp-Does not apply to initial	Per Additional Feed	$10,076.08	$14.85
60 Amp-Does not apply to initial	Per Additional Feed	$16,683.55	$24.58
100 Amp-Does not apply to initial	Per Additional Feed	$26,798.84	$39.49
200 Amp-Does not apply to initial	Per Additional Feed	$48,976.47	$72.16
300 Amp-Does not apply to initial	Per Additional Feed	$75,933.17	$111.88
400 Amp-Does not apply to initial	Per Additional Feed	$107,814.02	$158.85

3.2 Grounding

#2 AWG	Per Foot	$13.63	$0.0201
1/0 AWG	Per Foot	$22.68	$0.0334
4/0 AWG	Per Foot	$25.78	$0.0380
350 KCMIL	Per Foot	$35.76	$0.0527
500 KCMIL	Per Foot	$39.85	$0.0587
750 KCMIL	Per Foot	$61.05	$0.0900
3.3 Rent	Per Square Foot		$2.97
3.4 Quote Preparation Fee	Per Collocation Ordered	$4,561.19	

4 Virtual Collocation

4.1 Equipment Bay	Per Shelf		$3.33

4.2 Labor

Maintenance - Regular Business	Per 1/2 Hour	$28.07
Maintenance - Outside Regular	Per 1/2 Hour	$37.55
Training - Regular Business Hours	Per 1/2 Hour	$28.07
Inspector - Regular Business Hours	Per 1/2 Hour	$32.00
Inspector - Outside Regular Business	Per 1/2 Hour	$41.20
Installation - Regular Business Hours	Per 1/2 Hour	$32.00
Installation - Outside Regular	Per 1/2 Hour	$41.20
Engineering - Regular Business Hours	Per 1/2 Hour	$30.28
Engineering - Outside Regular	Per 1/2 Hour	$39.09

4.3 Quote Preparation Fee – Virtual

Quote Preparation Fee – Virtual	Per Order	$4,195.90

	US WEST Costs	FCC Benchmark
Entrance Facility (Standard Shared)	$ 393.68	$ 446.00
Floor Space	$ 285.00	$ 504.00
Power (40 amps)	$ 551.33	$ 660.00
DS1 Cross-connect	$ 1.24	$ 14.54
DS3 Cross-connect	$ 14.67	$ 93.07
Security - Per Card	$ 0 .81	$ 8.70
- Per Month	$ 6.61	$ 12.11
Space Construction (100 sq. ft. cage) (Includes cage, support structure, cable racking, equipment lighting, and engineering)	$ 885.21	$ 1,124.86

	Interstate Virtual Collocation		Washington Local Collocation	
	Non-recurring	Recurring	Non-recurring	Recurring
Quote Preparation Fee	$ 1,684.80		$ 4,195.90	
Entrance Facility (per fiber)	$ 722.40	$ 0.99	$ 1,241.75	$ 6.98
-48 Volt DC Power				
40 amps Cable	$ 4,359.71	$ 6.42	$ 5,872.14	$ 8.65
40 amps Usage		$ 448.00		$ 436.40
Equipment Bay (per shelf)		$ 10.75		$ 3.33
CO Synchronization		$ 10.50		$ 6.33
Maintenance Labor (per ½ hr)	$ 20.48		$ 28.07	
Fiber Cable Splicing				
Per Setup	$ 457.80		$ 515.79	
Per Fiber	$ 19.25		$ 38.08	
Inspection Labor (per ½ hr.)	$ 22.00		$ 32.00	
Training Labor (per ½ hr.)	$ 23.98		$ 28.07	
Engineering (per ½ hr.)	$ 23.73		$ 30.28	
Equipment Inst. (per ½ hr.)	$ 27.50		$ 32.00	
Cable Racking DSO (per ft.)	$ 14.40		**	
DS1 (per ft.)	$ 0.68		**	
DS3 (per ft.)	$ 2.27		**	
Interconnection Tie Pair				
DS0 (per term.)	N/A	N/A	N/A	N/A
DS1 (per term.)	$313.25	$ 17.22	N/A	$ 1.29
DS3 (per term.)	$329.00	$ 52.50	N/A	$ 15.26

**Note: Cable Racking is no longer offered as a separate rate element, it is now included as infrastructure in the Space Construction rate.