EXHIBIT TKM-9T

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE CONTINUED COSTING AND PRICING OF UNBUNDLED NETWORK ELEMENTS, TRANSPORT, TERMINATION, AND RESALE	**Docket No. UT – 023003**

SUPPLEMENTAL DIRECT TESTIMONY

OF

TERESA K. MILLION

ON BEHALF OF

QWEST CORPORATION

AUGUST 22, 2003

TABLE OF CONTENTS

IDENTIFICATION OF WITNESS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Teresa K. (Terri) Million. My business address is 1801 California Street, Room 2050, Denver, Colorado 80202.

Q. PLEASE IDENTIFY YOUR EMPLOYER AND EXPLAIN YOUR POSITION AND RESPONSIBILITIES.

A. I am employed by Qwest Services Corporation as a Staff Director in the Public Policy organization. In this position, I am responsible for preparing testimony and presenting Qwest Corporation's cost studies in a variety of regulatory proceedings.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION?

A. Yes. I submitted direct testimony regarding the recovery of OSS (Operational Support Systems) costs in Part A of Docket No. UT-003013, as well as direct and rebuttal testimony in Parts B and D of that docket. In addition, I filed direct testimony on June 26, 2003 in this proceeding.

PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The Integrated Cost Model ("ICM") filed earlier in this proceeding included several updates and improvements. Unfortunately, despite best efforts to review the model thoroughly before it was originally filed, upon further review Qwest has discovered errors that require correction. Thus, the purpose of my testimony is to correct those errors by presenting corrected Total Element Long Run Incremental Cost ("TELRIC") data. This includes corrections to the ICM, the underlying investment modules (i.e., Loop, Switching and Transport), the SS7 model, the Total Investment Factors ("TIFs"), and the expense factors used to generate costs in ICM and the stand-alone studies. Exhibit TKM-2, as revised, summarizes the results of the corrected TELRIC studies that Qwest is filing. The actual cost studies, models, and documentation are provided in my cost study workpapers filed electronically on CD as a replacement to Exhibit TKM-3, filed originally with my direct testimony on June 26, 2003. While I am presenting several corrections, most of these corrections result in only slight changes to the costs presented in the earlier filing. Nevertheless, I believe that it is important that the information presented by Qwest be as correct as possible.

Q. ARE OTHER QWEST WITNESSES PRESENTING ERRATA TESTIMONY?

A. Yes. Mr. Dick Buckley presents corrections to the Loop Module ("LoopMod") in ICM that are a part of this errata filing.

CORRECTIONS TO THE FACTORS

Q. WHAT CORRECTIONS ARE BEING MADE TO FACTORS?

A. Qwest is making two factors corrections. First, the TIFs have been corrected to reflect the appropriate provisioning expense percentage and to eliminate the distinction between the "C" and "CS" classifications for hardwire and plug-ins. Second, Qwest has adjusted the expense factors by eliminating: 1) the wholesale billing and collections ("B&C") costs included in the B&C study that is utilized in Qwest's TELRIC cost studies and models; and 2) the direct costs included in the Call Trace cost study.

Q. PLEASE EXPLAIN THE CHANGES MADE TO THE TIFS ORIGINALLY USED IN THE WASHINGTON CIRCUIT INVESTMENT CALCULATIONS.

A. The TIF factors were corrected for two errors found during a review of the factor calculations. First, Qwest inadvertently used the provisioning rate for outside plant, rather than the provisioning rate for central office equipment ("COE") investment in the TIF calculations. The outside plant provisioning rate of .1978 is significantly higher than the COE provisioning rate of .0454. The TIFs have been changed to reflect the correct provisioning rate.

Second, an unnecessary factor adjustment for SONET equipment was still being used in these studies. Originally, when SONET was first being deployed in the industry, a distinction was developed in the TIFs to reflect the differences between the emerging SONET technology and the existing circuit equipment accounted for by field reporting codes ("FRCs") 257C and 357C. This difference was delineated by calculating separate hardwire and plug-in TIFs for SONET equipment and designating them as 257CS and 357CS. However, as time has passed, SONET has become

the industry standard technology and the amounts currently booked in FRCs 257C and 357C are primarily made up of SONET equipment purchases. Because the data from these FRCs used to develop the factors already includes SONET equipment, the secondary adjustment to designate separate "CS" TIFs is unnecessary. Qwest has eliminated this distinction from the calculation of TIFs.

Q. WHAT COST STUDIES AND/OR COST MODELS ARE IMPACTED BY THESE TIF CHANGES?

A. As discussed below, the SS7 Core Model and Transport Module inputs for TIFs have been updated to reflect the TIF changes. In addition, the multiplexing investments and high capacity loops contained in the ICM Output (Exhibit TKM-4, Study #7765 (formerly Study #7699)) and Low Side Channel Performance study (Exhibit TKM-7, Study #7764 (formerly Study #7693) have been corrected for the TIF changes.

Q. PLEASE DESCRIBE THE CHANGES MADE TO THE EXPENSE FACTORS USED BY QWEST.

A. Two corrections were made in the Computer related accounts (Investment account 2124 and Maintenance expense account 6124). The first correction reflects the exclusion of direct computer costs associated with the Call Trace cost study. Because these costs are included in a separate stand-alone study it would be double counting to also include them in the expense factors calculation. Thus, the expense factors have been adjusted to remove the Call Trace cost study's

computer costs. The second correction makes an adjustment to the factors calculation for the updated wholesale B&C study utilized in Qwest's cost studies and models filed on June 26, 2003. Because the wholesale B&C study was completed just prior to Qwest's June 26, 2003 filing, an adjustment for those wholesale costs did not make it into the calculation of the expense factors. The B&C adjustment that was included in the previous expense factors module was related to retail B&C costs only, and did not include the wholesale B&C costs. These two adjustments were inadvertently omitted from the original expense factors module. These corrections, as well as the changes in direct investments resulting from corrections to the direct investment models, which I describe below, all have an effect on the expense factors calculation process and the resulting factors themselves. The Expense Factors Module – TELRIC User Manual, filed as model documentation in Exhibit TKM-3, the Cost Models folder on the CD filed herewith, explains the cost factors calculation process in detail.

Q. WHAT COST STUDIES ARE IMPACTED BY THE CHANGES TO THE EXPENSE FACTORS?

A. The ICM Outputs (Exhibit TKM-4, Study #7765 (formerly Study #7699)), as well as the stand-alone cost studies for Unbundled Dark Fiber (Exhibit TKM-8, Study #7768 (formerly Study #7705)) and Low Side Channel Performance (Exhibit TKM-7, Study # 7764 (formerly Study #7693)) are impacted by the changes to the expense factors.

Q. ARE ANY OF THE COST STUDIES (EXHIBITS TKM-4, TKM-6, TKM-7 AND TKM-8) INCLUDED ON THE CD FILED HEREWITH NOT IMPACTED BY THE CORRECTIONS YOU HAVE DESCRIBED ABOVE?

A. Yes. The ITP cost study (Exhibit TKM-6, Study #7766 (formerly Study #7704)) is included on CD filed herewith in order to complete the filing package. However, none of the corrections discussed above has an impact on the calculations contained in it. Nor do the corrections to the expense factors have a significant enough impact on the ITP study to change the cost results it produces.

CORRECTIONS TO ICM

Q. WHAT CORRECTIONS ARE BEING MADE TO ICM?

A. There are three corrections to ICM that are independent of the other corrections being made to the investment modules and factors discussed elsewhere in my testimony. First, Qwest discovered an error in ICM when changes were made to the LoopMod that caused the statewide average 4-wire loop rate to change, but left the corresponding zone rates for the 4-wire loop unchanged. The change in the statewide average 4-wire loop rate should have resulted in a recalculation in ICM of the 4-wire zone rates. However, ICM had hard-coded values in cells where there should have been formulas instead. A correction has been made in the ICM output (Modelout.xls) to the 4-wire unbundled loop to insert formulas in place of those hard-coded values for each of the 5 zones.

Second, there were navigation errors discovered on the ICM input forms. ICM should load an input form for each of the tabs within the model. However, Qwest discovered that for some of the tabs the proper form was not being loaded. For example, in the Switch inputs screen when "Files and Reports" was selected, the form did not load and the screen appeared blank, although this same selection was available from another tab. This navigation error has been corrected so that for each tab within ICM the proper form loads when it is selected from the input screen for that tab. This error did not affect investment results produced by any of the modules.

Third, ICM was applying B&C costs incorrectly to high capacity loops and high capacity feeder loops. Originally, ICM used the per-line billing cost generated by the wholesale B&C study for elements billed by Qwest's CRIS billing system. However, high capacity loops and feeder are billed by Qwest's IABS billing system. Therefore, ICM has been corrected to apply the IABS billing factor developed in the wholesale B&C study. This factor applies to the capital and maintenance costs for high capacity loops and feeder.

Finally, other corrections in ICM are the result of corrections that I describe in more detail in my testimony above. For example, the multiplexing investments developed in ICM are impacted by corrections to the TIFs, while the Expense Factors module is impacted by adjustments related to the wholesale B&C study and the Call Trace study.

CORRECTIONS TO THE INVESTMENT MODULES

Q. ARE CORRECTIONS BEING MADE TO EACH OF THE INVESTMENT MODULES WITHIN ICM?

A. Yes. Qwest has made corrections to each of the investment modules, including the Loop Module, Switching Cost Module ("SCM") and the Transport Module. In addition, Qwest has corrected the Signaling System 7 ("SS7") Core Model. The SS7 Core Model is the model that calculates the investments for Qwest's Common Channel Signaling SS7 network that are used in SS7 Calls to develop inputs for the SCM.

Mr. Buckley will discuss the corrections to the Loop Module, while I will discuss the corrections to each of the other modules and/or models.

Q. ARE ANY OF THE STAND-ALONE COST STUDIES IMPACTED BY THE CORRECTIONS TO LOOPMOD DISCUSSED BY MR. BUCKLEY?

A. Yes. The Dark Fiber study (Exhibit TKM-8, Study #7768 (formerly Study #7705) loop investments are reduced by the increase in overall plant footage that results from the inclusion of the Seattle-Elliott wire center data in LoopMod. This impact is evident in FRCs 4C, 85C and 845C. In addition, corrections of the formulas calculating poles & anchors (1C) and aerial fiber cable (852C) produce smaller loop investment inputs to the Dark Fiber study.

Q. WHAT SWITCHING INVESTMENTS ARE CALCULATED BY THE SS7 CORE MODEL?

A. The SS7 network transmits and receives data in the form of signaling messages associated with call attempts which require interoffice trunks. The SS7 Core Model ("SS7 Core") calculates the unit investments for Qwest's Common Channel Signaling network, including signaling message investments which are used in SCM. These unit investments are expressed as investments per 8 binary digits, or octet. Signaling messages are made up of groups of octets. Call set-up signaling messages are sent between two switches connected by a trunk and are used to set up a voice path over the trunk so that a conversation can take place.

Q. WHAT CORRECTIONS WERE MADE TO THE SS7 CORE MODEL?

A. Corrections were made to several calculations and inputs in SS7 Core. For example, corrections to the TIFs and Transport Module are reflected as input corrections in the SS7 Core. In addition, the GR394 end office and tandem software price input was corrected to reflect actual rather than estimated contract pricing.

The following calculations were corrected: 1) the calculation of end office and tandem SS7 hardware investment per octet; 2) the Seattle LATA Qwest-wide weighting calculation; and 3) the calculation of the duplex SS7 data link capacity value. The hardware investment per octet correction resulted in a change to the formula to reflect utilization consistent with the data link utilization calculation. The weighting calculation was corrected to retrieve Seattle LATA demand

data rather than Spokane LATA demand data for purposes of developing the Seattle LATA Qwest-wide weighting. Finally, the duplex SS7 data link capacity value was corrected to reflect the capacity of both directions of transmission on the data link. The overall impact of making these corrections is that the SS7 Core produces a lower investment per octet for input into the SS7 Calls Module ("SS7 Calls") in SCM.

Q. WHAT CORRECTIONS ARE BEING MADE TO SCM?

A. As I mentioned above, the corrections to SS7 Core produce a change in the investment per octet. The SS7 Calls is a separate spreadsheet which computes an investment per attempt that is used in the SCM Core Module. The investment per attempt produced in SS7 Calls is based on the investment per octet computed in SS7 Core. In addition to the change in the investment per octet produced in SS7 Core, Qwest has made a correction in SS7 Calls to the number of octets per call attempt used to calculate the cost per attempt for tandem and end office switching. The version of SCM filed by Qwest on June 26, 2003 included only the number of tandem octets associated with the incoming trunk. However, for purposes of the tandem service switching point ("SSP") there are signaling messages associated with both the incoming and outgoing trunks. Therefore, correctly reflecting the tandem SSP costs associated with tandem switching required Qwest to double the number of octets. The number of octets assumed for end office SSP costs was not affected by this change.

The signaling transfer point ("STP") transfers messages between two switches. Each switch must have an SS7 link to the STP. If a message is being sent from Switch A to Switch B, the message must be sent over the link from Switch A to the STP and then sent over another link from the STP to Switch B. The STP investment per octet is per link, or per incoming or outgoing octet. To complete the entire transfer at the STP both an incoming and an outgoing octet are required. However, as in the case of SSP, the version of SCM previously filed did not reflect the appropriate number of octets, therefore, the number of STP octets per call for both end office calls and tandem calls was also doubled.

As a result of the reduction in the investment per octet calculated in the SS7 Core and the increase in the number of octets per call attempt assumed in the SS7 Calls in SCM, the cost per MOU for tandem switching increased by 25 percent whereas the cost per MOU for end office switching decreased by 39 percent.

Q. WHAT CORRECTIONS ARE BEING MADE TO THE TRANSPORT MODULE?

A. Like the SS7 Core Model, Qwest has changed the Transport Module to reflect the corrections to the TIFs that I discussed above. In addition, the default DS3 investment related to SONET OC3 regeneration equipment was incorrectly keyed when it was entered into the model. Correction of this input results in a $0.01 increase in the direct category 1 variable cost for 357CS.

Q. ARE THERE ANY OTHER CHANGES INCLUDED IN THIS FILING THAT YOU HAVE NOT ALREADY DISCUSSED?

A. Yes. In response to AT&T's second set of data requests (Data Request AT&T/XO 02-013), Ms. Marti Gude provided as Attachment A the updated documentation related to the Investment Loadings Factor. In addition, Qwest filed an update to my Exhibit TKM-3 on July 25, 2003 with this documentation. Subsequent to that time this documentation was updated further, primarily from a formatting perspective. The current model documentation included on the revised Exhibit TKM-3, filed with this testimony, includes the updated Investment Loading Factors documentation. In addition, the documentation contained in the ICM documents folder on the Exhibit TKM-3 CD has been updated to reflect the corrections discussed in my testimony and that of Mr. Buckley. For example, the LoopMod Default Values.pdf file and the LoopMod3 User Manual.pdf file have been updated in ICM.

CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. A review of Qwest's cost studies and cost models performed after the June 26, 2003 filing of direct testimony in this proceeding uncovered a variety of minor errors. Qwest has corrected those errors as outlined in this testimony and the testimony of Mr. Dick Buckley, and has resubmitted its cost studies and cost models in this supplemental filing. The majority of those corrections have resulted in new UNE rates that are lower than those proposed in Qwest's prior filing. The

Commission should set prices for unbundled network elements based on this revised TELRIC data, as summarized in the TELRIC Summary of Results (Exhibit TKM-2) to my testimony.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

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INDEX OF EXHIBITS

EXHIBIT	DESCRIPTION	STUDY #[1]
TKM-2	Revised Summary of Study Results	
TKM-3	Compact Disc with Revised Cost Studies, Models and Workpapers	
TKM-4	Integrated Cost Model (ICM) Output Workbook	7765 (formerly study #7699)
TKM-6	Interconnection Tie Pairs (ITP)	7766 (formerly study #7704)
TKM-7	Low Side Channel Performance	7764 (formerly study #7693)
TKM-8	Dark Fiber	7768 (formerly study #7705)

[1] Study ID numbers change each time a new study is run. The numbers reflected here are the numbers assigned to the studies after corrections and revisions detailed in this testimony and the testimony of Mr. Dick Buckley were made.