

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 99A-577T

IN THE MATTER OF U S WEST COMMUNICATIONS, INC.'S STATEMENT OF
GENERALLY AVAILABLE TERMS AND CONDITIONS.

**RULING ON APPLICATIONS FOR REHEARING,
REARGUMENT, OR RECONSIDERATION**

Mailed Date: April 17, 2002
Adopted Date: April 17, 2002

TABLE OF CONTENTS

I.	BY THE COMMISSION.....	3
	Statement.....	3
II.	INTRODUCTION.....	4
	A. Ruling on Motions.....	4
	1. Motion for Technical Conference.....	5
	2. Motions to File Responses to RRR Applications....	6
	B. Applications for RRR.....	7
	1. Review of Docket No. 96S-331T Rates.....	7
	2. Interim Rates and Phase II.....	10
III.	USE OF HISTORICAL COSTS IN TELRIC FINDINGS.....	12
IV.	SETTING TELRIC RATES TO ENSURE VIABLE ENTRY.....	14
V.	COST MODEL ISSUES.....	24
	A. Cost Models--General Objections and Inability of the Parties to Replicate Commission Results.....	24
	B. Cost Model Inputs.....	28
	1. Cable Placement.....	28
	2. Plant Mix.....	31
	3. Structure Sharing.....	37
	4. Drop Lengths.....	41

5.	Fill factors.....	43
6.	Line Counts.....	44
7.	General Support.....	47
VI.	CAPITAL AND EXPENSE FACTORS.....	47
A.	Capital Costs.....	47
B.	Tax Rates.....	49
C.	Net Productivity.....	49
VII.	RECURRING COSTS.....	50
A.	Demultiplexing Charge.....	50
B.	Recurring Cost for High Capacity Loops.....	52
C.	Fill Factors for Transport and High Capacity Loops...	55
D.	Switching Rates.....	57
E.	Analog Loop Recurring Rate.....	57
VIII.	NON-RECURRING RATES.....	60
A.	UNE Non-Recurring Charges.....	60
B.	OSS Flow-Through Assumptions.....	63
C.	Disconnection Charges.....	64
D.	Non-recurring Loop Conditioning Cost.....	66
IX.	COLLOCATION.....	67
D.	Splitter Placement.....	68
E.	Costs for Engineering, Splitter Collocation, and Relay Racks.....	69
F.	Engineering Costs and Installation Times.....	70
G.	Augment Quote Preparation Fee ("QPF").....	71
H.	Space Conditioning Charge.....	72
I.	CLEC To CLEC Connections.....	73
J.	Cabling Costs and Cable Lengths.....	75
K.	Cable Racking.....	75
L.	Recurring Charge for Interconnection Tie Pairs (ITP).	77
M.	Fencing Charge.....	77
X.	CLARIFICATIONS AND CORRECTIONS.....	78
A.	Block Terminations.....	78
B.	Deaveraging.....	78

C.	Staff's Requests for Clarification.....	79
D.	AT&T's Request for Clarification Regarding Attachment A.....	79
E.	Qwest's Requests for Clarification.....	79
XI.	OPERATOR SERVICES.....	80
A.	Operator Services and Directory Assistance.....	80
B.	Directory Assistance Listing (DAL).....	81
C.	Calling Name Database (ICNAM).....	82
XII.	LINE-SHARING.....	83
XIII.	ORDER.....	88

I. BY THE COMMISSION

Statement

This matter comes before the Commission for consideration of Applications for Rehearing, Reargument, or Reconsideration (RRR) by Qwest Corporation (Qwest); Covad Communications Company (Covad); WorldCom, Inc. (WorldCom); AT&T Communications of the Mountain States, Inc. and XO Colorado jointly (AT&T); and Commission Staff (Staff). The parties request reconsideration of the Commission's rulings in Decision No. C01-1302 (Decision).¹ In that Decision, we established Qwest's wholesale prices for interconnection services and unbundled network elements (UNEs). The parties filed their

¹ As shorthand in this Order, we refer to the Commission Order, Decision No. C01-1302, as the "Decision." We refer to this decision as the "RRR Decision."

applications for RRR in accordance with § 40-6-114, C.R.S. We grant the applications for RRR, in part, and deny them, in part, as detailed below.

II. INTRODUCTION

The Decision noted, and struggled with, the enormous complexity in setting total element long run incremental cost ("TELRIC") wholesale prices. The parties' RRR to the Decision only served to confirm the difficulty in setting the correct wholesale prices. This RRR Decision attempts to correct the shortcomings of the earlier Decision by more fully explaining our rationale for adopting given rates. This RRR Decision further attempts to increase the transparency of our ratesetting decisions by attaching the entirety of our cost model runs from which the applicable rates are derived. Finally, this RRR Decision endeavors to make the wholesale rates more accurately TELRIC by modifying cost model inputs to better-estimate the forward-looking costs that an efficient telecommunications provider will incur. In the end, it is the Commission's hope that this RRR Decision sets forth the reasoned basis to justify the TELRIC-compliant rates that we adopt here.

A. Ruling on Motions

Before discussing the parties' RRR-proper, there are a number of outstanding motions to be addressed.

1. Motion for Technical Conference

a. On January 30, 2002, Qwest filed a Motion to Schedule a Technical Conference. The motion asserts that it is unclear what inputs and assumptions the Commission used in the cost models to develop the rates approved in the Decision. Consequently, the motion states, the parties are unable to replicate the rate results established in the Decision. In addition, the motion states that inconsistencies exist between the conclusions contained in the Decision and Appendix A, in which we listed the rates approved in the Decision itself. For these reasons, Qwest requests a technical conference to discuss the cost inputs and assumptions used in establishing the rates approved in the Decision.

b. We deny the motion. As discussed, *infra*, this RRR Decision fully identifies the inputs and assumptions used by the Commission to support the rates approved here. See Attachment A. Additionally, the actual cost model run using the Commission-approved inputs is being filed in the record as the CD-ROM attachment to this RRR Decision. With this level of detail, the parties should be able to replicate the rate results discussed in this order. This order also gives the parties an opportunity to file in the record the results of their model runs using the guidance contained in this order. In light of

these provisions, no need exists for a technical conference. Therefore, Qwest's motion is denied.

2. Motions to File Responses to RRR Applications

a. On February 14, 2002, AT&T filed its Motion to Allow Response to Qwest's Application for Rehearing. On March 4, 2002, Qwest filed its Motion for Leave to File Reply in Support of Application for Rehearing. Good cause having been stated, we grant the motions.

b. Finally, on March 5, 2002, Qwest filed its Motion for Leave to File Response to AT&T's and XO's Application for Rehearing. Qwest, in this motion, suggests compromise rates for unbundled local switching, both for the recurring usage-sensitive component and the recurring flat rate port component. The rates suggested in Qwest's motion are: \$.0020/minute plus a \$1.86 port charge. AT&T opposes the motion. We grant Qwest's motion.

c. AT&T, in large part, opposes Qwest's suggested compromise rates because of its belief that the Commission, in Decision No. C01-1302, intended to modify the local switching rates to those levels reflected in Attachment A to the Decision (*i.e.*, \$.00084/minute and a \$1.78 port charge). In fact, as the applications for RRR point out, the local switching rates listed on Attachment A are inconsistent with the discussion contained in the Decision itself, in which we stated

that we would retain the switching rates previously approved by the Commission in Docket No. 96S-331T (*i.e.*, \$.00283/minute and \$1.78 port charge). We now clarify that the switching rates contained in Attachment A are erroneous; it was our intent to retain the Docket No. 96S-331T (331T) switching rates. Therefore, Qwest's compromise rates would benefit competitive local exchange carriers ("CLECs") such as AT&T.

d. We agree with AT&T that Qwest's proposals were submitted late. However, because those proposals reduce the rates from 96S-331T ("331T rates") and hence benefit CLECs, we adopt the switching rate reductions. Because Qwest's proposal was submitted late, the switching rates offered by Qwest are interim only, and will be subject to reexamination in the Phase II proceedings resulting from this docket.² Nonetheless, we endorse \$.0020/minute and the \$1.86 port charge as the effective switching rates.

B. Applications for RRR

1. Review of Docket No. 96S-331T Rates

a. In Decision No. C01-1302, we concluded that we would review the 331T rates, but only recalculate those that were no longer within the TELRIC range of reasonableness

² We do note, however, that the Qwest switching rate reduction is supported in this evidentiary record by running specified TELRIC-based inputs through the cost models.

according to the record presented in this case. In its application for RRR, Staff also cites the language in the Decision (page 28) that, "...the 331T rates will continue in an interim capacity until permanent rates can be set where applicable." In light of that observation, Staff requests clarification as to whether the Commission and its advisors will be doing this review, whether the Commission and its advisors have already done this review, or whether parties to the docket are expected to conduct this review of 331T rates.

b. Staff points out that the Commission was persuaded to review some 331T rates in this case due to changes relating to Qwest since those rates were established (e.g. changes in telecommunications technology, the regulatory field, and the merger of U S WEST and Qwest). Staff argues that such changes would affect all 331T rates. As such, Staff recommends, the Commission should reset all 331T rates using cost inputs and assumptions approved in this case.

c. We deny Staff's request with the clarification set forth here. It has been and is our intent in this proceeding to set permanent rates, including 331T rates, where the record here is sufficient to set such rates. In the Procedural Order dated December 29, 2000 (Decision No. R00-1487-I), the Hearing Commissioner ruled that parties could contest 331T rates by presenting a *prima facie* case that specific rates

were no longer appropriate. Such observations indicate--and we now clarify--that the Commission does not necessarily intend to conduct a general review of *all* 331T rates in the future. In fact, some 331T rates have been revisited and reset in reliance on the evidence presented here. Unless our orders in this case identify specific rates for further review (e.g. in a Phase II), we have no intent to conduct further review of the 331T rates in this proceeding.

d. In a related matter, Staff notes our observation (page 12 of Decision) that TELRIC methods result in a "range of reasonable" prices. Staff then requests that we specifically identify the range of reasonable prices and the methods and models used to determine that range. This is an unnecessary exercise. Notably, the Decision and this RRR Decision specify many of the cost inputs and assumptions accepted by the Commission as yielding TELRIC rates. No further clarification is necessary to give the entire range of TELRIC-compliant rate options. Our burden here is to set specific prices to be included in Qwest's Statement of Generally Available Terms and Conditions ("SGAT"). We are doing that. We are not authorizing Qwest to charge prices within some established range.

e. Moreover, our commentary on the range of reasonableness went to how analytically indeterminate TELRIC

rate-setting is, not to the need to define the acceptable TELRIC-compliant price range. It is easier to say what a TELRIC rate is not, than what it is. It is not, as the Federal Communications Commission (FCC) has instructed, based on embedded or historical costs. At the other extreme, however, a TELRIC rate cannot be derived by fancifully optimistic assumptions about reduced forward-looking costs. Therefore, the range of reasonableness for a TELRIC rate emerges from navigating between the two extremes of historical cost-based inputs, and unrealistically low assumptions about forward-looking costs. Yet, the "range of reasonableness" still leaves room for disparate judgments about forward-looking costs. The Commission here and in its prior Decision endeavors to make informed judgments about the likely forward-looking costs of an efficient carrier. From those judgments about cost inputs, the Commission derives these rates.

2. Interim Rates and Phase II

a. Decision No. C01-1302 and this RRR Decision identify a number of rates that are intended to be interim only, and subject to Phase II proceedings.³ For these rates, we have concluded that this record does not support permanent adoption of certain rates, and, therefore, those rates should be

³ It is our intent that any rate established by this order which is not specifically labeled as interim be treated as a permanent rate.

reconsidered in a Phase II. We now clarify that the following rates or rate elements are interim only and will be reexamined in Phase II: the compromise switching rates proposed in Qwest's Response to AT&T's and XO's Application for Rehearing, Reargument, or Reconsideration (dated March 5, 2002); the deaveraging plan for the various wire center zones (pages 80-81 of the Decision).

b. In addition, consistent with the discussion in Decision No. R00-1487-I (page 9), the rates for new services approved in Docket No. 97I-198T (*i.e.* services to be included in Qwest's SGAT for which no price is established in Decision No. C01-1302 or this RRR Decision) will be investigated in Phase II. The Commission or the hearing commissioner, by separate order, will set a status conference to establish the procedural schedule for Phase II. That status conference will also serve as an opportunity for the parties to catalog elements for which rates need to be set.

c. We emphasize nonetheless that the rates we set here, whether given the name permanent or interim, are the *effective* rates to be charged by Qwest. Consistent with Colorado law prohibiting retroactive ratemaking, *see, Silverado Communications Corp. v. Public Utilities Commission*, 893 P.2d 1316, 1321 (Colo. 1995), rates set here would not be subject to

true-up or retroactive alteration, even if changed in Phase II of this proceeding.

III. USE OF HISTORICAL COSTS IN TELRIC FINDINGS

A. In the Decision, we concluded that our TELRIC analysis could properly consider historical costs as a starting point for determining forward-looking costs. Staff objects to how we considered historical cost information in deriving the prices for Qwest's services. Staff acknowledges that the Commission states that: "prices using TELRIC are not to be based on historical costs or investment costs." Decision at 10. However, Staff argues, the Commission is not true to this principle. Staff claims that by using the Qwest cost model approach or any of its models, the Commission endorses the current, historical cost structure and level of Qwest. Staff continues that the Commission allows these historical costs to be inflated and projected into the future. Staff recognizes that practical considerations may allow use of historical information as a starting point for TELRIC studies. However, Staff questions the type and magnitude of the adjustments used, as well as those adjustments not used, as a means of transforming historical data and historical models into TELRIC models.

B. Staff argues that, to the extent the Commission used the Qwest cost models as the upper ceiling of the TELRIC range, it should reduce this upper ceiling. To achieve this reduction, Staff recommends: (1) the Qwest models should be ignored, with the exception of the Collocation Module (since no alternative is yet available); and (2) to the extent that Qwest's books and records, directly or indirectly, are used as a basis for a TELRIC study, those book numbers should be adjusted in a manner consistent with Staff's case regarding the two-step inflation and productivity adjustment. Staff's first step factors in known changes in Qwest's cost structure such as mergers, layoffs, technological progress, and vendor distress. This alone, the argument goes, justifies Staff's double-digit percentage reductions. Staff's second step applies a more modest "X-factor" adjustment on a going-forward basis using the HAI Model or the Qwest Collocation Module.

C. We deny this request for RRR for the reasons stated in the Decision. We affirm our finding that a TELRIC cost study may consider historical costs as a starting point for determining forward-looking cost. The use of historical costs as a starting point requires that forward-looking adjustments be made to arrive at a TELRIC-compliant rate. We have made substantial adjustments to inputs and assumptions in order to more accurately reflect an efficient forward-looking network.

Our proposed wholesale rates differ substantially from Qwest's proposed recurring and non-recurring rates. With respect to Staff's contention that we allowed historical costs to be inflated and projected into the future, Staff is incorrect. The Decision, and discussion *infra*, demonstrate that our net productivity adjustment is responsive to Staff's concerns about carrying over Qwest's historical costs to set rates. There is no need to make input adjustments beyond those endorsed in this RRR Decision and the original Decision for the Commission to be establishing TELRIC rates.

IV. SETTING TELRIC RATES TO ENSURE VIABLE ENTRY

A. In the Decision, we found that TELRIC principles do not require that rates be set to ensure viable entry by CLECs. We noted that the FCC has ruled that ensuring viable competitive entry is not a valid basis for setting TELRIC-based rates. Specifically, we referred to the FCC's *SWBT Kansas/Oklahoma Order*,⁴ wherein the FCC held that ensuring profitability on the part of CLECs is not part of the evaluation whether an incumbent local exchange carrier ("LEC's") rates are TELRIC-based. In that order, the FCC held that the Telecommunications Act of 1996

⁴ In The Matter of the Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. D/B/A Southwestern Bell Long Distance pursuant to § 271 of the Telecommunications Act of 1996 to Provide In-region, InterLATA Services in Arkansas and Missouri, CC Docket No. 01-194, Memorandum Opinion and Order ¶ 65 (November 16, 2001).

(Act) requires that rates be cost-based, not that a CLEC be able to make a profit when entering the local exchange market.

B. On reconsideration, the Joint Intervenors contend that the Decision errs because we explicitly rejected any consideration of the extent to which the adopted prices will permit effective competition with Qwest. They claim that their witnesses, such as Mr. Gillan, provided substantial evidence in this proceeding that improper UNE pricing will prevent any significant competition in Qwest's local markets. In addition to referencing federal regulations and state laws, they cite the recent case *Sprint Communications Co. v. Federal Communications Commission*, 294 F.3d 549,555 (D.C.Cir.2001) (*Sprint*). The Joint Intervenors contend that because the Decision finds that there is a range of rates that will satisfy the FCC's TELRIC standards, the Commission can comply with *Sprint's* requirements to consider the effect of TELRIC-based rates on competition only by choosing prices at the low end of the TELRIC range. They claim that we made no such analysis in adopting the rates in the Decision.

C. Qwest responded: The Commission should reject the argument that the *Sprint* decision justifies the imposition of below-cost UNE rates (or, as CLECs characterize it, rates at "the low end of TELRIC reasonableness"). Qwest continues that *Sprint* did *not* endorse such a reading of § 271 on the merits.

To the contrary, Qwest claims that the court left in place the FCC's grant of § 271 authority to Southwestern Bell, while remanding the case to the FCC for more detailed consideration of the issue. The court observed that the FCC could well reaffirm its existing position on remand, and indeed it pointed the way to that outcome. As the court explained, when UNE rates are based on TELRIC, regulators might well conclude that the residential market may not be attractive to competitors choosing to enter through the UNE platform. If so, it would disserve the public interest to deprive consumers of greater long-distance competition simply because CLECs find the platform an inept business model for widespread entry into the residential market.

D. Qwest continues: Even if there were a legal basis for performing a "margin" analysis in determining UNE rates, there would be no factual predicate for it in this case. As Mr. McDaniel testified at hearing, when the mathematical errors in the CLECs' "profitability analysis" are corrected, the analysis shows that there is no price squeeze. A Colorado unbundled network element platform ("UNE-P") provider using Qwest's proposed rates (which would have left intact the \$18 statewide-averaged loop rate established in Docket No. 97A-331T) would operate at the same level of profitability as the facilities-

based provider.⁵ Simply put, Qwest retorts that neither the *Sprint* holding nor the facts of this case justify setting rates expressly to ensure CLEC profitability upon entry into the local exchange market.

E. Staff also suggests that the Commission reexamine the price squeeze issue as it relates to the wholesale prices adopted in this docket, and the rates' impact on competitive entry. Staff argues that Qwest's overstated cost studies make a price squeeze likely. In addition, Staff urges the Commission to provide an explanation of our decision that does not rely on the FCC's *Arkansas/Missouri Order*. Staff is concerned that, with the wholesale recurring and non-recurring rates, a price squeeze may be in place. As a means of shortcutting a more lengthy process and to provide "a no cost, no risk" check on wholesale rates and the wholesale/retail rate balance, Staff proposes that we require Qwest to comply with existing Commission rules on imputation.

F. To examine the potential for a price squeeze in the context of the wholesale rates set out in Attachment A to the Decision, Staff looked at the Base Rate Area rates for a UNE-P POTS (plain old telephone service), 2-Wire Voice Grade Analog Loop, First Loop Installation for both Residential and Business.

⁵ Tr. Vol. X, 28:7-32:2 (Oral Rebuttal Testimony of Paul R. McDaniel).

See Attachment 1 to Staff's application for RRR. Staff compared those rates to the monthly rate cap in effect for residential basic service and Qwest's tariffed installation charge for residential service (page 1, Attachment 1), and to Qwest's tariffed monthly and installation charges for business (page 2, Attachment 1). Staff claims its analysis shows that, for residential customers in the Base Rate Area charged \$35 for installation and \$14.74 per month for service, a CLEC purchasing a UNE-P POTS line can recover its charges in the deaveraged group 1 wire centers only. Staff also looked at rates for this same UNE configuration for business customers within the Base Rate Area. Based on this analysis, Staff concluded that business customers in the Base Rate Area of the more rural Qwest exchanges will probably not experience the benefits of competition because, to cover its costs, a CLEC would have to charge installation or monthly rates higher than Qwest's rates.

G. Based on its analysis of the wholesale rates discussed, Staff concludes that the Base Rate Area rates for the more rural areas are set to discourage, rather than encourage, competition. Because some wholesale rates are higher than tariffed retail rates, Staff says that this could present a problem when the FCC reviews Qwest's wholesale rates.

H. Staff notes our prior holding that Qwest must impute tariffed switched access charges into its toll rates (Docket No.

00A-201T, Decision No. C01-288), and suggests imputation here to solve potential price squeeze problems created by the rates adopted in this docket.

I. Upon reconsideration, we reject the suggestions that the adopted rates (here and in the Decision) will result in a price squeeze that will preclude effective competition. Additionally, we do not adopt Staff's request to require Qwest to impute wholesale rates into its retail rates.

J. We first note that the court in *Sprint* essentially held that, to the extent just and reasonable TELRIC rates fall within some range, price squeeze considerations require a state commission to weigh anticompetitive effects (if any) along with other factors when setting rates. The court did *not* hold that wholesale rates must be set to ensure that competition will flourish (*i.e.* that CLECs are ensured a profit when entering the local market). Upon reconsideration, we conclude that the record in this docket does not support the argument that the rates adopted here make a price squeeze unavoidable or even probable. Similarly, the record does not support the argument that the adopted rates will doom competition to failure.

K. In his testimony of June 27, 2001, AT&T witness Mr. Gillan evaluated the profitability of a CLEC using UNE-P to enter the residential market in Colorado. That analysis, Mr. Gillan asserted, demonstrates that such entry is not

economically viable, particularly at existing and proposed UNE rates. However, Qwest's rebuttal testimony suggests that there are a number of errors in Mr. Gillan's analysis. For example, Rebuttal Testimony by Mr. McDaniel indicates that Mr. Gillan inappropriately assumes a CLEC would only serve residential customers and, even then, would not provide a complete range of services to that customer.⁶ According to witness Mr. McDaniel, Mr. Gillan assumed that the CLEC would voluntarily forego long distance revenues from the customer, settling instead for the minimal access charge revenues that have recently been reduced by the FCC.⁷ Mr. Gillan's analysis also ignores the contribution that flows to residential basic local exchange service from other services, such as business basic local exchange, vertical features, toll and access.⁸ Mr. McDaniel contended that one-third of Qwest's basic local exchange lines are business lines and when Mr. Gillan's analysis is done for a business customer, it results in a 27% margin.⁹

L. Mr. McDaniel further maintained that Mr. Gillan's updated analysis is irrelevant and incorrect. In essence, Mr.

⁶ Exhibit R, Rebuttal Testimony of Paul R. McDaniel, 6:2-4 (July 20, 2001).

⁷ Mr. Gillan's analysis also contains numerous mathematical errors, including excessive access revenues and double counting of reciprocal compensation (Tr. Vol. VI, 329:24-330:3, 333:12-334:14).

⁸ Exhibit R at 6:22-7:1 (McDaniel Rebuttal).

⁹ Tr. Vol. VI, 338:15-342:9 (Gillan).

Gillan used aggregate Automated Reporting Management Information System ("ARMIS") data in an attempt to demonstrate that even Qwest could not make a profit at its current wholesale rates.¹⁰ However, Mr. Gillan's analysis overstates Qwest's total state net income by approximately \$289 million.¹¹ After making corrections, on a before-tax basis, the resulting calculation, in fact, shows that the profitability of UNE-P entry and Qwest's facilities-based operations "come out about the same place...."¹² Moreover, Mr. McDaniel argued that if special access revenues are eliminated from Mr. Gillan's calculation (as they should be but were not), the estimated UNE-P profitability actually ends up being *higher* than that generated by facilities-based operations.¹³ Mr. McDaniel concluded that once appropriate adjustments are made to Mr. Gillan's analysis, that analysis shows that a UNE-P provider at Qwest's proposed rates in this docket would not operate at a different level of profitability than the facilities-based provider.¹⁴

M. Mr. McDaniel's testimony is pertinent to our rate determinations here. In particular, that testimony demonstrates

¹⁰ Tr. Vol. VI, 309:17-313:21 (Gillan).

¹¹ Tr. Vol. X, 29:2-18 (McDaniel).

¹² Tr. Vol. X, 29:19-31:9 (McDaniel).

¹³ Tr. Vol. X, 31:10-22 (McDaniel).

¹⁴ Tr. Vol. X, 31:23-32:1 (McDaniel).

that the acquisition of UNE-P by a CLEC opens up other sources of revenue besides local exchange revenues. We also note that CLECs do not have the same provider-of-last-resort obligations as Qwest. Therefore, unlike Qwest, CLECs are free to target their business plans exclusively to high revenue services and customers. In addition, CLECs are free to enter the local exchange market through facilities-based competition with Qwest. For all these reasons and based upon the record in this case, we reject the notion that our adopted rates will likely lead to a price squeeze and will not enable CLECs to enter the local exchange market through the purchase of UNEs from Qwest.

N. We further observe that Staff witness Ms. Quintana contended that there are a variety of providers poised to enter the local exchange market, or to continue entering the market, using many different products and strategies. Ms. Quintana testified that setting prices to optimize each entry strategy is nearly impossible. For example, setting a price for the unbundled loop low enough to ensure entry by carriers seeking to enter the market by purchasing loops from Qwest, adding their own electronics, and then provisioning service to endusers, might in turn hurt another carrier that is building its own network to provide services to endusers. A higher loop rate might be better for this second carrier, thereby allowing it to

provision its network more cheaply than a carrier who elects to purchase loops from Qwest.

O. As Ms. Quintana pointed out, the Commission is faced with a difficult balancing act when setting these wholesale prices. Prices that are too high may create price squeezes, but prices that are too low would inappropriately encourage CLECs to purchase unbundled network elements and wholesale services, and discourage them from building their own facilities. We agree with the argument that facilities-based competition is a necessary, if not a sufficient, condition for an effectively competitive telecommunications market capable of delivering promised dynamic and productive efficiencies.

P. In balancing these conflicting goals and others, we find the wholesale rates adopted here to be TELRIC-compliant.¹⁵

Q. As for Staff's recommendation that we require Qwest to impute the Commission-determined wholesale rates into its retail rates, and the suggestion that we explain any difference between our holdings here and in Docket No. 00A-201T, where we affirmed the need for Qwest to impute switched access charges into its toll rates, we state: In the switched access docket (Decision No. C01-288), we found that Qwest has considerable market power

¹⁵ For a related discussion of the price squeeze issue, see Docket No. 97I-198T, Decision No, R02-318-I pp. 32-42, where the hearing commissioner discusses why the price squeeze issue does not preclude a finding that Qwest's interLATA entry is in the "public interest."

in the switched access market, and abandoning the imputation requirement there would do substantial harm to competition in toll markets. However, for the reasons stated above, this docket does not contain persuasive evidence that the wholesale prices adopted here are anticompetitive or create an actual price squeeze. Even if Staff's imputation request were within the scope of this docket--and it is not--the record does not support imposition of a new and momentous imputation requirement for all of Qwest's retail services.

V. COST MODEL ISSUES

A. Cost Models--General Objections and Inability of the Parties to Replicate Commission Results

1. In the Decision, we ruled that we would not use one cost model to the exclusion of others. We held that all of the models use TELRIC methods and would be used, as appropriate and with Commission-modified inputs, to establish rates within the TELRIC range of reasonableness. We further determined that we would review 331T rates, and leave those in place that were still TELRIC-compliant. To the extent that use of Qwest's Loop Module (LoopMod) model would serve to lower the existing 331T rates where applicable, and to the extent that the Commission was not relying solely on the HAI Model, we found that the Joint Intervenor's resistance to any use of the LoopMod model was unfounded. Finally, we agreed with the testimony of various

witnesses that the input assumptions constitute the main difference in the results from the cost models.

2. In its application for RRR, Qwest asks for reconsideration because of its inability to reproduce the cost model results and the resulting rates. Qwest states that its attempt to check the Commission's cost model results using LoopMod was also unsuccessful.

3. Similarly, AT&T argues that the Decision provides no basis for determining how the Commission arrived at its adopted rates, and no basis for determining whether the Commission followed its own findings on disputed issues. Moreover, AT&T asserts that the Decision is fundamentally unfair. Specifically, AT&T asserts that the Decision improperly considered Qwest's LoopMod in determining recurring prices for unbundled network elements. Notwithstanding a prior procedural ruling by the hearing commissioner, AT&T asserts that the Decision does not rely upon LoopMod only for the "limited purpose for which it was offered." Rather, AT&T claims that the Decision improperly relied upon LoopMod in setting new rates. This is unfair, AT&T argues, because Qwest, over the objection of other parties, provided LoopMod in rebuttal only, and the parties had no opportunity to provide a complete record of the deficiencies in LoopMod.

4. We affirm our general findings and conclusions with respect to the manner in which the models should be used.¹⁶ We do nevertheless concede the necessity more fully to explain our reasoning related to the use of the cost models, the inputs we adopted for those models and the resulting rates.

5. To address the parties' inability to replicate certain of the cost model results, we provide the additional guidance set forth in this order. This additional information can be found in two places: here, in this RRR Decision, we will more prosaically set forth our reasons for adopting specific cost models and specific inputs; also, Appendix A to this RRR Decision contains the complete back-up documentation to our cost model runs, setting forth each and every input we adopt in deciding the TELRIC-compliant rates.

6. In addition, we clarify that the adopted rates are established using the HAI model sponsored by the Joint Intervenor's, with Commission-modified inputs as described in this RRR Decision. We used LoopMod for the limited purpose of a secondary "check" on the HAI model outputs. We do not adopt here any rates derived from the LoopMod cost model runs.

7. This clarification resolves the main complaints

¹⁶ We are still correcting errors in our prior runs of the models, especially the HAI model, and we are changing some of the inputs for the reasons explained here.

by both Qwest and AT&T. Because in this order we are more specifically setting forth the inputs we used to deduce TELRIC rates, there should no longer be a problem with duplicating our results. Likewise, the clarification that our rates are derived from the HAI model eliminates AT&T's complaint of fundamental unfairness.

8. We now turn to providing the more detailed description of Commission-determined inputs. These are the changes to AT&T witness Denny's HAI 5.2a Loop cost model run. See attached Appendix A. We determine that the HAI model, with the appropriate input changes, yields TELRIC rates.

9. Because of the complexity of this undertaking, the parties are afforded an opportunity to verify the rates established here. Specifically, the parties may file in the record the results of their own HAI model run using the inputs discussed in this decision. In order to further facilitate this process of checking our work, as it were, the Commission is providing the parties who filed applications for RRR a compact disc containing the Commission determined inputs and the resulting model run. HAI model inputs for the Commission's model run are included in Appendix A.

B. Cost Model Inputs

1. Cable Placement

a. This issue concerns which cable placement costs should be used in a forward-looking cost model. "Placement costs" are associated with placing cable, including costs for trenching or boring, and the frequency that those placement methods will be used in placing buried cable. In the Decision, we concluded that the costs attributable to buried cable placement should be determined in a forward-looking environment. The appropriate cost model should assume efficient placement techniques being used by the incumbent local exchange carrier ("ILEC") and assume that some, but not all, placement activities would require boring and cutting of concrete. Even in urban areas, most ILECs, including Qwest, place facilities in the ground before obstructions are built. We concluded that Qwest's LoopMod exaggerates placement costs because it assumes that a high percentage of all installation jobs require cutting and restoration of concrete, asphalt or landscaping. Instead, we reasoned that the HAI Model more reasonably assumes that, in a forward-looking environment, cable will be placed most often before obstructions are built. Thus, under HAI model assumptions, a smaller percentage of jobs will require expensive boring, landscape replacement, or cutting and replacement of

asphalt or concrete. Therefore, we adopted the HAI input assumptions on placement costs.

b. In its application for RRR, Qwest argues that the Decision improperly ignores existing structures and infrastructure when determining the amount and type of cable placements. More expensive cut-and-restore techniques, as well as directional boring, should be considered necessary, even in a forward-look, Qwest contends. Because the Commission's inputs precipitously reduce the use of the more expensive placement techniques, Qwest contends our rates fall below the TELRIC range of reasonableness.

c. Qwest recommends that we adopt the cost-per-foot amounts for cable placement from its direct case. Qwest contends that the Decision's adoption of \$0.80 per foot for the six lowest density zones is unrealistically low. Qwest notes that plowing accounts for 50% of buried cable in the model; consequently, the low rate has a great impact on the loop investment cost. Qwest recommends using cable placement costs of \$1.44 per foot in the six lowest density zones, derived from the HAI sponsor's survey of Colorado outside plant contractors (average per foot cost of plowing using mid-point of each range).

d. We grant, in part, and deny, in part, Qwest's request for cable placement RRR.

e. We grant Qwest's application for RRR as it relates to the cost per foot of plowing in the five lowest density zones. Qwest's argument for an increased input cost is a reasonable TELRIC assumption. However, we conclude that \$1.30 per foot is the proper cost, because the HAI 5.2a model employs cost additive factors when rocky ground is encountered. The \$1.44 figure preferred by Qwest is the product of \$1.30 and an "additive rocky soil factor" that is already reflected in the HAI model. Therefore, \$1.30 is a more accurate input assumption. We recognize that diverse soil conditions exist in Colorado, and we adopt different costs for different density zones to reflect this fact. The following table details our cost for plowing-per-foot input values.

Buried Excavation - Plow per Foot	
Density	Commission RRR
0	\$ 1.30
5	\$ 1.30
100	\$ 1.30
200	\$ 1.30
650	\$ 1.30
850	\$ 1.20
2550	\$ 1.20
5000	\$ 1.20
10000	\$ 1.20
Weighted Average:	\$ 1.23

f. We deny Qwest's RRR request in regards to recognition of existing infrastructure. We have not ignored existing structures and infrastructure. The fundamental assumption of a TELRIC study is that the carrier will have the

same opportunity in its placement of cable (e.g. opportunities to share placement costs with other utilities) as when the existing outside plant was constructed. Qwest may have some grounds in arguing such an assumption is fanciful in terms of what real forward-looking costs will be. Nevertheless, the TELRIC assumptions of the HAI model and of other states' TELRIC prices seem to accept these aggressive assumptions, about both sharing, see *infra*, and existing infrastructure. We will similarly refrain from assuming a large share of expensive placement techniques to reflect existing structures.

2. Plant Mix

a. This issue concerns the relative percentage of network facilities that are buried, placed in underground conduit, or placed aerially attached to poles, respectively. In the Decision, we determined that an appropriate cost model should use an average of 20% aerial plant. We concluded that a higher percentage of aerial plant than Qwest proposed should be used in the cost models. Conversely, we also concluded that the HAI cost model overstates the forward-looking percentage of aerial plant. HAI's aerial plant assumptions, we found, neglect the public's aesthetic preferences for burial. Splitting the difference, we concluded that an assumption of 20% aerial plant was a reasonable TELRIC input.

b. In its application for RRR, Qwest argues that the Commission should adjust the percentages of underground and buried plant in HAI to account for the Commission's assumption that, on average, 20% of the plant will be aerial. Specifically, Qwest recommends that the 8.9% reduction of aerial plant from the HAI default assumptions be spread equally between the underground and buried investment. Qwest says these input adjustments are particularly necessary because the default HAI model has an unrealistically low amount of underground investment.

c. The Commission's decision adopted "an average of 20% aerial plant" for the HAI input. (Decision, page 46.) Although Qwest believes this percentage overstates the amount of aerial plant that a carrier would include in a replacement network, it does not challenge that finding. The Decision adjusted the HAI assumed proportion of aerial plant downward from 28.9% to 20%. Hence, there is an unattributed 8.9% of plant that needs to be accounted for in the plant mix assumptions.

d. We grant Qwest's request, as explained in the following tables. These tables further clarify that we adopt an overall weighted average of 20% aerial plant. The HAI model has inputs for aerial, buried and underground plant for different portions of the network (drop, distribution and

feeder), disaggregated into copper and fiber feeder. There are then inputs for each one of these values, for each of the nine density zones. We adopt the following plant mix assumptions as TELRIC-compliant:

Plant Mix			
Weighted	Commission RRR		
Average	UG	Buried	Aerial
Drop Mix		80.00%	20.00%
Distribution Plant Mix	33.98%	45.53%	20.48%
Copper Feeder Plant Mix	60.14%	21.20%	18.66%
Fiber Feeder Plant Mix	60.14%	21.20%	18.66%
Weighted AVE Feeder Plant Mix	60.14%	21.20%	18.66%
	37.36%	42.55%	20.09%

Drop Plant Mix		
	Commission RRR	
Density	Buried	Aerial
0	80.00%	20.00%
5	80.00%	20.00%
100	80.00%	20.00%
200	80.00%	20.00%
650	80.00%	20.00%
850	80.00%	20.00%
2550	80.00%	20.00%
5000	80.00%	20.00%
10000	80.00%	20.00%

Weighted Average: 80.00% 20.00%

Comments
These entries represent Minimum placement percentages for underground, buried and aerial respectively. When they sum to less than 1, the model selects the residual placement to minimize cost for the particular terrain and density.

Buried Fraction Available for Shift			
	Commission RRR		
Density	Buried	Fraction	+ or -
0	65.00%	0.75	48.75%
5	67.00%	0.75	50.25%
100	68.00%	0.75	51.00%
200	76.00%	0.75	57.00%
650	72.00%	0.75	54.00%
850	60.00%	0.75	45.00%
2550	40.00%	0.75	30.00%
5000	25.00%	0.00	0.00%
10000	0.00%	0.00	0.00%

Comments
The fraction of buried cable input value that is available to be shifted to aerial or the fraction of the input value by which the amount of buried cable can increase.

Distribution Plant Mix			
	Commission RRR		
Density	UG	Buried	Aerial
0	0.00%	65.00%	35.00%
5	1.00%	67.00%	32.00%
100	2.00%	68.00%	30.00%
200	4.00%	76.00%	20.00%
650	8.00%	72.00%	20.00%
850	20.00%	60.00%	20.00%
2550	40.00%	40.00%	20.00%
5000	60.00%	25.00%	15.00%
10000	86.00%	0.00%	14.00%

Weighted
Average: 33.98% 45.53% 20.48%

Comments
These entries represent Minimum placement percentages for underground, buried and aerial respectively. When they sum to less than 1, the model selects the residual placement to minimize cost for the particular terrain and density.

Copper Feeder Plant Mix			
	Commission RRR		
Density	UG	Buried	Aerial
0	5.00%	45.00%	50.00%
5	5.00%	45.00%	50.00%
100	5.00%	50.00%	45.00%
200	20.00%	40.00%	40.00%
650	40.00%	30.00%	30.00%
850	60.00%	25.00%	15.00%
2550	75.00%	15.00%	10.00%
5000	90.00%	5.00%	5.00%
10000	95.00%	0.00%	5.00%

Weighted
Average: 60.14% 21.20% 18.66%

Comments
Minimum placement percentages. See comment in Distribution Plant Mix for further explanation.

Fiber Feeder Plant Mix			
	Commission RRR		
Density	UG	Buried	Aerial
0	5.00%	45.00%	50.00%
5	5.00%	45.00%	50.00%
100	5.00%	50.00%	45.00%
200	20.00%	40.00%	40.00%
650	40.00%	30.00%	30.00%
850	60.00%	25.00%	15.00%
2550	75.00%	15.00%	10.00%
5000	90.00%	5.00%	5.00%
10000	95.00%	0.00%	5.00%

Weighted
Average: 60.14% 21.20% 18.66%

Comments
Minimum placement percentages. See comment in the Distribution Plant Mix for further explanation.

3. Structure Sharing

a. This issue concerns the amount of network structure sharing to assume between utilities as an input into the HAI cost model. In the Decision, we used a 50% sharing assumption in the densest zones. We agreed that the sharing assumption in a TELRIC model should reflect that the carrier will have at least the same opportunity to share the cost of building outside plant as existed when the plant was built. The fundamental question here is whether to factor in the sharing opportunities that would exist if other utility networks were being constructed at the same time as the telecommunications network. We determined that physical structures as they exist should be taken into consideration when pricing a "forward-looking" telecommunications network. However, that determination is not dispositive with regard to whether other utility physical structures should be factored in as they currently exist, or considered as if they were also being built-out in a forward-looking manner. In fact, we concluded that the issue here is more complex, as the structure sharing opportunities will be more prevalent in newly constructed areas and less so in previously developed areas.

b. We ruled that Qwest's variable approach, based on the type of plant (aerial, buried or placed), is a reasonable forward-looking assumption of sharing opportunities.

In contrast, we rejected Joint Intervenor's position as too simplistic. Specifically, we held that it is not reasonable to assume that, because three basic utilities operate in an area, all of Qwest's structures can be shared three ways. For example, we pointed out that one of the utilities--cable--historically has had little obligation to pay for shared structure. We held that the Joint Intervenor's sharing assumptions understate the cost a carrier would encounter in placing plant in a forward-looking environment.

c. In its application for RRR, Qwest notes that we used a 50% sharing assumption for placement costs "in the most dense zones." Qwest contends this assumption would mean that, whenever the carrier arrives at a given site to dig into the ground in those zones, it could count on some other utility to show up 100% of the time to share half the costs of digging. Qwest argues that this assumption is unrealistic. Qwest suggests that sharing assumptions of 50% for aerial cable, 20% for buried cable and 5% for underground cable are reasonable, and should be used instead of the Decision's 50% sharing in the most dense areas. Qwest continues that sharing opportunities are limited in developed areas and that our Decision would give CLECs little incentive to build their own facilities. TELRIC, Qwest argues, should be forward-looking as it involves sharing opportunities. It also points out that some placement methods,

such as plowing, do not permit large amounts of sharing. Qwest recommends that the Commission use the sharing assumptions included in LoopMod or, as an alternative, the sharing percentages used by the FCC in its Inputs Order (9 density zones).¹⁷

d. In its application for RRR, AT&T states that it is proper under TELRIC to "use 50% sharing in the most dense zones." However, AT&T contends that this vague instruction leaves unclear how the 50% structure sharing assumption should be used as an input into either the HAI Model or even Qwest's LoopMod. For example, AT&T questions whether the Decision means that the structure sharing assumptions should remain as proposed by the proponents of the HAI Model in less dense zones. AT&T also poses whether the sharing assumptions vary by structure type as they do in the model as filed.

e. On reconsideration, we adopt and clarify the modified sharing inputs shown in the table below. The structure percentage *assigned to telephone* is changed from 50% to 80% in the least dense zones. The Decision adopted a 50% sharing assumption in the denser zones on average. The following

¹⁷ See, In the Matter of Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for Cost Support for Non-Rural LECs, CC Docket Nos. 96-45, 97-160, 14 F.C.C.R. 20,156, Tenth Report and Order (Nov. 2, 1999).

tables specify the amounts, in percentage terms, of structure assigned to telephone in all density zones. We find that these sharing assumptions most accurately represent the opportunities for sharing in an efficient, forward-looking environment. We attempt to calibrate the sharing assumptions to the density zones. Where the densities are higher, there is a correspondingly greater opportunity for sharing; the converse is true for the less dense areas, where sharing opportunities will be more rare.

Sharing						
Structure Fraction Assigned to Telephone						
	Commission RRR					
	Distribution			Feeder		
Density	Buried	UG	Aerial	Buried	UG	Aerial
0	100.00%	100.00%	50.00%	100.00%	100.00%	50.00%
5	100.00%	100.00%	50.00%	100.00%	100.00%	50.00%
100	85.00%	85.00%	50.00%	85.00%	85.00%	50.00%
200	65.00%	65.00%	50.00%	65.00%	65.00%	50.00%
650	65.00%	65.00%	50.00%	65.00%	65.00%	50.00%
850	65.00%	65.00%	50.00%	65.00%	65.00%	50.00%
2550	55.00%	55.00%	35.00%	55.00%	55.00%	35.00%
5000	55.00%	55.00%	35.00%	55.00%	55.00%	35.00%
10000	55.00%	55.00%	35.00%	55.00%	55.00%	35.00%
Weighted						
Average:	57.78%	57.78%	39.17%	57.78%	57.78%	39.17%
850-10000				51.57%		

Comments
Percentage of underground, buried and aerial structure used by telco

Buried Drop Sharing Fraction Structure Fraction Assigned to Telephone	
	Commission RRR
Density	Buried Drop
0	80.00%
5	80.00%
100	80.00%
200	80.00%
650	80.00%
850	80.00%
2550	80.00%
5000	80.00%
10000	80.00%

4. Drop Lengths

a. This issue concerns what is the proper estimated averaged drop length (*i.e.* wire length from customer placement location to actual customer interface) to use as the HAI model inputs. The Decision approved a 75-foot average drop length. The Commission derived this average figure weighing the longer drop lengths associated with detached, single family dwellings and the shorter drop length associated with multiple dwelling units. We concluded that the drop lengths advocated by both Qwest and the Joint Intervenors had deficiencies. In particular, we noted that the drop lengths used by Qwest failed properly to consider multi-tenant units. On the other hand, we determined that the Joint Intervenors' advocated drop length was not supported by Colorado-specific data. Given our concerns

with the two extremes assumed by the parties, we determined that an average statewide drop length of 75 feet was reasonable. We concluded that this assumption was supportable as a forward-looking drop length figure in light of Qwest's current statewide average drop length, and accounting for the effect of multi-tenant units.

b. Qwest now contends that an assumption of a 75-foot average drop length is too low. We grant Qwest's request for RRR, in part. First, we acknowledge the need to more fully set forth our drop length assumptions by density zone. The table below contains the TELRIC-compliant drop length assumptions that we adopt as proper inputs into the HAI model. We adopt these drop lengths, and modify our assumptions from the Decision, based on consideration of the evidence in the record of the average drop lengths in Colorado. These drop length figures reflect self-evident facts. In more rural areas, drop lengths will be longer; in more urban areas, the average drop length will decrease. The drop length weighted average increases here from the Decision. That is because we believe that we underestimated the average drop lengths in the least dense zones. We therefore change our inputs to reflect more realistic drop lengths in the three least dense zones.

Drop Length	
	Commission RRR
Density	
0	300
5	250
100	200
200	135
650	70
850	50
2550	50
5000	50
10000	50

Weighted
Average: **87.2**

5. **Fill factors**

This issue concerns the appropriate fill factors to use in the analog loop HAI cost model runs. In Appendix A to its application for RRR, Qwest complains that it was unable to replicate the Commission's cost study runs, in part, because it did not know what fill factors we used. We here adopt a weighted average fill factor of 79.17% for feeder, and 70.49% for distribution. The following table shows the feeder and distribution fill factors by density zones adopted on reconsideration. We adopt these fill factors because they more accurately capture the fill factors in an efficient, forward-looking environment. These fill factors further reflect the differences between the respective density zones and distinguish between the different fill factors a carrier will have between

feeder plant and distribution plant. For instance, the fill factors are lower in the less dense zones because, predictably enough, there will be less use of plant where there are fewer people. Likewise, our TELRIC assumptions will have feeder plant with consistently higher fill factors than distribution plant. This is because of the respective places that these two types of plant occupy in the network. Feeder plant will have higher fill factors because its utilization will be consistently higher than, by contrast, distribution plant, which is located farther out toward the end of the network.

Fill Factors		
	Commission RRR	
Density	Feeder	Distr
0	65.0%	50.0%
5	75.0%	55.0%
100	80.0%	55.0%
200	80.0%	60.0%
650	80.0%	70.0%
850	80.0%	75.0%
2550	80.0%	75.0%
5000	80.0%	75.0%
10000	80.0%	75.0%

Weighted
Average: 79.17% 70.49%

6. Line Counts

a. This issue concerns the line counts to use in the cost models. The choice is between the line count information that is publicly available, and Qwest's confidential

line count data. We must also determine whether digital access lines should be treated on a channel-equivalent basis. The Decision used publicly available line count data. We concluded that use of publicly available data allows the parties fully to analyze inputs into the cost models. In addition, we found that Qwest failed to demonstrate that use of publicly available data is sufficiently inaccurate to justify resorting to confidential information. As for digital access lines, we determined that these would not be treated on a channel-equivalent basis, because that would systematically distort the line count inputs.

b. In its application for RRR, Qwest recommends that the ARMIS data used in HAI for line counts be adjusted. Qwest asserts that line counts should be consistent with the determination that use of the channel-equivalent count is improper. Qwest notes that ARMIS data includes channel-equivalent data. Qwest recommends that its own line counts introduced in the record be used.

c. AT&T argues that the Commission's Order incorrectly tries to have it both ways. On the one hand, AT&T points out, the Commission adopts AT&T's position that the line counts should be based upon publicly available data. Yet, on the other hand, the Commission also finds that digital access lines "should not be treated on a channel-equivalent-basis." (Decision, page 50). This holding is inconsistent, says AT&T.

d. We affirm the Decision that line count information will be based on the publicly available data, because it will allow the parties fully to analyze the inputs into the cost models. We relied on the Joint Intervenor's line counts because it was the only publicly available data presented here. We disagree with AT&T's assertion that it is inconsistent for the Commission to adopt AT&T's position that line counts should be based upon publicly available data, but also find that digital access lines should not be treated on a channel-equivalent basis. We recognize that this is in tension with the principle to use publicly available data, but we believe it is a proper tension. The decision not to treat digital access lines on a channel-equivalent basis increases the accuracy of the cost model outputs by more precisely giving the appropriate line counts. The value of transparency - using publicly available data - and the value of accuracy - not treating digital access lines on a channel-equivalent basis - will have to uneasily co-exist here. In the end, we get a good, though not perfect, line count input.

e. We will not use updated line count data because that information is outside this evidentiary record in this docket. The information used in the Decision was the best available given the record in this case.

7. General Support

a. In the Decision, we concluded that Qwest's general support expenses were acceptable, and no grounds existed for reductions, except those resulting from our adopted productivity and inflation adjustments. In its application for RRR, Qwest alleges (in Appendix A) that the formula used by HAI for calculating general support should be modified to include all general support expenses.

b. We deny this request. Qwest's position would result in over-allocation of general support expense to the loop, because it includes portions that do not support the loop. We agree with the assumption in the HAI model that the loop does not bear sole responsibility for general support functions. Additionally, we clarify that the Decision applied our adjustments to net productivity, capital costs, tax rates and overheads to general support. With these adjustments, we conclude that the HAI model correctly captures the portion of total general support costs attributable to the provisioning of the loop.

VI. CAPITAL AND EXPENSE FACTORS

A. Capital Costs

1. In the Decision, we determined that a 9.55% cost of capital is appropriate, with a capital structure of 46.6%

debt, and 53.4 percent equity. We recognized that the 7.6% cost of debt could be overstated in the current environment. Specifically, we noted that interest rates and, hence, the cost of debt had been reduced numerous times by the Federal Reserve authorities since the first quarter of 2001. However, we weighed that possible overstatement of the cost of debt against a more balanced capital structure as proposed by the OCC, as derived from information provided by Qwest on April 30, 2001. We also noted that all elements of Qwest's capital structure are normally dynamic and subject to constant change with issuance of new debt, refinancing of existing debt, and daily changes in stock price. For these reasons, we concluded that an overall weighted cost of capital of 9.55% was reasonable, and the assumptions and inputs in the cost models should reflect this conclusion.

2. In its application for RRR, Staff notes the Decision's observation that, "Interest rates and hence the cost of debt has been reduced numerous times by the Federal Reserve authorities since the first quarter of 2001." Staff requests reconsideration of this statement, which appears to tie interest rates directly to Qwest's cost of long-term debt.

3. To address Staff's concern, we now clarify that we did not intend to suggest that short-term debt be considered a proxy for commercial long-term debt. Except for this

clarification, we affirm our findings regarding the appropriate cost of capital.

B. Tax Rates

1. This issue concerns the appropriate state and federal tax rates to use in the cost models. In the Decision, we accepted the modified state rate, 4.63%, offered by Staff, and a composite federal/state rate of 38.01%.

2. Staff, in its application for RRR, states that it is unclear whether the Commission-ordered rates used the adjusted tax rates. Staff asks that we clarify the tax rate used as an input into the approved rates.

3. We confirm that the composite tax rate of 38.01% was used -- and is being used here -- in the Commission's calculation of rates.

C. Net Productivity

1. For purposes of bringing Qwest's 1999 expenses forward to 2001, the Commission was presented a range of net productivity-inflation adjustments. Based on the evidence in the record, we found that Qwest's net productivity-inflation adjustment of negative 1.5% was likely low. Specifically, we found that the weight of the evidence suggested that the merger savings¹⁸ are real and have not been taken into account in

¹⁸ Merger savings refer to the economies achieved as a result of the June 30, 2000, merger of U S WEST and Qwest.

Qwest's productivity adjustment. In addition, we found that Qwest's recent labor force reductions and lower equipment prices support a higher productivity number and a lower inflation adjustment. In the Decision, we concluded that a negative four percent net productivity adjustment should be applied in bringing Qwest's 1999 expenses forward to 2001.

2. Staff appears to be under the impression that we applied a *positive* four percent net productivity-inflation factor to the cost models. Staff continues to recommend a double-digit one-time negative adjustment to the models. We deny Staff's request for a double-digit one-time adjustment for the reasons stated in the Decision. We also clarify that, in the Decision, we found that productivity had outstripped inflation. The net productivity adjustment of four percent is a negative number. This negative adjustment was made to Qwest's historical costs.

VII. RECURRING COSTS

A. Demultiplexing Charge

1. This issue concerns whether Qwest may impose a demultiplexing charge on all loops entering the central office. In the Decision, we determined that a charge to demultiplex digital lines is appropriate only when such a service is needed. The Decision stated that this charge would be \$1.60.

2. In its application for RRR, Qwest requests that the demultiplexing charge be applied to all unbundled loops, not only to those that are unbundled and provided by integrated digital loop carrier (IDLC). According to Qwest, if these demultiplexing costs are not spread to all loops (*i.e.* apply the rate to all loops), the charge must be increased approximately 150% to enable cost recovery over the decreased number of loops charged for the service.

3. AT&T, in its request for reconsideration, notes that the Decision approves a charge of \$1.60 as a demultiplexing charge where appropriate; however, the rate included in Attachment A to the Decision lists a charge of \$2.06. Therefore, AT&T requests clarification as to the correct rate to be used.

4. We deny Qwest's request to apply the charge across all lines. We do clarify that the approved demultiplexing charge is \$2.06 for two-wire and \$4.12 for four-wire voice-grade analog loop, as reflected in Attachment A to C01-1302. This clarification addresses Qwest's concern about under-recovery of the demultiplexing charge.

5. Likewise, AT&T's request for clarification is denied. We reiterate that the charge shall apply only when the demultiplexing function is performed.

B. Recurring Cost for High Capacity Loops

1. The Decision, based on the Commission-approved inputs, established certain rates for high capacity loop rates; those rates were contained in Appendix A to the Decision. Both Qwest and AT&T request reconsideration on this issue.

2. Qwest contends that the costs of providing high capacity loops are segregated between interoffice transport and entrance facility transport. Entrance facility transport results in additional costs over and above those incurred for interoffice transport. Qwest contends that the rates from the Decision are below those that exist in any other Qwest state and, indeed, in any state where § 271 authority has been granted. According to Qwest, other states treat interoffice transport and entrance facilities as separate UNEs. Moreover, Qwest is unable to reproduce the rates adopted in the initial Decision. Qwest recommends that the Commission adopt the HAI method of combining these two elements, or in the alternative, that we address this issue in Phase II proceedings. Additionally, Qwest contends that an enhanced extended link (EEL) is made up of a loop and an interoffice transport link. As such, Qwest requests clarification that an EEL requires payment of recurring charges for both the loop and transport elements.

3. AT&T requests confirmation that we used Qwest's Network Access Channel ("NAC") Model, with modified total installed factors (TIFs), material prices, and overhead factors in the rates adopted in the Decision. AT&T also requests clarification regarding how LoopMod was utilized in the calculation of high capacity loop rates. Specifically, AT&T suggests that the Commission should confirm that modifications of LoopMod inputs were made to reflect forward-looking efficient assumptions in order to make the model TELRIC compliant. AT&T requests additional information to analyze the rates approved in the Decision, contending that, without more information as to the bases for the approved rates, no party can analyze the factual or legal basis for the Decision.

4. We are persuaded by Qwest's arguments regarding the propriety of adopting separate rates for interoffice transport and entrance facilities. Therefore, we grant Qwest's request for RRR and order a separate entrance facility transport rate, but preserve the fixed and per-mile rate structure as with the other unbundled dedicated interoffice transport services. We use our approved general inputs on net productivity, capital costs, tax rates, and overheads. We modify Qwest's and AT&T's cost models and transport models to account for the following differences for entrance transport facilities:

1. The routes of transport facilities are from the Qwest central office to a CLEC switched location, which makes the route more like a loop (lower fill factor to be used);
2. The CLEC will provide the electronics in its own central office; this will not be a part of Qwest's rate.¹⁹

5. We also clarify that we are not using LoopMod for the calculation of the DS1 and DS3 entrance transport rates. With respect to Qwest's request for a clarification concerning EELs, we adopted the same interoffice transport rates for unbundled interoffice transport. An EEL is the connection between two central offices. A loop goes from a central office to the customer premise. An EEL goes between two Qwest central offices. A CLEC would have to buy both interoffice transport (EEL transport) and a UNE loop from the serving wire center to the customer premise. The CLEC must purchase both the UNE Loop and the EEL from the serving wire center to the remote central office.

6. With respect to AT&T's request for clarification regarding our use of TIFs, material prices and overhead factors, we clarify: We used Commission-approved capital cost factors (taxes, net productivity, overhead, and capital cost), as determined in the Decision. In developing the high capacity

¹⁹ The Rate shown in Attachment A is a per-route mile rate as opposed to airline mileage.

loop and transport rates, we used both Qwest's (Brigham's studies for Colorado UNE cost- Exhibit RHB-3 etc) and AT&T's runs (Weiss exhibits THW-5, THW-6, THW-9 thru 16). We are not convinced that AT&T's approach to slashing Qwest's allegedly inflated TIF factors produces any more reliable or accurate results. We conclude that TELRIC-compliant rates require TIFs and fill factors somewhere between the extremes of Qwest's and AT&T's proposals. Our decisions here incorporate reasonable adjustments to the studies presented here; and adopt the rates shown in Attachment A.

C. Fill Factors for Transport and High Capacity Loops

1. The Decision holds that Qwest's LoopMod modeling of two or three loop pairs per location inappropriately overstates demand and results in unacceptably low fill factors. We further held that feeder plant and distribution plant will have fill factors that differ by density of service areas. We concluded that use of 80% fill in feeder plant in the densest zones, and 50% to 75% by density zone in distribution plant is appropriate. As to fill rates for DS1 and DS3 capable loops, we determined that Qwest understated expected fill rates for a forward-looking environment. Therefore, we used the fill factors proposed by the Joint Intervenors.

2. In its application for RRR, Qwest argues that the 85% fill factor rate for transport and high-capacity loops is

unrealistic and contravenes efficient practices by facilities-based carriers and their customers. According to Qwest, electronic equipment capacity is "lumpy" and its cost is not linearly incremental to the capacity gained. Optimum capacity purchases, Qwest says, would produce fill factors significantly less than 85%. The 85% fill factor would drive rates well below costs and below the rates in almost all other jurisdictions. Qwest recommends that we reconsider and use the fill factors it proposed.

3. We grant Qwest's request for reconsideration, and will adjust the fill factors used in the cost models. The Commission used fill factors that are more consistent with fill factors used by density zone for outside plant, resulting in an overall weighted average fill equivalent to 60% in the densest areas. The Commission modified the cost studies to incorporate our adjustments to net productivity, cost of capital, tax adjustments and overhead. The capital cost factors were likewise adjusted accordingly. We change the fill factors to better fall between the extremes of AT&T, on the high side, and Qwest, on the low side. These fill factors represent realistic forward-looking assumptions for an efficiently engineered network.

4. There are different interconnection options as described in the SGAT section 7.0. Our rates consider the

multiple options CLECs can use to interconnect with Qwest facilities, and avoid the one-size-fits-all deficiencies of Qwest's proposal.

D. Switching Rates

1. The Decision left in place the switching rates from the 331T Docket. As discussed above, we approve on an interim basis those switching rates suggested in Qwest's Response to AT&T's and XO's Application for Rehearing, Reargument and Reconsideration dated March 5, 2001.

2. The tandem switching rate will remain as adopted in 331T on an interim basis until it is reviewed in Phase II. Shared Transport, because it includes tandem switching, will also be taken up in Phase II.

E. Analog Loop Recurring Rate

1. This issue concerns the appropriate recurring cost for the analog loop, and the method for deaveraging the unbundled analog and high-capacity loop rates. The Decision set interim unbundled loop rates for three rate groups at \$8.76, \$14.45, and \$37.73. We also adopted a statewide grouping of wire centers and related wholesale prices for the purpose of deaveraging. However, because the deaveraging plan did not mesh well with federal and Colorado High Cost Support Mechanism, we directed the parties to file in Phase II a plan for establishing high cost fund zones within each wire center.

2. In its application for RRR, Qwest states that it cannot reconcile the rates in Attachment A of the Decision with the text of the Decision. Qwest also states that it is unable to duplicate the approved loop rates. Further, Qwest objects to the Decision's conclusion that the deaveraging plans proposed by the parties are problematic given the federal and Colorado High Cost Support Mechanism. Following the Commission Decision on this matter would create 328 different loop prices, Qwest notes, considering all subzones of the 164 wire centers. Qwest notes that the federal deaveraging plan cited in the Decision does not apply to Qwest, and that the Colorado High Cost Support Mechanism operates independently of UNE pricing.

3. AT&T, in its application for RRR, also states that it was unable to reproduce the Commission's calculations. AT&T also objects to the decision to double the two-wire loop rate in establishing the rate of a four-wire loop as lacking any basis in the record. It supports the use of the factor of 1.3 to determine the four-wire loop rate from the two-wire loop rate.

4. On reconsideration, we adopt the rates shown on Attachment B for each respective wire center. These are interim deaveraged loop rates subject to Phase II deaveraging proposals. Weighted by number of access lines in each wire center, the

rates in Attachment B produce a statewide average rate of \$15.85.

5. While the statewide average loop rate of \$15.85 will remain fixed as the average cost, based on the Commission-adopted inputs to HAI 5.2a, the method of deaveraging is subject to Phase II. We also grant AT&T's RRR to the extent that four-wire will not be priced at double the two-wire, but will be priced to remove the cost of the Network Interface Device ("NID").²⁰ The reduced four-wire rates can be found in the 4-Wire Voice Grade and 4-Wire Non-Loaded column in Attachment B for each wire center. The statewide average four-wire rate is reduced to \$31.10.

6. This interim deaveraging method is consistent with how the Colorado high cost support is calculated and distributed to Qwest. Qwest is currently receiving in excess of \$59 million dollars a year by wire center costs, not rate group. High cost support is portable to another eligible provider. Thus, the eligible provider who purchases a UNE is qualified to receive the high cost fund support for that customer. Our interim deaveraging plan creates the proper price signals because the variation in costs between wire centers is significant. For example, the Denver Main UNE Loop rate is

²⁰ The NID price is shown in Attachment A on a state wide average basis because the cost does not vary widely by density zone or by wire center.

approximately \$6.00; the DeBeque UNE Loop Rate is approximately \$171. Thus, our interim deaveraging method, we think, best captures the disparate prices associated with the various wire centers across the state.²¹ Nonetheless, this is an interim deaveraging plan. Phase II will allow the parties more thoroughly to develop a record on the proper way to deaverage, and we remain open to well-argued alternatives.

VIII. NON-RECURRING RATES

A. UNE Non-Recurring Charges

1. In the Decision, we accepted Qwest's work times and probabilities, but adjusted them by the negative four percent net productivity-inflation factor. AT&T, in its application for RRR, argues that we accepted each and every assumption made by Qwest in its non-recurring cost models. As a result, AT&T contends, the non-recurring charges exceed, often by a large margin, the non-recurring rates available to competitive carriers in states for which the FCC has granted § 271 approval. AT&T suggests that because substantial evidence

²¹ We are likewise daunted by the number of loop rates associated with the various subzones of the wire centers. However, we are puzzled that Qwest objects to the deaveraging detail and not the CLECs. Indeed, unless the CLECs have micro-marketing abilities, it would seem to us that deaveraging so detailed will inhibit the "cream-skimming" that Qwest so fears. If a given unbundled loop rate within a given wire center is difficult to know *ex ante*, then it will be more difficult to differentiate low wholesale cost customers from higher cost customers. Then again, perhaps the CLECs are just realizing this, and will object the next time around.

indicates that Qwest's proposed rates do not comply with TELRIC, those rates should be reconsidered. The failure to consider how service orders would be processed using available forward-looking Operations Support Systems (OSS) is contrary to TELRIC, and reason enough to require that we reject Qwest's non-recurring cost studies, says AT&T. According to AT&T, the federal district court considered this precise question in *Bell Atlantic-Delaware, Inc. v. McMahon*, 80F. Supp.2d218 (D.Del.2000). AT&T submits that the Commission has made the same error here that the Delaware Commission made in *Bell Atlantic*. The Commission, AT&T argues, cannot set rates based upon Qwest's current, inefficient manual ordering systems. Therefore, we must reconsider the non-recurring charges and determine what those charges would be using efficient, forward-looking technology.

2. We grant AT&T's application for RRR to the extent we are assuming that more non-recurring activities will be handled through electronic processing. Consequently, we will use inputs that assume less manual processing in determining the non-recurring rates. We are not changing the labor time estimates proposed by Qwest. Instead, we reduce the probabilities that some of these functions will occur, thus reducing the labor cost component of the non-recurring rates. The resulting rates are included in Attachment A.

3. We find that these modifications reflect the efficiencies that should exist in a forward-looking network and result in forward-looking, cost-based TELRIC rates. For example, the probabilities for manual intervention were adjusted for the interconnect service center to 10%, if not already at 10% or lower. Manual design function probability was adjusted to 5%, if not already at 5% or lower. The service delivery implementer function was adjusted to 50%, if not already at 50% or lower. Finally, manual tasks were never set higher than a 10 percent probability. In the Decision, we adjusted Qwest's studies only with the adopted cap-cost factors. We now also adjust the probabilities used in the studies. These new probability estimates, we now find, better reflect the increased mechanization and electronic flow-through that can be expected in the forward-looking, efficient network. Because of these changes to the manual processing probabilities, the non-recurring rates issuing from this RRR Decision are lower than before.

4. The non-recurring installation rates still include a disconnection charge, contrary to AT&T's RRR request. Generally, this amounts to approximately one-third of the total installation charge. When making rate comparisons, it is important to consider our inclusion of this disconnection charge up-front in the non-recurring rate, because many jurisdictions

list disconnection charges separately.²² The explanation of our disconnection charge is set forth below. For the reasons we set forth in the Decision, we still believe it is proper to recover the disconnection charge up-front as part of the installation charge.

B. OSS Flow-Through Assumptions

1. The Decision approves an 85% flow-through rate as an acceptable forward-looking estimate. We concluded that the Joint Intervenor's proposal to include 100% electronic flow-through is unrealistic. Although 100% flow-through would occur in an ideal forward-looking network, TELRIC does not require an assumption of an *ideal* forward-looking network. Therefore, we found that a level of electronic order flow-through of less than 100% is appropriate. Qwest's proposed figure represents a flow-through percentage higher than is currently achieved. Qwest's figure also appeared to be a plausible forward-looking assumption. As such, we adopted Qwest's figure on flow-through rates.

2. On reconsideration, AT&T notes our finding that 85% is an appropriate electronic flow-through rate when calculating non-recurring charges. Nevertheless, AT&T contends,

²² AT&T's rate comparisons in its RRR, for instance, did not state that other jurisdictions' installation rates do not recover the disconnection charge up-front as part of the installation rate.

the Commission also adopted all of the probabilities for manual activity proposed in the Qwest non-recurring cost studies. By adopting Qwest's probabilities, AT&T contends that the Commission failed to implement the finding that an 85% flow-through rate was appropriate. AT&T states that many of Qwest's non-recurring charges are based upon flow-through rates substantially less than 85%. Some, in fact, are based upon the assumption that there will be no mechanized flow-through of CLECs' orders.

3. Consistent with the above discussion, we grant AT&T's application for RRR by reducing the amount of manual processing assumed in the cost studies. The non-recurring charges on Attachment A reflect this revised conclusion. We find that the manual processing assumptions reflected in Attachment A reflect reasonable estimates of TELRIC levels of flow-through.

C. Disconnection Charges

1. In the Decision we concluded that Qwest's up-front disconnection charge is appropriate. We observed that Qwest is entitled to recover the costs of disconnection. We believed that collecting the charge up-front is an appropriate protection against the risk of default. The Joint Intervenor's suggestion that mere "business-to-business" relationships will ensure 100% collectability of a fee when no relationship

directly related to that fee is still ongoing, is idealistic and, hence, unrealistic. Finally, we noted that instances in which Qwest takes over service from a CLEC and no disconnection is, in fact, needed are already excluded from calculation of the disconnection charge.

2. On reconsideration, AT&T reasserts its contention that Qwest should not be entitled to recover a disconnection charge at the time service is initially connected. As for our determination that "situations in which Qwest takes over the service and no disconnection is in fact needed, are already not included in the disconnection charge," AT&T argues that no basis exists for this finding in the record. Staff also requests clarification of this finding.

3. We affirm our decision that collecting a disconnection charge at the initiation of service by competitive providers is proper as protecting against the risk of default, and that Qwest's up-front disconnection charge is appropriate. We clarify the Decision by deleting the language included on page 57. We strike the last sentence of the Discussion section located on page 57 related to Section VI K 2. The language is stricken to eliminate the confusion related to our decision on including a disconnection charge up-front. Separate customer transfer charges are already included in the Decision that were not contested by the parties in this proceeding.

D. Non-recurring Loop Conditioning Cost

1. The Decision holds that, under TELRIC analysis, Qwest may impose a charge to recover non-recurring loop conditioning costs. On reconsideration, Qwest requests that the grooming charge be applied to all unbundled loops (from IDLC circuits), not only those that may require it as stated in the initial Decision. According to Qwest, we should either apply the charge (\$1.60) to all unbundled loops, as in 331T, or increase the charge to the loops to which it is applied.

2. There appears to be confusion regarding the multiplexing recurring charge and the non-recurring loop conditioning (cable unloading/bridge tap removal) charge. We affirm the (\$2.06) multiplexing charge for Analog Loops included in Attachment A to the Decision. The multiplexing charge for a 4-wire voice grade and 4-wire non-loaded loop, if required, is \$4.12. This central office multiplexing charge may be imposed only when the multiplexing or demultiplexing service function is performed by Qwest on that individual UNE loop, and, therefore is not uniformly applied to all UNE loops. For cable unloading and bridge tap removal, we continue the \$85.00 rate for first-splice location and \$50.00 for each additional splice location, if necessary. A demultiplexing function is not necessary in all circumstances. When necessary, the recurring charge of \$2.06/\$4.12 is appropriate. The cable unloading/bridge tap

removal charges in our original decision will continue as proper when this service is rendered.

IX. COLLOCATION

A. In its application for RRR, AT&T questions the Commission's use of Qwest's collocation model given the deficiencies identified by the parties in the docket. AT&T recommends that only interim collocation rates be established here, with further review in the Phase II portion of this docket. In addition, AT&T claims that the rates produced in the Decision fall outside any reasonable TELRIC range.

B. We reaffirm our use of Qwest's collocation model, with some changes to the inputs identified in this RRR Decision. We include the resulting rates in Attachment A. Otherwise, we deny the request by AT&T that we establish interim collocation rates. With the input adjustments we make, Qwest's collocation model is an acceptable TELRIC study. We find there is sufficient evidence in the record to establish permanent rates on all of the collocation issues before us, except for block termination.

C. With respect to non-recurring collocation rates, our Decision generally adjusted Qwest's input assumptions to account for our net productivity/capital cost findings. Therefore, WorldCom is incorrect that we adopted Qwest's Collocation Model in its entirety. Our decisions also point out

that, with respect to specific rates, we also adjusted Qwest's input assumptions to account for likely improvements in its mechanized OSS processing and order handling. This reflects our general assumption of reduced man-hours as these processes become more routine, as Qwest gains more experience with these processes, and as personnel receive more training in these processes, etc. In light of these considerations, our adjustments produce reasonable forward-looking results.

D. Splitter Placement

1. The Decision (Attachment A) adopted different rates for the various splitter collocation options. In its application for RRR, Covad contends that Qwest should revise its engineering costs for the three splitter collocation options, and adjust them more accurately to reflect the substantial differences in time, materials and labor for the three different collocation options.

2. We grant this request. We agree with the need to assume increased sharing of the splitter rack. In order to make the offerings and related rates clear, we substitute the abbreviated references to the splitter configuration options (1A thru 3B) with a specific description of the available splitter options consistent with the Qwest's SGAT (Docket No. 97I-198T). Making the splitter descriptions consistent with the SGAT will make it easier for customers to find the rates.

3. Separately, we adjust the engineering line sharing inputs and three of the six line sharing splitter options (options 2B, 3A and 3B - non-recurring).²³ This results in lower rates for line sharing engineering and these three splitter options. The modified splitter configuration options rates are included in Attachment A to this order on reconsideration.

E. Costs for Engineering, Splitter Collocation, and Relay Racks

1. On reconsideration, Covad argues that Qwest does not employ an efficient network concept. According to Covad, the costs used by Qwest for engineering and splitter collocation and relay racks should be rejected for not using an efficient firm concept. Covad requests reconsideration of the assumptions used by the Commission, and suggests reallocation of costs to 12 splitters.

2. We deny the requested reconsideration, except for modifications of splitter placement and engineering assumption adjustments as noted above. We have modified the rates downward taking into account the efficiency argument presented by Covad.

3. We note that use of an Intermediate Distribution Frame (IDF) or spot frame by competitive carriers is not a

²³ The modified inputs reflect the increased amount of automated processing we adopt in this decision. See Paragraph IX(c) *supra*.

requirement. CLECs are able to connect directly to a Main Distribution Frame (MDF) or avail themselves of other splitter configuration options. We have made downward adjustments to Qwest's costs and its proposed collocation rates to reflect this.

F. Engineering Costs and Installation Times

1. The Decision holds that the installation times utilized in Qwest's collocation cost study are generally appropriate, but the cost factors were adjusted downward to account for the lower cost of capital and the negative net productivity adjustments approved by the Commission.

2. On reconsideration, AT&T requests that the engineering collocation costs be reduced 50% due to Qwest's poor documentation and Qwest's alleged overstatement of costs. As support for this cost reduction, AT&T contends that it is inefficient for Qwest to build out its collocation space on an incremental basis. Rather, Qwest could gain efficiencies by building multiple collocation spaces at once. Covad again argues that Qwest should use the most efficient practices to adjust downward its calculated costs and assumptions.

3. We deny the requests for additional downward modification of the installation times. We also deny the request for a 50% reduction of the associated engineering costs. The reduced use of outside contractors accepted by the

Commission, complemented by the downward adjustments previously (and currently) made, comport with TELRIC methods. The collocation rate engineering costs will remain as endorsed in the Decision.

G. Augment Quote Preparation Fee ("QPF")

1. In the Decision, we accepted Qwest's proposed \$2111.27 QPF. With regard to an augment QPF, we found we had insufficient evidence in the record to support such a proposal including how an augment should be defined.

2. AT&T now recommends that we implement an augment QPF of one-half the Commission established QPF (or \$1,055.50), if the work involved is less than a new collocation installation. According to AT&T, Qwest does have the information to produce a price for augments, and competitors would be harmed by not having an augment QPF available to them.

3. We grant the request for reconsideration and adopt an interim collocation augment rate in the amount of \$1,055.50. We acknowledge the continued interest by CLECs for an augment QPF collocation charge that would be less than the full \$2,111.27 amount. We make the offering conditional on the existence of a collocation arrangement already being in place, and the contemplated augment must be related to the existing collocation. If a CLEC desires something less than a full collocation job, this augment QPF would apply. In the event the

total charge of the quote and the actual engineer, furnish and install (EFI) job is less than \$1,055.50, Qwest will refund this excess amount to the competitive carrier. The competitive carrier will be responsible for charges in excess of the \$1,055.50 if the total costs of the job exceed the augment QPF charge. Qwest will offer this augment QPF on an interim basis and will have the opportunity to propose that this offering be made permanent or eliminated based on actual experience of not less than one year.

H. Space Conditioning Charge

1. In the Decision, we held that a space conditioning charge is not appropriate, reasoning that these costs should already be recovered in the space rental fee.

2. In its application for RRR, Qwest argues that the floor rental charge only includes the cost of centralized Heating Ventilation and Air Conditioning (HVAC), but omits the required distribution of these elements. Its cost studies, Qwest suggests, show that the floor rental study excludes HVAC and electrical distribution. Since these costs are not included in the space construction study, they are not double-counted with a space conditioning charge.

3. AT&T requests confirmation that the Commission excluded HVAC from developed space construction costs, and included those costs in the space rental fee as stated in the

Decision. Also, AT&T requests that we prohibit humidification charges from being separately assessed by Qwest. Those charges should also be included in the HVAC portion of the rental fee, AT&T claims.

4. We agree with AT&T and deny inclusion of additional costs into the collocation space construction charges for HVAC and electrical distribution. We affirm our finding that the established space rental fee includes the costs of all necessary environmental control including dehumidification or humidification. We are unable specifically to identify the amount of distribution of both HVAC and electrical distribution that might be included as a part of the collocation construction charge. We agree that there should be some recovery of all legitimate space conditioning costs, but will not adjust the recurring monthly rental fee as requested by Qwest. We affirm that a \$4.00 per square foot rental charge is appropriate. No additional HVAC and electrical charges should be included in the collocation construction costs.

I. CLEC To CLEC Connections

1. In the Decision, we accepted Qwest's engineering cost estimates as appropriate, subject to the net productivity-inflation adjustments of negative four percent. AT&T, in its application for RRR, argues that the Decision lacks sufficient explanation and justification. In particular, AT&T requests

reconsideration on two items. The first involves the engineering costs for line-sharing and CLEC-to-CLEC engineering. AT&T points out that Qwest modified its required number of hours for line-sharing to 10 hours from 20 hours, but did not symmetrically reduce the number of hours for CLEC-to-CLEC engineering for substantially identical activities. AT&T suggests that the number of engineering hours attributed for CLEC-to-CLEC activities be reduced from 20 hours to no more than 10 hours. Secondly, AT&T generally argues that because of Qwest's overstatement of costs the Commission should apply a 50% reduction to Qwest's engineering costs.

2. We grant AT&T's application for RRR, in part. Specifically, we adjust the amount of engineering hours used to calculate CLEC-to-CLEC connection costs to 10 hours. We deny the request further to adjust the collocation costs by an additional 50%. AT&T's suggestion to reduce the number of estimated hours attributed to certain collocation activities, consistent with other adjustments made by Qwest, is credible. This input adjustment is included in the CLEC-to-CLEC Connections rate in Attachment A to this decision. The resulting non-recurring rate for CLEC-to-CLEC connection is \$790.92 as shown in Attachment A. The remaining collocation costs do not require a further 50% adjustment as proposed by AT&T.

J. Cabling Costs and Cable Lengths

1. Based on the cost studies presented in this docket--in those studies the length of cables and splitter locations varied depending upon which of four scenarios was being modeled--we set different rates for various splitter locations and cable lengths. AT&T now requests that the cable lengths be reduced. AT&T also requests that power cabling and grounding cable costs be reduced to fall more in line with the RS Means, Cobra Wire and cable industry studies. According to AT&T, the floor space rental fee is overstated and is not Colorado specific; the Commission did not specifically address this issue. Finally, AT&T recommends that an average of two quotes be used for the power and grounding cable costs based on industry data.

2. We affirm our original decision on this issue and deny reconsideration. We note that we made downward adjustments to the inputs for power cabling and cable lengths from those originally proposed by Qwest. AT&T raises no new arguments not previously considered by the Commission.

K. Cable Racking

1. The Decision accepted the installation times used in Qwest's collocation cost study as generally appropriate; cost factors were adjusted slightly downward to account for the lower capital costs and the negative four percent net productivity-

inflation factor approved by the Commission. We rejected a reusability test for the non-recurring cost calculation.

2. In its applications for RRR, AT&T claims that power and building cost factors were improperly applied to cable racking and other collocation prices. Covad recommends an assumption of 12 splitters per rack to calculate costs. Additionally, Covad again recommends an assumption of reuse of existing tie cables and racking for cost calculation.

3. In its application for RRR, WorldCom contends that certain variables in Qwest's models result in assumptions of less sharing than actually occurs for cable racking. WorldCom requests reconsideration of those variables. According to WorldCom, additional sharing should be assumed in excess of the 0% for caged collocation, and 50% for cageless collocation arrangements. WorldCom argues that virtual collocators are not charged cable racking and aerial support because these are shared with adjacent Qwest equipment. WorldCom recommends that no cable racking or support be assessed for the cost of cageless collocation. For caged collocation, 10% of the jobs require major cable racking and aerial support, and 20% of the jobs need some cable racking and aerial support.

4. We deny these requests for reconsideration. The parties offered no sufficient reason to modify the adjustments made to the cable racking inputs and assumptions.

L. Recurring Charge for Interconnection Tie Pairs (ITP)

1. The Decision holds that no rate element is necessary for ITPs per termination. Qwest now argues that it is improper to eliminate the ITPs rate element as unnecessary, inasmuch as costs are incurred with ITPs. These ITPs relate to the connection of DS0, DS1 and DS3 facilities to the CLEC point of demarcation to furnish UNEs. The SGAT requires ITPs for each ordered UNE and, thus, Qwest maintains that rates are necessary.

2. On reconsideration, we adopt non-recurring charges for ITP as noted in Attachment A to this decision. We acknowledge that there should be a rate element for the Qwest-to-CLEC connection. We adopt the rates for DS0, DS1 and DS3 included in Attachment A to this decision. We derive the rates by applying Commission adjustments to capital cost factors, net productivity, tax rates, and overhead factors (10.4%) in Qwest's ITP cost study.

M. Fencing Charge

1. The Decision reduced Qwest's proposed fencing charges by 10%. On reconsideration, AT&T suggests that, in lieu of that 10% reduction, the Commission use the lower cost for fencing provided by Qwest to AT&T in data request 02-026. This would reduce costs approximately 50% from Qwest's cost study.

2. We deny this request. We find that the adjustments to Qwest's proposals made in the Decision result in

the appropriate charge for fencing. We adjusted Qwest's proposed rate by the net productivity and capital cost factors approved in the Decision, and made an additional 10% downward adjustment. No further modifications are necessary.

X. CLARIFICATIONS AND CORRECTIONS

A. Block Terminations

1. WorldCom claims that arguments regarding cost reductions for terminations were not addressed in the Decision. According to WorldCom, Qwest's proposed block termination costs substantially exceed the industry guidelines per Power and Telephone Supply and Verizon Supply. WorldCom recommends that industry guide DS0 block cost numbers be used, not Qwest's.

2. We rule that the collocation termination rates for DS0, DS1, DS3 listed in Attachment A are interim. The Commission will consider permanent rates in Phase II. We will likely focus on industry guides (e.g., Power and Telephone Supply and Verizon Supply). Furthermore, we seek additional evidence on the invoice prices for Colorado compared to Qwest's other state specific invoices.

B. Deaveraging

AT&T requests more information on the deaveraged zones. The above discussion and Appendix B (deaveraged rates by wire center) clarify this issue.

C. Staff's Requests for Clarification

Staff requests clarification regarding the rates for floor space rental, the multiplexing rate for digital line, and for Toll and Assistance Operator Services, Facility Based Providers. This order and the attachments provide that clarification.

D. AT&T's Request for Clarification Regarding Attachment A

AT&T requests clarification of a number of items on Attachment A to the Decision (e.g. some rate columns contain blank spaces, some a \$0.00 charge). The new Attachment A (to this order) provides that clarification and corrects typographical errors in the prior Attachment A. Notably, on the attachment to this order, when a service has a rate associated with it, a horizontal line appears from the description to the corresponding rate.²⁴

E. Qwest's Requests for Clarification

Qwest's requests for clarification are reflected on Attachment K to its application for RRR. Attachment K suggests that there are a number of errors in Attachment A to the Decision including typographical and other clerical errors (e.g. placing rates in the wrong column). The Commission grants

²⁴ We hesitate to vouch Attachment A to this order inerrant. However, there has been much care taken to make sure all necessary rate elements are covered and matchup properly in the spreadsheets.

Qwest's requested clarification as reflected in Attachment A to this decision. This clarification to rates included in Attachment A to this decision includes:

1. The recurring and non-recurring multiplexing rates are based upon the evidence presented by ATT and the Joint Intervenor.
2. Tandem transmission rates are the rates from 331T and are subject to Phase II of this docket.
3. The typographical error for -48 Volt DC Power Usage has been corrected.
4. The non-recurring ICB rate for line-sharing reclassification is listed.
5. The non-recurring rate for Centrex Common Equipment has been corrected.
6. The Local Switching Analog Line Side Port Rate has been modified by the Decision.
7. The Field Verification Fee - Manholes is now listed.
8. The Field Verification Fee - Poles is now included.

XI. OPERATOR SERVICES

A. Operator Services and Directory Assistance

1. In the Decision, we determined that the 331T rates will remain in effect until a standard priced customized

routing offering is in place. WorldCom suggests that the Decision lacks sufficient explanation for this ruling.

2. We affirm the Decision in this matter.

B. Directory Assistance Listing (DAL)

1. The Decision rules that the DAL database is not a UNE, as the FCC has recognized. We declined to exercise our authority to designate DAL information as a UNE. Therefore, no DAL pricing provision is at issue here.

2. WorldCom argues that DAL should be revisited in Phase II. According to WorldCom: DAL information is the underlying customer listing information that constitutes the directory assistance database. Directory Assistance and Operator Services ("DA/OS") are services related to assisting callers in finding a customer's listing or in completing a call. The two are not the same network elements. Although the FCC's *UNE Remand Order*²⁵ reclassified DA/OS services as a UNE only in the absence of customized routing, the FCC identified the DAL database as a call-related database that must be unbundled. Qwest has bottleneck control over the vast majority of DAL in Colorado. Other companies may offer directory services that contain some of the listings, yet most, if not all, get their information from Qwest. This is the only way providers can be

²⁵ UNE Remand Order, FCC 99-238 (released Nov. 5, 1999).

assured the information is complete and up-to-date. The FCC determined that DAL is a UNE in the Local Competition First Report and Order and its UNE Remand Order. Direction was given by the FCC in the DAL provisioning Order encouraging the States to set their own rates consistent with nondiscriminatory access requirements of § 251(b)3. Cost-based pricing should be used and compared with what Qwest charges or imputes to itself for access to its DAL. Both New York and California set cost-based rates at the Regional Bell Operating Companies ("RBOC") cost of provision, using a cost study for initial listing and update information. The market rate proposed by Qwest has no basis and may prevent meaningful competition from occurring.

3. We will not revisit DAL in Phase II of this proceeding, and affirm the Decision on this issue.

C. Calling Name Database (ICNAM)

1. This issue concerns whether ICNAM is a UNE and should be offered as such by Qwest, including on a bulk basis. In the Decision, we determined that pursuant to the SGAT, global and bulk access is not required of Qwest.

2. WorldCom now argues that ICNAM is a UNE. The application for RRR states: Qwest has control of the databases that contain name and address information. There are no alternatives to Qwest for information of equal quality and availability. Furthermore, ICNAM has been identified as a UNE

in § 251(c)(3). As such, there should be non-discriminatory access to the database equal to Qwest's provision of the service to itself. This would include bulk access in addition to the offered access on a per-query basis. Innovation will be stifled if CLECs do not receive access to the ICNAM database equal to that of Qwest. WorldCom requests that it be provided access to the line numbers including a 15-digit identifier that includes a privacy listing. WorldCom would protect any privacy listing information. Michigan and Georgia require ILECs to provide calling name databases in a downloadable format basis.

3. We affirm the Decision on this matter and also deny WorldCom's request for additional line number information.

4. Again, it is our intent to remain consistent with the Commission's ruling in Docket No. 97A-198T. See Decision Nos. C02-406 at p. 11 (March 13, 2002); R01-768-I at p. 4 (July 24, 2001); R01-651-I at pp. 14-18 (June 22, 2001).

XII. LINE-SHARING

A. This issue concerns the proper recurring charge for the High Frequency Portion of the Loop (HFPL). In the Decision, we agreed with the principle that all telecommunication services provided over the loop display jointness in production and should bear some portion of loop costs. We further noted that the Commission's Costing and Pricing Rules, specifically 4 CCR

723-30-4.2(a)(iv), require that all services that use the loop contribute to its cost recovery. Therefore, we adopted a positive recurring price for the HFPL, finding that a zero price is not efficient when there is a positive demand even if the incremental cost is zero. We pointed out that there is a positive demand for the HFPL. As such, a positive price is required to mirror the allocation of resources that a competitive market would produce. A positive price gives the proper signals to producers who seek to deploy capital and labor to the delivery of broadband services. It also provides appropriate information to consumers as they choose among alternative broadband technologies.

B. As Qwest and other parties pointed out, a non-zero price is also required to reflect a reasonable allocation of joint and common costs. The FCC's pricing rules require a reasonable allocation of joint and common costs. See 47 C.F.R. subsections 51.505(a) and (c). Economic theory suggests that in a competitive market these joint and common costs would be allocated in response to consumer demand.

C. The record here suggested a range of prices for HFPL between zero and approximately \$7.50. Portions of the record (*i.e.* Qwest's Line-sharing Agreement) also reflected a negotiated price for the HFPL of \$4.89. Some parties complained that this price was negotiated with Qwest under duress.

However, we observed that this was a price agreed to under the negotiation/arbitration process established under § 252 of the Act. We found that this price fell within a zone of reasonableness measured against the goals of the Act and the objectives of the FCC's pricing rules. Therefore, we adopted it as a just and reasonable, forward-looking, cost-based recurring charge for HFPL.

D. Various parties raised the issue of Qwest's potential over-recovery of costs if we establish a non-zero price for HFPL but fail to adjust rates for other services contributing to recovery of loop costs. Staff, Sprint, and Covad contended that in the absence of such an adjustment the recurring charge should be zero. However, we found that this concern did not justify delay in setting a positive wholesale price now. We concluded that our obligation in this docket was to set an appropriate wholesale price for the HFPL; waiting to set a positive price until the conclusion of other proceedings to adjust the recovery of loop costs would do more harm to the wholesale markets in the form of potential inefficiencies,²⁶ than allowing Qwest to potentially over-recover some loop costs. Moreover, we reasoned, adjustments to other rates to account for recovery of some loop costs in the HFPL charge, is dependent upon the

²⁶ For example, distortions of producer and consumer choices with respect to broadband alternatives.

volumes of HFPL sold to consumers. We noted it might take some time to develop such information. We declared our intention to take up the issue of over-recovery of loop costs when we had better information about consumer demand for, and the revenues generated by, the wholesale prices for HFPL.

E. Covad and Staff object to these findings and conclusions. In its application for RRR, Covad again contends that a positive recurring rate for the HFPL does not comport with mandatory FCC and state rules. In the absence of a cost study, Covad asserts, no positive rate may be assigned to the HFPL. Qwest offered no cost study in support of the charge for HFPL; therefore, Qwest failed to meet its burden of proof. The negotiated rate in the Line-sharing Agreement provides no support for the \$4.89 charge. In general, Covad argues, the Decision on the HFPL recurring rate violates the FCC's requirement that UNE prices be cost-based.

F. Staff points out that, in the Decision (pages 107-08), the Commission noted that rebalancing loop costs could reduce the prices of all retail services now recovering loop costs, including basic local service. The Commission (page 117 of Decision) stated its intention "to take up the issue of over-recovery of loop costs when [we have] better information about consumer demand for and the revenues generated by the wholesale prices for HFPL." Staff now requests that we set a schedule,

possibly within Phase II of this docket, during which this examination of loop costs will take place. According to Staff, the action proposed in the Decision is similar to Qwest's traditional regulatory arrangement.

G. Specifically, under traditional regulation, rate cases occurred every few years, and rate rebalancing could be done at the introduction of a new service. Certainly, with a service as significant as HFPL, a rebalance evaluation, if not the actual rebalancing, would have been done. Likewise, under Qwest's recent Alternative Form of Regulation scheme, such a significant revenue source would have triggered the necessity of a "revenue-neutral" filing. That is, as new revenue was realized, other wholesale or retail rates would have been reduced, thus leaving Qwest with roughly the same overall revenue. Staff points out that this sort of adjustment is not contemplated as a matter of course under Qwest's current regulatory scheme, which is scheduled to continue in effect for approximately another 27 months. Thus, Staff argues for us to require an explicit plan and schedule for a loop cost reallocation.

H. We deny these requests for reconsideration. Decision No. C01-1302 explained why a positive recurring charge for the HFPL is required even if incremental costs are zero. The Decision also explains why we adopted a rate of \$4.89 for the

HFPL.²⁷ We concluded that this price fell within a zone of reasonableness measured against the goals of the Act and the objectives of the FCC's pricing rules. We affirm our determination that the adopted rate is a just and reasonable, forward-looking, cost-based rate for the HFPL.

I. As for Staff's recommendation that we develop an explicit plan and schedule for reallocation of loop costs, we recognize that it may be necessary to adjust the contribution to the loop if and when HFPL revenues are demonstrated to be material. However, as we stated in the Decision, it is not now known if such revenues are material. Further, we are not inclined to create new dockets out of this one based upon the present record. Staff itself has many prerogatives and may bring this issue to the Commission for further proceedings, if and when it judges the issue to be ripe for consideration.

XIII. ORDER

A. The Commission Orders That:

1. The Motion to Schedule Technical Conference filed by Qwest Corporation on January 30, 2002, is denied.

2. The Motion to Allow Response to Qwest's Application for Rehearing filed by AT&T Communications of the

²⁷ The Line-sharing Agreement shows a recurring rate of \$4.89 per loop, See Exhibit GG (RMQ Exhibit 5) Answer Testimony of Rebecca Quintana, p 26.

Mountain States, Inc. on February 14, 2002, is granted.

3. The Motion for Leave to File Reply in Support of Application for Rehearing filed by Qwest Corporation on March 4, 2002, is granted.

4. The Motion for Leave to File Response to AT&T's and XO's Application for Rehearing filed by Qwest Corporation on March 5, 2002, is granted consistent with the above discussion.

5. The Application for Rehearing, Reargument, or Reconsideration filed by Qwest Corporation on January 30, 2002, is granted, in part, and denied, in part, consistent with the above discussion.

6. The Petition for Reconsideration filed by Covad Communications Company on January 30, 2002, is granted, in part, and denied, in part, consistent with the above discussion..

7. The Application for Rehearing, Reargument, or Reconsideration filed by WorldCom, Inc. on January 30, 2002, is granted, in part, and denied, in part, consistent with the above discussion.

8. The Application for Rehearing, Reargument, or Reconsideration filed by AT&T Communications of the Mountain States, Inc. and XO Colorado, Inc. on January 30, 2002, is granted, in part, and denied, in part, consistent with the above discussion.

9. The Application for Rehearing, Reargument, or Reconsideration filed by Commission Staff on January 30, 2002, is granted, in part, and denied, in part, consistent with the above discussion.

10. Within 30 days after a final Commission order in this docket, Qwest Corporation shall amend its Statement of Generally Available Terms and Conditions reflecting the rates and conditions approved in this docket, particularly as reflected on Attachment A and Attachment B to this order. Such filing shall be made upon 30 days notice to the Commission and the parties to this case.

11. The twenty-day period provided for in § 40-6-114, C.R.S., within which to file applications for rehearing, reargument, or reconsideration begins on the first day following the Mailed Date of this decision.

12. This order is effective immediately upon its Mailed Date.

B. ADOPTED IN COMMISSIONERS' WEEKLY MEETING
April 17, 2002.

(S E A L)

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO



ATTEST: A TRUE COPY

Bruce N. Smith

Bruce N. Smith
Director

RAYMOND L. GIFFORD

POLLY PAGE

JIM DYER

Commissioners

		FINAL Rates			Notes
			Recurring	Nonrecurring	
6.0 Resale					
6.3 Wholesale Discount Rates					
Basic Exchange Residential Line Service/Low Income Telephone Assistance Programs		13%			
Basic Exchange Business Line Service/PBX/ISDN/ACS/Centrex Plus		15.70%			
Message Telecommunications Service (MTS), Wide Area Telecommunications Service (WATS), Optional Calling Plans		15%			
Listings, CO Features, Per activation basis services (e.g. Continuous Redial, Last Call Return, Call Trace) & Discounted Feature Packages		31.60%			
Private Line Transport Service		21.40%			
Public Access Line, Negotiated Contract Agreements, Promotional offerings of less than 90 days & Zone Charges		0%			
Special Promotions of more than 90 days, Market Trials of more than 90 days, Physically Impaired Service Programs & Volume/Term Discount Plans		Discount depends on type of service offered			
Directory Assistance, Operator Services, & Operator Services, & Miscellaneous services which do not fall within any of the preceding categories		16.80%			
6.3.2 Customer Transfer Charge (CTC)					
CTC for POTS Service					
Residence First Line (Mechanized)				\$3.76	
Residence Each Additional Line (Mechanized)				\$2.28	
Business First Line (Mechanized)				\$7.92	
Business Each Additional Line (Mechanized)				\$5.05	
Residence First Line (Manual)				\$13.32	
Residence Each Additional Line (Manual)				\$7.50	
Business First Line (Manual)				\$13.17	
Business Each Additional Line (Manual)				\$7.42	
CTC for Private Line Transport Services					
First Circuit				\$40.95	
Additional Circuit, per circuit, same CSR				\$40.95	
CTC for Advanced Communications Services, per circuit				\$44.23	
		Recurring Fixed	Recurring per Route Mile	Nonrecurring	
7.0 Interconnection					
Entrance Facilities					
7.1.2.1					
DS1		\$ 57.92	\$ 1.29	\$ 111.77	Note 1
DS3		\$ 188.80	\$ 8.97	\$ 277.01	
					Note 2
		Recurring Fixed	Recurring per Mile	Nonrecurring	
Direct Trunked Transport					
DS0					
DS0 Over 0 to 8 Miles		\$ 15.90	\$ 0.1087		Note 3
DS0 Over 8 to 25 Miles		\$ 15.92	\$ 0.0996		
DS0 Over 25 to 50 Miles		\$ 15.95	\$ 0.0668		
DS0 Over 50 Miles		\$ 15.97	\$ 0.0436		
DS1					
DS1 Over 0 to 8 Miles		\$ 26.76	\$ 1.2689		
DS1 Over 8 to 25 Miles		\$ 26.52	\$ 1.2270		
DS1 Over 25 to 50 Miles		\$ 27.05	\$ 0.8748		
DS1 Over 50 Miles		\$ 27.63	\$ 0.7254		
DS3					
DS3 Over 0 to 8 Miles		\$ 173.55	\$ 37.9475		
DS3 Over 8 to 25 Miles		\$ 176.21	\$ 14.8928		
DS3 Over 25 to 50 Miles		\$ 162.20	\$ 17.7981		
DS3 Over 50 Miles		\$ 170.78	\$ 12.1478		
Multiplexing			Recurring	NonRecurring	
DS1 to DS0 per arrangement			\$156.81	\$272.52	Note 4
DS3 to DS1 per arrangement			\$157.16	\$279.00	

		FINAL Rates			Notes
		Recurring	Nonrecurring		
Local Traffic					
End office call termination, per minute of use			\$0.002000		Note 13
Tandem Switched Transport					
Tandem Switching, per Minute of Use			\$0.002007		
		Recurring Fixed	Recurring Per Mile	Nonrecurring	
Tandem Transmission					
0 to 8 Miles		\$0.000359	\$0.000008		Note 13
8 to 25 Miles		\$0.000359	\$0.000007		
25 to 50 Miles		\$0.000358	\$0.000007		
Over 50 Miles		\$0.000357	\$0.000008		
Trunk Nonrecurring Charges					
DS0 Interface, First Trunk				\$217.96	Note 6
DS0 Interface, Each Additional Trunk				\$38.57	
DS1 Interface, First Trunk				\$229.34	
DS1 Interface, Each Additional Trunk				\$2.58	
DS3 Interface, First Trunk				\$245.58	
DS3 Interface, Each Additional Trunk				\$12.02	
DS3 Interoffice Transport - Disconnect					
Miscellaneous Charges					
Expedite Charge (LIS Trunks)		Qwest's Colorado Switched Access Tariff Section 5.2.2			
Cancellation Charge (LIS Trunks)		Qwest's Colorado Switched Access Tariff Section 5.2.3			
Construction Charges			ICB	ICB	
IntraLATA Toll Traffic		Qwest's Colorado Switched Access Tariff			
Transit Traffic		Qwest's Colorado Switched Access Tariff			
Local Transit		See Tandem Switching and Tandem Transmission Rates Above.			
Local Transit Assumed Mileage		9 Miles			
IntraLATA Toll		Qwest's Colorado Switched Access Tariff			
IntraLATA Toll Assumed Mileage		9 Miles			
Jointly Provided Switched Access		Qwest's Colorado Switched Access Tariff			
Category 11 Mechanized Record Charge, per Record			\$0.001903		
			Recurring	Nonrecurring	
8.0 Collocation					
Quote Preparation Fee				\$2,111.27	
		Quote Prep Fee is later deducted from Construction Charge			
Augment Quote Preparation Fee				\$1,055.50	Note 15
		Quote Prep Fee is credited toward Construction Charge			
All Collocation					
Collocation Entrance Facility, per fiber pair					
Standard Shared per Fiber			\$4.49	\$1,164.95	
Cross Connect per Fiber			\$4.60	\$957.42	
Express per Cable			\$58.63	\$3,807.50	
Cable Splicing					
Fiber - Per Set-Up				\$515.86	
Per Fiber Spliced				\$38.90	
Per Copper Spliced				\$91.20	
-48 Volt DC Power Usage, per Ampere, per Month					
Power Plant					Note 7
>60 amps			\$6.14		
= 60 amps			\$7.22		
< 60 amps			\$9.22		
Power Usage Less Than 60 Amps, per Amp			\$2.25		
Power Usage More Than 60 Amps, per Amp			\$4.50		
AC Power Feed					
AC Power Feed – per Amp, per Month					
120 V			\$18.72		
208 V, Single Phase			\$32.44		
208 V, Three Phase			\$56.13		
240 V, Single Phase			\$37.43		
240 V, Three Phase			\$64.76		
480 V, Three Phase			\$129.51		

	FINAL Rates		Notes
	Recurring	Nonrecurring	
AC Power Feed – per Foot, per Month			
20 Amp, Single Phase	\$0.0197	\$7.98	
20 Amp, Three Phase	\$0.0245	\$9.89	
30 Amp, Single Phase	\$0.0212	\$8.60	
30 Amp, Three Phase	\$0.0292	\$11.83	
40 Amp, Single Phase	\$0.0250	\$10.12	
40 Amp, Three Phase	\$0.0344	\$13.93	
50 Amp, Single Phase	\$0.0296	\$12.01	
50 Amp, Three Phase	\$0.0414	\$16.77	
60 Amp, Single Phase	\$0.0336	\$13.58	
60 Amp, Three Phase	\$0.0477	\$19.30	
100 Amp, Single Phase	\$0.0415	\$16.82	
100 Amp, Three Phase	\$0.0648	\$26.25	
Inspector Labor, per Half Hour			
Regular Hours Rate		\$31.90	
After Hours Rate, minimum 3 hours		\$41.08	
Collocation Terminations			
DS0			
Cable Placement per 100 Pair Block, OR	\$0.9068	\$243.40	
Cable Placement per Termination	\$0.0170	\$4.57	
Cable per 100 Pair Block, OR	\$1.2361	\$331.81	
Cable per Termination	\$0.0169	\$4.54	
Blocks per 100 Pair Block, OR	\$2.1403	\$574.54	
Blocks per Termination	\$0.0293	\$7.87	
Block Placement Per 100 Pair Block, OR	\$0.9404	\$252.44	
Block Placement per Termination	\$0.0129	\$3.46	
DS1			
Cable Placement per 28 DS1s, OR	\$1.0001	\$404.83	
Cable Placement per Termination	\$0.1076	\$43.53	
Cable per 28 DS1s, OR	\$0.9462	\$383.07	
Cable per Termination	\$0.1017	\$41.19	
Panel per 28 DS1s, OR	\$1.0722	\$434.07	
Panel per Termination	\$0.1288	\$52.12	
Panel Placement per 28 DS1s, OR	\$0.2134	\$86.38	
Panel Placement per Termination	\$0.0229	\$9.29	
DS3			
Cable per Termination	\$0.6111	\$247.37	
Cable Placement per Termination	\$0.4072	\$164.82	Note 16
Connector per Termination	\$0.6255	\$253.20	
Connector Placement per Termination	\$0.0613	\$24.14	
Security			
Access Card per Employee	\$0.85		
Card Access Per employee, per Office	\$7.16		
Central Office Security Infrastructure	ICB		
Central Office Clock Synchronization			
Synchronization – Composite Clock, per Port	\$7.13		
Cageless Physical Collocation			
Quote Preparation Fee	Quote Prep Fee is later deducted from Construction Charge		
		\$2,111.27	
Space Construction			
2 Bays and 1 - 40A Power Feed	\$67.08	\$27,155.33	
Adjustment for 20A Initial Power Feed	-\$5.16	-\$2,087.58	
Adjustment for 30A Initial Power Feed	-\$3.29	-\$1,332.29	
Adjustment for 60A Initial Power Feed	\$4.52	\$1,828.93	
Adjustment for Each Additional Bay	\$5.78	\$2,340.28	
Each Additional 20A Power Feed	\$13.09	\$5,299.88	
Each Additional 30A Power Feed	\$14.95	\$6,055.18	
Each Additional 40A Power Feed	\$18.25	\$7,387.47	
Each Additional 60A Power Feed	\$22.77	\$9,216.40	
Floor Space Lease, per Square Foot	\$4.00		Note 7
Caged Physical Collocation			
Quote Preparation Fee	Quote Prep Fee is later deducted from Construction Charge		
		\$2,111.27	

	FINAL Rates		Notes
	Recurring	Nonrecurring	
Space Construction			
Cage- Up to 100 Sq. Ft and 1 - 60A Power Feed	\$120.94	\$48,958.76	
Cage- 101- 200 Sq. Ft and 1 - 60A Power Feed	\$125.46	\$50,785.46	
Cage- 201- 300 Sq. Ft and 1 - 60A Power Feed	\$128.96	\$52,205.94	
Cage- 301- 400 Sq. Ft and 1 - 60A Power Feed	\$133.36	\$53,986.07	
Adjustment for 20A Initial Power Feed	-\$20.00	-\$8,095.32	
Adjustment for 30A Initial Power Feed	-\$18.21	-\$7,370.10	
Adjustment for 40A Initial Power Feed	-\$14.46	-\$5,853.91	
Adjustment for 100A Initial Power Feed	\$22.14	\$8,961.67	
Adjustment for 200A Initial Power Feed	\$70.68	\$28,609.98	
Adjustment for 300A Initial Power Feed	\$129.67	\$52,492.33	
Adjustment for 400A Initial Power Feed	\$199.45	\$80,737.24	
Each Additional 20A Power Feed	\$16.51	\$6,685.50	
Each Additional 30A Power Feed	\$18.31	\$7,410.73	
Each Additional 40A Power Feed	\$22.05	\$8,926.93	
Each Additional 60A Power Feed	\$36.51	\$14,780.83	
Each Additional 100A Power Feed	\$58.65	\$23,742.49	
Each Additional 200A Power Feed	\$107.19	\$43,390.81	
Each Additional 300A Power Feed	\$166.18	\$67,273.16	
Each Additional 400A Power Feed	\$235.96	\$95,518.07	
Floor Space Lease, per Square Foot	\$4.00		Note 7
Grounding			
2/0 AWG - per Foot	\$0.0300	\$12.05	
1/0 AWG - per Foot	\$0.0500	\$20.04	
4/0 AWG - per Foot	\$0.0600	\$22.78	
350 kcmil - per Foot	\$0.0800	\$31.60	
500 kcmil - per Foot	\$0.0900	\$35.21	
750 kcmil - per Foot	\$0.1300	\$53.96	
Virtual Collocation			
Quote Preparation Fee	Quote Prep Fee is later deducted from Construction Charge		
Maintenance Labor, per Half Hour		\$2,111.27	
Regular Hours Rate		\$27.92	
After Hours Rate		\$37.36	
Training Labor, per Half Hour			
Regular Hours Rate		\$27.92	
Equipment Bay -recurring, per Shelf	\$3.46		
Engineering Labor, per Half Hour			
Regular Hours Rate		\$30.13	
After Hours Rate		\$38.89	
Installation Labor, per Half Hour			
Regular Hours Rate		\$31.83	
After Hours Rate		\$40.99	
Floor Space Lease, per Square Foot	\$4.00		Note 7
CLEC-to-CLEC Connections			
Design Engineering & Installation – No Cables		\$790.92	Note 6
Cable Racking (Per Foot)			
DS0	\$0.2100		
DS1	\$0.2200		
DS3	\$0.2000		

		FINAL Rates		Notes
		Recurring	Nonrecurring	
Virtual Connections (Connections only; No Cables)				
DS0 (Per 100 Connections)			\$222.61	
DS1 (Per 28 Connections)			\$101.53	
DS3 (Per 1 Connection)			\$8.78	
Cable Hole (if Applicable)			\$447.70	
CLEC to CLEC Cross-Connection			\$165.85	Note 6
9.0 Unbundled Network Elements (UNEs)				
Interconnection Tie Pairs (ITP) – Per Termination				
DS0		\$ 0.44		Note 8
DS1		\$ 1.39		
DS3		\$ 14.07		
Unbundled Loops				
Analog Loops				
2-Wire Voice Grade and 2-Wire Non-Loaded		See Attachment B		
CO Multiplexing			\$2.06	Note 7
		CO Multiplexing charge ONLY applies when function is performed		
4-Wire Voice Grade and 4-Wire Non-Loaded		See Attachment B		
CO Multiplexing			\$4.12	Note 7
		CO Multiplexing charge ONLY applies when function is performed		
Cable Unloading/Bridge Tap Removal				
First Splice Location			\$85.00	
Each Additional Splice Location			\$50.00	
Digital Capable Loops				
Basic Rate ISDN Capable Loop		See Attachment B		
DS1 Capable Loop				
BRA		\$ 63.62		Note 9
Zone 1		\$ 82.37		
Zone 2		\$ 105.39		
Zone 3		\$ 170.03		
		The BRA and Zones are defined on the Tariff Map of each Exchange		
DS3 Capable Loop				
BRA		\$ 634.36		Note 9
Zone 1		\$ 1,062.14		
Zone 2		\$ 1,623.64		
Zone 3		\$ 2,995.62		
		The BRA and Zones are defined on the Tariff Map of each Exchange		
2-Wire Extension Technology			\$14.45	
Analog & DS0 Loop Installation Charges				
Basic Installation				
First Loop			\$55.27	Note 6
Each Additional Loop			\$48.77	
Basic Installation with Cooperative Testing				
First Loop			\$142.10	
Each Additional Loop			\$94.09	
Coordinated Installation without Cooperative Testing				
First Loop			\$59.81	
Each Additional Analog Loop			\$53.32	
Basic Installation with Performance Testing				
First Loop			\$142.10	
Each Additional Loop			\$94.09	
Coordinated Installation with Cooperative Testing				
First Loop			\$171.87	
Each Additional Loop			\$94.09	

		FINAL Rates			
			Recurring	Nonrecurring	Notes
DS1	Loop Installation Charges				Note 6
	Basic Installation (existing service)				
	First Loop			\$55.72	
	Each Additional Loop			\$46.48	
	Basic Installation with Performance Testing (New Service)				
	First Loop			\$176.82	
	Each Additional Loop			\$126.58	
	Coordinated Installation with Cooperative Testing				
	First Loop			\$206.60	
	Each Additional Analog Loop			\$136.68	
	Coordinated Installation without Cooperative Testing (existing service)				
	First Loop			\$62.29	
	Each Additional Loop			\$53.04	
DS3	Loop Installation Charges				Note 6
	Basic Installation (existing service)				
	First Loop			\$55.72	
	Each Additional Loop			\$46.48	
	Basic Installation with Performance Testing (New Service)				
	First Loop			\$176.82	
	Each Additional Loop			\$126.58	
	Coordinated Installation with Cooperative Testing				
	First Loop			\$206.60	
	Each Additional Analog Loop			\$136.68	
	Coordinated Installation without Cooperative Testing (existing service)				
	First Loop			\$62.29	
	Each Additional Loop			\$53.04	
Subloop					
2-Wire Distribution Loop		See Attachment B			
Installation					
First Loop				\$59.88	Note 6
Each Additional Loop				\$13.95	
4-Wire Distribution Loop		2 X 2-Wire Rate			
Installation					
First Loop				\$59.88	Note 6
Each Additional Loop				\$13.95	
Building Cable			\$0.78		
DS1 Capable Feeder Loop					
BRA			\$ 624.50		Note 9
Zone 1			\$ 1,052.28		
Zone 2			\$ 1,613.78		
Zone 3			\$ 2,985.76		
		The BRA and Zones are defined on the Tariff Map of each Exchange			
Installation					
First Loop				\$191.97	Note 6
DS1 Each Additional Capable Feeder Loop				\$142.32	
Field Connection Point					
Feasibility Fee/Quote Preparation Fee				\$1,107.09	
Construction Fee				ICB	

		FINAL Rates			
			Recurring	Nonrecurring	Notes
Line Sharing					
Shared Loop, per Loop			\$4.89	\$34.24	Note 6
OSS, per Order					
Reclassification Charge				ICB	Note 7
Splitter Shelf Charge			\$4.28	\$416.57	Note 6
Splitter Configuration Options					
Option 1A - Splitter in Common Area - Data Direct to CLEC			\$6.41	\$3,341.43	Note 10
Option 1B - Splitter in Common Area - Data to 410 Block			\$6.11	\$3,184.49	
Option 2A - Splitter on the IDF - Data Direct to CLEC			\$4.20	\$1,745.55	
Option 2B - Splitter on the IDF - Data to 410 Block			\$2.24	\$993.59	
Option 3A - Splitter on the MDF - Data Direct to CLEC			\$4.95	\$2,044.13	
Option 3B - Splitter on the MDF - Data to 410 Block			\$2.30	\$1,012.95	
Engineering				\$638.64	Note 17
Network Interface Device (NID)			\$0.60	\$34.24	Note 6 & Note 11
		Recurring Fixed	Recurring per Mile	Nonrecurring	
Unbundled Dedicated Interoffice Transport (UDIT)					
DS0 UDIT				\$247.42	Note 6
DS0 Over 0 to 8 Miles		\$15.90	\$0.10870		Note 3
DS0 Over 8 to 25 Miles		\$15.92	\$0.09960		
DS0 Over 25 to 50 Miles		\$15.95	\$0.06680		
DS0 Over 50 Miles		\$15.97	\$0.04360		
DS1 UDIT				\$247.42	Note 6
DS1 Over 0 to 8 Miles		\$26.76	\$1.26890		Note 3
DS1 Over 8 to 25 Miles		\$26.52	\$1.22700		
DS1 Over 25 to 50 Miles		\$27.05	\$0.87480		
DS1 Over 50 Miles		\$27.63	\$0.72540		
DS3 UDIT				\$247.42	Note 6
DS3 Over 0 to 8 Miles		\$173.55	\$37.94750		Note 3
DS3 Over 8 to 25 Miles		\$176.21	\$14.89280		
DS3 Over 25 to 50 Miles		\$162.20	\$17.79810		
DS3 Over 50 Miles		\$170.78	\$12.14780		
OC-3 UDIT				\$247.42	Note 6
OC-3 Over 0 to 8 Miles		\$685.45	\$186.59		Note 3
OC-3 Over 8 to 25 Miles		\$690.94	\$51.30		
OC-3 Over 25 to 50 Miles		\$661.23	\$67.66		
OC-3 Over 50 Miles		\$680.28	\$40.55		
OC-12 UDIT				\$247.42	Note 6
OC-12 Over 0 to 8 Miles		\$1,950.85	\$58.28		Note 3
OC-12 Over 8 to 25 Miles		\$1,950.85	\$61.43		
OC-12 Over 25 to 50 Miles		\$1,950.85	\$67.62		
OC-12 Over 50 Miles		\$1,950.85	\$80.14		
			Recurring	Nonrecurring	
DS0 UDIT Low Side Channelization			\$8.48		
DS1/DS0 Low Side Channelization			\$4.83	\$181.99	Note 6
Multiplexing					
DS1 to DS0			\$141.31	\$206.54	Note 4 & Note 6
DS3 to DS1			\$141.62	\$1,907.19	
Extended Unbundled Dedicated Interoffice Transport					
DS1 E-UDIT		Use UDIT Rates			
DS3 E-UDIT					
OC-3 E-UDIT					
OC-12 E-UDIT					

	FINAL Rates		Notes
	Recurring	Nonrecurring	
UDIT Rearrangement			
DS0 Single Office		\$135.07	Note 6
DS0 Dual Office		\$177.78	
High Capacity Single Office		\$135.83	
High Capacity Dual Office		\$163.40	
Unbundled Dark Fiber (UDF)			
Initial Records Inquiry (IRI)		\$159.13	
Mid-Point Structure Inquiry		\$202.90	
Field Verification and Quote Preparation (FVQP)		\$1,481.94	
UDF-IOF Charges			Note 6
Order Charge Per Route		\$432.07	
Order Charge Each Additional, Per Route		\$172.68	
Two Fiber Termination, per Termination	\$6.77		
Fiber Transport, per Mile	\$68.91		
Two Fiber Cross Connect, per Cross Connect	\$3.76	\$21.43	
UDF-Loop Charges			Note 6
Order Charge Per Route		\$432.07	
Order Charge Each Additional, per Route		\$172.68	
2 Fiber Termination, Per Term. at Wire Center	\$7.04		
2 Fiber Termination, Per Term. at Premise	\$5.94		
2 Fiber Loop, Per Route	\$116.19		
2 Fiber Cross-Connect Per Cross Connect	\$3.76	\$21.43	
Extended Dark Fiber (E-UDF)			Note 6
Order Charge Per Route		\$432.07	
Order Charge Each Additional, per Route		\$172.68	
2 Fiber Termination, Per Term. at Wire Center	\$7.04		
2 Fiber Termination, Per Term. at Premise	\$5.94		
2 Fiber Loop, Per Route	\$116.19		
2 Fiber Cross-Connect Per Cross Connect	\$3.76	\$21.43	
Shared Transport			
Per Minute of Use	\$0.001311		Note 12
Unbundled Customer Controlled Rearrangement Element (UCCRE)			
DS1 Port	ICB	ICB	
DS3 Port	ICB	ICB	
Dial Up Access	ICB	ICB	
Attendant Access	ICB	ICB	
Virtual Ports	ICB	ICB	
Local Tandem Switching			
DS1 Local Message Trunk Port		\$229.34	Note 6
Message Trunk Group – First Trunk		\$245.58	
Message Trunk Group – Each Additional Trunk		\$12.02	
Per Minute of Use	\$0.002007		Note 13
Local Switching			
Analog Line Side Port, first and additional (applies to MSA's outside out of the top 50 as defined in FCC Rule 47 CFR 51.310 c)(2).)	\$1.48		Note 5
			Note 7
Analog Line Side Port with Features, First and additional (applies to MSA's outside out of the top 50 as defined in FCC Rule 47 CFR 51.310 c)(2).)	\$1.86		Note 5
Vertical Features			
Custom Calling		\$0.00	Note 7
Automatic Callback Calling/Ring Again	\$0.00		
Call Forwarding Busy Line	\$0.00		
Call Forwarding Variable	\$0.00		
Call Transfer	\$0.00		
Call Waiting- Terminating	\$0.00		
Cancel Call Waiting	\$0.00		
Distinctive Ringing	\$0.00		
Speed Call Long – Customer Change	\$0.00		
Three Way Calling	\$0.00		

		FINAL Rates		Notes
		Recurring	Nonrecurring	
Feature Package I			\$0.00	
All Custom Calling Package Features		\$0.00		Note 7
Call Forwarding Don't Answer		\$0.00		
Call Forwarding Variable Remote		\$0.00		
Call Hold		\$0.00		
Call Park Retrieve		\$0.00		
Call Park Store		\$0.00		
Call Pickup		\$0.00		
Dial Call Waiting		\$0.00		
Directed Call Pickup w/ Barge-in		\$0.00		
Message Waiting Indication A/V		\$0.00		
Station Dial Conferencing		\$0.00		
Trunk Answer Any Station		\$0.00		
Feature Package II			\$0.00	
All Custom Calling Package Features		\$0.00		Note 7
All Feature Package I Features		\$0.00		
CLASS – Anonymous Call Rejection		\$0.00		
CLASS – Call Waiting ID		\$0.00		
CLASS – Calling Name Delivery		\$0.00		
CLASS – Calling Number Delivery		\$0.00		
CLASS – Calling Number Delivery Blocking		\$0.00		
CLASS – Continuous Redial		\$0.00		
CLASS – Last Call Return		\$0.00		
CLASS – Priority Calling		\$0.00		
CLASS – Selective Call Forwarding		\$0.00		
CLASS – Selective Call Rejection		\$0.00		
Other Standard Centrex Features				
Centrex Common Equipment		\$1,210.94		Note 7
Additional Centrex Features				
6 Way Calling For Non-Centron Line Ports		\$0.00	\$42.16	
Account Codes, Per System		\$0.00	\$80.70	
Attendant Access Line, Per Station		\$0.00	\$1.15	
Audible Message Waiting		\$0.00	\$1.00	
Authorization Codes, Per System		\$0.00	\$236.65	
EBS- Automatic Line, Per Station Line		\$0.00	\$1.00	
ARS- Common Equipment, Per Group		\$0.00	\$2,059.23	
Call Trace		\$0.00	\$1.13	
UCD- Call Waiting Indication, Per Unique Timing State, Per Timing State		\$0.00	\$1.00	
Call Waiting Originating		\$0.00	\$0.00	
Centrex Management System		\$0.00	\$0.00	
Conference Calling- Meet Me, Per System		\$0.00	\$42.16	
Conference Calling- Preset – Per System		\$0.00	\$42.16	
Data Call Protection		\$0.00	\$0.00	
EBS- Dir Sta Sel/Busy Lamp Fld, Per Arrangement		\$0.00	\$1.00	
EBS- Set Interface, Per Station Line		\$0.00	\$0.00	
Executive Busy Override		\$0.00	\$0.00	
ARS- Expensive Route Warning Tone- Per System		\$0.00	\$71.61	
ARS- Facility Restriction Level, Per System		\$0.00	\$66.61	
Hot Line, Per Line Equipped, Per Line		\$0.00	\$1.00	
Loudspeaker Paging Trunkside, Per Group		\$0.00	\$175.38	
UCD- Make Busy Arrangements, Per Group		\$0.00	\$1.00	
UCD- Make Busy Arrangements, Per Line		\$0.00	\$1.00	
EBS- Message Center, Per Main Station Line, Per Line		\$0.00	\$1.00	
Message Waiting Visual, Per Line		\$0.00	\$1.00	
EBS- Message Waiting Visual, Per Station Line		\$0.00	\$1.00	
Multiple Position Hunt Announcement, Per Group		\$0.00	\$72.37	
Multiple Position Hunt, Per Line		\$0.00	\$0.66	
Multiple Position Hunt Queing, Per Group		\$0.00	\$37.77	
Music On Hold, Per System (DMS Only)		\$0.00	\$67.62	
Network Speed Call		\$0.00	\$0.00	
Night Service Arrangement		\$0.00	\$0.00	
EBS- Privacy Release, Per Station Line		\$0.00	\$1.38	
EBS Query Time, Per Station Line		\$0.00	\$1.00	
EBS- Station Camp On, Per Main Line, Per Line		\$0.00	\$1.00	
Station Message Detail Recording		\$0.00	\$0.00	
Time of Day Control for ARS, Per System		\$0.00	\$124.66	
Time of Day NCOS Updated, Per Main Station		\$0.00	\$0.55	
Time of Day Routing, Per Line		\$0.00	\$1.51	
Trunk Verification from Designated Station, Per Line Equipped		\$0.00	\$1.15	
UCD- In Hunt Group, Per Line		\$0.00	\$0.66	
UCD- With Music after Delay		\$0.00	\$0.66	
CMS- System Establishment, Initial Installation		\$0.00	\$965.53	

		FINAL Rates		Notes
		Recurring	Nonrecurring	
	CMS- System Establishment, Subsequent Installation	\$0.00	\$482.77	
	CMS- Packet Control Capability, Per System	\$0.00	\$482.77	
	SMDR-P- Service Establishment Charge, Initial Installation	\$0.00	\$337.17	
	SMDR-P- Archived Data	\$0.00	\$176.19	
	Call Trace, Per Activation	\$2.00		
	Subsequent Order Charge		\$13.49	
	Digital Line Side Port (Supporting BRI ISDN)	\$9.92		
	First Port		\$232.75	
	Each Additional Port		\$232.75	
	DS0 Analog Trunk Port	\$15.55		Note 7
	First Port		\$129.16	
	Each Additional		\$35.89	
	Digital Trunk Ports			Note 7
	DS1 Digital Trunk, First	\$54.19	\$215.63	
	DS1 Digital Trunk, Each Additional		\$62.68	
	DS1 DID Trunk Port		\$205.68	
	DS1 PRI ISDN Trunk Port	\$236.95	\$689.99	
	Local Usage, per Minute of Use	\$0.00200		Note 5
	Customized Routing			
	Development of Custom Line Class Code – Directory Assistance or Operator Services Routing Only		ICB	
	Installation Charge, per Switch – Directory Assistance or Operator Service Routing Only		ICB	
	All Other Custom Routing		ICB	
	Common Channel Signaling/SS7			
	CCSAC STP Port	\$142.14	\$404.17	Note 6
	CCSAC Options Activation Charge			
	Basic Translations			
	First Activation, per order		\$111.47	Note 6
	Each Additional Activation, per		\$9.51	
	CCSAC Options Database Translations			
	First Activation per order		\$130.58	Note 6
	Each additional Activation per order		\$57.10	
	Signal Formulation, ISUP, Per Call Attempt	\$0.000647		
	Signal Transport, ISUP, Per Call Attempt	\$0.000216		
	Signal Transport, TCAP, Per Call Attempt	\$0.000024		
	Signal Switching, ISUP, Per Call Attempt	\$0.001101		
	Signal Switching, TCAP, Per Call Attempt	\$0.000921		
	Advanced Intelligent Network (AIN)			
	AIN Customized Services		ICB	
	AIN Platform Access	ICB	ICB	
	AIN Query Processing, per Query	ICB		
	Line Information Database (LIDB)			
	LIDB Storage		No Charge	
	Line Validation Administration System Access (LVAS)		ICB	
	LIDB Line Record Initial Load			
	Up to 20,000 Line Records		\$2,481.36	
	Over 20,000 Line Records		ICB	
	Mechanized Service Account Update, per Addition or Update Processed	ICB		
	Individual Line Record Audit		ICB	
	Account Group Audit		ICB	
	Expedited Request Charge for Manual Updates		ICB	
	LIDB Query Service, per Query	\$0.002593		
	Fraud Alert Notification, per Alert	No Charge		
	8XX Database Query Service			
	Basic Query, per Query	\$0.012828		
	POTS Translation	\$0.000001		
	Call Handling & Destination Feature	\$0.000003		

	FINAL Rates		Notes
	Recurring	Nonrecurring	
ICNAM, Per Query	\$0.002149		
Construction Charges		ICB	
Miscellaneous Elements			
Additional Engineering – Basic		\$31.77	
Additional Engineering – Overtime		\$39.29	
Additional Labor Installation – Overtime		\$9.03	
Additional Labor Installation – Premium		\$18.06	
Additional Labor Other – Basic		\$27.69	
Additional Labor Other – Overtime		\$36.98	
Additional Labor Other – Premium		\$46.29	
Testing and Maintenance – Basic		\$29.42	
Testing and Maintenance – Overtime		\$29.29	
Testing and Maintenance – Premium		\$49.16	
Maintenance of Service – Basic		\$27.69	
Maintenance of Service – Overtime		\$36.98	
Maintenance of Service – Premium		\$46.29	
Additional COOP Acceptance Testing – Basic		\$29.42	
Additional COOP Acceptance Testing – Overtime		\$39.29	
Additional COOP Acceptance Testing – Premium		\$49.16	
NonScheduled COOP Testing – Basic		\$29.42	
NonScheduled COOP Testing – Overtime		\$39.29	
NonScheduled COOP Testing – Premium		\$49.16	
NonScheduled Manual Testing – Basic		\$29.42	
NonScheduled Manual Testing – Overtime		\$39.29	
NonScheduled Manual Testing – Premium		\$49.16	
Cooperative Scheduled Testing – Loss		\$0.08	
Cooperative Scheduled Testing – C-Message Noise		\$0.08	
Cooperative Scheduled Testing – Balance		\$0.33	
Cooperative Scheduled Testing – Gain Slope		\$0.08	
Cooperative Scheduled Testing – C-Notched Noise		\$0.08	
Manual Scheduled Testing – Loss		\$0.17	
Manual Scheduled Testing – C-Message Noise		\$0.17	
Manual Scheduled Testing – Balance		\$0.66	
Manual Scheduled Testing – Gain Slope		\$0.17	
Manual Scheduled Testing – C-Notched Noise		\$0.17	
Additional Dispatch		\$84.40	
Date Change		\$10.38	
Design Change		\$73.93	
Expedite Charge		ICB	
Cancellation Charge		ICB	
Channel Regeneration			
DS1 Regeneration	\$2.32	\$477.52	
DS3 Regeneration	\$7.34	\$1,806.53	
UNE Platform	Note: Conditions on Charges		
UNE-P Conversion			
UNE-P POTS, CENTREX, PAL, PBX Mechanized			
First		\$0.68	
Each Additional		\$0.14	
			Note 7
UNE-P POTS, CENTREX, PAL, PBX Manual			
First		\$12.19	
Each Additional		\$2.03	
			Note 6
			Note 7
UNE-P PBX DID Trunk, Existing Service			
First		\$15.49	
Each Additional		\$2.34	
			Note 6
			Note 7

		FINAL Rates			Notes	
		Recurring	Nonrecurring			
UNE-P ISDN BRI, Existing Service	First			\$11.34	Note 6	
	Each Additional			\$2.34		
	UNE-P ISDN PRI, DSS per DS1 Facility, Existing Service			\$38.33		
	UNE-P ISDN PRI, DSS Trunk, Existing Service					
	First			\$14.11	Note 7	
	Each Additional			\$2.34		
	UNE-P New Connection					
	UNE-P POTS Mechanized					Note 6
	First			\$41.57		
	Each Additional			\$11.93		
UNE-P POTS Manual						
First			\$61.71	Note 6		
Each Additional			\$13.86			
UNE-Combination Private Line						
DS0/DS1/DS3/OCN/Integrated T-1 Existing Service				\$30.72		
Enhanced Extended Loop (EEL)						
EEL Link					Note 6	
DS0, First				\$266.16		
DS0, Each Additional				\$177.74		
DS1, First				\$265.98		
DS1, Each Additional				\$162.67		
DS3, First				\$279.38		
DS3, Each Additional				\$179.01		
		Recurring Fixed	Recurring Per Mile	Nonrecurring		
EEL Transport						
DS0 Transport				\$247.42	Note 6	
DS0 Over 0 to 8 Miles		\$15.90	\$0.1087		Note 3	
DS0 Over 8 to 25 Miles		\$15.92	\$0.0996			
DS0 Over 25 to 50 Miles		\$15.95	\$0.0668			
DS0 Over 50 Miles		\$15.97	\$0.0436			
DS1 Transport				\$247.42	Note 6	
DS1 Over 0 to 8 Miles		\$26.76	\$1.2689		Note 3	
DS1 Over 8 to 25 Miles		\$26.52	\$1.2270			
DS1 Over 25 to 50 Miles		\$27.05	\$0.8748			
DS1 Over 50 Miles		\$27.63	\$0.7254			
DS3 Transport				\$247.42	Note 6	
DS3 Over 0 to 8 Miles		\$173.55	\$37.9475		Note 3	
DS3 Over 8 to 25 Miles		\$176.21	\$14.8928			
DS3 Over 25 to 50 Miles		\$162.20	\$17.7981			
DS3 Over 50 Miles		\$170.78	\$12.1478			
Multiplexing						
DS1 to DS0			\$156.81	\$272.52	Note 4	
DS3 to DS1			\$157.16	\$279.00		
DS0 Channel Performance						
DS0 Low Side Channelization		Rate Element not necessary				
DS1/DS0 MUX, Low Side Channelization						
Concentration Capability			ICB			
Packet Switching					Note 14	
Unbundled Packet Switch Customer Channel						
DSLAM						
Virtual Transport						
Unbundled Packet Switch Loop Capability						
Unbundled Packet Switch Interface Port						
DS1						
DS3						

	FINAL Rates		Notes
	Recurring	Nonrecurring	
10.0 Ancillary Services			
Local Number Portability			
LNP Queries	See FCC Tariff No. 5		
911/E911	No charge		
White Pages Directory Listings, Facility Based Providers			
Primary Listing	No charge		
Premium/Privacy Listings	Exchange Tariff Rate, less wholesale discount		
Directory Assistance, Facility Based Providers			
Local Directory Assistance, Per Call	\$0.3400		
National Directory Assistance, per Call	\$0.3850		
Call Branding, Set- Up and Recording		\$10,500.00	
Loading Brand /Per Switch		\$175.00	
Call Completion Link, per call	\$0.0850		
Directory Assistance List Information			
Initial Database Load per Listing	\$0.0250		
Reload of Database, per Listing	\$0.0200		
Daily Updates, per Listing	\$0.0250		
One-time Set-Up Fee		\$82.22	
Media Charges for File Delivery			
Electronic Transmission, per listing	\$0.0010		
Tapes (charges only apply if this is selected as the normal delivery medium for daily updates)	\$30.00		
Shipping Charges (for tape delivery)	ICB		
Toll and Assistance Operator Services, Facility Based Providers			
Option A – Per Message			
Operator Assistance, per Call	\$0.36		Note 7
Operator Handled Calling Card	\$0.46		
Machine Handled Calling Card	\$0.18		
Station Call	\$0.84		
Person Call	\$2.06		
Connect to Directory Assistance	\$0.55		
Busy Line Verify, per call	\$0.72		
Busy Line Interrupt	\$0.87		
Option B – Per Operator Work Second and Computer Handled Calls			
Operator Handled, per Operator Work Second	\$0.018100		
Machine Handled, per Call	\$0.13		
Call Branding, Set-Up & Recording		\$10,500.00	
Loading Brand/Per Switch		\$175.00	
Access to Poles, Ducts, Conduits and Rights of Way			
Pole Inquiry Fee, per Mile		\$322.26	Note 6
Innerduct Inquiry Fee, per Mile		\$387.37	
Field Verification Fee, Poles		\$35.69	Note 7
Field Verification Fee, Manholes		\$142.67	
Make-Ready Work		ICB	
Pole Attachment Fee, per Foot, per Year	\$2.50		
Innerduct Occupancy Fee, per Foot, per Year	\$0.30		
12.0 Operational Support Systems			
Daily Usage Record File, per Record	\$0.000886		
17.0 Bona Fide Request Process			
Processing Fee		\$1,055.50	Note 7

Notes to Attachment A

- Note 1: Separate rates for DS1 & DS3 Entrance Facilities have been added per the Order.
- Note 2: LIS EICT references have been removed because co-carriers without charge are providing service mutually.
- Note 3: Rates for High Capacity Circuits Direct Trunked Transport have been modified per the Order.
- Note 4: Based upon the proposals of the Joint Intervenors, and as adjusted per Commission approved inputs and cost factors, the Multiplexing rates were modified.
- Note 5: New Interim Switching Rates per Qwest's March 5, 2002 filing.
- Note 6: Nonrecurring rates have been reset per the Order.
- Note 7: Typographical errors of commission or omission have been corrected.
- Note 8: Rates for Interconnection Tie Pairs as calculated using Commission adopted inputs and cost factors.
- Note 9: Rates for High Capacity Loops have been recalculated using Commission approved inputs and cost factors and are disaggregated into Base Rate Areas and three Zones as these territories are defined in the Exchange Map Tariff.
- Note 10: Description of Service included per Qwest's request.
- Note 11: The rate for the NID is established as a single Statewide value.
- Note 12: Interim Shared Transport rate per Note 13. [Shared transport includes some Tandem Switched Transport]
- Note 13: Local end office call termination, Tandem Switched Transport, (Tandem Switching and Tandem Transmission) rates have been set at the 96A-331T levels as TELRIC compliant pending further review in Phase II of this current Docket.
- Note 14: Rates will be addressed as a Phase II item.
- Note 15: Augment Quote Preparation Fee added per Order.
- Note 16: Rate order corrected to match cost study outputs.
- Note 17: Engineering time reduced by ½ to 10 hours.

	Wire Center	CLLI	UNE Analog Loop	4-Wire Voice Grade and 4- Wire Non- Loaded	Basic Rate ISDN Capable Loop	2-Wire Distribution Loop
1	ABERDEEN	ENWDCOAB	\$ 9.54	\$ 18.49	\$ 9.54	\$ 5.71
2	AGUILAR	AGLRCOMA	\$ 131.60	\$ 262.60	\$ 131.60	\$ 72.44
3	AIR FORCE ACADEMY	AFACCOMA	\$ 22.04	\$ 43.48	\$ 22.04	\$ 16.56
4	ALAMOSA	ALMSCOMA	\$ 27.24	\$ 53.88	\$ 27.24	\$ 19.14
5	ALLENS PARK	ALPKCOMA	\$ 56.88	\$ 113.15	\$ 56.88	\$ 42.71
6	ARVADA	ARVDCOMA	\$ 12.06	\$ 23.53	\$ 12.06	\$ 6.97
7	ASPEN	ASPECOMA	\$ 14.11	\$ 27.61	\$ 14.11	\$ 9.97
8	AULT	AULTCOMA	\$ 78.94	\$ 157.28	\$ 78.94	\$ 53.24
9	AURORA	AURRCOMA	\$ 12.48	\$ 24.37	\$ 12.48	\$ 7.13
10	AVON	AVONCOMA	\$ 26.81	\$ 53.01	\$ 26.81	\$ 13.58
11	AVONDALE	AVDLCOMA	\$ 91.67	\$ 182.74	\$ 91.67	\$ 69.63
12	BAILEY	BALYCOMA	\$ 41.69	\$ 82.77	\$ 41.69	\$ 31.50
13	BASALT	BSLTCOMA	\$ 34.85	\$ 69.10	\$ 34.85	\$ 24.76
14	BAYFIELD	BYFDCOMA	\$ 45.00	\$ 89.41	\$ 45.00	\$ 33.02
15	BERTHOUD	BRTHCOMA	\$ 29.39	\$ 58.17	\$ 29.39	\$ 21.10
16	BLACK FOREST	BLFSCOMA	\$ 36.85	\$ 73.10	\$ 36.85	\$ 27.50
17	BOULDER	BLDRCOMA	\$ 12.01	\$ 23.42	\$ 12.01	\$ 7.56
18	BRECKENRIDGE	BRRGCOMA	\$ 23.76	\$ 46.92	\$ 23.76	\$ 17.99
19	BRIGHTON	BITNCOMA	\$ 18.98	\$ 37.37	\$ 18.98	\$ 13.64
20	BROOMFIELD	BRFDCOMA	\$ 11.64	\$ 22.67	\$ 11.64	\$ 6.84
21	BRUSH	BRSHCOMA	\$ 38.73	\$ 76.87	\$ 38.73	\$ 26.70
22	BUENA VISTA	BNVSCOMA	\$ 40.14	\$ 79.69	\$ 40.14	\$ 29.96
23	CALHAN	CLHNCOMA	\$ 89.83	\$ 179.06	\$ 89.83	\$ 63.13
24	CANON CITY	CACYCOMA	\$ 20.41	\$ 40.22	\$ 20.41	\$ 14.16
25	CAPITOL HILL	DNVRCOCH	\$ 6.19	\$ 11.78	\$ 6.19	\$ 3.33
26	CARBONDALE	CRDLCOMA	\$ 32.83	\$ 65.05	\$ 32.83	\$ 25.02
27	CASTLE ROCK	CSRKCONM	\$ 28.40	\$ 56.20	\$ 28.40	\$ 21.34
28	CENTRAL CITY	CNCYCOMA	\$ 33.29	\$ 65.99	\$ 33.29	\$ 28.13
29	CLIFTON	CFTNCONM	\$ 13.83	\$ 27.05	\$ 13.83	\$ 9.26
30	COAL CREEK CANYON	CCCNCOMA	\$ 38.57	\$ 76.54	\$ 38.57	\$ 29.37
31	COLO SPRINGS EAST	CLSPCOEA	\$ 13.18	\$ 25.77	\$ 13.18	\$ 7.16
32	COLO SPRINGS MAIN	CLSPCOMA	\$ 11.09	\$ 21.59	\$ 11.09	\$ 6.24
33	COLUMBINE	DNVRCOCL	\$ 10.69	\$ 20.78	\$ 10.69	\$ 5.97
34	COPPER MOUNTAIN	CPMTCOMA	\$ 22.99	\$ 45.38	\$ 22.99	\$ 12.13
35	CORTEZ	CRTZCOMA	\$ 31.46	\$ 62.33	\$ 31.46	\$ 23.31
36	COTTONWOOD	DNVRCOCW	\$ 11.35	\$ 22.09	\$ 11.35	\$ 6.56
37	CRAIG	CRAGCOMA	\$ 35.06	\$ 69.51	\$ 35.06	\$ 24.98
38	CRESTED BUTTE	CRBTCOMA	\$ 31.05	\$ 61.50	\$ 31.05	\$ 22.76
39	CRIPPLE CREEK	CRCKCOMA	\$ 64.21	\$ 127.81	\$ 64.21	\$ 45.77
40	CURTIS PARK	DNVRCOCP	\$ 6.01	\$ 11.42	\$ 6.01	\$ 3.12
41	DEBEQUE	DBEQCONC	\$ 170.59	\$ 340.57	\$ 170.59	\$ 126.68
42	DECKERS	DCKRCOMA	\$ 136.63	\$ 272.66	\$ 136.63	\$ 88.67
43	DEL NORTE	DLNRCOMA	\$ 62.00	\$ 123.41	\$ 62.00	\$ 47.12
44	DELTA	DELTCOMA	\$ 26.62	\$ 52.65	\$ 26.62	\$ 19.61
45	DENVER (ON ALAMEDA)	DNVRCOHX	\$ 6.96	\$ 13.33	\$ 6.96	\$ 4.63

	Wire Center	CLLI	UNE Analog Loop	4-Wire Voice Grade and 4- Wire Non- Loaded	Basic Rate ISDN Capable Loop	2-Wire Distribution Loop
46	DENVER EAST	DNVRCOEA	\$ 12.26	\$ 23.92	\$ 12.26	\$ 7.16
47	DENVER MAIN	DNVRCOMA	\$ 5.69	\$ 10.78	\$ 5.69	\$ 3.22
48	DENVER NORTH	DNVRCONO	\$ 11.66	\$ 22.71	\$ 11.66	\$ 7.85
49	DENVER NORTHEAST	DNVRCONO	\$ 13.36	\$ 26.11	\$ 13.36	\$ 8.60
50	DENVER SOUTH	DNVRCOSO	\$ 13.78	\$ 26.95	\$ 13.78	\$ 9.44
51	DENVER SOUTHEAST	DNVRCOSE	\$ 11.72	\$ 22.85	\$ 11.72	\$ 7.68
52	DENVER SOUTHWEST	DNVRCOSW	\$ 13.10	\$ 25.60	\$ 13.10	\$ 7.55
53	DENVER WEST	DNVRCOWS	\$ 13.18	\$ 25.76	\$ 13.18	\$ 8.61
54	DILLON	DLLNCOMA	\$ 22.10	\$ 43.60	\$ 22.10	\$ 15.84
55	DNVR INTL AIRPORT	DNVRCOOU	\$ 14.20	\$ 27.79	\$ 14.20	\$ 8.74
56	DRY CREEK	DNVRCODC	\$ 8.67	\$ 16.74	\$ 8.67	\$ 4.43
57	DURANGO	DURNCOMA	\$ 23.98	\$ 47.36	\$ 23.98	\$ 17.00
58	EATON	EATNCOMA	\$ 33.71	\$ 66.82	\$ 33.71	\$ 26.29
59	ELBERT	ELBRCOMA	\$ 87.81	\$ 175.01	\$ 87.81	\$ 64.31
60	ELIZABETH	ELZBCO01	\$ 40.06	\$ 79.52	\$ 40.06	\$ 30.56
61	ENGLEWOOD	ENWDCOMA	\$ 12.10	\$ 23.60	\$ 12.10	\$ 8.09
62	ERIE	ERIECOMA	\$ 37.77	\$ 74.94	\$ 37.77	\$ 30.25
63	ESTES PARK	ESPKCOMA	\$ 23.18	\$ 45.76	\$ 23.18	\$ 17.39
64	EVERGREEN	EVRGCOMA	\$ 23.75	\$ 46.90	\$ 23.75	\$ 18.06
65	FAIRPLAY	FRPLCOMA	\$ 93.24	\$ 185.89	\$ 93.24	\$ 64.43
66	FLORENCE	FLRNCOMA	\$ 46.46	\$ 92.31	\$ 46.46	\$ 33.51
67	FOUNTAIN	FONTCOMA	\$ 19.38	\$ 38.17	\$ 19.38	\$ 14.95
68	FRASER	FRSRCOMA	\$ 29.69	\$ 58.79	\$ 29.69	\$ 21.33
69	FREDERICK	FRDRCOMA	\$ 24.57	\$ 48.54	\$ 24.57	\$ 18.40
70	FRISCO	FRSCCOMA	\$ 23.99	\$ 47.38	\$ 23.99	\$ 12.45
71	FRUITA	FRUTCOMA	\$ 36.82	\$ 73.05	\$ 36.82	\$ 27.13
72	FT COLLINS	FTCLCOMA	\$ 16.32	\$ 32.04	\$ 16.32	\$ 9.94
73	FT LUPTON	FTLPCOMA	\$ 23.55	\$ 46.49	\$ 23.55	\$ 17.50
74	FT MORGAN	FTMRCOMA	\$ 23.73	\$ 46.86	\$ 23.73	\$ 17.55
75	GATEHOUSE	CLSPCO32	\$ 22.99	\$ 45.38	\$ 22.99	\$ 17.60
76	GEORGETOWN	GRTWCOMA	\$ 35.89	\$ 71.19	\$ 35.89	\$ 27.11
77	GILCREST	GLCRCOMA	\$ 60.52	\$ 120.45	\$ 60.52	\$ 44.92
78	GLENWOOD SPRINGS	GLSPCOMA	\$ 17.72	\$ 34.83	\$ 17.72	\$ 12.00
79	GOLDEN	GLDNCOMA	\$ 11.76	\$ 22.93	\$ 11.76	\$ 6.94
80	GRANBY	GRNBCOMA	\$ 47.82	\$ 95.04	\$ 47.82	\$ 34.57
81	GRAND JUNCTION	GDJTCOMA	\$ 13.79	\$ 26.98	\$ 13.79	\$ 8.50
82	GRAND LAKE	GDLKCOMA	\$ 27.15	\$ 53.70	\$ 27.15	\$ 21.01
83	GREELEY	GRELCOMA	\$ 13.60	\$ 26.59	\$ 13.60	\$ 8.49
84	GREEN MOUNTAIN FALLS	GMFLCOMA	\$ 32.89	\$ 65.17	\$ 32.89	\$ 24.53
85	GUNBARREL	BLDRCOGB	\$ 10.93	\$ 21.26	\$ 10.93	\$ 7.05
86	GUNNISON	GNSNCOMA	\$ 45.77	\$ 90.95	\$ 45.77	\$ 31.12
87	HARMONY	FTCLCOHM	\$ 12.86	\$ 25.11	\$ 12.86	\$ 8.28
88	HAYDEN	HYDNCOMA	\$ 84.00	\$ 167.40	\$ 84.00	\$ 59.03
89	HIGHLANDS RANCH	LTTNCOHL	\$ 11.11	\$ 21.62	\$ 11.11	\$ 7.23
90	HILLROSE	HLRSCOMA	\$ 100.34	\$ 200.08	\$ 100.34	\$ 74.24

	Wire Center	CLLI	UNE Analog Loop	4-Wire Voice Grade and 4- Wire Non- Loaded	Basic Rate ISDN Capable Loop	2-Wire Distribution Loop
91	HOT SULPHUR SPRINGS	HSSPCOMA	\$ 98.38	\$ 196.15	\$ 98.38	\$ 69.71
92	HUDSON	HDSNCOMA	\$ 58.81	\$ 117.01	\$ 58.81	\$ 42.27
93	IDAHO SPRNGS	IDSPCOMA	\$ 41.80	\$ 82.99	\$ 41.80	\$ 29.72
94	JOHNSTOWN-MILLIKEN	JHMLCOMA	\$ 26.86	\$ 53.13	\$ 26.86	\$ 19.81
95	JULESBURG	JLBGCOMA	\$ 59.13	\$ 117.65	\$ 59.13	\$ 38.33
96	KEENESBURG	KNBGCOMA	\$ 76.42	\$ 152.23	\$ 76.42	\$ 53.85
97	KIOWA	KIOWCOMA	\$ 98.16	\$ 195.73	\$ 98.16	\$ 59.63
98	KREMMLING	KRNGCOMA	\$ 58.91	\$ 117.23	\$ 58.91	\$ 37.61
99	LA SALLE	LSLLCOMA	\$ 58.36	\$ 116.11	\$ 58.36	\$ 43.52
100	LAKEWOOD	LKWDCOMA	\$ 9.66	\$ 18.72	\$ 9.66	\$ 5.27
101	LAKEWOOD (TELLER RD)	LKWDCOTC	\$ 11.33	\$ 22.07	\$ 11.33	\$ 3.62
102	LARKSPUR	LRKSCONM	\$ 43.92	\$ 87.25	\$ 43.92	\$ 32.20
103	LEADVILLE	LDVLCOMA	\$ 21.90	\$ 43.19	\$ 21.90	\$ 14.93
104	LIMON	LIMNCOMA	\$ 62.14	\$ 123.67	\$ 62.14	\$ 38.27
105	LITTLETON	LTTNCOMA	\$ 10.42	\$ 20.25	\$ 10.42	\$ 5.81
106	LONGMONT	LNMTCOMA	\$ 11.84	\$ 23.09	\$ 11.84	\$ 7.17
107	LOOKOUT MOUNTAIN	LKMTCOMA	\$ 16.26	\$ 31.92	\$ 16.26	\$ 10.91
108	LOVELAND	LVLDCOMA	\$ 15.70	\$ 30.80	\$ 15.70	\$ 10.45
109	LYONS	LYNSCOMA	\$ 41.38	\$ 82.16	\$ 41.38	\$ 28.84
110	MANCOS	MNCSCOMA	\$ 88.51	\$ 176.42	\$ 88.51	\$ 59.25
111	MANITOU SPRINGS	MNSPCOMA	\$ 16.81	\$ 33.02	\$ 16.81	\$ 12.49
112	MEAD	MEADCOMA	\$ 33.00	\$ 65.41	\$ 33.00	\$ 22.97
113	MEEKER	MEKRCOMA	\$ 114.03	\$ 227.47	\$ 114.03	\$ 84.70
114	MESA VERDE	MVNPCOMA	\$ 24.41	\$ 48.21	\$ 24.41	\$ 7.83
115	MINTURN	MNTRCOMA	\$ 55.36	\$ 110.13	\$ 55.36	\$ 36.90
116	MONAGHAN	AURRCOMB	\$ 30.77	\$ 60.93	\$ 30.77	\$ 21.81
117	MONTE VISTA	MTVSCOMA	\$ 33.54	\$ 66.48	\$ 33.54	\$ 24.71
118	MONTEBELLO	DNVRCOMB	\$ 10.86	\$ 21.12	\$ 10.86	\$ 6.79
119	MONTROSE	MTRSCOMA	\$ 27.31	\$ 54.02	\$ 27.31	\$ 20.10
120	MONUMENT	MNMTCOMA	\$ 20.00	\$ 39.40	\$ 20.00	\$ 15.17
121	MORRISON	MRSNCOMA	\$ 32.81	\$ 65.02	\$ 32.81	\$ 24.64
122	NEDERLAND	NDLDCOMA	\$ 42.45	\$ 84.31	\$ 42.45	\$ 32.92
123	NEW CASTLE	NWCSCOMA	\$ 60.50	\$ 120.41	\$ 60.50	\$ 40.94
124	NIWOT	NIWTCOMA	\$ 20.71	\$ 40.81	\$ 20.71	\$ 16.30
125	NORTHGLENN	NGLNCOMA	\$ 12.04	\$ 23.48	\$ 12.04	\$ 7.47
126	OAK CREEK	OKCKCOMA	\$ 81.12	\$ 161.65	\$ 81.12	\$ 53.84
127	OLATHE	OLTHCOMA	\$ 37.15	\$ 73.71	\$ 37.15	\$ 26.97
128	OURAY	OURYCOMA	\$ 39.07	\$ 77.53	\$ 39.07	\$ 27.50
129	OVID	OVIDCOMA	\$ 134.91	\$ 269.22	\$ 134.91	\$ 89.31
130	PALISADE	PLSDCOMA	\$ 26.23	\$ 51.85	\$ 26.23	\$ 19.98
131	PARACHUTE	PACHCO01	\$ 30.42	\$ 60.23	\$ 30.42	\$ 21.41
132	PARKER	PRKRCOMA	\$ 17.14	\$ 33.69	\$ 17.14	\$ 11.51
133	PARKVIEW	GRELCOJC	\$ 13.30	\$ 26.01	\$ 13.30	\$ 7.29
134	PENROSE	PNRSCOMA	\$ 33.92	\$ 67.25	\$ 33.92	\$ 25.81
135	PEYTON	PYTNCOMA	\$ 61.69	\$ 122.77	\$ 61.69	\$ 47.51

	Wire Center	CLLI	UNE Analog Loop	4-Wire Voice Grade and 4- Wire Non- Loaded	Basic Rate ISDN Capable Loop	2-Wire Distribution Loop
136	PIKEVIEW	CLSPCOPV	\$ 14.33	\$ 28.07	\$ 14.33	\$ 8.92
137	PLATTEVILLE	PTVLCOMA	\$ 32.56	\$ 64.52	\$ 32.56	\$ 23.56
138	PUEBLO MAIN	PUBLCOMA	\$ 11.76	\$ 22.93	\$ 11.76	\$ 7.03
139	PUEBLO WEST	PUBLCO06	\$ 18.16	\$ 35.71	\$ 18.16	\$ 12.09
140	RIDGWAY	RDGWCOMA	\$ 59.31	\$ 118.03	\$ 59.31	\$ 43.45
141	RIFLE	RIFLCOMA	\$ 30.10	\$ 59.61	\$ 30.10	\$ 21.78
142	SALIDA	SALDCOMA	\$ 30.01	\$ 59.41	\$ 30.01	\$ 20.58
143	SECURITY	SCRTCOMA	\$ 14.19	\$ 27.78	\$ 14.19	\$ 8.80
144	SILT	SILTCOMA	\$ 57.09	\$ 113.58	\$ 57.09	\$ 44.05
145	SILVERTON	SLTNCOMA	\$ 43.18	\$ 85.77	\$ 43.18	\$ 32.09
146	SMOKY HILL	DNVRCOSH	\$ 13.12	\$ 25.65	\$ 13.12	\$ 8.42
147	SNOWMASS	SNMSCOMA	\$ 22.65	\$ 44.70	\$ 22.65	\$ 16.46
148	SOUTHFORK	SFRKCOMA	\$ 54.14	\$ 107.69	\$ 54.14	\$ 41.24
149	STEAMBOAT SPRINGS	STSPCOMA	\$ 25.06	\$ 49.51	\$ 25.06	\$ 17.79
150	STERLING	STNGCOMA	\$ 31.53	\$ 62.45	\$ 31.53	\$ 21.89
151	STRATMOOR	CLSPCOSM	\$ 14.12	\$ 27.63	\$ 14.12	\$ 9.31
152	SULLIVAN	DNVRCOSL	\$ 12.51	\$ 24.42	\$ 12.51	\$ 7.37
153	SUNSET	PUBLICOSU	\$ 11.95	\$ 23.30	\$ 11.95	\$ 7.20
154	TABLE MESA	TEMACOMA	\$ 12.11	\$ 23.62	\$ 12.11	\$ 7.97
155	TELLURIDE	TLRDCOMA	\$ 32.98	\$ 65.36	\$ 32.98	\$ 23.03
156	TRINIDAD	TRNDCOMA	\$ 36.85	\$ 73.09	\$ 36.85	\$ 26.02
157	VAIL	VAILCOMA	\$ 16.29	\$ 31.98	\$ 16.29	\$ 11.81
158	VINELAND	VNLDCOMA	\$ 34.08	\$ 67.55	\$ 34.08	\$ 27.52
159	WALSENBURG	WLBGCOMA	\$ 47.60	\$ 94.61	\$ 47.60	\$ 33.95
160	WARD	WARDCOMA	\$ 49.69	\$ 98.79	\$ 49.69	\$ 35.53
161	WELDONA	WLDACOMA	\$ 94.04	\$ 187.49	\$ 94.04	\$ 68.84
162	WELLINGTON	WGTNCOMA	\$ 49.64	\$ 98.67	\$ 49.64	\$ 38.16
163	WESTMINISTER	WMNSCOMA	\$ 9.39	\$ 18.18	\$ 9.39	\$ 4.73
164	WINDSOR	WNDSCOMA	\$ 20.38	\$ 40.16	\$ 20.38	\$ 14.76
165	WOODLAND PARK	WDPKCOMA	\$ 29.05	\$ 57.50	\$ 29.05	\$ 21.17
166	YAMPA	YAMPCOMA	\$ 128.11	\$ 255.62	\$ 128.11	\$ 94.28
Note:	In addition to reflecting the new inputs explained in the decision, these rates reflect correcting changes from the initial decision that incorporate corrections to clerical and administrative errors. As an example, the loop rates in our initial decision did not reflect the net productivity adjustments to the network operations factor approved by the Commission.					

Decision on RRR WireCenter Calculations			
NOTE: This sheet displays all user adjustable inputs which vary from HM/FCC default settings			
Workfile Name:	C:\Program Files\HM52\WORKFILES\HMKWCO46510231.XLS		
Distribution Module Name:	C:\Program Files\HM52\MODULES\R52_distribution.xls		
Feeder Module Name:	C:\Program Files\HM52\MODULES\R52_feeder.xls		
Switching Module Name:	C:\Program Files\HM52\MODULES\R52_switching_io.xls		
Expense Module Name:	C:\Program Files\HM52\MODULES\R52_expense_wirecenter.xls		
Module/Table	Scenario Input	Scenario Value	Default Value
Distribution	Distribution Cable Fill - 0	0.50	0.75
Distribution	Distribution Cable Fill - 5	0.55	0.75
Distribution	Distribution Cable Fill - 100	0.55	0.75
Distribution	Distribution Cable Fill - 200	0.60	0.75
Distribution	Distribution Cable Fill - 650	0.70	0.75
Distribution	Buried Fraction - 0	0.65	0.75
Distribution	Buried Fraction - 5	0.67	0.75
Distribution	Buried Fraction - 100	0.68	0.75
Distribution	Buried Fraction - 200	0.76	0.70
Distribution	Buried Fraction - 650	0.72	0.70
Distribution	Buried Fraction - 850	0.60	0.70
Distribution	Buried Fraction - 2550	0.40	0.65
Distribution	Buried Fraction - 5000	0.25	0.35
Distribution	Buried Fraction - 10000	0.00	0.05
Distribution	Aerial Cable Fraction - 0	0.35	0.25
Distribution	Aerial Cable Fraction - 5	0.32	0.25
Distribution	Aerial Cable Fraction - 100	0.30	0.25
Distribution	Aerial Cable Fraction - 200	0.20	0.30
Distribution	Aerial Cable Fraction - 650	0.20	0.30
Distribution	Aerial Cable Fraction - 850	0.20	0.30
Distribution	Aerial Cable Fraction - 2550	0.20	0.30
Distribution	Aerial Cable Fraction - 5000	0.15	0.60
Distribution	Aerial Cable Fraction - 10000	0.14	0.85
Distribution	Drop Distance, feet - 0	300.00	150.00
Distribution	Drop Distance, feet - 5	250.00	150.00
Distribution	Drop Distance, feet - 100	200.00	100.00
Distribution	Drop Distance, feet - 200	135.00	100.00
Distribution	Drop Distance, feet - 650	70.00	50.00
Distribution	Buried Drop Sharing Fraction - 0	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 5	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 100	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 200	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 650	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 850	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 2550	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 5000	0.80	0.50
Distribution	Buried Drop Sharing Fraction - 10000	0.80	0.50
Distribution	Buried Drop Fraction - 0	0.80	0.75
Distribution	Buried Drop Fraction - 5	0.80	0.75
Distribution	Buried Drop Fraction - 100	0.80	0.75
Distribution	Buried Drop Fraction - 200	0.80	0.70
Distribution	Buried Drop Fraction - 650	0.80	0.70

Decision on RRR WireCenter Calculations			
NOTE: This sheet displays all user adjustable inputs which vary from HM/FCC default settings			
Workfile Name:	C:\Program Files\HM52\WORKFILES\HMKWCO46510231.XLS		
Distribution Module Name:	C:\Program Files\HM52\MODULES\R52_distribution.xls		
Feeder Module Name:	C:\Program Files\HM52\MODULES\R52_feeder.xls		
Switching Module Name:	C:\Program Files\HM52\MODULES\R52_switching_io.xls		
Expense Module Name:	C:\Program Files\HM52\MODULES\R52_expense_wirecenter.xls		
Module/Table	Scenario Input	Scenario Value	Default Value
Distribution	Buried Drop Fraction - 850	0.80	0.70
Distribution	Buried Drop Fraction - 2550	0.80	0.70
Distribution	Buried Drop Fraction - 5000	0.80	0.40
Distribution	Buried Drop Fraction - 10000	0.80	0.15
Distribution	Strand adjustment switch - 0	0.00	1.00
Distribution	Strand adjustment switch - 5	0.00	1.00
Distribution	Strand adjustment switch - 100	0.00	1.00
Distribution	Strand adjustment switch - 400	0.00	1.00
Distribution	Strand adjustment switch - 650	0.00	1.00
Distribution	Strand adjustment switch - 850	0.00	1.00
Distribution	Strand adjustment switch - 2550	0.00	1.00
Distribution	Strand adjustment switch - 5000	0.00	1.00
Distribution	Strand adjustment switch - 10000	0.00	1.00
Feeder	Copper Aerial Fraction - 100	0.45	0.50
Feeder	Copper Aerial Fraction - 850	0.15	0.20
Feeder	Copper Aerial Fraction - 2550	0.10	0.15
Feeder	Copper Aerial Fraction - 5000	0.05	0.10
Feeder	Copper Buried Fraction - 100	0.50	0.45
Feeder	Copper Buried Fraction - 850	0.25	0.20
Feeder	Copper Buried Fraction - 2550	0.15	0.10
Feeder	Copper Buried Fraction - 10000	0.00	0.05
Feeder	Fiber Aerial Fraction - 0	0.50	0.35
Feeder	Fiber Aerial Fraction - 5	0.50	0.35
Feeder	Fiber Aerial Fraction - 100	0.45	0.35
Feeder	Fiber Aerial Fraction - 200	0.40	0.30
Feeder	Fiber Aerial Fraction - 850	0.15	0.20
Feeder	Fiber Aerial Fraction - 2550	0.10	0.15
Feeder	Fiber Aerial Fraction - 5000	0.05	0.10
Feeder	Fiber Buried Fraction - 0	0.45	0.60
Feeder	Fiber Buried Fraction - 5	0.45	0.60
Feeder	Fiber Buried Fraction - 100	0.50	0.60
Feeder	Fiber Buried Fraction - 200	0.40	0.60
Feeder	Fiber Buried Fraction - 850	0.25	0.20
Feeder	Fiber Buried Fraction - 2550	0.15	0.10
Feeder	Fiber Buried Fraction - 10000	0.00	0.05
Expense	Cost of Debt	7.60%	6.50%
Expense	Debt Fraction	46.60%	50.00%
Expense	Forward-looking Network Operations Factor	0.96	0.50
Expense	Distribution Aerial Sharing Fraction - 5	0.50	0.33
Expense	Distribution Aerial Sharing Fraction - 100	0.50	0.25
Expense	Distribution Aerial Sharing Fraction - 200	0.50	0.25
Expense	Distribution Aerial Sharing Fraction - 650	0.50	0.25

Decision on RRR WireCenter Calculations			
NOTE: This sheet displays all user adjustable inputs which vary from HM/FCC default settings			
Workfile Name:	C:\Program Files\HM52\WORKFILES\HMKCO46510231.XLS		
Distribution Module Name:	C:\Program Files\HM52\MODULES\R52_distribution.xls		
Feeder Module Name:	C:\Program Files\HM52\MODULES\R52_feeder.xls		
Switching Module Name:	C:\Program Files\HM52\MODULES\R52_switching_io.xls		
Expense Module Name:	C:\Program Files\HM52\MODULES\R52_expense_wirecenter.xls		
Module/Table	Scenario Input	Scenario Value	Default Value
Expense	Distribution Aerial Sharing Fraction - 850	0.50	0.25
Expense	Distribution Aerial Sharing Fraction - 2550	0.35	0.25
Expense	Distribution Aerial Sharing Fraction - 5000	0.35	0.25
Expense	Distribution Aerial Sharing Fraction - 10000	0.35	0.25
Expense	Distribution Buried Sharing Fraction - 0	1.00	0.33
Expense	Distribution Buried Sharing Fraction - 5	1.00	0.33
Expense	Distribution Buried Sharing Fraction - 100	0.85	0.33
Expense	Distribution Buried Sharing Fraction - 200	0.65	0.33
Expense	Distribution Buried Sharing Fraction - 650	0.65	0.33
Expense	Distribution Buried Sharing Fraction - 850	0.65	0.33
Expense	Distribution Buried Sharing Fraction - 2550	0.55	0.33
Expense	Distribution Buried Sharing Fraction - 5000	0.55	0.33
Expense	Distribution Buried Sharing Fraction - 10000	0.55	0.33
Expense	Distribution Underground Sharing Fraction - 5	1.00	0.50
Expense	Distribution Underground Sharing Fraction - 100	0.85	0.50
Expense	Distribution Underground Sharing Fraction - 200	0.65	0.50
Expense	Distribution Underground Sharing Fraction - 650	0.65	0.40
Expense	Distribution Underground Sharing Fraction - 850	0.65	0.33
Expense	Distribution Underground Sharing Fraction - 2550	0.55	0.33
Expense	Distribution Underground Sharing Fraction - 5000	0.55	0.33
Expense	Distribution Underground Sharing Fraction - 10000	0.55	0.33
Expense	Feeder Aerial Sharing Fraction - 5	0.50	0.33
Expense	Feeder Aerial Sharing Fraction - 100	0.50	0.25
Expense	Feeder Aerial Sharing Fraction - 200	0.50	0.25
Expense	Feeder Aerial Sharing Fraction - 650	0.50	0.25
Expense	Feeder Aerial Sharing Fraction - 850	0.50	0.25
Expense	Feeder Aerial Sharing Fraction - 2550	0.35	0.25
Expense	Feeder Aerial Sharing Fraction - 5000	0.35	0.25
Expense	Feeder Aerial Sharing Fraction - 10000	0.35	0.25
Expense	Feeder Underground Sharing Fraction - 0	1.00	0.50
Expense	Feeder Underground Sharing Fraction - 5	1.00	0.50
Expense	Feeder Underground Sharing Fraction - 100	0.85	0.40
Expense	Feeder Underground Sharing Fraction - 200	0.65	0.33
Expense	Feeder Underground Sharing Fraction - 650	0.65	0.33
Expense	Feeder Underground Sharing Fraction - 850	0.65	0.33
Expense	Feeder Underground Sharing Fraction - 2550	0.55	0.33
Expense	Feeder Underground Sharing Fraction - 5000	0.55	0.33
Expense	Feeder Underground Sharing Fraction - 10000	0.55	0.33
Expense	Feeder Buried Sharing Fraction - 0	1.00	0.40
Expense	Feeder Buried Sharing Fraction - 5	1.00	0.40
Expense	Feeder Buried Sharing Fraction - 100	0.85	0.40
Expense	Feeder Buried Sharing Fraction - 200	0.65	0.40

Decision on RRR WireCenter Calculations			
<i>NOTE: This sheet displays all user adjustable inputs which vary from HM/FCC default settings</i>			
Workfile Name:	C:\Program Files\HM52\WORKFILES\HMMWKO46510231.XLS		
Distribution Module Name:	C:\Program Files\HM52\MODULES\R52_distribution.xls		
Feeder Module Name:	C:\Program Files\HM52\MODULES\R52_feeder.xls		
Switching Module Name:	C:\Program Files\HM52\MODULES\R52_switching_io.xls		
Expense Module Name:	C:\Program Files\HM52\MODULES\R52_expense_wirecenter.xls		
Module/Table	Scenario Input	Scenario Value	Default Value
Expense	Feeder Buried Sharing Fraction - 650	0.65	0.40
Expense	Feeder Buried Sharing Fraction - 850	0.65	0.40
Expense	Feeder Buried Sharing Fraction - 2550	0.55	0.40
Expense	Feeder Buried Sharing Fraction - 5000	0.55	0.40
Expense	Feeder Buried Sharing Fraction - 10000	0.55	0.40
Buried Excavation/Restoration	Plow Per Ft - 0	1.30	0.80
Buried Excavation/Restoration	Plow Per Ft - 5	1.30	0.80
Buried Excavation/Restoration	Plow Per Ft - 100	1.30	0.80
Buried Excavation/Restoration	Plow Per Ft - 200	1.30	0.80
Buried Excavation/Restoration	Plow Per Ft - 650	1.30	0.80