BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of	**)**	
	)	**DOCKET NO. UT-033044**
QWEST CORPORATION	**)**	
	)	
To Initiate a Mass-Market Switching	**)**	
And Dedicated Transport Case	**)**	
Pursuant to the Triennial Review	**)**	
Order	**)**	

DIRECT TESTIMONY

OF

MICHAEL R. BARANOWSKI

ON BEHALF OF

AT&T COMMUNICATIONS OF THE PACIFIC NORTHWEST, INC.,
AT&T LOCAL SERVICES ON BEHALF OF TCG SEATTLE, AND TCG OREGON
(COLLECTIVELY "AT&T")

BUSINESS CASE

December 22, 2003

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I. SUMMARY OF PROFESSIONAL EXPERTISE AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, AFFILIATION, AND CURRENT BUSINESS ADDRESS.

A. My name is Michael R. Baranowski. I am employed by FTI Consulting as a Senior Managing Director. My business address is 1201 I Street, NW, Suite 400, Washington, D.C. 20005.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS.

A. I am Senior Managing Director of the Network Industries Strategies group of FTI Consulting, Inc. and am principally responsible for all aspects of the Network Industries Strategies telecommunications practice as well as for major segments of its railroad and other network industries practices.

For the past seven years, I have been heavily involved in quantitative analyses of telecommunications issues arising out of the passage of the Telecommunications Act of 1996. I have sponsored TELRIC-based cost studies, or otherwise testified on the development of TELRIC costs, in UNE pricing proceedings in virtually all of the states within the Verizon footprint and before the Federal Communications Commission. In the course of that work, I have become familiar with virtually every TELRIC cost model advocated by both ILECs and CLECs, and have also reviewed numerous cost studies that were allegedly based upon the ILECs' existing network configurations. I am thoroughly familiar with the issues raised in the Federal Communications Commission's Triennial Review Order ("TRO") as

they relate to the need for business case analyses to determine if competitors can economically serve markets without access to certain unbundled network elements.

I also have experience with other network industries. I have nearly 20 years of experience consulting to the nation's major railroads and petroleum products pipelines on a variety of issues, including economic and financial studies of pricing, costing, and mergers and acquisitions.

II. INTRODUCTION, PURPOSE, AND STRUCTURE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present the results of AT&T's Business Case Analysis Tool ("BCAT") that is used to demonstrate the economic impairment that would be suffered by an efficient CLEC providing service to mass market consumers in Washington if unbundled switching is unavailable. My testimony provides an overview of the BCAT, certain key assumptions, and an analysis of the results. The BCAT is relevant to the assessment of potential competition and is consistent with the FCC's recent Triennial Review Order ("TRO")[1] and the

[1] *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Federal Communications Commission, CC Docket No. 01-338, (Released August 21, 2003.) ("TRO")

economic and regulatory framework for assessing impairment as explained in the testimony of Drs. William Lehr and Lee Selwyn.[2]

Q. PLEASE SUMMARIZE THE MAIN CONCLUSIONS YOU REACH IN YOUR TESTIMONY.

A. The principal conclusions that are explained in my testimony include the following:

(1) Efficient CLEC entry to serve mass market customers in Washington would be unprofitable without access to unbundled switching. A CLEC should expect to realize large negative returns if it attempted to execute the efficient business plan.

(2) The BCAT provides a conservative estimate of the likely economic losses associated with seeking to serve mass market consumers without unbundled switching in Washington. Actual losses would likely be larger.

(3) The BCAT model uses the best available, verifiable data in its formulation. This includes relying on granular, Washington-specific inputs wherever possible. This is consistent with the TRO and its proper application as explained in Drs. Lehr and Selwyn's testimony.

[2] See *Direct Testimony of William H. Lehr and Lee L. Selwyn on Behalf of AT&T*, In the matter of the Petition of Qwest Corporation To Initiate a Mass-Market Switching And Dedicated Transport Case Pursuant to the Triennial Review Order, Before the Washington Utilities and Transportation Commission, Docket No. UT-033044, December 22, 2003 (hereafter, referred to as "Testimony of Drs. Lehr and Selwyn").

Q. HOW IS THE REST OF YOUR TESTIMONY ORGANIZED?

A. The balance of my testimony is organized into the following three sections: Section III provides an overview of the BCAT and summarizes the main results; Section IV provides a more detailed discussion of the business case for potential CLEC competition that demonstrates impairment in the absence of unbundled switching for mass market customers; Section V is the conclusion.

III. OVERVIEW OF THE BUSINESS CASE ANALYSIS TOOL (BCAT)

A. Summary Description of BCAT and Results

Q. PLEASE EXPLAIN WHAT THE BCAT IS INTENDED TO DO.

A. The BCAT presents the business case for an efficient CLEC seeking to provide telephone services to mass market customers without access to unbundled switching. The model assumes that the efficient CLEC will serve mass market customers located in every wire center in each of the three LATAs in Washington.[3] The BCAT computes the net present value of the business plan for an efficient CLEC using UNE-L and CLEC-owned switching to serve mass market customers in Washington. This represents the profit-maximizing, or equivalently, the least-cost strategy for serving these customers if unbundled switching is not available.

[3] Qwest provides service in LATA-672, 674 and 676 in Washington. Most of LATA-672 is in Oregon. The analysis of profitability is presented for each LATA separately.

Q. CAN YOU SUMMARIZE THE MAIN FINDINGS OF THE BCAT ANALYSIS?

A. Yes. Table 1 summarizes the key results of the BCAT analysis. As is clear from the results in the table, an efficient CLEC using UNE-L and its own switch could expect to earn significant negative returns, i.e., would lose money, ranging from $188.39 to $303.76 per mass market line served in Washington.

Table 1: Profitability of CLEC UNE-L Entry in Washington (Summary)
($/Year/Customer DS0 Line)

Results Including Long Distance

	LATA-672c	LATA-674	LATA-676
Revenues	$ 338.22	$ 340.74	$ 340.69
Costs	$ 588.04	$ 529.13	$ 644.45
Operating Margin	**$ (249.82)**	**$ (188.39)**	**$ (303.76)**

Results Excluding Long Distance

	LATA-672c	LATA-674	LATA-676
Revenues	$ 285.24	$ 287.13	$ 287.09
Costs	$ 563.09	$ 504.10	$ 619.42
Operating Margin	**$ (277.85)**	**$ (216.97)**	**$ (332.33)**

Furthermore, because the BCAT employs conservative assumptions, these results understate costs and overstate revenues, and therefore, understate the impairment a CLEC would suffer without unbundled switching.

B. Structure of the BCAT

Q. HOW DOES THE BCAT COMPUTE THE VALUES IN TABLE 1?

A. The BCAT calculates the revenues earned and the capital and operating costs associated with serving mass market customers for each year in the ten year

planning horizon. These dollar values are converted to present value dollars using an appropriate discount factor and are then levelized to produce a uniform average amount per line per year over the study period.[4] Table 1 summarizes the results in a margin computation format that shows the average expected profitability expected from the mass market.

Q. PLEASE EXPLAIN HOW THE BCAT IS STRUCTURED AND ITS KEY COMPONENTS.

A. The BCAT is a spreadsheet that extends the computations and analysis in the DS0 Impairment Cost Tool ("DS0 Impairment Tool"), which is described in the testimony of Denney/Starr.[5] The DS0 Impairment Tool includes: (1) information to forecast CLEC demand; (2) network cost information; and (3) operating cost information. This information is handed off to the BCAT which adds revenue forecast information.

As explained in the testimony of Denney/Starr, the CLEC demand forecast assumes that the CLEC ultimately will capture a 5 percent share of mass market end-user lines in each wire center. This demand forecast is used to optimally site and size CLEC switching, collocation, and backhaul facilities (*i.e.*, the transport and interconnection facilities used to connect ILEC provided UNE-L loops to CLEC switches).

[4] This levelization summarizes the impact of changes over time.
[5] See *Direct Testimony of Denney/Starr on Behalf of AT&T*, In the matter of the Petition of Qwest Corporation To Initiate a Mass-Market Switching And Dedicated Transport Case Pursuant to the Triennial Review Order, Before the Washington Utilities and Transportation Commission, Docket No. UT-033044, December 22, 2003.

The DS0 Impairment Tool develops both the forecast of CLEC demand (in terms of mass market end user lines served in each wire center in each year) and the costs associated with providing the backhaul network that connects UNE-L loops to the CLEC switch (which includes the cost of "hot cuts"). As explained further below, the DS0 Impairment Tool assumes a conservative allocation of shared costs between enterprise and mass market consumers. This tends to understate the impairment associated with serving mass market consumers.

The operating cost information included in the BCAT computes additional network and non-network capital and operating costs associated with serving mass market consumers. These include the cost of installing and operating the CLEC switch. The non-network related operating costs include elements to account for the retail and other back-office costs associated with running the CLEC's mass market business. These include costs for customer care, billing and collections, and general administration. When combined with the backhaul costs from the DS0 Impairment Tool, the BCAT computes the total capital and operating costs that an efficient CLEC would incur in serving mass market customers.

The revenue information is the final component of the BCAT. The revenue information calculates the expected revenue to be realized from serving mass market customers. This includes forecasts for all of the relevant sources of wholesale (*e.g.*, access and reciprocal compensation) and retail revenues (*e.g.*,

local access, ancillary services, vertical features, and long distance) that a CLEC could reasonably expect to earn from serving its mass market customers.

C. How BCAT Ensures CLEC Costs Are Minimized

Q. HOW DOES THE BCAT ENSURE THAT THE ESTIMATED COSTS OF CLEC ENTRY ARE MINIMIZED?

A. The BCAT presents the business plan for an efficient CLEC. By appropriately scaling its market entry to encompass a wide geographic area, by seeking to serve both enterprise and mass market consumers, and by offering a bundle of value-added services in conjunction with basic telephone service, the BCAT assumes that the CLEC will take advantage of available scale and scope economies.

Additionally, the BCAT assumes that the CLEC will optimally employ the best-available technologies and will efficiently site and size its facilities in order to minimize CLEC capital and operating costs while providing service to mass market customers throughout the LATA (*i.e.,* in each wire center).

The BCAT assumes a ten year planning horizon, and optimally allocates investment in network and retail/marketing costs to efficiently match the growth in the CLEC's customer base.

Finally, the BCAT uses conservative assumptions that understate the costs that would be realized in serving mass market customers in Washington.

Q. WHAT ASSUMPTION DOES THE BCAT MAKE REGARDING THE MARKET TO BE SERVED?

A. The BCAT is based on the assumption that the efficient CLEC will serve both enterprise and mass market consumers, and that the mass market customers will include both small business and residential customers. Additionally, the BCAT assumes that mass market customers will purchase a bundle of services that includes basic telephone service, vertical features, ancillary services,[6] and long distance service. These modeling decisions ensure that the BCAT analyses incorporates the benefits of available scale and scope economies.

Q. PLEASE EXPLAIN WHY THE BUSINESS MODEL ASSUMES THAT THE CLEC WILL SELL TO BOTH ENTERPRISE AND MASS MARKET CUSTOMERS.

A. As the testimony of Drs. Lehr and Selwyn explains, neither the TRO nor the Act specify a preference for what ought to constitute the CLEC business case for assessing impairment, beyond that it should be an efficient (*i.e.*, cost-minimizing, profit-maximizing) business plan.

The BCAT assumes the CLEC will serve both enterprise and mass market customers because the costs involved in serving mass market customers on a stand-alone basis (i.e., without also serving enterprise customers) would certainly be greater. The BCAT enables CLEC switching and transport costs to be shared among its enterprise and mass market customers, thereby reducing the cost per line for serving mass market customers.

[6] For example, maintenance for inside wiring.

D. Why BCAT Impairment Analysis is Conservative

Q. PLEASE EXPLAIN WHY THE BCAT RESULTS ARE CONSERVATIVE WITH RESPECT TO DEMONSTRATING IMPAIRMENT.

A. As I use the term "conservative" here and throughout my testimony, I mean that costs tend to be understated and mass market revenues to be overstated such that the likelihood of a finding of impairment is reduced. The BCAT is conservative because it tends to understate costs and tends to overstate mass market revenues. Taken together, this results in an overstatement in expected profitability in the base case.

The BCAT results are conservative with respect to demonstrating impairment for several reasons. First, they understate network-related costs because they implicitly assume higher network utilization rates than are likely to be achievable in practice. Second, they understate non-network operating costs because they rely on ILEC cost data that reflects scale and scope economies that an individual CLEC is unlikely to realize. Third, the BCAT revenue module likely overstates the revenues because it does not fully reflect the impact of post-entry competition on retail pricing.

Q. PLEASE EXPLAIN HOW THE BCAT'S NETWORK UTILIZATION ASSUMPTION IS CONSERVATIVE.

A. As explained in the DS0 Impairment Tool testimony, network costs are likely to be understated because they rely on aggressive assumptions regarding the expected efficiency (network utilization) of the network used to serve enterprise customers. The DS0 Impairment Tool designs and sizes the backhaul network to efficiently serve mass market customers and assumes all excess capacity of the CLEC's local network is used to serve enterprise customers. This allows the mass market business to realize scale and scope efficiencies that are unlikely to be realized in practice.

Q. PLEASE EXPLAIN HOW THE BCAT'S ESTIMATES OF NON-NETWORK OPERATING COSTS ARE CONSERVATIVE.

A. The BCAT computes several of the elements that comprise non-network operating costs using ARMIS data on expenditures incurred by the ILECs. This includes the estimates of customer billing, customer care, and general administration expenses. These reflect scale and scope economies that are not attainable by a CLEC, which cannot expect to match the customer base served by the incumbent in the foreseeable future. Additionally, the BCAT does not include estimates of the cost of establishing a brand image.

Finally, the BCAT uses a conservative estimate of customer acquisition costs that is comparable to the customer acquisition costs incurred by the incumbent, even though the CLEC faces the more onerous burden of attracting mass market

customers away from the ILEC. Therefore, the customer acquisition costs faced by a CLEC are likely to be higher than assumed in the BCAT analysis.

Q. PLEASE EXPLAIN HOW THE BCAT'S REVENUE FORECAST IS CONSERVATIVE.

A. The BCAT forecast of CLEC revenue is conservative because it understates the likely impact of post-entry competition on retail prices. The BCAT revenue module makes only a modest adjustment to reflect the impact of post-entry competition on retail revenues. ILEC costs are largely sunk or fixed, and retail rates for the most profitable services (*e.g.*, vertical services and access) are significantly above forward-looking incremental costs. If ILECs respond to CLEC entry by reducing their prices for these highly profitable service components, retail prices will be much lower than forecasted in the model.

E. The Role of Long Distance on the Impairment Analysis

Q. SHOULD LONG DISTANCE REVENUES BE EXCLUDED FROM THE IMPAIRMENT ANALYSIS?

A. As a matter of logic, yes. I believe it would be appropriate to exclude long distance revenues from the impairment analysis for two reasons: *first*, to ensure symmetric treatment when analyzing ILEC and CLEC businesses, and *second*, because most potential CLEC competitors do not have a long distance facilities-based network.

Q. PLEASE EXPLAIN WHY EXCLUSION OF LONG DISTANCE REVENUES IS APPROPRIATE TO ENSURE SYMMETRIC TREATMENT OF ILEC AND CLEC BUSINESSES.

A. ILECs in Washington – including both Qwest and Verizon – are subject to traditional rate of return ("ROR") type regulation. The determination of an ILEC's "revenue requirement" under ROR regulation currently excludes the revenues and costs associated with ILEC long distance affiliates, such as Qwest Long Distance ("QLD") and Verizon Long Distance ("VLD"). The only portion of the affiliates' long distance revenues that is incorporated into the ILEC revenue requirement comes from the "payment" of access charges by the long distance affiliate to the ILEC. The long distance affiliates also make nominal "payments" to the ILEC entities for certain services that are furnished to them by the ILEC, such as marketing and customer acquisition, billing and collection, and various other administrative services. The profit that is nominally carried on the affiliates' books (after having made the various transfer payments to the ILECs) is *excluded* from consideration with respect to the ILEC entities' revenue requirement and rate level.

However, the ILEC long distance affiliates are heavily dependent upon ILEC services and resources; indeed, for most purposes, the long distance affiliates and

the ILECs are *de facto* integrated, and indeed can be formally integrated once the Sec. 272(a) separate [long distance] affiliate sunsets.[7]

The profits that an ILEC long distance affiliate earns contribute to the ILEC's overall profit margins. Therefore, if long distance revenues are included in the CLEC's business plan but excluded from regulatory decisions regarding the ILEC, this will tend to understate the relative impairment faced by a CLEC when competing against the incumbent. Hence, unless ILEC long distance revenues are included in analyses of the profitability of ILEC services, it would be inappropriate to include long distance revenues when considering the profitability of CLEC business plans.

Q. WHAT IS THE IMPACT OF THE FACT THAT MOST POTENTIAL CLECS DO NOT HAVE A FACILITIES-BASED LONG DISTANCE NETWORK?

A. As noted earlier and in the testimony of Drs. Lehr and Selwyn, neither the Act nor the TRO seeks to limit CLEC competition to CLECs with a single business model. Most potential CLECs are *not* facilities-based interexchange carriers that already own a long-haul network. These CLECs, if they elected to provide long distance services, would need to acquire and resell the services of a facilities-based long distance carrier. In that event, a portion of the potential margin (in excess of access charge payments) that might be derived from the provision of

[7] 47 U.S.C.§ 272(f)(1).

retail long distance service would have to, in effect, be "shared" with the facilities-based carrier.

Finally, even if the CLEC has its own facilities-based long distance network, it could certainly adopt a corporate structure in which the long distance operations are placed in a separate affiliate that purchases access and other services from the CLEC. Clearly, the inclusion or exclusion of long distance revenues should be done on a consistent basis for all LECs (ILECs and CLECs) in determining the relative impairment CLECs face with respect to ILECs, and whatever basis is adopted should be independent of the carriers' corporate structures.

Q. DOES THE BCAT ANALYSIS INCLUDE LONG DISTANCE REVENUES?

A. Yes. Even though I believe long distance revenues could reasonably be excluded from the analysis, I recognize that the TRO (¶519) states that such revenues (and associated costs) should be included in the business case considered by state commissions. Accordingly, I have summarized the results of the BCAT analysis in Table 1 with long distance revenues included and excluded. The results demonstrate that the inclusion of long distance revenues (and associated costs) does not reverse the finding of impairment with respect to mass market switching.

F. Additional Discussion of BCAT Modeling Features and Assumptions

Q. PLEASE EXPLAIN IN GENERAL TERMS WHY THE BCAT ASSUMES THAT THE CLEC WILL HAVE AT LEAST TWO SWITCHES INTERCONNECTED BY A FIBER RING.

A. Customers of basic telephone service are accustomed to an extremely high-level of reliability and availability. Relying on two switches provides the minimal amount of physical redundancy necessary to ensure that the CLEC can deliver reliable service. Connecting these two switches via a fiber ring provides redundancy in transport and an efficient platform for interconnecting the CLEC collocation facilities located in the ILEC wire centers across the state.

The backhaul network is designed and sized to optimally take advantage of the best available technology, so as to minimize the costs of providing back-haul. A more detailed discussion of the network design assumptions that underlie the BCAT's analysis is included in the testimony of Robert Falcone[8] and Denney/Starr.

[8] See *Direct Testimony of Robert Falcone on Behalf of AT&T*, In the matter of the Petition of Qwest Corporation To Initiate a Mass-Market Switching And Dedicated Transport Case Pursuant to the Triennial Review Order, Before the Washington Utilities and Transportation Commission, Docket No. UT-033044, December 22, 2003.

Q. PLEASE EXPLAIN HOW THE DS0 IMPAIRMENT TOOL AND BCAT ARE RELATED.

A. The DS0 Impairment Tool provides key inputs to the BCAT and therefore it is closely coupled to the BCAT. Both rely on a consistent set of assumptions. The DS0 Impairment Tool computes the average cost per line to backhaul voice grade loops from various ILEC wire centers to the CLEC switch. This average cost per line and certain of the parameters used to develop the cost are direct inputs to the BCAT. These include:

(1) Cost of capital;

(2) Annual cost factors and expense to investment ratios for switch and circuit equipment;

(3) Annual mass market and enterprise voice-grade equivalent lines, including annual mass market connects and disconnects;

(4) Weighted miles to the closest tandem; and,

(5) Cost per DS3 between nodes.

In addition, because the DS0 Impairment Tool develops the backhaul cost on a "per line per month basis" for each wire center in Washington, the output is used as a mechanism for aggregating other cost information needed for the BCAT. Specifically, an adjunct to the DS0 Impairment Tool was created that appends to the DS0 wire center specific output information for the appropriate UNE loop rates charged by the incumbent, the average residential and business revenue per line, as well as the applicable SLC charges and average USF withdrawal (to the

extent they occur). These fields are aggregated along with the backhaul cost on a per line basis for use within the BCAT.

Q. PLEASE EXPLAIN HOW THE BCAT ESTIMATES CLEC SWITCHING COSTS.

A. There are two components to CLEC switching costs. First, there is the fixed cost associated with purchasing and installing a switch. Second, there are the variable costs that increase with the number of end-user lines served by the switch. The BCAT uses estimates of both of these costs that were derived via a linear regression analysis of switching investment that was used by the FCC in the development of its Synthesis Cost Model for estimating the cost of providing Universal Service.[9]

IV. ANALYSIS OF RESULTS

Q. PLEASE PROVIDE A MORE DETAILED ANALYSIS OF THE REVENUES AND COSTS ASSOCIATED WITH THE BCAT ANALYSIS OF IMPAIRMENT.

A. Table 2 provides a more detailed presentation of the BCAT analysis of the margins that an efficient CLEC would expect to earn if it provided service to mass market customers in Washington via UNE-L and CLEC-owned switching.

Table 2 separates annual CLEC revenues per line into revenues associated with (R1) providing basic telephone service; (R2) vertical features; (R3) access revenues; (R4) ancillary revenues; and (R5) long distance revenues.

[9] *See*, Tenth Report and Order, Federal Communications Commission, CC Docket Nos. 96-45, 97-160, FCC 99-304, October 21, 1999 ("Inputs Order"), ¶307-308.

Table 2 separates annual CLEC costs per line into costs associated with (C1) access and settlement payments;[10] (C2) back-haul costs computed by the DS0 Impairment Tool; (C3) Other network-related capital and operating costs (including switching costs); (C4) UNE-L loop related costs; and, (C5) Non-network-related costs.

The questions and answers following Table 2 provide additional detail regarding where the information in Table 2 comes from.

[10] These are associated with providing long distance services and are excluded when long distance service revenues are excluded.

Table 2: Profitability of CLEC UNE-L Entry in Washington (Detail)

($/Year/Customer DS0 Line)

Results Including Long Distance

	LATA-672c	LATA-674	LATA-676
Revenues			
Basic	$ 263.18	$ 264.77	$ 264.74
Access	9.22	9.31	9.31
Long Distance	61.01	61.72	61.70
Ancillary	4.81	4.94	4.94
Subtotal Revenues	$ 338.22	$ 340.74	$ 340.69
Costs			
Access Payments	$ 7.72	$ 7.79	$ 7.79
Settlement Payments	6.64	6.56	6.56
Back-haul and Hot-cut	110.66	126.01	180.66
Switching & Other Network Operating	69.74	37.03	57.61
POP-to-POP	4.46	4.49	4.49
UNE-L Loop	207.86	166.35	206.43
Customer Billing, Sales & Marketing and Care	180.97	180.90	180.90
Subtotal Costs	$ 588.04	$ 529.13	$ 644.45
Operating Margin	**$ (249.82)**	**$ (188.39)**	**$ (303.76)**

Results Excluding Long Distance

	LATA-672c	LATA-674	LATA-676
Revenues			
Basic	$ 263.18	$ 264.77	$ 264.74
Access	17.24	17.41	17.41
Long Distance	-	-	-
Ancillary	4.81	4.94	4.94
Subtotal Revenues	$ 285.24	$ 287.13	$ 287.09
Costs			
Access Payments	$ -	$ -	$ -
Settlement Payments	-	-	-
Back-haul and Hot-cut	110.66	126.01	180.66
Switching & Other Network Operating	69.74	37.03	57.61
POP-to-POP	-	-	-
UNE-L Loop	207.86	166.35	206.43
Customer Billing, Sales & Marketing and Care	174.84	174.71	174.72
Subtotal Costs	$ 563.09	$ 504.10	$ 619.42
Operating Margin	**$ (277.85)**	**$ (216.97)**	**$ (332.33)**

A. Revenue Elements Discussed

Q. PLEASE EXPLAIN HOW THE REVENUES ASSOCIATED WITH PROVIDING BASIC TELEPHONE SERVICE ARE COMPUTED IN TABLE 2.

A. The revenues associated with providing basic telephone service are composed of several rate elements. These include the ILEC tariffed rate for basic telephone service, the Subscriber Line Charge ("SLC"), and the average receipts from the Universal Service Fund ("USF").

To estimate the basic telephone service rates, the BCAT maps incumbent exchange rate zones to wire centers to determine the applicable rate for basic telephone service (with a separate mapping for business and residential customers). These are aggregated and averaged to determine the appropriate revenue per line for basic telephone service for a mass market consumer in each LATA during the initial year.

The SLC and USF withdrawals are estimated by customer and business class of service. They may also differ depending upon whether a single line or multiple lines are used by the customer. Accordingly, the BCAT relies upon a state-specific table of charges to compute these rate elements. If both a state and an interstate SLC are applicable, the two are added together.

Q. HOW ARE REVENUES ASSOCIATED WITH VERTICAL FEATURES COMPUTED IN TABLE 2?

A. The revenue associated with vertical features is estimated from a sample of residential customer bills referred to as the "TNS Telecoms Bill Harvest."[11] The BCAT uses TNS data from customer bills from the third quarter of 2002 through the second quarter of 2003, which are the most recent available year of data. The feature revenue reflects both the explicit feature revenue on the bills as well as the implicit feature revenue that is part of bundles. Because the TNS data reflects a representative customer sample, it accounts for the fact that not all residential customers purchase vertical features, and those that do, do not all purchase the same bundle of features.

To be conservative, the estimate for residential customers is also used for small business customers, although a recent analyst report suggests that commercial business vertical feature revenue per line is lower.[12]

Q. HOW DOES THE BCAT ESTIMATE ACCESS REVENUES?

A. Access revenues are calculated using the access minutes, by jurisdiction, that were generated previously in sizing the local network. The BCAT employs four rate estimates, *i.e.*, intrastate originating, intrastate terminating, interstate originating, and interstate terminating. Each of these rates is multiplied by a price

[11] TNS Telecoms, Jenkintown, PA, one year accumulation of the results from the quarterly TNS Telecoms Bill Harvest product (3Q02 to 2Q03) for the bills of consumers who reside in the footprint of Qwest WA.
[12] JP Morgan November 7, 2003 North American Equity Research Report U.S. Telecommunications, The Art of War, page 12.

index to permit price trends to be incorporated. The incumbent access rates are the benchmark for the CLEC pricing.[13]

Q. PLEASE EXPLAIN HOW THE BCAT ESTIMATES LONG DISTANCE REVENUES.

A. Like the feature revenue, the LD revenue for consumers is estimated from the TNS Telecoms Bill Harvest product. This revenue reflects both the retail toll revenue where Qwest is the retail provider as well as where an IXC is the retail provider. Retail Long Distance (LD) revenues are input as an aggregate category into the BCAT, however the corresponding minutes are subdivided into four categories: intraLATA intrastate, interLATA intrastate, interLATA interstate, and international. The disaggregation of minutes into these categories is necessary to consistently compute access charges and settlements costs. The BCAT also provides for an adjustment of the unit long distance revenue over time.

Q. DOES THE BCAT ASSUME THAT TODAY'S RATES WILL REMAIN IN EFFECT INDEFINITELY?

A. No. Rates were adjusted based on observed recent rate trends in the price index for residential local service, intrastate toll and interstate toll.[14] This is conservative since the impact of CLEC competition has been limited in the past and competition for value-added vertical features and long distance is likely to

[13] Because of the dominant position of the incumbent, the CLEC is assumed to be the price "taker" for switched access pricing.
[14] See Trends in Telephone Service, Table 12.3, p 12-5.

intensify. In any case, the BCAT allows price trends for different services to be adjusted.

Q. PLEASE EXPLAIN HOW THE BCAT ESTIMATES ANCILLARY REVENUES.

A. Ancillary revenues are revenues attributable to the provision of voice mail services and revenues from inside wire maintenance. Like long distance revenues, they are estimated on a per line basis from the TNS Telecoms Bill Harvest product.

B. Cost Elements Discussed

Q. HOW ARE CLEC PAYMENTS TO OTHER CARRIERS QUANTIFIED?

A. Access costs for terminating intrastate and interstate traffic are calculated using terminated access minutes, by jurisdiction, that were generated previously in sizing the local network. The BCAT employs two rate estimates, *i.e.*, intrastate terminating and interstate terminating. Each of these rates is multiplied by a price index to permit price trends to be incorporated. Reciprocal Compensation would be treated in a similar manner, however, Washington operates under bill and keep arrangements.

Q. HOW ARE COSTS ASSOCIATED WITH THE CLEC TERMINATING USAGE FOR OTHER CARRIERS DEVELOPED?

The access usage and local usage terminated for other LECs (as well as on-net retail local usage)[15] are considered in sizing the local switch trunks and in the sizing and the apportioning of the local switch costs (to the extent minutes are a relevant cost driver). Thus, there is no need to separately quantify local network costs. These costs are found in "Switching and Other Network Costs" and are offset by the access and reciprocal compensation revenues received from other carriers.

Q. HOW ARE THE LD NETWORK COSTS ESTIMATED FOR THE CLEC WHERE IT PROVIDES END-TO-END LD?

To the extent that an efficient CLEC also provides end-to-end long distance services, the BCAT must include the cost of the non-local network. Rather than undertaking a simulation of a national LD network, a "per minute" estimate of the costs are included based on non-proprietary data sources.[16] The results computed

[15] The traffic handled by the CLEC will include local traffic that originates and terminates on to CLEC local service customers ("on-net" usage) as well as traffic that originates from (or terminates to) end-user lines served by the CLEC but terminates to (originates from) end-user lines served by the ILEC or another CLEC. This latter traffic is "off-net." The BCAT estimates both "on-net" and "off-net" usage.

[16] The national terminating access expense is from FCC SOCC (11/10/03) Table 2.12, p106, All Reporting Company Traffic Sensitive Access divided by associated Switched Traffic Sensitive Minutes (premium and non-premium) from FCC SOCC Table 2.17, p111. Calculation is $2,746.2M divided by (392,162.565 premium TS access minutes + 3.124M) and is as of the end of 2002. Network costs are derived from Bank of America Securities, Research Brief-Wireline Telecommunications, AT&T Corporation, A Case for Consumer Services ($846M, $601M and $500M for 2000 through 2002, respectively) divided by consumer conversation minutes from Credit Suisse/First Boston, AT&T Consumer: A Base Case Ahead of the Triennial Review (93.8B, 82.2B and 70.5B, for 200 through 2003, respectively). The average network costs for the period is $0.0090, $0.0073, and $0.0070, per conversation minute for 2000 through 2002, respectively.

for each year are levelized based on the lines in service for each year. The assumption here is that the CLEC will lease its LD network capacity from a wholesaler that has an in-place LD network and that the charges will approximate the costs. This "buy-by-the-minute" approach is generally what the incumbents have done to establish long distance networking capabilities following 271 relief.

Q. PLEASE DESCRIBE HOW THE BCAT DEVELOPS COSTS FOR SETTLEMENTS OF INTERNATIONAL CALLS.

A. Unlike the preceding usage categories, the "network" costs for terminating international calling is not fully captured in either the local network cost or the wholesale long distance network costs. As a result, the payments to foreign carriers must be reflected as a cost for the CLEC if that CLEC provides retail LD services. This is accomplished by applying an average settlement cost per minute[17] to the mass-market international minutes that the CLEC serves on a retail basis. As with the preceding costs, the annual costs are levelized.

Q. HOW ARE THE BACK-HAUL AND HOT-CUT COSTS DETERMINED?

A. The back-haul cost and hot-cut cost are developed within the DS0 Impairment Tool and are provided as inputs to the BCAT.

[17] The settlement amount per minute is calculated by dividing the net settlements amount Trends In Telephone Service, August 2003, Table 6.2 (p.6-4) by the international minutes (Table 6.1, p 6-3).

Q. PLEASE DESCRIBE THE SWITCHING AND OTHER NETWORK OPERATING COSTS.

A. As discussed above, the BCAT develops the investment required for switches to serve both enterprise and mass market customers. The switching and other network operating costs reflect the levelized cost of the switches to serve each LATA and the land and building costs required to accommodate those switches.

Q. HOW ARE THE UNE-L LOOP COSTS DETERMINED?

A. The UNE-L loop costs are based on the UNE rates by density zone currently in effect in Washington. The rates were matched to each wire center density zone in the output of the DS0 tool and aggregated for use in the BCAT.

Q. HOW DOES THE BCAT ESTIMATE NON-NETWORK RELATED OPERATING COSTS?

A. As I mentioned earlier, the BCAT relies on ARMIS data of the former RBOCs to estimate costs for billing and collections, customer care, and general and administrative expenses.

Q. HOW DOES THE BCAT DEVELOP COSTS ASSOCIATED WITH UNCOLLECTIBLE REVENUE?

A. A portion of customer revenues is never collected by carriers, including the hypothetical efficient CLEC, because of customer bankruptcy, refusal to pay due to dispute, or service abandonment. The BCAT incorporates these costs by applying separate uncollectible rates (percentages) to retail revenues, access

revenues and reciprocal compensation revenues. To be conservative, the BCAT relies on ARMIS data on uncollectibles.

V. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. In order to determine whether an efficient CLEC can profitably serve mass-market customers in Washington, AT&T developed the Business Case Analysis Tool (BCAT). The BCAT estimates the total revenues and costs that an efficient CLEC would expect to incur if it used UNE-L and CLEC-owned switching to serve mass market customers in each of the three LATAs in Washington.

The BCAT relies upon inputs and is consistent with the DS0 Impairment Tool that is discussed in the testimony of Denney/Starr. The BCAT estimates the revenues and other costs not considered in the DS0 Impairment Tool that would be incurred by an efficient CLEC over a ten year planning horizon.

The BCAT analysis demonstrates that an efficient CLEC would realize substantial negative returns in serving the mass market using CLEC-owned switching. This result is not surprising in light of the significant cost disadvantage demonstrated by the DS0 Impairment Tool, and confirms the TRO's national finding of impairment with respect to mass market switching.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.